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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
19/077,384	03/12/2025	Michael Ragusa	130670-80106	8047
86738	7590	08/05/2025		
MCCARTER & ENGLISH, LLP BOSTON 265 Franklin Street Boston, MA 02110			EXAMINER DEAK, LESLIE R	
			ART UNIT 3799	PAPER NUMBER
			NOTIFICATION DATE 08/05/2025	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket@mccarter.com



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APPLICATION NO.	ISSUE DATE	PATENT NO.
19/077,384	05-Aug-2025	12377204

MCCARTER & ENGLISH, LLP BOSTON
265 Franklin Street
Boston, MA 02110

EGRANT NOTIFICATION

Your electronic patent grant (eGrant) is now available, which can be accessed via Patent Center at <https://patentcenter.uspto.gov>

The electronic patent grant is the official patent grant under 35 U.S.C. 153. For more information, please visit <https://www.uspto.gov/electronicgrants>



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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
19/077,384	08/05/2025	12377204	130670-80106	8047

86738 7590 07/23/2025
MCCARTER & ENGLISH, LLP BOSTON
265 Franklin Street
Boston, MA 02110

ISSUE NOTIFICATION

The projected patent number and issue date are specified above. The patent will issue electronically. The electronically issued patent is the official patent grant pursuant to 35 U.S.C. § 153. The patent may be accessed on or after the issue date through Patent Center at <https://patentcenter.uspto.gov/>. The patent will be available in both the public and the private sides of Patent Center. Further assistance in electronically accessing the patent, or about Patent Center, is available by calling the Patent Electronic Business Center at 1-888-217-9197.

The USPTO is implementing electronic patent issuance with a transition period, during which period the USPTO will mail a ceremonial paper copy of the electronic patent grant to the correspondence address of record. Additional copies of the patent (i.e., certified and presentation copies) may be ordered for a fee from the USPTO's Certified Copy Center at <https://certifiedcopycenter.uspto.gov/index.html>. The Certified Copy Center may be reached at (800)972-6382.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Center (<https://patentcenter.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Patents Stakeholder Experience (OPSE), Stakeholder Support Division (SSD) at (571)-272-4200.

INVENTOR(s) (Please see PATENT CENTER site <https://patentcenter.uspto.gov> for additional inventors):

Michael Ragusa, Hingham, MA;

APPLICANT(s) (Please see PATENT CENTER site <https://patentcenter.uspto.gov> for additional applicants):

Haemonetics Corporation, Boston, MA

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit [SelectUSA.gov](https://selectusa.gov).



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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION # 19/077,384	RECEIPT DATE / TIME 07/14/2025 04:13:27 PM Z ET	ATTORNEY DOCKET # 130670-80106
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Title of Invention

SYSTEM AND METHOD FOR COLLECTING PLASMA

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	8047	FILED BY	Jonathan Lovely
PATENT CENTER #	71351607	FILING DATE	03/12/2025
CUSTOMER #	86738	FIRST NAMED INVENTOR	Michael Ragusa
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	-

Documents

TOTAL DOCUMENTS: 1

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
web85b.pdf	3	Issue Fee Payment (PTO-85B)	58 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
web85b.pdf	88D50A242A1A9AB442AEB1ABE8C77E9600E9A896E7607A004 3406257324DC67CDA2CC7D7FFAF79401371681FFD2B795F9A 6FB1C067465E9FD291B0B36024DB7A

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

Terumo v. Haemonetics - PGR2025-00077
Petitioner Terumo Exhibit 1022-0005

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



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ELECTRONIC PAYMENT RECEIPT

APPLICATION # 19/077,384	RECEIPT DATE / TIME 07/14/2025 04:13:27 PM Z ET	ATTORNEY DOCKET # 130670-80106
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Title of Invention

SYSTEM AND METHOD FOR COLLECTING PLASMA

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	8047	FILED BY	Jonathan Lovely
PATENT CENTER #	71351607	AUTHORIZED BY	-
CUSTOMER #	86738	FILING DATE	03/12/2025
CORRESPONDENCE ADDRESS	-	FIRST NAMED INVENTOR	Michael Ragusa

Payment Information

PAYMENT METHOD DA / 504876	PAYMENT TRANSACTION ID E20257DG13416866	PAYMENT AUTHORIZED BY Jonathan Lovely
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FEE CODE	DESCRIPTION	ITEM PRICE(\$)	QUANTITY	ITEM TOTAL(\$)
1501	UTILITY ISSUE FEE	1290.00	1	1290.00
TOTAL AMOUNT:				\$1,290.00

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

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New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



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ISSUE FEE TRANSMITTAL FORM

APPLICATION #	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET #
19077384	03/12/2025	Michael Ragusa	130670-80106

Title of Invention

SYSTEM AND METHOD FOR COLLECTING PLASMA

Application Information

APPLICATION TYPE	Nonprovisional Application under 35 USC 111(a)	DATE DUE	09/03/2025
CONFIRMATION #	8047	ISSUE FEE DUE	\$ 1290
EXAMINER	LESLIE DEAK	PUBLICATION DUE	\$ 0
GROUP ART UNIT	3799	TOTAL FEES DUE	\$1290
CLASS - SUBCLASS	604/006040	PREV. PAID FEE	\$ 0
ENTITY STATUS	Regular Undiscounted		

1. CHANGE OF CORRESPONDENCE ADDRESS AND/OR INDICATION OF FEE ADDRESS (37 CFR 1.33 & 1.363)

Correspondence Address

CURRENT ADDRESS

Maintenance Fee Address

CURRENT ADDRESS



Change of correspondence address requested, system generated AIA/122-PC form attached



Fee address indication requested, system generated SB/47-PC form attached

2. ENTITY STATUS

Change in Entity Status

NEW STATUS

3. THE FOLLOWING FEES ARE SUBMITTED



Issue Fee



Publication Fee

4. FEE AUTHORIZATION



I authorize USPTO to apply my previously paid issue fee to the current fees due



The Director is hereby authorized to apply my previously paid issue fee to the current fee due and to charge deficient fees to Deposit Account Number:



If in addition to the payment of the issue fee amount submitted with this form, there are any discrepancies in any amount(s) due, the Director is authorized to charge any deficiency, or credit any overpayment, to Deposit Account Number: 504876

5. FIRM AND/OR ATTORNEY NAMES TO BE PRINTED

NOTE: If no name is listed, no name will be printed

For printing on the patent front page, list to be displayed as entered

McCarter & English, LLP
Jonathan C. Lovely

6. ASSIGNEE NAME(S) AND RESIDENCE DATA TO BE PRINTED

NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

Haemonetics Corporation

Boston, MA UNITED STATES

Corporation

Signature

I certify, in accordance with 37 CFR 1.4(d)(4) that I am an attorney or agent registered to practice before the Patent and Trademark Office who has filed and has been granted power of attorney in this application. I also certify that this Fee(s) Transmittal form is being transmitted to the USPTO via Patent Center on the date indicated below.

Signature	Name	Registration #	Date
/Jonathan Lovely/	Jonathan Lovely	60821	07/14/2025



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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
19/077,384	03/12/2025	Michael Ragusa	130670-80106

CONFIRMATION NO. 8047

86738
MCCARTER & ENGLISH, LLP BOSTON
265 Franklin Street
Boston, MA 02110

PUBLICATION NOTICE



OC000000090708359

Date Mailed: 06/26/2025

Title:SYSTEM AND METHOD FOR COLLECTING PLASMA

Publication No.US-2025-0205408-A1

Publication Date:06/26/2025

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be viewed using the USPTO's publicly available Searchable Databases via the Patent Public Search tool at www.uspto.gov. The direct link to access the Patent Public Search tool is currently <https://ppubs.uspto.gov/pubwebapp/static/pages/ppubsbasic.html>.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Public Records Division. The Public Records Division can be reached by telephone at (571) 272-3150 or (800) 972-6382, by facsimile at (571) 273-3250, by mail addressed to the United States Patent and Trademark Office, Public Records Division, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through Patent Center, the USPTO's electronic patent application filing and management system. The direct link to access this status information is currently <https://patentcenter.uspto.gov/>. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of Patent Center.

Further assistance in electronically accessing the publication, or about Patent Center, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



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NOTICE OF ALLOWANCE AND FEE(S) DUE

86738 7590 06/03/2025
MCCARTER & ENGLISH, LLP BOSTON
265 Franklin Street
Boston, MA 02110

EXAMINER

DEAK, LESLIE R

ART UNIT

PAPER NUMBER

3799

DATE MAILED: 06/03/2025

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
19/077,384	03/12/2025	Michael Ragusa	130670-80106	8047

TITLE OF INVENTION: SYSTEM AND METHOD FOR COLLECTING PLASMA

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1290	\$0.00	\$0.00	\$1290	09/03/2025

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 40% the amount of undiscounted fees, and micro entity fees are 20% the amount of undiscounted fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via the USPTO patent electronic filing system.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications. **Because electronic patent issuance may occur shortly after issue fee payment, any desired continuing application should preferably be filed prior to payment of this issue fee in order not to jeopardize copendency.**

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

86738 7590 06/03/2025
MCCARTER & ENGLISH, LLP BOSTON
265 Franklin Street
Boston, MA 02110

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via the USPTO patent electronic filing system or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
19/077,384	03/12/2025	Michael Ragusa	130670-80106	8047

TITLE OF INVENTION: SYSTEM AND METHOD FOR COLLECTING PLASMA

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1290	\$0.00	\$0.00	\$1290	09/03/2025

EXAMINER	ART UNIT	CLASS-SUBCLASS
DEAK, LESLIE R	3799	604-006040

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/AIA/122 or PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/AIA/47 or PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. Fees submitted: ☐ Issue Fee ☐ Publication Fee (if required)

4b. Method of Payment: (Please first reapply any previously paid fee shown above)

☐ Electronic Payment via the USPTO patent electronic filing system ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)

☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. Change in Entity Status (from status indicated above)

☐ Applicant certifying micro entity status. See 37 CFR 1.29

☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
19/077,384	03/12/2025	Michael Ragusa	130670-80106	8047
86738	7590	06/03/2025	EXAMINER	
MCCARTER & ENGLISH, LLP BOSTON			DEAK, LESLIE R	
265 Franklin Street			ART UNIT	
Boston, MA 02110			PAPER NUMBER	
			3799	
DATE MAILED: 06/03/2025				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.** Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. The United States Patent and Trademark Office (USPTO) collects the information in this record under authority of 35 U.S.C. 2. The USPTO's system of records is used to manage all applicant and owner information including name, citizenship, residence, post office address, and other information with respect to inventors and their legal representatives pertaining to the applicant's/owner's activities in connection with the invention for which a patent is sought or has been granted. The applicable Privacy Act System of Records Notice for the information collected in this form is COMMERCE/PAT-TM-7 Patent Application Files, available in the Federal Register at 78 FR 19243 (March 29, 2013).

<https://www.govinfo.gov/content/pkg/FR-2013-03-29/pdf/2013-07341.pdf>

Routine uses of the information in this record may include disclosure to:

- 1) law enforcement, in the event that the system of records indicates a violation or potential violation of law;
- 2) a federal, state, local, or international agency, in response to its request;
- 3) a contractor of the USPTO having need for the information in order to perform a contract;
- 4) the Department of Justice for determination of whether the Freedom of Information Act (FOIA) requires disclosure of the record;
- 5) a Member of Congress submitting a request involving an individual to whom the record pertains, when the individual has requested the Member's assistance with respect to the subject matter of the record;
- 6) a court, magistrate, or administrative tribunal, in the course of presenting evidence, including disclosures to opposing counsel in the course of settlement negotiations;
- 7) the Administrator, General Services Administration (GSA), or their designee, during an inspection of records conducted by GSA under authority of 44 U.S.C. 2904 and 2906, in accordance with the GSA regulations and any other relevant (i.e., GSA or Commerce) directive, where such disclosure shall not be used to make determinations about individuals;
- 8) another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c));
- 9) the Office of Personnel Management (OPM) for personnel research purposes; and
- 10) the Office of Management and Budget (OMB) for legislative coordination and clearance.

If you do not furnish the information requested on this form, the USPTO may not be able to process and/or examine your submission, which may result in termination of proceedings, abandonment of the application, and/or expiration of the patent.

Notice of Allowability	Application No. 19/077,384	Applicant(s) Ragusa, Michael	
	Examiner LESLIE R DEAK	Art Unit 3799	AIA (First Inventor to File) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to TD filed 7 May 2025.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☒ The allowed claim(s) is/are 1-30. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
Certified copies:
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)	5. ☐ Examiner's Amendment/Comment
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.	6. ☐ Examiner's Statement of Reasons for Allowance
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.	7. ☐ Other _____.
4. ☒ Interview Summary (PTO-413), Paper No./Mail Date. _____.	

/LESLIE R DEAK/ Primary Examiner, Art Unit 3799	
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<i>Applicant-Initiated Interview Summary</i>	Application No. 19/077,384	Applicant(s) Ragusa, Michael		
	Examiner LESLIE R DEAK	Art Unit 3799	AIA (First Inventor to File) Status Yes	Page 1 of 1

All Participants (applicant, applicants representative, PTO personnel)	Title	Type
LESLIE R DEAK	Primary Examiner	Telephonic
Jonathan Lovely	Attorney of Record	

Date of Interview: 06 May 2025

Issues Discussed:

Non-statutory Double Patenting

Confirmed that Applicant needed to provide TD only over US 12,186,474 for allowance.

/LESLIE R DEAK/ Primary Examiner, Art Unit 3799	
<p>Applicant is reminded that a complete written statement as to the substance of the interview must be made of record in the application file. It is the applicants responsibility to provide the written statement, unless the interview was initiated by the Examiner and the Examiner has indicated that a written summary will be provided. See MPEP 713.04</p> <p>Please further see: MPEP 713.04 Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews, paragraph (b) 37 CFR § 1.2 Business to be transacted in writing</p>	

Applicant recordation instructions: The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview.

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

<i>Search Notes</i> 	Application/Control No. 19/077,384	Applicant(s)/Patent Under Reexamination Ragusa, Michael
	Examiner LESLIE R DEAK	Art Unit 3799

CPC - Searched*		
Symbol	Date	Examiner
(A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.	10/28/2019	LRD
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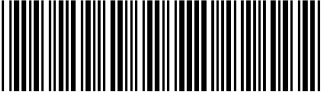
CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

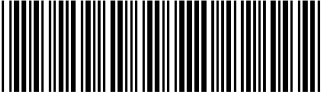
Search Notes		
Search Notes	Date	Examiner
inventor name search, EAST BRS search, consulted foreign search report	10/28/2019	LRD
updated prior searches, consulted primary examiners	02/27/2020	LRD
updated prior searches	05/05/2020	LRD
consulted parent case, updated searches, ODP	11/06/2020	LRD
consulted parent cases, updated searches, ODP	04/30/2024	LRD
updated prior searches	08/27/2024	LRD
updated prior searches, ODP over parent cases	04/16/2025	LRD
updated prior searches	05/22/2025	LRD

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<i>Search Notes</i> 	Application/Control No. 19/077,384	Applicant(s)/Patent Under Reexamination Ragusa, Michael
	Examiner LESLIE R DEAK	Art Unit 3799

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
	"current value of the hematocrit of the donor".clm.	08/27/2024	LRD
	"calculating a donor total blood volume based, at least in part, on a weight and a height of a donor".clm.	05/22/2025	LRD

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Issue Classification 	Application/Control No. 19/077,384	Applicant(s)/Patent Under Reexamination Ragusa, Michael
	Examiner LESLIE R DEAK	Art Unit 3799

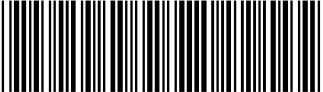
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A61M	/	1	/	3693	A	2013-01-01
A61M	/	2230	/	207	A	2013-01-01
A61M	/	1	/	3496	A	2013-01-01
A61M	/	2205	/	3379	A	2013-01-01
A61M	/	2205	/	3393	A	2013-01-01
A61M	/	2205	/	3306	A	2013-01-01
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CPC Combination Sets				
Symbol	Type	Set	Ranking	Version
/				

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	30	
/LESLIE R DEAK/	22 May 2025	O.G. Print Claim(s)	O.G. Print Figure
Primary Examiner, Art Unit 3799	(Date)	1	5

U.S. Patent and Trademark Office

Part of Paper No.: 20250522

Issue Classification 	Application/Control No. 19/077,384	Applicant(s)/Patent Under Reexamination Ragusa, Michael	
	Examiner LESLIE R DEAK	Art Unit 3799	

INTERNATIONAL CLASSIFICATION			
CLAIMED			
A61M1/38	/	1	/ 38
A61M1/36	/	1	/ 36
A61M1/34	/	1	/ 34
NON-CLAIMED			
	/		/

US ORIGINAL CLASSIFICATION	
CLASS	SUBCLASS

CROSS REFERENCES(S)						
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)					

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	30	
/LESLIE R DEAK/	22 May 2025	O.G. Print Claim(s)	O.G. Print Figure
Primary Examiner, Art Unit 3799	(Date)	1	5

U.S. Patent and Trademark Office

Part of Paper No.: 20250522

Issue Classification 	Application/Control No. 19/077,384	Applicant(s)/Patent Under Reexamination Ragusa, Michael
	Examiner LESLIE R DEAK	Art Unit 3799

☒ Claims renumbered in the same order as presented by applicant ☐ CPA ☒ T.D. ☐ R.1.47															
CLAIMS															
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original

NONE	Total Claims Allowed:	
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/LESLIE R DEAK/ Primary Examiner, Art Unit 3799	22 May 2025	O.G. Print Claim(s)
(Primary Examiner)	(Date)	1
		O.G. Print Figure
		5

Bibliographic Data

Application No: 19/077,384

Foreign Priority claimed: ☐ Yes ☒ No

35 USC 119 (a-d) conditions met: ☐ Yes ☒ No ☐ Met After Allowance

Verified and Acknowledged:

Examiner's Signature Initials

Title:

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
03/12/2025	604	3799	130670-80106
RULE			

APPLICANTS

Haemonetics Corporation, Boston, MA, UNITED STATES

INVENTORS

Michael Ragusa,

CONTINUING DATA

This application is a CON of 18606761 03/15/2024

18606761 is a CON of 17205400 03/18/2021 PAT 12186474

17205400 is a CON of 16931333 07/16/2020 PAT 10980934

16931333 is a CON of 15793339 10/25/2017 PAT 10792416

15793339 is a CIP of 15608183 05/30/2017 PAT 10758652

FOREIGN APPLICATIONS

IF REQUIRED, FOREIGN LICENSE GRANTED**

03/18/2025

STATE OR COUNTRY

ADDRESS

MCCARTER & ENGLISH, LLP BOSTON

265 Franklin Street

Boston, MA 02110

UNITED STATES

FILING FEE RECEIVED

\$12,765

PE2E SEARCH - Search History (Prior Art)

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		"5665061" "5712798" "5728060" "5733253" "5733446" "5733545" "5738792" "5762791" "5779660" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094" "9283316" "10758652" "20010000185" "20010027156" "20020043492" "20020062100" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm. ("20180344910").PN.					
L36	2		(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L37	11	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415 and A61M2230/207).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L38	11	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM

L39	53	((A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L40	7	"20120175313"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L41	7	"20030125881"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L42	43	2009/0215602	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L43	13	"20090215602"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L44	2	L1 AND ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L45	12466	((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L46	2470	L10 and hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L47	7	"I11" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L48	6	"I10" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L49	16	"I10" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L50	59	((("RAGUSA") near3 ("Michael"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L51	11	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L52	183	("20010000185" "20020062100" "1025059" "1611725" "20010027156" "20020043492" "20020120227" "20030055375	(US-PGPUB; USPAT)	OR	OFF	OFF	2024/04/30 04:36 PM

		"20030066807 "2003 0125881 "2003017515 0 "20040186409 "200 50209522 "200502357 33 "20060058167 "20 060155236 "20070112 289 "20080146993 "2 0120175313 "2014003 9373 "20140356851 "2 0180344921 "208777 8 "2661150 "2750107" "2792172 "3096283 "3 145713 "3239136 "3 244362 "3244363 "34 09213 "3456875 "348 9145 "3565330 "3655 058 "3737096 "37748 40 "3987961 "400787 1 "4010894 "4014497" "4040965 "4056224 "4 4082217 "4086924 "4 140268 "4142670 "41 51844 "4197847 "428 5464 "4300717 "4303 193 "4321921 "43878 48 "4425114 "443007 2 "4447221 "4457747" "4464167 "4466888 "4 4482342 "4490135 "4 530691 "4534863 "46 43714 "4647279 "465 5742 "4680025 "4684 361 "4692136 "47087 12 "4713176 "473408 9 "4740202 "4740313" "4755300 "4767396 "4 4795419 "4795448 "4 806247 "4806252 "48 08307 "4850995 "486 9812 "4871462 "4876 013 "4889524 "49118 33 "4934995 "494054 3 "4943273 "4968295" "4983156 "4983158 "5 4985153 "4994188 "5 039401 "5045048 "50 98372 "5098373 "510 0372 "5100564 "5112 298 "5114396 "51356 67 "5141486 "514729 0 "5154716 "5174894" "5194145 "5217426 "5 5217427 "5234403 "5 254248 "5273517 "52 77701 "5298016 "529 8171 "5300060 "5316 540 "5318511 "53185 12 "5348533 "536854				
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		2" "5368555" "5386734" "5387174" "5387187" "5 5403272" "5405308" "5 417650" "5431814" "54 37598" "5437624" "546 2667" "5470483" "5484 396" "5494592" "55056 85" "5514070" "554306 2" "5551941" "5585007" "5607579" "5649903" "5 5651766" "5656163" "5 665061" "5712798" "57 28060" "5733253" "573 3446" "5733545" "5738 792" "5762791" "57796 60" "5783085" "579235 1" "5849203" "5882289" "5906589" "5919125" "5 5964724" "5970432" "5 980760" "6007725" "60 59979" "6207063" "623 4989" "6296602" "6464 624" "6497676" "65583 07" "6623443" "674319 2" "7115205" "7186231" "7270645" "7704454" "8 8628489" "8702637" "8 759094").PN.					
L53	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L54	11	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L55	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2024/04/30 04:36 PM
L56	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2024/04/30 04:36 PM
L57	5	"20120175313"	(USPAT)	OR	OFF	OFF	2024/04/30 04:36 PM
L58	13	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2024/04/30 04:36 PM
L59	9	L23 and prim\$3	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2024/04/30 04:36 PM
L60	0	(10/302682).APP.	(USPAT; USOCR)	OR	OFF	OFF	2024/04/30 04:36 PM
L61	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	2024/04/30 04:36 PM
L62	190	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L63	987	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM

L64	220	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L65	3	((US-20030125881-A1).did. AND PGPB.dbnm.) OR ((US-10758652-B2 OR US-6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/04/30 04:36 PM
L66	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/04/30 04:36 PM
L67	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L68	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L69	16	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2024/04/30 04:36 PM
L70	200	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "3489145" "3565330" "3655058" "3737096" "3774840" "3987961" "4007871" "4010894" "4014497" "4040965" "4056224" "4082217" "4086924" "4140268" "4142670" "4151844" "4197847" "4285464" "4300717" "4303193" "4321921" "4387848" "4425114" "4430072" "4447221" "4457747" "4464167" "4466888" "4482342" "4490135" "4530691" "4534863" "4643714" "4647279" "4655742" "4680025" "4684361" "4692136" "4708712" "4713176" "4734089"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/04/30 04:36 PM

		"4740202" "4740313"					
		"4755300" "4767396"					
		"4795419" "4795448"					
		"4806247" "4806252"					
		"4808307" "4850995"					
		"4869812" "4871462"					
		"4876013" "4889524"					
		"4911833" "4934995"					
		"4940543" "4943273"					
		"4968295" "4983156"					
		"4983158" "4985153"					
		"4994188" "5039401"					
		"5045048" "5098372"					
		"5098373" "5100372"					
		"5100564" "5112298"					
		"5114396" "5135667"					
		"5141486" "5147290"					
		"5154716" "5174894"					
		"5194145" "5217426"					
		"5217427" "5234403"					
		"5254248" "5273517"					
		"5277701" "5298016"					
		"5298171" "5300060"					
		"5316540" "5318511"					
		"5318512" "5348533"					
		"5368542" "5368555"					
		"5386734" "5387174"					
		"5387187" "5403272"					
		"5405308" "5417650"					
		"5431814" "5437598"					
		"5437624" "5462667"					
		"5470483" "5484396"					
		"5494592" "5505685"					
		"5514070" "5543062"					
		"5551941" "5585007"					
		"5607579" "5649903"					
		"5651766" "5656163"					
		"5665061" "5712798"					
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		"5733446" "5733545"					
		"5738792" "5762791"					
		"5779660" "5783085"					
		"5792351" "5849203"					
		"5882289" "5906589"					
		"5919125" "5964724"					
		"5970432" "5980760"					
		"6007725" "6059979"					
		"6207063" "6234989"					
		"6296602" "6464624"					
		"6497676" "6558307"					
		"6623443" "6743192"					
		"7115205" "7186231"					
		"7270645" "7704454"					
		"8628489" "8702637"					
		"8759094" "9283316"					
		"10758652"					
		"20010000185"					
		"20010027156"					

		"20020043492" "20020062100" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm.					
L71	0	"current value of the hematocrit of the donor".clm.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO)); EPO; JPO; DERWENT)	OR	ON	ON	2024/08/27 02:18 PM
L72	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L73	11	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415 and A61M2230/207).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L74	11	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L75	53	((A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L76	8	"20120175313"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L77	9	"20030125881"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L78	44	2009/0215602	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L79	15	"20090215602"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM

L80	2	L1 AND ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L81	12693	((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L82	2513	L10 and hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L83	7	"I11" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L84	6	"I10" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L85	16	"I10" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L86	60	((("RAGUSA") near3 ("Michael"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L87	11	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L88	183	("20010000185" "20020062100" "1025059" "1611725" "20010027156" "20020043492" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344921" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "348	(US-PGPUB; USPAT)	OR	OFF	OFF	2024/08/27 02:19 PM

		9145" "3565330" "3655 058" "3737096" "37748 40" "3987961" "400787 1" "4010894" "4014497" "4040965" "4056224" " 4082217" "4086924" "4 140268" "4142670" "41 51844" "4197847" "428 5464" "4300717" "4303 193" "4321921" "43878 48" "4425114" "443007 2" "4447221" "4457747" "4464167" "4466888" " 4482342" "4490135" "4 530691" "4534863" "46 43714" "4647279" "465 5742" "4680025" "4684 361" "4692136" "47087 12" "4713176" "473408 9" "4740202" "4740313" "4755300" "4767396" " 4795419" "4795448" "4 806247" "4806252" "48 08307" "4850995" "486 9812" "4871462" "4876 013" "4889524" "49118 33" "4934995" "494054 3" "4943273" "4968295" "4983156" "4983158" " 4985153" "4994188" "5 039401" "5045048" "50 98372" "5098373" "510 0372" "5100564" "5112 298" "5114396" "51356 67" "5141486" "514729 0" "5154716" "5174894" "5194145" "5217426" " 5217427" "5234403" "5 254248" "5273517" "52 77701" "5298016" "529 8171" "5300060" "5316 540" "5318511" "53185 12" "5348533" "536854 2" "5368555" "5386734" "5387174" "5387187" " 5403272" "5405308" "5 417650" "5431814" "54 37598" "5437624" "546 2667" "5470483" "5484 396" "5494592" "55056 85" "5514070" "554306 2" "5551941" "5585007" "5607579" "5649903" " 5651766" "5656163" "5 665061" "5712798" "57 28060" "5733253" "573 3446" "5733545" "5738 792" "5762791" "57796				
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		60" 5783085" 5792351" 5849203" 5882289" 5906589" 5919125" 5964724" 5970432" 5980760" 6007725" 6059979" 6207063" 6234989" 6296602" 6464624" 6497676" 6558307" 6623443" 6743192" 7115205" 7186231" 7270645" 7704454" 8628489" 8702637" 8759094").PN.					
L89	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L90	11	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L91	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L92	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L93	6	"20120175313"	(USPAT)	OR	OFF	OFF	2024/08/27 02:19 PM
L94	14	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L95	9	L23 and prim\$3	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L96	0	(10/302682).APP.	(USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L97	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L98	195	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L99	996	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L100	225	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L101	3	((US-20030125881-A1).did. AND PGPB.dbnm.) OR ((US-10758652-B2 OR US-6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/08/27 02:19 PM
L102	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR,	OR	ON	ON	2024/08/27 02:19 PM

			GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L103	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L104	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L105	16	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2024/08/27 02:19 PM
L106	200	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "3489145" "3565330" "3655058" "3737096" "3774840" "3987961" "4007871" "4010894" "4014497" "4040965" "4056224" "4082217" "4086924" "4140268" "4142670" "4151844" "4197847" "4285464" "4300717" "4303193" "4321921" "4387848" "4425114" "4430072" "4447221" "4457747" "4464167" "4466888" "4482342" "4490135" "4530691" "4534863" "4643714" "4647279" "4655742" "4680025" "4684361" "4692136" "4708712" "4713176" "4734089" "4740202" "4740313" "4755300" "4767396" "4795419" "4795448" "4806247" "4806252" "4808307" "4850995" "4869812" "4871462" "4876013" "4889524" "4911833" "4934995" "4940543" "4943273" "4968295" "4983156" "4983158" "4985153" "4994188" "5039401" "5045048" "5098372" "5098373" "5100372"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/08/27 02:19 PM

		"5100564" "5112298"					
		"5114396" "5135667"					
		"5141486" "5147290"					
		"5154716" "5174894"					
		"5194145" "5217426"					
		"5217427" "5234403"					
		"5254248" "5273517"					
		"5277701" "5298016"					
		"5298171" "5300060"					
		"5316540" "5318511"					
		"5318512" "5348533"					
		"5368542" "5368555"					
		"5386734" "5387174"					
		"5387187" "5403272"					
		"5405308" "5417650"					
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		"5551941" "5585007"					
		"5607579" "5649903"					
		"5651766" "5656163"					
		"5665061" "5712798"					
		"5728060" "5733253"					
		"5733446" "5733545"					
		"5738792" "5762791"					
		"5779660" "5783085"					
		"5792351" "5849203"					
		"5882289" "5906589"					
		"5919125" "5964724"					
		"5970432" "5980760"					
		"6007725" "6059979"					
		"6207063" "6234989"					
		"6296602" "6464624"					
		"6497676" "6558307"					
		"6623443" "6743192"					
		"7115205" "7186231"					
		"7270645" "7704454"					
		"8628489" "8702637"					
		"8759094" "9283316"					
		"10758652"					
		"20010000185"					
		"20010027156"					
		"20020043492"					
		"20020062100"					
		"20020120227"					
		"20030055375"					
		"20030066807"					
		"20030125881"					
		"20030175150"					
		"20040186409"					
		"20050209522"					
		"20050235733"					
		"20060058167"					
		"20060155236"					
		"20070112289"					
		"20080146993"					

		"20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm.					
L107	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L108	11	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415 and A61M2230/207).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L109	11	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L110	53	((A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L111	8	"20120175313"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L112	9	"20030125881"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L113	44	2009/0215602	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L114	15	"20090215602"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L115	2	L1 AND ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L116	12693	((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM

L117	2513	G01N15/042 OR G01N33/86).CPC.) L10 and hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L118	7	"I11" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L119	6	"I10" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L120	16	"I10" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L121	60	((("RAGUSA") near3 ("Michael"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L122	11	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L123	183	("20010000185" "20020 062100" "1025059" "16 11725" "20010027156" " "20020043492" "20020 120227" "20030055375 " "20030066807" "2003 0125881" "2003017515 0" "20040186409" "200 50209522" "200502357 33" "20060058167" "20 060155236" "20070112 289" "20080146993" "2 0120175313" "2014003 9373" "20140356851" "2 20180344921" "208777 8" "2661150" "2750107" "2792172" "3096283" "3 145713" "3239136" "3 244362" "3244363" "34 09213" "3456875" "348 9145" "3565330" "3655 058" "3737096" "37748 40" "3987961" "400787 1" "4010894" "4014497" "4040965" "4056224" "4 4082217" "4086924" "4 140268" "4142670" "41 51844" "4197847" "428 5464" "4300717" "4303 193" "4321921" "43878 48" "4425114" "443007 2" "4447221" "4457747" "4464167" "4466888" "4 4482342" "4490135" "4 530691" "4534863" "46 43714" "4647279" "465 5742" "4680025" "4684 361" "4692136" "47087 12" "4713176" "473408 9" "4740202" "4740313"	(US-PGPUB; USPAT)	OR	OFF	OFF	2024/08/27 02:19 PM

		"4755300" "4767396" "4795419" "4795448" "4806247" "4806252" "4808307" "4850995" "4869812" "4871462" "4876013" "4889524" "4911833" "4934995" "4940543" "4943273" "4968295" "4983156" "4983158" "4985153" "4994188" "5039401" "5045048" "5098372" "5098373" "5100372" "5100564" "5112298" "5114396" "5135667" "5141486" "5147290" "5154716" "5174894" "5194145" "5217426" "5217427" "5234403" "5254248" "5273517" "5277701" "5298016" "5298171" "5300060" "5316540" "5318511" "5318512" "5348533" "5368542" "5368555" "5386734" "5387174" "5387187" "5403272" "5405308" "5417650" "5431814" "5437598" "5437624" "5462667" "5470483" "5484396" "5494592" "5505685" "5514070" "5543062" "5551941" "5585007" "5607579" "5649903" "5651766" "5656163" "5665061" "5712798" "5728060" "5733253" "5733446" "5733545" "5738792" "5762791" "5779660" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094").PN.					
L124	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L125	11	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L126	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM

L127	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L128	6	"20120175313"	(USPAT)	OR	OFF	OFF	2024/08/27 02:19 PM
L129	14	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L130	9	L23 and prim\$3	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L131	0	(10/302682).APP.	(USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L132	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L133	195	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L134	996	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L135	225	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L136	3	((US-20030125881-A1).did. AND PGPB.dbnm.) OR ((US- 10758652-B2 OR US- 6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/08/27 02:19 PM
L137	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/08/27 02:19 PM
L138	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L139	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L140	16	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2024/08/27 02:19 PM
L141	200	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/08/27 02:19 PM

		"3239136" "3244362"					
		"3244363" "3409213"					
		"3456875" "3489145"					
		"3565330" "3655058"					
		"3737096" "3774840"					
		"3987961" "4007871"					
		"4010894" "4014497"					
		"4040965" "4056224"					
		"4082217" "4086924"					
		"4140268" "4142670"					
		"4151844" "4197847"					
		"4285464" "4300717"					
		"4303193" "4321921"					
		"4387848" "4425114"					
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		"4466888" "4482342"					
		"4490135" "4530691"					
		"4534863" "4643714"					
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		"4680025" "4684361"					
		"4692136" "4708712"					
		"4713176" "4734089"					
		"4740202" "4740313"					
		"4755300" "4767396"					
		"4795419" "4795448"					
		"4806247" "4806252"					
		"4808307" "4850995"					
		"4869812" "4871462"					
		"4876013" "4889524"					
		"4911833" "4934995"					
		"4940543" "4943273"					
		"4968295" "4983156"					
		"4983158" "4985153"					
		"4994188" "5039401"					
		"5045048" "5098372"					
		"5098373" "5100372"					
		"5100564" "5112298"					
		"5114396" "5135667"					
		"5141486" "5147290"					
		"5154716" "5174894"					
		"5194145" "5217426"					
		"5217427" "5234403"					
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		"5277701" "5298016"					
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		"5318512" "5348533"					
		"5368542" "5368555"					
		"5386734" "5387174"					
		"5387187" "5403272"					
		"5405308" "5417650"					
		"5431814" "5437598"					
		"5437624" "5462667"					
		"5470483" "5484396"					
		"5494592" "5505685"					
		"5514070" "5543062"					
		"5551941" "5585007"					

		"5607579" "5649903" "5651766" "5656163" "5665061" "5712798" "5728060" "5733253" "5733446" "5733545" "5738792" "5762791" "5779660" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094" "9283316" "10758652" "20010000185" "20010027156" "20020043492" "20020062100" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm.					
L142	0	"current value of the hematocrit of the donor".clm.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2024/08/27 02:19 PM
L143	702	ragusa.in.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO;	OR	ON	ON	2025/04/14 03:59 PM

L144	20	L143 AND (hematocrit AND "total blood volume")	DERWENT) (US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/14 04:00 PM
L145	3	L143 AND (hematocrit AND "total blood volume").clm.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/14 04:01 PM
L146	36	"10758652"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/14 04:06 PM
L147	26	L143 AND (index).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/14 04:27 PM
L148	21	"10980826"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/14 04:41 PM
L149	20	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/14 04:42 PM
L150	8	"12186474"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/15 01:50 PM
L151	214	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/04/16 10:28 AM

		"3244363" "3409213"					
		"3456875" "3489145"					
		"3565330" "3655058"					
		"3737096" "3774840"					
		"3987961" "4007871"					
		"4010894" "4014497"					
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		"4140268" "4142670"					
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		"4983158" "4985153"					
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		"5437624" "5462667"					
		"5470483" "5484396"					
		"5494592" "5505685"					
		"5514070" "5543062"					
		"5551941" "5585007"					
		"5607579" "5649903"					

L152	0	"5651766" "5656163" "5665061" "5681273" "5712798" "5728060" "5733253" "5733446" "5733545" "5738792" "5762791" "5779660" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6200287" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8075468" "8454548" "8628489" "8702637" "8759094" "9283316" "10758652" "10792416" "10980926" "20010000185" "20010027156" "20020043492" "20020062100" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050131334" "20050209522" "20050235733" "20060058167" "20060155236" "20060226086" "20070112289" "20080146993" "20090215602" "20120165685" "20120175313" "20140039373" "20140100507" "20140356851" "20180344910" "20200261630" "20200345924" "20210205509" "20230001059").pn. OR ("12186474").urpn. AND (PGPB USPT USOC).dbnm.	(US-PGPUB; USPAT;	OR	ON	ON	2025/04/16
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L153	7	L151 AND mass.clm.	USOCR) (US-PGPUB; USPAT; USOCR)	OR	ON	ON	10:29 AM 2025/04/16 10:29 AM
L154	95	L151 AND weight	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/04/16 11:01 AM
L155	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L156	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415 and A61M2230/207).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L157	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L158	59	((A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L159	11	"20120175313"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L160	11	"20030125881"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L161	65	2009/0215602	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L162	17	"20090215602"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L163	2	L1 AND ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L164	13044	((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM

L165	2569	L10 and hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L166	9	"I11" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L167	8	"I10" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L168	22	"I10" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L169	64	((("RAGUSA") near3 ("Michael"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L170	17	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L171	183	("20010000185" "20020062100" "1025059" "1611725" "20010027156" "20020043492" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344921" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "3489145" "3565330" "3655058" "3737096" "3774840" "3987961" "4007871" "4010894" "4014497" "4040965" "4056224" "4082217" "4086924" "4140268" "4142670" "4151844" "4197847" "4285464" "4300717" "4303193" "4321921" "4387848" "4425114" "4430072" "4447221" "4457747" "4464167" "4466888" "4482342" "4490135" "4530691" "4534863" "4643714" "4647279" "4655742" "4680025" "4684361" "4692136" "4708712" "4713176" "4734089" "4740202" "4740313" "4755300" "4767396" "4795419" "4795448" "4806247" "4806252" "48	(US-PGPUB; USPAT)	OR	OFF	OFF	2025/04/16 11:27 AM

		08307" 4850995" 486 9812" 4871462" 4876 013" 4889524" 49118 33" 4934995" 494054 3" 4943273" 4968295" 4983156" 4983158" 4985153" 4994188" 5 039401" 5045048" 50 98372" 5098373" 510 0372" 5100564" 5112 298" 5114396" 51356 67" 5141486" 514729 0" 5154716" 5174894" 5194145" 5217426" 5217427" 5234403" 5 254248" 5273517" 52 77701" 5298016" 529 8171" 5300060" 5316 540" 5318511" 53185 12" 5348533" 536854 2" 5368555" 5386734" 5387174" 5387187" 5403272" 5405308" 5 417650" 5431814" 54 37598" 5437624" 546 2667" 5470483" 5484 396" 5494592" 55056 85" 5514070" 554306 2" 5551941" 5585007" 5607579" 5649903" 5651766" 5656163" 5 665061" 5712798" 57 28060" 5733253" 573 3446" 5733545" 5738 792" 5762791" 57796 60" 5783085" 579235 1" 5849203" 5882289" 5906589" 5919125" 5964724" 5970432" 5 980760" 6007725" 60 59979" 6207063" 623 4989" 6296602" 6464 624" 6497676" 65583 07" 6623443" 674319 2" 7115205" 7186231" 7270645" 7704454" 8628489" 8702637" 8 759094").PN.					
L172	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L173	17	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L174	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L175	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM

L176	9	"20120175313"	(USPAT)	OR	OFF	OFF	2025/04/16 11:27 AM
L177	15	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L178	9	L23 and prim\$3	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L179	0	(10/302682).APP.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L180	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L181	209	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L182	1014	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L183	233	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L184	3	((US-20030125881- A1).did. AND PGPB.dbnm.) OR ((US- 10758652-B2 OR US- 6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/04/16 11:27 AM
L185	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/04/16 11:27 AM
L186	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L187	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L188	20	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L189	200	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/04/16 11:27 AM

		"3456875" "3489145"					
		"3565330" "3655058"					
		"3737096" "3774840"					
		"3987961" "4007871"					
		"4010894" "4014497"					
		"4040965" "4056224"					
		"4082217" "4086924"					
		"4140268" "4142670"					
		"4151844" "4197847"					
		"4285464" "4300717"					
		"4303193" "4321921"					
		"4387848" "4425114"					
		"4430072" "4447221"					
		"4457747" "4464167"					
		"4466888" "4482342"					
		"4490135" "4530691"					
		"4534863" "4643714"					
		"4647279" "4655742"					
		"4680025" "4684361"					
		"4692136" "4708712"					
		"4713176" "4734089"					
		"4740202" "4740313"					
		"4755300" "4767396"					
		"4795419" "4795448"					
		"4806247" "4806252"					
		"4808307" "4850995"					
		"4869812" "4871462"					
		"4876013" "4889524"					
		"4911833" "4934995"					
		"4940543" "4943273"					
		"4968295" "4983156"					
		"4983158" "4985153"					
		"4994188" "5039401"					
		"5045048" "5098372"					
		"5098373" "5100372"					
		"5100564" "5112298"					
		"5114396" "5135667"					
		"5141486" "5147290"					
		"5154716" "5174894"					
		"5194145" "5217426"					
		"5217427" "5234403"					
		"5254248" "5273517"					
		"5277701" "5298016"					
		"5298171" "5300060"					
		"5316540" "5318511"					
		"5318512" "5348533"					
		"5368542" "5368555"					
		"5386734" "5387174"					
		"5387187" "5403272"					
		"5405308" "5417650"					
		"5431814" "5437598"					
		"5437624" "5462667"					
		"5470483" "5484396"					
		"5494592" "5505685"					
		"5514070" "5543062"					
		"5551941" "5585007"					
		"5607579" "5649903"					
		"5651766" "5656163"					

		"5665061" "5712798" "5728060" "5733253" "5733446" "5733545" "5738792" "5762791" "5779660" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094" "9283316" "10758652" "20010000185" "20010027156" "20020043492" "20020062100" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm. ("20180344910").PN.					
L190	2		(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L191	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415 and A61M2230/207).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L192	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM

L193	59	((A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L194	11	"20120175313"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L195	11	"20030125881"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L196	65	2009/0215602	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L197	17	"20090215602"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L198	2	L1 AND ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L199	13044	((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L200	2569	L10 and hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L201	9	"I11" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L202	8	"I10" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L203	22	"I10" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L204	64	((("RAGUSA") near3 ("Michael"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L205	17	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L206	183	("20010000185" "20020062100" "1025059" "1611725" "20010027156" "20020043492" "20020120227" "20030055375	(US-PGPUB; USPAT)	OR	OFF	OFF	2025/04/16 11:27 AM

		" 20030066807" 2003 0125881" 2003017515 0" 20040186409" 200 50209522" 200502357 33" 20060058167" 20 060155236" 20070112 289" 20080146993" 2 0120175313" 2014003 9373" 20140356851" 20180344921" 208777 8" 2661150" 2750107" 2792172" 3096283" 3145713" 3239136" 3 244362" 3244363" 34 09213" 3456875" 348 9145" 3565330" 3655 058" 3737096" 37748 40" 3987961" 400787 1" 4010894" 4014497" 4040965" 4056224" 4082217" 4086924" 4 140268" 4142670" 41 51844" 4197847" 428 5464" 4300717" 4303 193" 4321921" 43878 48" 4425114" 443007 2" 4447221" 4457747" 4464167" 4466888" 4482342" 4490135" 4 530691" 4534863" 46 43714" 4647279" 465 5742" 4680025" 4684 361" 4692136" 47087 12" 4713176" 473408 9" 4740202" 4740313" 4755300" 4767396" 4795419" 4795448" 4 806247" 4806252" 48 08307" 4850995" 486 9812" 4871462" 4876 013" 4889524" 49118 33" 4934995" 494054 3" 4943273" 4968295" 4983156" 4983158" 4985153" 4994188" 5 039401" 5045048" 50 98372" 5098373" 510 0372" 5100564" 5112 298" 5114396" 51356 67" 5141486" 514729 0" 5154716" 5174894" 5194145" 5217426" 5217427" 5234403" 5 254248" 5273517" 52 77701" 5298016" 529 8171" 5300060" 5316 540" 5318511" 53185 12" 5348533" 536854				
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		2" "5368555" "5386734" "5387174" "5387187" "5 5403272" "5405308" "5 417650" "5431814" "54 37598" "5437624" "546 2667" "5470483" "5484 396" "5494592" "55056 85" "5514070" "554306 2" "5551941" "5585007" "5607579" "5649903" "5 5651766" "5656163" "5 665061" "5712798" "57 28060" "5733253" "573 3446" "5733545" "5738 792" "5762791" "57796 60" "5783085" "579235 1" "5849203" "5882289" "5906589" "5919125" "5 5964724" "5970432" "5 980760" "6007725" "60 59979" "6207063" "623 4989" "6296602" "6464 624" "6497676" "65583 07" "6623443" "674319 2" "7115205" "7186231" "7270645" "7704454" "8 8628489" "8702637" "8 759094").PN.					
L207	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L208	17	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L209	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L210	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L211	9	"20120175313"	(USPAT)	OR	OFF	OFF	2025/04/16 11:27 AM
L212	15	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L213	9	L23 and prim\$3	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L214	0	(10/302682).APP.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L215	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L216	209	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L217	1014	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM

L218	233	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L219	3	((US-20030125881-A1).did. AND PGPB.dbnm.) OR ((US-10758652-B2 OR US-6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/04/16 11:27 AM
L220	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/04/16 11:27 AM
L221	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L222	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L223	20	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L224	200	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "3489145" "3565330" "3655058" "3737096" "3774840" "3987961" "4007871" "4010894" "4014497" "4040965" "4056224" "4082217" "4086924" "4140268" "4142670" "4151844" "4197847" "4285464" "4300717" "4303193" "4321921" "4387848" "4425114" "4430072" "4447221" "4457747" "4464167" "4466888" "4482342" "4490135" "4530691" "4534863" "4643714" "4647279" "4655742" "4680025" "4684361" "4692136" "4708712" "4713176" "4734089")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/04/16 11:27 AM

		"4740202" "4740313"					
		"4755300" "4767396"					
		"4795419" "4795448"					
		"4806247" "4806252"					
		"4808307" "4850995"					
		"4869812" "4871462"					
		"4876013" "4889524"					
		"4911833" "4934995"					
		"4940543" "4943273"					
		"4968295" "4983156"					
		"4983158" "4985153"					
		"4994188" "5039401"					
		"5045048" "5098372"					
		"5098373" "5100372"					
		"5100564" "5112298"					
		"5114396" "5135667"					
		"5141486" "5147290"					
		"5154716" "5174894"					
		"5194145" "5217426"					
		"5217427" "5234403"					
		"5254248" "5273517"					
		"5277701" "5298016"					
		"5298171" "5300060"					
		"5316540" "5318511"					
		"5318512" "5348533"					
		"5368542" "5368555"					
		"5386734" "5387174"					
		"5387187" "5403272"					
		"5405308" "5417650"					
		"5431814" "5437598"					
		"5437624" "5462667"					
		"5470483" "5484396"					
		"5494592" "5505685"					
		"5514070" "5543062"					
		"5551941" "5585007"					
		"5607579" "5649903"					
		"5651766" "5656163"					
		"5665061" "5712798"					
		"5728060" "5733253"					
		"5733446" "5733545"					
		"5738792" "5762791"					
		"5779660" "5783085"					
		"5792351" "5849203"					
		"5882289" "5906589"					
		"5919125" "5964724"					
		"5970432" "5980760"					
		"6007725" "6059979"					
		"6207063" "6234989"					
		"6296602" "6464624"					
		"6497676" "6558307"					
		"6623443" "6743192"					
		"7115205" "7186231"					
		"7270645" "7704454"					
		"8628489" "8702637"					
		"8759094" "9283316"					
		"10758652"					
		"20010000185"					
		"20010027156"					

		"20020043492" "20020062100" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm.					
L225	0	"current value of the hematocrit of the donor".clm.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO)); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L226	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L227	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415 and A61M2230/207).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L228	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L229	59	((A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L230	11	"20120175313"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L231	11	"20030125881"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L232	65	2009/0215602	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L233	17	"20090215602"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM

L234	2	L1 AND ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L235	13044	((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L236	2569	L10 and hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L237	9	"I11" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L238	8	"I10" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L239	22	"I10" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L240	64	((("RAGUSA") near3 ("Michael"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L241	17	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L242	183	("20010000185" "20020062100" "1025059" "1611725" "20010027156" "20020043492" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344921" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "348	(US-PGPUB; USPAT)	OR	OFF	OFF	2025/04/16 11:27 AM

		9145" "3565330" "3655 058" "3737096" "37748 40" "3987961" "400787 1" "4010894" "4014497" "4040965" "4056224" " 4082217" "4086924" "4 140268" "4142670" "41 51844" "4197847" "428 5464" "4300717" "4303 193" "4321921" "43878 48" "4425114" "443007 2" "4447221" "4457747" "4464167" "4466888" " 4482342" "4490135" "4 530691" "4534863" "46 43714" "4647279" "465 5742" "4680025" "4684 361" "4692136" "47087 12" "4713176" "473408 9" "4740202" "4740313" "4755300" "4767396" " 4795419" "4795448" "4 806247" "4806252" "48 08307" "4850995" "486 9812" "4871462" "4876 013" "4889524" "49118 33" "4934995" "494054 3" "4943273" "4968295" "4983156" "4983158" " 4985153" "4994188" "5 039401" "5045048" "50 98372" "5098373" "510 0372" "5100564" "5112 298" "5114396" "51356 67" "5141486" "514729 0" "5154716" "5174894" "5194145" "5217426" " 5217427" "5234403" "5 254248" "5273517" "52 77701" "5298016" "529 8171" "5300060" "5316 540" "5318511" "53185 12" "5348533" "536854 2" "5368555" "5386734" "5387174" "5387187" " 5403272" "5405308" "5 417650" "5431814" "54 37598" "5437624" "546 2667" "5470483" "5484 396" "5494592" "55056 85" "5514070" "554306 2" "5551941" "5585007" "5607579" "5649903" " 5651766" "5656163" "5 665061" "5712798" "57 28060" "5733253" "573 3446" "5733545" "5738 792" "5762791" "57796				
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		60" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094").PN.					
L243	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L244	17	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L245	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L246	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L247	9	"20120175313"	(USPAT)	OR	OFF	OFF	2025/04/16 11:27 AM
L248	15	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L249	9	L23 and prim\$3	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L250	0	(10/302682).APP.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L251	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L252	209	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L253	1014	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L254	233	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L255	3	((US-20030125881-A1).did. AND PGPB.dbnm.) OR ((US-10758652-B2 OR US-6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/04/16 11:27 AM
L256	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR,	OR	ON	ON	2025/04/16 11:27 AM

			GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L257	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L258	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L259	20	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L260	200	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "3489145" "3565330" "3655058" "3737096" "3774840" "3987961" "4007871" "4010894" "4014497" "4040965" "4056224" "4082217" "4086924" "4140268" "4142670" "4151844" "4197847" "4285464" "4300717" "4303193" "4321921" "4387848" "4425114" "4430072" "4447221" "4457747" "4464167" "4466888" "4482342" "4490135" "4530691" "4534863" "4643714" "4647279" "4655742" "4680025" "4684361" "4692136" "4708712" "4713176" "4734089" "4740202" "4740313" "4755300" "4767396" "4795419" "4795448" "4806247" "4806252" "4808307" "4850995" "4869812" "4871462" "4876013" "4889524" "4911833" "4934995" "4940543" "4943273" "4968295" "4983156" "4983158" "4985153" "4994188" "5039401" "5045048" "5098372" "5098373" "5100372")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/04/16 11:27 AM

		"5100564" "5112298"					
		"5114396" "5135667"					
		"5141486" "5147290"					
		"5154716" "5174894"					
		"5194145" "5217426"					
		"5217427" "5234403"					
		"5254248" "5273517"					
		"5277701" "5298016"					
		"5298171" "5300060"					
		"5316540" "5318511"					
		"5318512" "5348533"					
		"5368542" "5368555"					
		"5386734" "5387174"					
		"5387187" "5403272"					
		"5405308" "5417650"					
		"5431814" "5437598"					
		"5437624" "5462667"					
		"5470483" "5484396"					
		"5494592" "5505685"					
		"5514070" "5543062"					
		"5551941" "5585007"					
		"5607579" "5649903"					
		"5651766" "5656163"					
		"5665061" "5712798"					
		"5728060" "5733253"					
		"5733446" "5733545"					
		"5738792" "5762791"					
		"5779660" "5783085"					
		"5792351" "5849203"					
		"5882289" "5906589"					
		"5919125" "5964724"					
		"5970432" "5980760"					
		"6007725" "6059979"					
		"6207063" "6234989"					
		"6296602" "6464624"					
		"6497676" "6558307"					
		"6623443" "6743192"					
		"7115205" "7186231"					
		"7270645" "7704454"					
		"8628489" "8702637"					
		"8759094" "9283316"					
		"10758652"					
		"20010000185"					
		"20010027156"					
		"20020043492"					
		"20020062100"					
		"20020120227"					
		"20030055375"					
		"20030066807"					
		"20030125881"					
		"20030175150"					
		"20040186409"					
		"20050209522"					
		"20050235733"					
		"20060058167"					
		"20060155236"					
		"20070112289"					
		"20080146993"					

		"20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm.					
L261	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L262	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415 and A61M2230/207).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L263	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L264	59	((A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L265	11	"20120175313"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L266	11	"20030125881"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L267	65	2009/0215602	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L268	17	"20090215602"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L269	2	L1 AND ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L270	13044	((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM

L271	2569	G01N15/042 OR G01N33/86).CPC.) L10 and hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L272	9	"I11" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L273	8	"I10" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L274	22	"I10" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L275	64	((("RAGUSA") near3 ("Michael"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L276	17	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L277	183	("20010000185" "20020 062100" "1025059" "16 11725" "20010027156" " "20020043492" "20020 120227" "20030055375 " "20030066807" "2003 0125881" "2003017515 0" "20040186409" "200 50209522" "200502357 33" "20060058167" "20 060155236" "20070112 289" "20080146993" "2 0120175313" "2014003 9373" "20140356851" "2 20180344921" "208777 8" "2661150" "2750107" "2792172" "3096283" "3 145713" "3239136" "3 244362" "3244363" "34 09213" "3456875" "348 9145" "3565330" "3655 058" "3737096" "37748 40" "3987961" "400787 1" "4010894" "4014497" "4040965" "4056224" "4 4082217" "4086924" "4 140268" "4142670" "41 51844" "4197847" "428 5464" "4300717" "4303 193" "4321921" "43878 48" "4425114" "443007 2" "4447221" "4457747" "4464167" "4466888" "4 4482342" "4490135" "4 530691" "4534863" "46 43714" "4647279" "465 5742" "4680025" "4684 361" "4692136" "47087 12" "4713176" "473408 9" "4740202" "4740313"	(US-PGPUB; USPAT)	OR	OFF	OFF	2025/04/16 11:27 AM

		"4755300" "4767396" "4795419" "4795448" "4806247" "4806252" "4808307" "4850995" "4869812" "4871462" "4876013" "4889524" "4911833" "4934995" "4940543" "4943273" "4968295" "4983156" "4983158" "4985153" "4994188" "5039401" "5045048" "5098372" "5098373" "5100372" "5100564" "5112298" "5114396" "5135667" "5141486" "5147290" "5154716" "5174894" "5194145" "5217426" "5217427" "5234403" "5254248" "5273517" "5277701" "5298016" "5298171" "5300060" "5316540" "5318511" "5318512" "5348533" "5368542" "5368555" "5386734" "5387174" "5387187" "5403272" "5405308" "5417650" "5431814" "5437598" "5437624" "5462667" "5470483" "5484396" "5494592" "5505685" "5514070" "5543062" "5551941" "5585007" "5607579" "5649903" "5651766" "5656163" "5665061" "5712798" "5728060" "5733253" "5733446" "5733545" "5738792" "5762791" "5779660" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094").PN.					
L278	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L279	17	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L280	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM

L281	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L282	9	"20120175313"	(USPAT)	OR	OFF	OFF	2025/04/16 11:27 AM
L283	15	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L284	9	L23 and prim\$3	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L285	0	(10/302682).APP.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L286	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L287	209	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L288	1014	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L289	233	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L290	3	((US-20030125881-A1).did. AND PGPB.dbnm.) OR ((US-10758652-B2 OR US-6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/04/16 11:27 AM
L291	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/04/16 11:27 AM
L292	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L293	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L294	20	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L295	200	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/04/16 11:27 AM

		"3239136" "3244362"					
		"3244363" "3409213"					
		"3456875" "3489145"					
		"3565330" "3655058"					
		"3737096" "3774840"					
		"3987961" "4007871"					
		"4010894" "4014497"					
		"4040965" "4056224"					
		"4082217" "4086924"					
		"4140268" "4142670"					
		"4151844" "4197847"					
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		"4303193" "4321921"					
		"4387848" "4425114"					
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		"4466888" "4482342"					
		"4490135" "4530691"					
		"4534863" "4643714"					
		"4647279" "4655742"					
		"4680025" "4684361"					
		"4692136" "4708712"					
		"4713176" "4734089"					
		"4740202" "4740313"					
		"4755300" "4767396"					
		"4795419" "4795448"					
		"4806247" "4806252"					
		"4808307" "4850995"					
		"4869812" "4871462"					
		"4876013" "4889524"					
		"4911833" "4934995"					
		"4940543" "4943273"					
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		"4983158" "4985153"					
		"4994188" "5039401"					
		"5045048" "5098372"					
		"5098373" "5100372"					
		"5100564" "5112298"					
		"5114396" "5135667"					
		"5141486" "5147290"					
		"5154716" "5174894"					
		"5194145" "5217426"					
		"5217427" "5234403"					
		"5254248" "5273517"					
		"5277701" "5298016"					
		"5298171" "5300060"					
		"5316540" "5318511"					
		"5318512" "5348533"					
		"5368542" "5368555"					
		"5386734" "5387174"					
		"5387187" "5403272"					
		"5405308" "5417650"					
		"5431814" "5437598"					
		"5437624" "5462667"					
		"5470483" "5484396"					
		"5494592" "5505685"					
		"5514070" "5543062"					
		"5551941" "5585007"					

		"5607579" "5649903" "5651766" "5656163" "5665061" "5712798" "5728060" "5733253" "5733446" "5733545" "5738792" "5762791" "5779660" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094" "9283316" "10758652" "20010000185" "20010027156" "20020043492" "20020062100" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm.					
L296	0	"current value of the hematocrit of the donor".clm.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L297	702	ragusa.in.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO;	OR	ON	ON	2025/04/16 11:27 AM

L298	20	L143 AND (hematocrit AND "total blood volume")	DERWENT) (US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L299	3	L143 AND (hematocrit AND "total blood volume").clm.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L300	36	"10758652"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L301	26	L143 AND (index).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L302	21	"10980826"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L303	20	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L304	8	"12186474"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L305	214	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/04/16 11:27 AM

		"3244363" "3409213"					
		"3456875" "3489145"					
		"3565330" "3655058"					
		"3737096" "3774840"					
		"3987961" "4007871"					
		"4010894" "4014497"					
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		"4387848" "4425114"					
		"4430072" "4447221"					
		"4457747" "4464167"					
		"4466888" "4482342"					
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		"4534863" "4643714"					
		"4647279" "4655742"					
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		"4692136" "4708712"					
		"4713176" "4734089"					
		"4740202" "4740313"					
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		"5154716" "5174894"					
		"5194145" "5217426"					
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		"5277701" "5298016"					
		"5298171" "5300060"					
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		"5318512" "5348533"					
		"5368542" "5368555"					
		"5386734" "5387174"					
		"5387187" "5403272"					
		"5405308" "5417650"					
		"5431814" "5437598"					
		"5437624" "5462667"					
		"5470483" "5484396"					
		"5494592" "5505685"					
		"5514070" "5543062"					
		"5551941" "5585007"					
		"5607579" "5649903"					

L306	0	"5651766" "5656163" "5665061" "5681273" "5712798" "5728060" "5733253" "5733446" "5733545" "5738792" "5762791" "5779660" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6200287" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8075468" "8454548" "8628489" "8702637" "8759094" "9283316" "10758652" "10792416" "10980926" "20010000185" "20010027156" "20020043492" "20020062100" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050131334" "20050209522" "20050235733" "20060058167" "20060155236" "20060226086" "20070112289" "20080146993" "20090215602" "20120165685" "20120175313" "20140039373" "20140100507" "20140356851" "20180344910" "20200261630" "20200345924" "20210205509" "20230001059").pn. OR ("12186474").urpn. AND (PGPB USPT USOC).dbnm.	(US-PGPUB; USPAT;	OR	ON	ON	2025/04/16
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L307	7	L151 AND mass.clm.	USOCR) (US-PGPUB; USPAT; USOCR)	OR	ON	ON	11:27 AM 2025/04/16 11:27 AM
L308	95	L151 AND weight	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/04/16 11:27 AM
L309	0	"calculating a donor total blood volume based, at least in part, on a weight AND a height of a donor".clm.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO)); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM
L310	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L311	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415 and A61M2230/207).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L312	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L313	59	((A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L314	11	"20120175313"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L315	11	"20030125881"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L316	65	2009/0215602	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L317	17	"20090215602"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L318	2	L1 AND ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L319	13101	((A61M1/024 OR A61M1/029 OR A61M1/3672 OR	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM

		A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)					
L320	2583	L10 and hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L321	9	"I11" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L322	8	"I10" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L323	23	"I10" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L324	64	((("RAGUSA") near3 ("Michael"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L325	18	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L326	183	("20010000185" "20020 062100" "1025059" "16 11725" "20010027156" "20020043492" "20020 120227" "20030055375 " "20030066807" "2003 0125881" "2003017515 0" "20040186409" "200 50209522" "200502357 33" "20060058167" "20 060155236" "20070112 289" "20080146993" "2 0120175313" "2014003 9373" "20140356851" " 20180344921" "208777 8" "2661150" "2750107" " "2792172" "3096283" " 3145713" "3239136" "3 244362" "3244363" "34 09213" "3456875" "348 9145" "3565330" "3655 058" "3737096" "37748 40" "3987961" "400787 1" "4010894" "4014497" " "4040965" "4056224" " 4082217" "4086924" "4 140268" "4142670" "41 51844" "4197847" "428 5464" "4300717" "4303 193" "4321921" "43878 48" "4425114" "443007 2" "4447221" "4457747" " "4464167" "4466888" " 4482342" "4490135" "4	(US-PGPUB; USPAT)	OR	OFF	OFF	2025/05/22 06:58 AM

		530691 "4534863 "46 43714 "4647279 "465 5742 "4680025 "4684 361 "4692136 "47087 12 "4713176 "473408 9 "4740202 "4740313" "4755300 "4767396 "4 4795419 "4795448 "4 806247 "4806252 "48 08307 "4850995 "486 9812 "4871462 "4876 013 "4889524 "49118 33 "4934995 "494054 3 "4943273 "4968295" "4983156 "4983158 "4 4985153 "4994188 "5 039401 "5045048 "50 98372 "5098373 "510 0372 "5100564 "5112 298 "5114396 "51356 67 "5141486 "514729 0 "5154716 "5174894" "5194145 "5217426 "5 5217427 "5234403 "5 254248 "5273517 "52 77701 "5298016 "529 8171 "5300060 "5316 540 "5318511 "53185 12 "5348533 "536854 2 "5368555 "5386734" "5387174 "5387187 "5 5403272 "5405308 "5 417650 "5431814 "54 37598 "5437624 "546 2667 "5470483 "5484 396 "5494592 "55056 85 "5514070 "554306 2 "5551941 "5585007" "5607579 "5649903 "5 5651766 "5656163 "5 665061 "5712798 "57 28060 "5733253 "573 3446 "5733545 "5738 792 "5762791 "57796 60 "5783085 "579235 1 "5849203 "5882289" "5906589 "5919125 "5 5964724 "5970432 "5 980760 "6007725 "60 59979 "6207063 "623 4989 "6296602 "6464 624 "6497676 "65583 07 "6623443 "674319 2 "7115205 "7186231" "7270645 "7704454 "8 8628489 "8702637 "8 759094").PN.				
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L327	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L328	18	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L329	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L330	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L331	9	"20120175313"	(USPAT)	OR	OFF	OFF	2025/05/22 06:58 AM
L332	15	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L333	9	L23 and prim\$3	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L334	0	(10/302682).APP.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L335	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L336	209	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L337	1016	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L338	236	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L339	3	((US-20030125881-A1).did. AND PGPB.dbnm.) OR ((US-10758652-B2 OR US-6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/05/22 06:58 AM
L340	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/05/22 06:58 AM
L341	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L342	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L343	20	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR,	OR	ON	ON	2025/05/22 06:58 AM

L344	200	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "3489145" "3565330" "3655058" "3737096" "3774840" "3987961" "4007871" "4010894" "4014497" "4040965" "4056224" "4082217" "4086924" "4140268" "4142670" "4151844" "4197847" "4285464" "4300717" "4303193" "4321921" "4387848" "4425114" "4430072" "4447221" "4457747" "4464167" "4466888" "4482342" "4490135" "4530691" "4534863" "4643714" "4647279" "4655742" "4680025" "4684361" "4692136" "4708712" "4713176" "4734089" "4740202" "4740313" "4755300" "4767396" "4795419" "4795448" "4806247" "4806252" "4808307" "4850995" "4869812" "4871462" "4876013" "4889524" "4911833" "4934995" "4940543" "4943273" "4968295" "4983156" "4983158" "4985153" "4994188" "5039401" "5045048" "5098372" "5098373" "5100372" "5100564" "5112298" "5114396" "5135667" "5141486" "5147290" "5154716" "5174894" "5194145" "5217426" "5217427" "5234403" "5254248" "5273517" "5277701" "5298016" "5298171" "5300060" "5316540" "5318511" "5318512" "5348533" "5368542" "5368555" "5386734" "5387174"	GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT) (US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/05/22 06:58 AM
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		"5387187" "5403272" "5405308" "5417650" "5431814" "5437598" "5437624" "5462667" "5470483" "5484396" "5494592" "5505685" "5514070" "5543062" "5551941" "5585007" "5607579" "5649903" "5651766" "5656163" "5665061" "5712798" "5728060" "5733253" "5733446" "5733545" "5738792" "5762791" "5779660" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094" "9283316" "10758652" "20010000185" "20010027156" "20020043492" "20020062100" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm. ("20180344910").PN.					
L345	2		(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L346	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM

L347	14	A61M1/38 and A61M2202/0415 and A61M2230/207).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L348	59	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L349	11	"20120175313"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L350	11	"20030125881"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L351	65	2009/0215602	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L352	17	"20090215602"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L353	2	L1 AND ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L354	13101	((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L355	2583	L10 and hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L356	9	"I11" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L357	8	"I10" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L358	23	"I10" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L359	64	((("RAGUSA") near3	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM

		("Michael"))).INV.	USOCR; EPO; JPO; DERWENT)				06:58 AM
L360	18	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L361	183	("20010000185" "20020 062100" "1025059" "16 11725" "20010027156" "20020043492" "20020 120227" "20030055375 " "20030066807" "2003 0125881" "2003017515 0" "20040186409" "200 50209522" "200502357 33" "20060058167" "20 060155236" "20070112 289" "20080146993" "2 0120175313" "2014003 9373" "20140356851" " 20180344921" "208777 8" "2661150" "2750107" " "2792172" "3096283" " 3145713" "3239136" "3 244362" "3244363" "34 09213" "3456875" "348 9145" "3565330" "3655 058" "3737096" "37748 40" "3987961" "400787 1" "4010894" "4014497" " "4040965" "4056224" " 4082217" "4086924" "4 140268" "4142670" "41 51844" "4197847" "428 5464" "4300717" "4303 193" "4321921" "43878 48" "4425114" "443007 2" "4447221" "4457747" " "4464167" "4466888" " 4482342" "4490135" "4 530691" "4534863" "46 43714" "4647279" "465 5742" "4680025" "4684 361" "4692136" "47087 12" "4713176" "473408 9" "4740202" "4740313" " "4755300" "4767396" " 4795419" "4795448" "4 806247" "4806252" "48 08307" "4850995" "486 9812" "4871462" "4876 013" "4889524" "49118 33" "4934995" "494054 3" "4943273" "4968295" " "4983156" "4983158" " 4985153" "4994188" "5 039401" "5045048" "50 98372" "5098373" "510 0372" "5100564" "5112	(US-PGPUB; USPAT)	OR	OFF	OFF	2025/05/22 06:58 AM

		298" 5114396" 51356 67" 5141486" 514729 0" 5154716" 5174894" 5194145" 5217426" 5217427" 5234403" 5 254248" 5273517" 52 77701" 5298016" 529 8171" 5300060" 5316 540" 5318511" 53185 12" 5348533" 536854 2" 5368555" 5386734" 5387174" 5387187" 5403272" 5405308" 5 417650" 5431814" 54 37598" 5437624" 546 2667" 5470483" 5484 396" 5494592" 55056 85" 5514070" 554306 2" 5551941" 5585007" 5607579" 5649903" 5651766" 5656163" 5 665061" 5712798" 57 28060" 5733253" 573 3446" 5733545" 5738 792" 5762791" 57796 60" 5783085" 579235 1" 5849203" 5882289" 5906589" 5919125" 5964724" 5970432" 5 980760" 6007725" 60 59979" 6207063" 623 4989" 6296602" 6464 624" 6497676" 65583 07" 6623443" 674319 2" 7115205" 7186231" 7270645" 7704454" 8628489" 8702637" 8 759094").PN.					
L362	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L363	18	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L364	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L365	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L366	9	"20120175313"	(USPAT)	OR	OFF	OFF	2025/05/22 06:58 AM
L367	15	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L368	9	L23 and prim\$3	(US-PGPUB; USPAT;	OR	OFF	OFF	2025/05/22

L369	0	(10/302682).APP.	USOCR) (USPAT; USOCR)	OR	OFF	OFF	06:58 AM 2025/05/22
L370	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	06:58 AM 2025/05/22
L371	209	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	06:58 AM 2025/05/22
L372	1016	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	06:58 AM 2025/05/22
L373	236	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	06:58 AM 2025/05/22
L374	3	((US-20030125881-A1).did. AND PGPB.dbnm.) OR ((US- 10758652-B2 OR US- 6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	06:58 AM 2025/05/22
L375	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	06:58 AM 2025/05/22
L376	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	06:58 AM 2025/05/22
L377	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	06:58 AM 2025/05/22
L378	20	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	06:58 AM 2025/05/22
L379	200	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "3489145" "3565330" "3655058" "3737096" "3774840" "3987961" "4007871" "4010894" "4014497" "4040965" "4056224" "4082217" "4086924" "4140268" "4142670" "4151844" "4197847" "4285464" "4300717"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	06:58 AM 2025/05/22

		"4303193" "4321921"					
		"4387848" "4425114"					
		"4430072" "4447221"					
		"4457747" "4464167"					
		"4466888" "4482342"					
		"4490135" "4530691"					
		"4534863" "4643714"					
		"4647279" "4655742"					
		"4680025" "4684361"					
		"4692136" "4708712"					
		"4713176" "4734089"					
		"4740202" "4740313"					
		"4755300" "4767396"					
		"4795419" "4795448"					
		"4806247" "4806252"					
		"4808307" "4850995"					
		"4869812" "4871462"					
		"4876013" "4889524"					
		"4911833" "4934995"					
		"4940543" "4943273"					
		"4968295" "4983156"					
		"4983158" "4985153"					
		"4994188" "5039401"					
		"5045048" "5098372"					
		"5098373" "5100372"					
		"5100564" "5112298"					
		"5114396" "5135667"					
		"5141486" "5147290"					
		"5154716" "5174894"					
		"5194145" "5217426"					
		"5217427" "5234403"					
		"5254248" "5273517"					
		"5277701" "5298016"					
		"5298171" "5300060"					
		"5316540" "5318511"					
		"5318512" "5348533"					
		"5368542" "5368555"					
		"5386734" "5387174"					
		"5387187" "5403272"					
		"5405308" "5417650"					
		"5431814" "5437598"					
		"5437624" "5462667"					
		"5470483" "5484396"					
		"5494592" "5505685"					
		"5514070" "5543062"					
		"5551941" "5585007"					
		"5607579" "5649903"					
		"5651766" "5656163"					
		"5665061" "5712798"					
		"5728060" "5733253"					
		"5733446" "5733545"					
		"5738792" "5762791"					
		"5779660" "5783085"					
		"5792351" "5849203"					
		"5882289" "5906589"					
		"5919125" "5964724"					
		"5970432" "5980760"					
		"6007725" "6059979"					

		"6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094" "9283316" "10758652" "20010000185" "20010027156" "20020043492" "20020062100" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm.					
L380	0	"current value of the hematocrit of the donor".clm.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM
L381	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L382	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415 and A61M2230/207).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L383	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L384	59	((A61M1/3672 and A61M1/3693 and A61M1/38 and	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM

L385	11	A61M2202/0415).CPC.) "20120175313"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L386	11	"20030125881"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L387	65	2009/0215602	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L388	17	"20090215602"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L389	2	L1 AND ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L390	13101	((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L391	2583	L10 and hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L392	9	"I11" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L393	8	"I10" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L394	23	"I10" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L395	64	((("RAGUSA") near3 ("Michael"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L396	18	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L397	183	("20010000185" "20020 062100" "1025059" "16 11725" "20010027156" " "20020043492" "20020 120227" "20030055375 " "20030066807" "2003 0125881" "2003017515 0" "20040186409" "200	(US-PGPUB; USPAT)	OR	OFF	OFF	2025/05/22 06:58 AM

		50209522" "200502357 33" "20060058167" "20 060155236" "20070112 289" "20080146993" "2 0120175313" "2014003 9373" "20140356851" " 20180344921" "208777 8" "2661150" "2750107" "2792172" "3096283" " 3145713" "3239136" "3 244362" "3244363" "34 09213" "3456875" "348 9145" "3565330" "3655 058" "3737096" "37748 40" "3987961" "400787 1" "4010894" "4014497" "4040965" "4056224" " 4082217" "4086924" "4 140268" "4142670" "41 51844" "4197847" "428 5464" "4300717" "4303 193" "4321921" "43878 48" "4425114" "443007 2" "4447221" "4457747" "4464167" "4466888" " 4482342" "4490135" "4 530691" "4534863" "46 43714" "4647279" "465 5742" "4680025" "4684 361" "4692136" "47087 12" "4713176" "473408 9" "4740202" "4740313" "4755300" "4767396" " 4795419" "4795448" "4 806247" "4806252" "48 08307" "4850995" "486 9812" "4871462" "4876 013" "4889524" "49118 33" "4934995" "494054 3" "4943273" "4968295" "4983156" "4983158" " 4985153" "4994188" "5 039401" "5045048" "50 98372" "5098373" "510 0372" "5100564" "5112 298" "5114396" "51356 67" "5141486" "514729 0" "5154716" "5174894" "5194145" "5217426" " 5217427" "5234403" "5 254248" "5273517" "52 77701" "5298016" "529 8171" "5300060" "5316 540" "5318511" "53185 12" "5348533" "536854 2" "5368555" "5386734" "5387174" "5387187" " 5403272" "5405308" "5				
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		417650" "5431814" "5437598" "5437624" "5462667" "5470483" "5484396" "5494592" "5505685" "5514070" "5543062" "5551941" "5585007" "5607579" "5649903" "5651766" "5656163" "5665061" "5712798" "5728060" "5733253" "5733446" "5733545" "5738792" "5762791" "5779660" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094").PN.					
L398	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L399	18	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L400	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L401	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L402	9	"20120175313"	(USPAT)	OR	OFF	OFF	2025/05/22 06:58 AM
L403	15	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L404	9	L23 and prim\$3	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L405	0	(10/302682).APP.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L406	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L407	209	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L408	1016	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L409	236	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM

L410	3	((US-20030125881-A1).did. AND PGPB.dbnm.) OR ((US-10758652-B2 OR US-6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO)); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/05/22 06:58 AM
L411	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO)); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/05/22 06:58 AM
L412	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L413	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L414	20	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO)); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM
L415	200	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "3489145" "3565330" "3655058" "3737096" "3774840" "3987961" "4007871" "4010894" "4014497" "4040965" "4056224" "4082217" "4086924" "4140268" "4142670" "4151844" "4197847" "4285464" "4300717" "4303193" "4321921" "4387848" "4425114" "4430072" "4447221" "4457747" "4464167" "4466888" "4482342" "4490135" "4530691" "4534863" "4643714" "4647279" "4655742" "4680025" "4684361" "4692136" "4708712" "4713176" "4734089" "4740202" "4740313" "4755300" "4767396")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/05/22 06:58 AM

		"4795419" "4795448"					
		"4806247" "4806252"					
		"4808307" "4850995"					
		"4869812" "4871462"					
		"4876013" "4889524"					
		"4911833" "4934995"					
		"4940543" "4943273"					
		"4968295" "4983156"					
		"4983158" "4985153"					
		"4994188" "5039401"					
		"5045048" "5098372"					
		"5098373" "5100372"					
		"5100564" "5112298"					
		"5114396" "5135667"					
		"5141486" "5147290"					
		"5154716" "5174894"					
		"5194145" "5217426"					
		"5217427" "5234403"					
		"5254248" "5273517"					
		"5277701" "5298016"					
		"5298171" "5300060"					
		"5316540" "5318511"					
		"5318512" "5348533"					
		"5368542" "5368555"					
		"5386734" "5387174"					
		"5387187" "5403272"					
		"5405308" "5417650"					
		"5431814" "5437598"					
		"5437624" "5462667"					
		"5470483" "5484396"					
		"5494592" "5505685"					
		"5514070" "5543062"					
		"5551941" "5585007"					
		"5607579" "5649903"					
		"5651766" "5656163"					
		"5665061" "5712798"					
		"5728060" "5733253"					
		"5733446" "5733545"					
		"5738792" "5762791"					
		"5779660" "5783085"					
		"5792351" "5849203"					
		"5882289" "5906589"					
		"5919125" "5964724"					
		"5970432" "5980760"					
		"6007725" "6059979"					
		"6207063" "6234989"					
		"6296602" "6464624"					
		"6497676" "6558307"					
		"6623443" "6743192"					
		"7115205" "7186231"					
		"7270645" "7704454"					
		"8628489" "8702637"					
		"8759094" "9283316"					
		"10758652"					
		"20010000185"					
		"20010027156"					
		"20020043492"					
		"20020062100"					

		"20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm.					
L416	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L417	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415 and A61M2230/207).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L418	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L419	59	((A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L420	11	"20120175313"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L421	11	"20030125881"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L422	65	2009/0215602	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L423	17	"20090215602"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L424	2	L1 AND ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM

L425	13101	G01N15/042 OR G01N33/86).CPC.) ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L426	2583	L10 and hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L427	9	"I11" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L428	8	"I10" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L429	23	"I10" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L430	64	((("RAGUSA") near3 ("Michael"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L431	18	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L432	183	("20010000185" "20020 062100" "1025059" "16 11725" "20010027156" "20020043492" "20020 120227" "20030055375 " "20030066807" "2003 0125881" "2003017515 0" "20040186409" "200 50209522" "200502357 33" "20060058167" "20 060155236" "20070112 289" "20080146993" "2 0120175313" "2014003 9373" "20140356851" " 20180344921" "208777 8" "2661150" "2750107" " "2792172" "3096283" " 3145713" "3239136" "3 244362" "3244363" "34 09213" "3456875" "348 9145" "3565330" "3655 058" "3737096" "37748 40" "3987961" "400787 1" "4010894" "4014497" " "4040965" "4056224" " 4082217" "4086924" "4 140268" "4142670" "41 51844" "4197847" "428 5464" "4300717" "4303	(US-PGPUB; USPAT)	OR	OFF	OFF	2025/05/22 06:58 AM

		193" "4321921" "43878 48" "4425114" "443007 2" "4447221" "4457747" "4464167" "4466888" " 4482342" "4490135" "4 530691" "4534863" "46 43714" "4647279" "465 5742" "4680025" "4684 361" "4692136" "47087 12" "4713176" "473408 9" "4740202" "4740313" "4755300" "4767396" " 4795419" "4795448" "4 806247" "4806252" "48 08307" "4850995" "486 9812" "4871462" "4876 013" "4889524" "49118 33" "4934995" "494054 3" "4943273" "4968295" "4983156" "4983158" " 4985153" "4994188" "5 039401" "5045048" "50 98372" "5098373" "510 0372" "5100564" "5112 298" "5114396" "51356 67" "5141486" "514729 0" "5154716" "5174894" "5194145" "5217426" " 5217427" "5234403" "5 254248" "5273517" "52 77701" "5298016" "529 8171" "5300060" "5316 540" "5318511" "53185 12" "5348533" "536854 2" "5368555" "5386734" "5387174" "5387187" " 5403272" "5405308" "5 417650" "5431814" "54 37598" "5437624" "546 2667" "5470483" "5484 396" "5494592" "55056 85" "5514070" "554306 2" "5551941" "5585007" "5607579" "5649903" " 5651766" "5656163" "5 665061" "5712798" "57 28060" "5733253" "573 3446" "5733545" "5738 792" "5762791" "57796 60" "5783085" "579235 1" "5849203" "5882289" "5906589" "5919125" " 5964724" "5970432" "5 980760" "6007725" "60 59979" "6207063" "623 4989" "6296602" "6464 624" "6497676" "65583 07" "6623443" "674319				
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L433	2	2" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094").PN. ("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L434	18	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L435	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L436	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L437	9	"20120175313"	(USPAT)	OR	OFF	OFF	2025/05/22 06:58 AM
L438	15	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L439	9	L23 and prim\$3	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L440	0	(10/302682).APP.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L441	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L442	209	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L443	1016	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L444	236	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L445	3	((US-20030125881-A1).did. AND PGPB.dbnm.) OR ((US-10758652-B2 OR US-6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/05/22 06:58 AM
L446	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/05/22 06:58 AM
L447	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L448	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM

L449	20	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO)); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM
L450	200	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "3489145" "3565330" "3655058" "3737096" "3774840" "3987961" "4007871" "4010894" "4014497" "4040965" "4056224" "4082217" "4086924" "4140268" "4142670" "4151844" "4197847" "4285464" "4300717" "4303193" "4321921" "4387848" "4425114" "4430072" "4447221" "4457747" "4464167" "4466888" "4482342" "4490135" "4530691" "4534863" "4643714" "4647279" "4655742" "4680025" "4684361" "4692136" "4708712" "4713176" "4734089" "4740202" "4740313" "4755300" "4767396" "4795419" "4795448" "4806247" "4806252" "4808307" "4850995" "4869812" "4871462" "4876013" "4889524" "4911833" "4934995" "4940543" "4943273" "4968295" "4983156" "4983158" "4985153" "4994188" "5039401" "5045048" "5098372" "5098373" "5100372" "5100564" "5112298" "5114396" "5135667" "5141486" "5147290" "5154716" "5174894" "5194145" "5217426" "5217427" "5234403" "5254248" "5273517" "5277701" "5298016" "5298171" "5300060")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/05/22 06:58 AM

L451	0	"5316540" "5318511" "5318512" "5348533" "5368542" "5368555" "5386734" "5387174" "5387187" "5403272" "5405308" "5417650" "5431814" "5437598" "5437624" "5462667" "5470483" "5484396" "5494592" "5505685" "5514070" "5543062" "5551941" "5585007" "5607579" "5649903" "5651766" "5656163" "5665061" "5712798" "5728060" "5733253" "5733446" "5733545" "5738792" "5762791" "5779660" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094" "9283316" "10758652" "20010000185" "20010027156" "20020043492" "20020062100" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm.	(US-PGPUB; USPAT;	OR	ON	ON	2025/05/22
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L452	703	hematocrit of the donor".clm. ragusa.in.	USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT) (US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	06:58 AM 2025/05/22 06:58 AM
L453	20	L143 AND (hematocrit AND "total blood volume")	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM
L454	3	L143 AND (hematocrit AND "total blood volume").clm.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM
L455	36	"10758652"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM
L456	26	L143 AND (index).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM
L457	21	"10980826"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM
L458	20	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM

L459	8	"12186474"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO)); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM
L460	214	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "3489145" "3565330" "3655058" "3737096" "3774840" "3987961" "4007871" "4010894" "4014497" "4040965" "4056224" "4082217" "4086924" "4140268" "4142670" "4151844" "4197847" "4285464" "4300717" "4303193" "4321921" "4387848" "4425114" "4430072" "4447221" "4457747" "4464167" "4466888" "4482342" "4490135" "4530691" "4534863" "4643714" "4647279" "4655742" "4680025" "4684361" "4692136" "4708712" "4713176" "4734089" "4740202" "4740313" "4755300" "4767396" "4795419" "4795448" "4806247" "4806252" "4808307" "4850995" "4869812" "4871462" "4876013" "4889524" "4911833" "4934995" "4940543" "4943273" "4968295" "4983156" "4983158" "4985153" "4994188" "5039401" "5045048" "5098372" "5098373" "5100372" "5100564" "5112298" "5114396" "5135667" "5141486" "5147290" "5154716" "5174894" "5194145" "5217426" "5217427" "5234403" "5254248" "5273517" "5277701" "5298016" "5298171" "5300060")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/05/22 06:58 AM

		"5316540" "5318511" "5318512" "5348533" "5368542" "5368555" "5386734" "5387174" "5387187" "5403272" "5405308" "5417650" "5431814" "5437598" "5437624" "5462667" "5470483" "5484396" "5494592" "5505685" "5514070" "5543062" "5551941" "5585007" "5607579" "5649903" "5651766" "5656163" "5665061" "5681273" "5712798" "5728060" "5733253" "5733446" "5733545" "5738792" "5762791" "5779660" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6200287" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8075468" "8454548" "8628489" "8702637" "8759094" "9283316" "10758652" "10792416" "10980926" "20010000185" "20010027156" "20020043492" "20020062100" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050131334" "20050209522" "20050235733" "20060058167" "20060155236" "20060226086" "20070112289" "20080146993" "20090215602" "20120165685" "20120175313"				
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		"20140039373" "20140100507" "20140356851" "20180344910" "20200261630" "20200345924" "20210205509" "20230001059").pn. OR ("12186474").urpn. AND (PGPB USPT USOC).dbnm.					
L461	0	L151 AND safe.clm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/05/22 06:58 AM
L462	7	L151 AND mass.clm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/05/22 06:58 AM
L463	95	L151 AND weight	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/05/22 06:58 AM
L464	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L465	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415 and A61M2230/207).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L466	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L467	59	((A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L468	11	"20120175313"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L469	11	"20030125881"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L470	65	2009/0215602	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L471	17	"20090215602"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L472	2	L1 AND ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM

L473	13101	G01N33/86).CPC.) ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L474	2583	L10 and hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L475	9	"I11" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L476	8	"I10" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L477	23	"I10" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L478	64	((("RAGUSA") near3 ("Michael"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L479	18	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L480	183	("20010000185" "20020 062100" "1025059" "16 11725" "20010027156" " "20020043492" "20020 120227" "20030055375 " "20030066807" "2003 0125881" "2003017515 0" "20040186409" "200 50209522" "200502357 33" "20060058167" "20 060155236" "20070112 289" "20080146993" "2 0120175313" "2014003 9373" "20140356851" " 20180344921" "208777 8" "2661150" "2750107" "2792172" "3096283" " 3145713" "3239136" "3 244362" "3244363" "34 09213" "3456875" "348 9145" "3565330" "3655 058" "3737096" "37748 40" "3987961" "400787 1" "4010894" "4014497" "4040965" "4056224" " 4082217" "4086924" "4 140268" "4142670" "41 51844" "4197847" "428 5464" "4300717" "4303 193" "4321921" "43878	(US-PGPUB; USPAT)	OR	OFF	OFF	2025/05/22 06:58 AM

		48" "4425114" "443007 2" "4447221" "4457747" "4464167" "4466888" "4 4482342" "4490135" "4 530691" "4534863" "46 43714" "4647279" "465 5742" "4680025" "4684 361" "4692136" "47087 12" "4713176" "473408 9" "4740202" "4740313" "4755300" "4767396" "4 4795419" "4795448" "4 806247" "4806252" "48 08307" "4850995" "486 9812" "4871462" "4876 013" "4889524" "49118 33" "4934995" "494054 3" "4943273" "4968295" "4983156" "4983158" "4 4985153" "4994188" "5 039401" "5045048" "50 98372" "5098373" "510 0372" "5100564" "5112 298" "5114396" "51356 67" "5141486" "514729 0" "5154716" "5174894" "5194145" "5217426" "5 5217427" "5234403" "5 254248" "5273517" "52 77701" "5298016" "529 8171" "5300060" "5316 540" "5318511" "53185 12" "5348533" "536854 2" "5368555" "5386734" "5387174" "5387187" "5 5403272" "5405308" "5 417650" "5431814" "54 37598" "5437624" "546 2667" "5470483" "5484 396" "5494592" "55056 85" "5514070" "554306 2" "5551941" "5585007" "5607579" "5649903" "5 5651766" "5656163" "5 665061" "5712798" "57 28060" "5733253" "573 3446" "5733545" "5738 792" "5762791" "57796 60" "5783085" "579235 1" "5849203" "5882289" "5906589" "5919125" "5 5964724" "5970432" "5 980760" "6007725" "60 59979" "6207063" "623 4989" "6296602" "6464 624" "6497676" "65583 07" "6623443" "674319 2" "7115205" "7186231"				
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L481	2	"7270645" "7704454" "8628489" "8702637" "8759094").PN. ("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L482	18	"115" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L483	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L484	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L485	9	"20120175313"	(USPAT)	OR	OFF	OFF	2025/05/22 06:58 AM
L486	15	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L487	9	L23 and prim\$3	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L488	0	(10/302682).APP.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L489	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L490	209	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L491	1016	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L492	236	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L493	3	((US-20030125881-A1).did. AND PGPB.dbnm.) OR ((US-10758652-B2 OR US-6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/05/22 06:58 AM
L494	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/05/22 06:58 AM
L495	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L496	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L497	20	"10980926"	(US-PGPUB; USPAT;	OR	ON	ON	2025/05/22

L499	2	"5318512" "5348533" "5368542" "5368555" "5386734" "5387174" "5387187" "5403272" "5405308" "5417650" "5431814" "5437598" "5437624" "5462667" "5470483" "5484396" "5494592" "5505685" "5514070" "5543062" "5551941" "5585007" "5607579" "5649903" "5651766" "5656163" "5665061" "5712798" "5728060" "5733253" "5733446" "5733545" "5738792" "5762791" "5779660" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094" "9283316" "10758652" "20010000185" "20010027156" "20020043492" "20020062100" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm. ("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
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L500	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415 and A61M2230/207).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L501	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L502	59	((A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L503	11	"20120175313"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L504	11	"20030125881"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L505	65	2009/0215602	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L506	17	"20090215602"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L507	2	L1 AND ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L508	13101	((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L509	2583	L10 and hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L510	9	"I11" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L511	8	"I10" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L512	23	"I10" and (hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM

L513	64	same anticoagulant) (((("RAGUSA") near3 ("Michael")))).INV.	USOCR; DERWENT) (US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	OFF	OFF	06:58 AM 2025/05/22 06:58 AM
L514	18	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L515	183	("20010000185" "20020 062100" "1025059" "16 11725" "20010027156" "20020043492" "20020 120227" "20030055375 " "20030066807" "2003 0125881" "2003017515 0" "20040186409" "200 50209522" "200502357 33" "20060058167" "20 060155236" "20070112 289" "20080146993" "2 0120175313" "2014003 9373" "20140356851" " 20180344921" "208777 8" "2661150" "2750107" " "2792172" "3096283" " 3145713" "3239136" "3 244362" "3244363" "34 09213" "3456875" "348 9145" "3565330" "3655 058" "3737096" "37748 40" "3987961" "400787 1" "4010894" "4014497" " "4040965" "4056224" " 4082217" "4086924" "4 140268" "4142670" "41 51844" "4197847" "428 5464" "4300717" "4303 193" "4321921" "43878 48" "4425114" "443007 2" "4447221" "4457747" " "4464167" "4466888" " 4482342" "4490135" "4 530691" "4534863" "46 43714" "4647279" "465 5742" "4680025" "4684 361" "4692136" "47087 12" "4713176" "473408 9" "4740202" "4740313" " "4755300" "4767396" " 4795419" "4795448" "4 806247" "4806252" "48 08307" "4850995" "486 9812" "4871462" "4876 013" "4889524" "49118 33" "4934995" "494054 3" "4943273" "4968295" " "4983156" "4983158" " 4985153" "4994188" "5 039401" "5045048" "50	(US-PGPUB; USPAT)	OR	OFF	OFF	2025/05/22 06:58 AM

		98372" 5098373" 510 0372" 5100564" 5112 298" 5114396" 51356 67" 5141486" 514729 0" 5154716" 5174894" 5194145" 5217426" 5217427" 5234403" 5 254248" 5273517" 52 77701" 5298016" 529 8171" 5300060" 5316 540" 5318511" 53185 12" 5348533" 536854 2" 5368555" 5386734" 5387174" 5387187" 5403272" 5405308" 5 417650" 5431814" 54 37598" 5437624" 546 2667" 5470483" 5484 396" 5494592" 55056 85" 5514070" 554306 2" 5551941" 5585007" 5607579" 5649903" 5651766" 5656163" 5 665061" 5712798" 57 28060" 5733253" 573 3446" 5733545" 5738 792" 5762791" 57796 60" 5783085" 579235 1" 5849203" 5882289" 5906589" 5919125" 5964724" 5970432" 5 980760" 6007725" 60 59979" 6207063" 623 4989" 6296602" 6464 624" 6497676" 65583 07" 6623443" 674319 2" 7115205" 7186231" 7270645" 7704454" 8628489" 8702637" 8 759094").PN.					
L516	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L517	18	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L518	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L519	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L520	9	"20120175313"	(USPAT)	OR	OFF	OFF	2025/05/22 06:58 AM
L521	15	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM

L522	9	L23 and prim\$3	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L523	0	(10/302682).APP.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L524	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L525	209	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L526	1016	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L527	236	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L528	3	((US-20030125881-A1).did. AND PGPB.dbnm.) OR ((US-10758652-B2 OR US-6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/05/22 06:58 AM
L529	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/05/22 06:58 AM
L530	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L531	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L532	20	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM
L533	200	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "3489145" "3565330" "3655058" "3737096" "3774840" "3987961" "4007871" "4010894" "4014497" "4040965" "4056224" "4082217" "4086924" "4140268" "4142670" "4151844" "4197847"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/05/22 06:58 AM

		"4285464" "4300717"					
		"4303193" "4321921"					
		"4387848" "4425114"					
		"4430072" "4447221"					
		"4457747" "4464167"					
		"4466888" "4482342"					
		"4490135" "4530691"					
		"4534863" "4643714"					
		"4647279" "4655742"					
		"4680025" "4684361"					
		"4692136" "4708712"					
		"4713176" "4734089"					
		"4740202" "4740313"					
		"4755300" "4767396"					
		"4795419" "4795448"					
		"4806247" "4806252"					
		"4808307" "4850995"					
		"4869812" "4871462"					
		"4876013" "4889524"					
		"4911833" "4934995"					
		"4940543" "4943273"					
		"4968295" "4983156"					
		"4983158" "4985153"					
		"4994188" "5039401"					
		"5045048" "5098372"					
		"5098373" "5100372"					
		"5100564" "5112298"					
		"5114396" "5135667"					
		"5141486" "5147290"					
		"5154716" "5174894"					
		"5194145" "5217426"					
		"5217427" "5234403"					
		"5254248" "5273517"					
		"5277701" "5298016"					
		"5298171" "5300060"					
		"5316540" "5318511"					
		"5318512" "5348533"					
		"5368542" "5368555"					
		"5386734" "5387174"					
		"5387187" "5403272"					
		"5405308" "5417650"					
		"5431814" "5437598"					
		"5437624" "5462667"					
		"5470483" "5484396"					
		"5494592" "5505685"					
		"5514070" "5543062"					
		"5551941" "5585007"					
		"5607579" "5649903"					
		"5651766" "5656163"					
		"5665061" "5712798"					
		"5728060" "5733253"					
		"5733446" "5733545"					
		"5738792" "5762791"					
		"5779660" "5783085"					
		"5792351" "5849203"					
		"5882289" "5906589"					
		"5919125" "5964724"					
		"5970432" "5980760"					

		"6007725" "6059979" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094" "9283316" "10758652" "20010000185" "20010027156" "20020043492" "20020062100" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm.					
L534	0	"current value of the hematocrit of the donor".clm.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM
L535	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L536	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415 and A61M2230/207).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L537	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L538	59	((A61M1/3672 and A61M1/3693 and	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM

		A61M1/38 and A61M2202/0415).CPC.)					
L539	11	"20120175313"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L540	11	"20030125881"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L541	65	2009/0215602	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L542	17	"20090215602"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L543	2	L1 AND ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L544	13101	((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L545	2583	L10 and hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L546	9	"I11" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L547	8	"I10" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L548	23	"I10" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L549	64	((("RAGUSA") near3 ("Michael"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L550	18	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L551	183	("20010000185" "20020 062100" "1025059" "16 11725" "20010027156" "20020043492" "20020 120227" "20030055375 " "20030066807" "2003 0125881" "2003017515	(US-PGPUB; USPAT)	OR	OFF	OFF	2025/05/22 06:58 AM

		0" "20040186409" "200 50209522" "200502357 33" "20060058167" "20 060155236" "20070112 289" "20080146993" "2 0120175313" "2014003 9373" "20140356851" " 20180344921" "208777 8" "2661150" "2750107" "2792172" "3096283" " 3145713" "3239136" "3 244362" "3244363" "34 09213" "3456875" "348 9145" "3565330" "3655 058" "3737096" "37748 40" "3987961" "400787 1" "4010894" "4014497" "4040965" "4056224" " 4082217" "4086924" "4 140268" "4142670" "41 51844" "4197847" "428 5464" "4300717" "4303 193" "4321921" "43878 48" "4425114" "443007 2" "4447221" "4457747" "4464167" "4466888" " 4482342" "4490135" "4 530691" "4534863" "46 43714" "4647279" "465 5742" "4680025" "4684 361" "4692136" "47087 12" "4713176" "473408 9" "4740202" "4740313" "4755300" "4767396" " 4795419" "4795448" "4 806247" "4806252" "48 08307" "4850995" "486 9812" "4871462" "4876 013" "4889524" "49118 33" "4934995" "494054 3" "4943273" "4968295" "4983156" "4983158" " 4985153" "4994188" "5 039401" "5045048" "50 98372" "5098373" "510 0372" "5100564" "5112 298" "5114396" "51356 67" "5141486" "514729 0" "5154716" "5174894" "5194145" "5217426" " 5217427" "5234403" "5 254248" "5273517" "52 77701" "5298016" "529 8171" "5300060" "5316 540" "5318511" "53185 12" "5348533" "536854 2" "5368555" "5386734" "5387174" "5387187" "				
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		5403272" "5405308" "5417650" "5431814" "5437598" "5437624" "5462667" "5470483" "5484396" "5494592" "5505685" "5514070" "5543062" "5551941" "5585007" "5607579" "5649903" "5651766" "5656163" "5665061" "5712798" "5728060" "5733253" "5733446" "5733545" "5738792" "5762791" "5779660" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094").PN.					
L552	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L553	18	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L554	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L555	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L556	9	"20120175313"	(USPAT)	OR	OFF	OFF	2025/05/22 06:58 AM
L557	15	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L558	9	L23 and prim\$3	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L559	0	(10/302682).APP.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L560	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L561	209	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L562	1016	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L563	236	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM

L564	3	((US-20030125881-A1).did. AND PGPB.dbnm.) OR ((US-10758652-B2 OR US-6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO)); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/05/22 06:58 AM
L565	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO)); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/05/22 06:58 AM
L566	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L567	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L568	20	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO)); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM
L569	200	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "3489145" "3565330" "3655058" "3737096" "3774840" "3987961" "4007871" "4010894" "4014497" "4040965" "4056224" "4082217" "4086924" "4140268" "4142670" "4151844" "4197847" "4285464" "4300717" "4303193" "4321921" "4387848" "4425114" "4430072" "4447221" "4457747" "4464167" "4466888" "4482342" "4490135" "4530691" "4534863" "4643714" "4647279" "4655742" "4680025" "4684361" "4692136" "4708712" "4713176" "4734089" "4740202" "4740313" "4755300" "4767396")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/05/22 06:58 AM

		"4795419" "4795448"					
		"4806247" "4806252"					
		"4808307" "4850995"					
		"4869812" "4871462"					
		"4876013" "4889524"					
		"4911833" "4934995"					
		"4940543" "4943273"					
		"4968295" "4983156"					
		"4983158" "4985153"					
		"4994188" "5039401"					
		"5045048" "5098372"					
		"5098373" "5100372"					
		"5100564" "5112298"					
		"5114396" "5135667"					
		"5141486" "5147290"					
		"5154716" "5174894"					
		"5194145" "5217426"					
		"5217427" "5234403"					
		"5254248" "5273517"					
		"5277701" "5298016"					
		"5298171" "5300060"					
		"5316540" "5318511"					
		"5318512" "5348533"					
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		"5386734" "5387174"					
		"5387187" "5403272"					
		"5405308" "5417650"					
		"5431814" "5437598"					
		"5437624" "5462667"					
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		"5551941" "5585007"					
		"5607579" "5649903"					
		"5651766" "5656163"					
		"5665061" "5712798"					
		"5728060" "5733253"					
		"5733446" "5733545"					
		"5738792" "5762791"					
		"5779660" "5783085"					
		"5792351" "5849203"					
		"5882289" "5906589"					
		"5919125" "5964724"					
		"5970432" "5980760"					
		"6007725" "6059979"					
		"6207063" "6234989"					
		"6296602" "6464624"					
		"6497676" "6558307"					
		"6623443" "6743192"					
		"7115205" "7186231"					
		"7270645" "7704454"					
		"8628489" "8702637"					
		"8759094" "9283316"					
		"10758652"					
		"20010000185"					
		"20010027156"					
		"20020043492"					
		"20020062100"					

		"20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm.					
L570	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L571	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415 and A61M2230/207).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L572	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L573	59	((A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L574	11	"20120175313"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L575	11	"20030125881"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L576	65	2009/0215602	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L577	17	"20090215602"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L578	2	L1 AND ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM

L579	13101	G01N15/042 OR G01N33/86).CPC.) ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L580	2583	L10 and hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L581	9	"I11" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L582	8	"I10" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L583	23	"I10" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L584	64	((("RAGUSA") near3 ("Michael"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L585	18	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L586	183	("20010000185" "20020 062100" "1025059" "16 11725" "20010027156" "20020043492" "20020 120227" "20030055375 " "20030066807" "2003 0125881" "2003017515 0" "20040186409" "200 50209522" "200502357 33" "20060058167" "20 060155236" "20070112 289" "20080146993" "2 0120175313" "2014003 9373" "20140356851" " 20180344921" "208777 8" "2661150" "2750107" " "2792172" "3096283" " 3145713" "3239136" "3 244362" "3244363" "34 09213" "3456875" "348 9145" "3565330" "3655 058" "3737096" "37748 40" "3987961" "400787 1" "4010894" "4014497" " "4040965" "4056224" " 4082217" "4086924" "4 140268" "4142670" "41 51844" "4197847" "428 5464" "4300717" "4303	(US-PGPUB; USPAT)	OR	OFF	OFF	2025/05/22 06:58 AM

		193" "4321921" "43878 48" "4425114" "443007 2" "4447221" "4457747" "4464167" "4466888" " 4482342" "4490135" "4 530691" "4534863" "46 43714" "4647279" "465 5742" "4680025" "4684 361" "4692136" "47087 12" "4713176" "473408 9" "4740202" "4740313" "4755300" "4767396" " 4795419" "4795448" "4 806247" "4806252" "48 08307" "4850995" "486 9812" "4871462" "4876 013" "4889524" "49118 33" "4934995" "494054 3" "4943273" "4968295" "4983156" "4983158" " 4985153" "4994188" "5 039401" "5045048" "50 98372" "5098373" "510 0372" "5100564" "5112 298" "5114396" "51356 67" "5141486" "514729 0" "5154716" "5174894" "5194145" "5217426" " 5217427" "5234403" "5 254248" "5273517" "52 77701" "5298016" "529 8171" "5300060" "5316 540" "5318511" "53185 12" "5348533" "536854 2" "5368555" "5386734" "5387174" "5387187" " 5403272" "5405308" "5 417650" "5431814" "54 37598" "5437624" "546 2667" "5470483" "5484 396" "5494592" "55056 85" "5514070" "554306 2" "5551941" "5585007" "5607579" "5649903" " 5651766" "5656163" "5 665061" "5712798" "57 28060" "5733253" "573 3446" "5733545" "5738 792" "5762791" "57796 60" "5783085" "579235 1" "5849203" "5882289" "5906589" "5919125" " 5964724" "5970432" "5 980760" "6007725" "60 59979" "6207063" "623 4989" "6296602" "6464 624" "6497676" "65583 07" "6623443" "674319				
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L587	2	2" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094").PN. ("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L588	18	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L589	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L590	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L591	9	"20120175313"	(USPAT)	OR	OFF	OFF	2025/05/22 06:58 AM
L592	15	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L593	9	L23 and prim\$3	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L594	0	(10/302682).APP.	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L595	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	2025/05/22 06:58 AM
L596	209	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L597	1016	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L598	236	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L599	3	((US-20030125881-A1).did. AND PGPB.dbnm.) OR ((US-10758652-B2 OR US-6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/05/22 06:58 AM
L600	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/05/22 06:58 AM
L601	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM
L602	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/05/22 06:58 AM

L603	20	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO)); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM
L604	200	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "3489145" "3565330" "3655058" "3737096" "3774840" "3987961" "4007871" "4010894" "4014497" "4040965" "4056224" "4082217" "4086924" "4140268" "4142670" "4151844" "4197847" "4285464" "4300717" "4303193" "4321921" "4387848" "4425114" "4430072" "4447221" "4457747" "4464167" "4466888" "4482342" "4490135" "4530691" "4534863" "4643714" "4647279" "4655742" "4680025" "4684361" "4692136" "4708712" "4713176" "4734089" "4740202" "4740313" "4755300" "4767396" "4795419" "4795448" "4806247" "4806252" "4808307" "4850995" "4869812" "4871462" "4876013" "4889524" "4911833" "4934995" "4940543" "4943273" "4968295" "4983156" "4983158" "4985153" "4994188" "5039401" "5045048" "5098372" "5098373" "5100372" "5100564" "5112298" "5114396" "5135667" "5141486" "5147290" "5154716" "5174894" "5194145" "5217426" "5217427" "5234403" "5254248" "5273517" "5277701" "5298016" "5298171" "5300060")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/05/22 06:58 AM

L605	0	"5316540" "5318511" "5318512" "5348533" "5368542" "5368555" "5386734" "5387174" "5387187" "5403272" "5405308" "5417650" "5431814" "5437598" "5437624" "5462667" "5470483" "5484396" "5494592" "5505685" "5514070" "5543062" "5551941" "5585007" "5607579" "5649903" "5651766" "5656163" "5665061" "5712798" "5728060" "5733253" "5733446" "5733545" "5738792" "5762791" "5779660" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094" "9283316" "10758652" "20010000185" "20010027156" "20020043492" "20020062100" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm.	(US-PGPUB; USPAT;	OR	ON	ON	2025/05/22
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L606	703	hematocrit of the donor".clm. ragusa.in.	USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT) (US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	06:58 AM 2025/05/22 06:58 AM
L607	20	L143 AND (hematocrit AND "total blood volume")	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM
L608	3	L143 AND (hematocrit AND "total blood volume").clm.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM
L609	36	"10758652"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM
L610	26	L143 AND (index).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM
L611	21	"10980826"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM
L612	20	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM

L613	8	"12186474"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO)); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM
L614	214	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "3489145" "3565330" "3655058" "3737096" "3774840" "3987961" "4007871" "4010894" "4014497" "4040965" "4056224" "4082217" "4086924" "4140268" "4142670" "4151844" "4197847" "4285464" "4300717" "4303193" "4321921" "4387848" "4425114" "4430072" "4447221" "4457747" "4464167" "4466888" "4482342" "4490135" "4530691" "4534863" "4643714" "4647279" "4655742" "4680025" "4684361" "4692136" "4708712" "4713176" "4734089" "4740202" "4740313" "4755300" "4767396" "4795419" "4795448" "4806247" "4806252" "4808307" "4850995" "4869812" "4871462" "4876013" "4889524" "4911833" "4934995" "4940543" "4943273" "4968295" "4983156" "4983158" "4985153" "4994188" "5039401" "5045048" "5098372" "5098373" "5100372" "5100564" "5112298" "5114396" "5135667" "5141486" "5147290" "5154716" "5174894" "5194145" "5217426" "5217427" "5234403" "5254248" "5273517" "5277701" "5298016" "5298171" "5300060")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/05/22 06:58 AM

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		"20140039373" "20140100507" "20140356851" "20180344910" "20200261630" "20200345924" "20210205509" "20230001059").pn. OR ("12186474").urpn. AND (PGPB USPT USOC).dbnm.					
L615	0	L151 AND safe.clm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/05/22 06:58 AM
L616	7	L151 AND mass.clm.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/05/22 06:58 AM
L617	95	L151 AND weight	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/05/22 06:58 AM
L618	0	"calculating a donor total blood volume based, at least in part, on a weight AND a height of a donor".clm.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/05/22 06:58 AM

PE2E SEARCH - Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
N1	0	"calculating a donor total blood volume based, at least in part, on a weight AND a height of a donor".clm.	(US-PGPUB; USPAT)	OR	ON	ON	2025/05/22 06:58 AM



UNITED STATES
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TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING REJECTION OVER A PRIOR PATENT

APPLICATION #	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET #
19077384	03/12/2025	Michael Ragusa	130670-80106

Title of Invention

SYSTEM AND METHOD FOR COLLECTING PLASMA



Filing of terminal disclaimer does not obviate requirement for response under 37 CFR 1.111 to outstanding Office Action



This electronic Terminal Disclaimer is not being used for a Joint Research Agreement.

Owner	Percent interest
Haemonetics Corporation	100%
Total	100%

The owner(s) of percent interest listed above in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of any patent granted on pending reference Application Number(s)

Application #	Filing Date
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as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and any patent granted on the reference application are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term of any patent granted on said reference application, "as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application," in the event that any such patent granted on the pending reference application: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as shortened by any terminal disclaimer filed prior to its grant.

The owner(s) of percent interest listed above in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of prior patent number(s)

Patent #

12186474

as the term of said prior patent is presently shortened by any terminal disclaimer. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the prior patent are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term of the prior patent, "as the term of said prior patent is presently shortened by any terminal disclaimer," in the event that said prior patent later:

- expires for failure to pay a maintenance fee;
- is held unenforceable;
- is found invalid by a court of competent jurisdiction;
- is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321;
- has all claims canceled by a reexamination certificate;
- is reissued; or
- is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.



Terminal disclaimer fee under 37 CFR 1.20(d) included with Electronic Terminal Disclaimer request.

Applicant claims the following entity status:

Regular Undiscounted

I hereby declare that all statements made herein of my own knowledge are true and that all statemnts made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

I certify, in accordance with 37 CFR 1.4(d)(4) that I am: An attorney or agent registered to practice before the Patent and Trademark Office who is of record in this application

Signature	Name	Registration #
/Jonathan Lovely/	Jonathan Lovely	60821

* Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner). Form PTO/SB/96 may be used for making this certification. See MPEP 324.



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ELECTRONIC PAYMENT RECEIPT

APPLICATION # 19/077,384	RECEIPT DATE / TIME 05/07/2025 01:06:31 PM Z ET	ATTORNEY DOCKET # 130670-80106
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Title of Invention

SYSTEM AND METHOD FOR COLLECTING PLASMA

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	8047	FILED BY	Jonathan Lovely
PATENT CENTER #	70327304	AUTHORIZED BY	Jonathan Lovely
CUSTOMER #	86738	FILING DATE	03/12/2025
CORRESPONDENCE ADDRESS	-	FIRST NAMED INVENTOR	Michael Ragusa

Payment Information

PAYMENT METHOD DA / 504876	PAYMENT TRANSACTION ID E202557D06466365	PAYMENT AUTHORIZED BY Jonathan Lovely
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FEE CODE	DESCRIPTION	ITEM PRICE(\$)	QUANTITY	ITEM TOTAL(\$)
1814	STATUTORY DISCLAIMER, INCLUDING TERMINAL DISCLAIMER	183.00	1	183.00
TOTAL AMOUNT:				\$183.00

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C.

Terumo v. Haemonetics - PGR2025-00077
Petitioner Terumo Exhibit 1022-0133

371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



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APPROVAL LETTER

APPLICATION #	FILING DATE	APPLICANT/PATENT UNDER REEXAMINATION
19/077,384	03/12/2025	Michael Ragusa

Title of Invention

SYSTEM AND METHOD FOR COLLECTING PLASMA

Electronic terminal disclaimer filed on 05/07/2025



Approved

This patent is subject to a Terminal Disclaimer

Approved / Disapproved by: Electronic Terminal Disclaimer automatically approved



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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #
19/077,384

RECEIPT DATE / TIME
05/07/2025 01:06:31 PM Z ET

ATTORNEY DOCKET #
130670-80106

Title of Invention

SYSTEM AND METHOD FOR COLLECTING PLASMA

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	8047	FILED BY	Jonathan Lovely
PATENT CENTER #	70327304	FILING DATE	03/12/2025
CUSTOMER #	86738	FIRST NAMED INVENTOR	Michael Ragusa
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Jonathan Lovely

Documents

TOTAL DOCUMENTS: 2

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
petition-request.pdf	3	Terminal Disclaimer-Filed (Electronic)	44 KB
grantLetter.pdf	1	Terminal Disclaimer-Electronic- Approved	18 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
petition-request.pdf	D9A54FA88D266E2BDBA69DF62996E253BEEE8BA2CE89CA38 381F0755D972497FA5266CF40AAE52DD778AB21C3FD458D81 75032617DC382E1547CAB6B1F9A9FC1
grantLetter.pdf	8685F7FA8F7807826C3C41FFF13271C612ED8F41ED9FD10C7

943910A52F583994D92A7054ABB6E150AF9300AADAFB11306
8E521497632C74DBCED12C77133BA9

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Utility Application of:
Haemonetics Corporation

Application No.: 19/077,384

Confirmation No.: 8047

Filed: March 12, 2025

Art Unit: 3799

For: **SYSTEM AND METHOD FOR COLLECTING
PLASMA**

Examiner: L. R. Deak

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT IN RESPONSE TO NON-FINAL OFFICE ACTION UNDER 37 C.F.R. § 1.111

Dear Commissioner:

INTRODUCTORY COMMENTS

In response to the Office Action dated April 25, 2025, please amend the above-identified U.S. patent application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 9 of this paper.

AMENDMENTS TO THE CLAIMS

The following **Listing of Claims** will replace all prior versions, and listing, of claims in the application.

Listing of Claims

1. (Original) A method for collecting plasma comprising:

calculating a donor total blood volume based, at least in part, on a weight and a height of a donor;

calculating a target plasma amount to collect based, at least in part, on the calculated donor total blood volume and a hematocrit of the donor, the target plasma amount to collect tailored to the donor;

withdrawing whole blood from the donor through a venous-access device and a first line, the first line connected to a blood component separation device of a blood processing system, the blood processing system having a controller configured to stop collecting plasma when the target plasma amount to collect has been collected into a plasma collection container;

introducing anticoagulant into the withdrawn whole blood through an anticoagulant line;

separating the withdrawn whole blood into a plasma component and at least a second blood component; and

collecting the plasma component from the blood component separation device into the plasma collection container until the target plasma amount to collect is reached in the plasma collection container.

2. (Original) The method according to claim 1, further comprising:

calculating the donor's body mass index based, at least in part on the weight and the height of the donor, the target plasma amount to collect calculated based, at least in part, on the donor's body mass index.

3. (Original) The method according to claim 1, wherein the calculated target plasma amount to collect is an optimized safe amount to be collected from the donor.

4. (Original) The method according to claim 1, further comprising:

returning, after collecting at least a portion of the target plasma amount to collect, the contents of the blood component separation device to the donor through the first line.

5. (Original) The method according to claim 1, wherein the target plasma amount to collect is a target amount of pure plasma to collect.

6. (Original) The method according to claim 1, wherein the target plasma amount to collect is a target amount of anticoagulated plasma to collect.

7. (Original) The method according to claim 1, further comprising:

monitoring an amount of plasma component collected within the plasma collection container.

8. (Original) A system for collecting plasma comprising:

a venous-access device for drawing whole blood from a donor and returning blood components to the donor;

a blood component separation device for separating the drawn whole blood into a plasma component and at least a second blood component, the blood component separation device having an outlet and being configured to send the plasma component to a plasma collection container;

a first line fluidly connected to the venous-access device and configured to transport drawn whole blood to the blood component separation device and return fluid within the blood component separation device to the donor, the flow through the first line being controlled by a first pump;

an anticoagulant line connected to an anticoagulant source, the anticoagulant line configured to introduce anticoagulant into the drawn whole blood; and

a controller configured to control the operation of the blood component separation device and the first pump, the controller configured to calculate a target plasma amount to collect based, at least in part, on the donor's total blood volume and a hematocrit of the donor, the donor's total blood volume based, at least in part, on a weight and height of the donor, the target plasma amount to collect tailored to the donor.

9. (Original) The system according to claim 8, wherein the controller is further configured to stop collecting plasma when the target amount of plasma to collect has been collected into the plasma collection container.

10. (Original) The system according to claim 8, wherein the controller is further configured to:

calculate the donor's body mass index based, at least in part on the weight and height of the donor, the target plasma amount to collect calculated based, at least in part, on the donor's body mass index.

11. (Original) The system according to claim 8, wherein the controller is further configured to calculate the donor's total blood volume.

12. (Original) The system according to claim 8, wherein the calculated target plasma amount to collect is an optimized safe amount to be collected from the donor.

13. (Original) The system according to claim 8, wherein the controller is further configured to:

return, after collecting at least a portion of the target plasma amount to collect, the contents of the blood component separation device to the donor through the first line.

14. (Original) The system according to claim 8, wherein the target plasma amount to collect is a target amount of pure plasma to collect or a target amount of anticoagulated plasma to collect.

15. (Original) A method for collecting plasma comprising:

determining individual characteristics of a donor, the individual characteristics of the donor including a weight, a height and a hematocrit of the donor;

calculating a donor total blood volume based, at least in part, on the weight and height of the donor;

calculating a target plasma amount to collect based, at least in part, on the calculated donor total blood volume and the hematocrit of the donor, the target plasma amount to collect being tailored to the individual characteristics of the donor;

withdrawing whole blood from the donor through a venous-access device and a first line, the first line connected to a blood component separation device;

introducing anticoagulant into the withdrawn whole blood through an anticoagulant line;

separating the withdrawn whole blood into a plasma component and at least a second blood component; and

collecting the plasma component from the blood component separation device and into a plasma collection container.

16. (Original) The method according to claim 15, further comprising:

calculating the donor's body mass index based, at least in part, on the weight and height of the donor, the target plasma amount to collect calculated based, at least in part, on the donor's body mass index.

17. (Original) The method according to claim 15, further comprising:

returning, after collecting at least a portion of the target plasma amount to collect, the contents of the blood component separation device to the donor through the first line.

18 (Original) The method according to claim 15, wherein the target plasma amount to collect is a target amount of pure plasma to collect.

19. (Original) The method according to claim 15, wherein the target plasma amount to collect is a target amount of anticoagulated plasma to collect.

20. (Original) The method according to claim 15, wherein the target plasma amount to collect is an optimized safe amount to be collected from the donor.

21. (Original) The method according to claim 15, further comprising:

stopping the collection of the plasma component from the blood component separation device into the plasma collection container when the target plasma amount to collect is reached in the plasma collection container.

22. (Original) The method according to claim 15, wherein the blood component separation device is part of a blood processing system, the blood processing system having a controller configured to stop collecting the plasma component when the target plasma amount to collect has been collected into the plasma collection container.

23. (Original) A system for collecting plasma comprising:

a venous-access device for drawing whole blood from a donor and returning blood components to the donor;

a blood component separation device for separating the drawn whole blood into a plasma component and at least a second blood component, the blood component separation device having an outlet and being configured to send the plasma component to a plasma collection container;

a first line fluidly connected to the venous-access device and configured to transport drawn whole blood to the blood component separation device and return fluid within the blood component separation device to the donor, the flow through the first line being controlled by a first pump;

an anticoagulant line connected to an anticoagulant source, the anticoagulant line configured to introduce anticoagulant into the drawn whole blood; and

a controller configured to control the operation of the blood component separation device and the first pump, the controller configured to (1) receive individual characteristics of the donor, the individual characteristics including a weight, height, and hematocrit of the donor, and (2) calculate a target plasma amount to collect based, at least in part, on the donor's total blood volume and a hematocrit of the donor, the donor's total blood volume based, at least in part, on the weight and height of the donor, the target plasma amount to collect being tailored to the individual characteristics of the donor.

24. (Original) The system of claim 23, wherein the controller is further configured to calculate the donor's total blood volume.

25. (Original) The system according to claim 23, wherein the controller is further configured to stop collecting the plasma component when the target amount of plasma to collect has been collected into the plasma collection container.

26. (Original) The system according to claim 23, wherein the controller is further configured to:

calculate the donor's body mass index based, at least in part on the weight and height of the donor, the target plasma amount to collect calculated based, at least in part, on the donor's body mass index.

27. (Original) The system according to claim 23, wherein the controller is further configured to:

return, after collecting at least a portion of the target plasma amount to collect, the contents of the blood component separation device to the donor through the first line.

28. (Original) The system according to claim 23, wherein the target plasma amount to collect is a target amount of pure plasma to collect or a target amount of anticoagulated plasma to collect.

29. (Original) The system according to claim 23, wherein the target plasma amount to collect is an optimized safe amount to be collected from the donor.

30. (Original) The system according to claim 23, further comprising:

a plasma collection container weight sensor configured to monitor a volume or weight of plasma component collected within the plasma collection container.

REMARKS

Applicants would like to thank the examiner for the review of the present application. Applicants request reconsideration of the pending claims in view of the following remarks. Applicant has not made any amendments herein. Claims 1-30 are currently pending in the application.

Double Patenting

The office action rejects claims 1, 3-9, 11-15, 17, 20-25 and 27-29 on the grounds of nonstatutory double patenting as being unpatentable over claims 15, 16, and 20-25 of U.S. Patent No. 12,186,474. The office action also rejects claims 2, 10, 16 and 26 on the grounds of nonstatutory double patenting as being unpatentable over claims 15, 16, and 20-25 of U.S. Patent No. 12,186,474 in view of claims 7 and 22 of U.S. Patent No. 10,792,416. Lastly, the office action rejects claim 30 on the grounds of nonstatutory double patenting as being unpatentable over claims 15, 16, and 20-23 of U.S. Patent No. 12,186,474 in view of U.S. Publication No. 2012/0175313. To expedite prosecution and per our conversation with Examiner Deak on May 7, 2025, Applicant files herewith a terminal disclaimer with respect to U.S. Patent No. 12,186,474. Accordingly, Applicant believes that these rejections are now moot.

CONCLUSION

It is believed that the application is now in order for allowance and Applicant respectfully requests that a notice of allowance be issued. Applicant does not believe that any extension of time is required. However, if an extension of time is required, please charge the associated fee and any additional fees required by this paper or credit any overpayment to deposit account number 50-4876. Applicants also request that the examiner contact applicant's attorney, Jonathan C. Lovely, if it will assist in processing this application through issuance.

Dated: May 7, 2025

Respectfully submitted,
Electronic signature: /Jonathan C. Lovely, Reg.
No. 60,821/
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UNITED STATES
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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #
19/077,384

RECEIPT DATE / TIME
05/07/2025 01:03:43 PM Z ET

ATTORNEY DOCKET #
130670-80106

Title of Invention

SYSTEM AND METHOD FOR COLLECTING PLASMA

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	8047	FILED BY	Jonathan Lovely
PATENT CENTER #	70327840	FILING DATE	03/12/2025
CUSTOMER #	86738	FIRST NAMED INVENTOR	Michael Ragusa
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Jonathan Lovely

Documents

TOTAL DOCUMENTS: 3

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
130670-80106 - Response to Non-Final Office Action due 72525.pdf	10	-	48 KB
130670-80106 - Response to Non-Final Office Action due 72525-A....pdf (1-1)	1	Amendment/Request for Reconsideration-After Non- Final Rejection	19 KB
130670-80106 - Response to Non-Final Office Action due 72525-CLM.pdf (2-8)	7	Claims	38 KB
130670-80106 - Response to Non-Final Office Action due 72525-REM.pdf (9-10)	2	Applicant Arguments/Remarks Made in an Amendment	22 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
130670-80106 - Response to Non-Final Office Action due 72525.pdf	0CA73F22554629EC3EF764B3FFD38AAE2975B50EEB48E5FB CEBE7FD4D09ED631A5D55DB715AAEBEBA68755A3D9C22C8 9A316611CD1739484BCDBAE4DC9495DC4
130670-80106 - Response to Non-Final Office Action due 72525-A....pdf	EE9D0A7A0A6A782A83C1707356C828628003E64B9ADA48315 A44A7C7C45DF6DC3956A9F09D3A61E8B14A84305BA67F67A EAE9CE6D6DEEAB31A3AD53C8705FD74
130670-80106 - Response to Non-Final Office Action due 72525-CLM.pdf	F8DE41603C28DF060D876E2FEB86457A0C042733F899778E7 91FE4B47FE3AD136FA3E9B7446DC91BA4684FE9A3337AA001 3ED597B307A6E430EF53AF3BC5A826
130670-80106 - Response to Non-Final Office Action due 72525-REM.pdf	1798857E81A8665B9E211945355E3A58E72375B2A7462D709B 7DA7A6D9A96A4FF489479F593B7E81803613D746122AE4C1C AF45E8A342853F1FC1312F89110C5

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

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New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD				Application or Docket Number 19/077,384		Filing Date 03/12/2025		☐ To be Mailed	
Substitute for Form PTO-875									
ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO									
APPLICATION AS FILED - PART I									
		(Column 1)		(Column 2)					
FOR		NUMBER FILED		NUMBER EXTRA		RATE (\$)		FEE (\$)	
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))		N/A		N/A		N/A			
☐ SEARCH FEE (37 CFR 1.16(k), (l), or (m))		N/A		N/A		N/A			
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))		N/A		N/A		N/A			
TOTAL CLAIMS (37 CFR 1.16(j))		minus 20 =	*			x \$200 =			
INDEPENDENT CLAIMS (37 CFR 1.16(h))		minus 3 =	*			x \$600 =			
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))		If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).							
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))									
* If the difference in column 1 is less than zero, enter "0" in column 2.						TOTAL			
APPLICATION AS AMENDED - PART II									
		(Column 1)		(Column 2)	(Column 3)				
AMENDMENT	05/07/2025	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)		ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(j))	* 30	Minus	** 30	= 0		x \$200 =		0
	Independent (37 CFR 1.16(h))	* 4	Minus	*** 4	= 0		x \$600 =		0
	☐ Application Size Fee (37 CFR 1.16(s))								
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))								
						TOTAL ADD'L FEE		0	
AMENDMENT		(Column 1)		(Column 2)	(Column 3)				
		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)		ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(j))	*	Minus	**	=		x \$0 =		
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x \$0 =		
	☐ Application Size Fee (37 CFR 1.16(s))								
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))									
						TOTAL ADD'L FEE			
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.						LIE			
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".						/ANITA JOHNSON/			
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".									
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.									

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
19/077,384	03/12/2025	Michael Ragusa	130670-80106	8047
86738	7590	04/25/2025	EXAMINER	
MCCARTER & ENGLISH, LLP BOSTON			DEAK, LESLIE R	
265 Franklin Street				
Boston, MA 02110			ART UNIT	PAPER NUMBER
			3799	
			NOTIFICATION DATE	DELIVERY MODE
			04/25/2025	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket@mccarter.com

DETAILED ACTION

Notice of Pre-AIA or AIA Status

1. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on nonstatutory double patenting provided the reference application or patent either is shown to be commonly owned with the examined application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. See

MPEP § 717.02 for applications subject to examination under the first inventor to file provisions of the AIA as explained in MPEP § 2159. See MPEP § 2146 *et seq.* for applications not subject to examination under the first inventor to file provisions of the AIA. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The filing of a terminal disclaimer by itself is not a complete reply to a nonstatutory double patenting (NSDP) rejection. A complete reply requires that the terminal disclaimer be accompanied by a reply requesting reconsideration of the prior Office action. Even where the NSDP rejection is provisional the reply must be complete. See MPEP § 804, subsection I.B.1. For a reply to a non-final Office action, see 37 CFR 1.111(a). For a reply to final Office action, see 37 CFR 1.113(c). A request for reconsideration while not provided for in 37 CFR 1.113(c) may be filed after final for consideration. See MPEP §§ 706.07(e) and 714.13.

The USPTO Internet website contains terminal disclaimer forms which may be used. Please visit www.uspto.gov/patent/patents-forms. The actual filing date of the application in which the form is filed determines what form (e.g., PTO/SB/25, PTO/SB/26, PTO/AIA/25, or PTO/AIA/26) should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to www.uspto.gov/patents/apply/applying-online/eterminal-disclaimer.

3. Claims 1, 3-9, 11-15, 17, 20-25, 27-29 are rejected on the ground of nonstatutory double patenting as being unpatentable over claims 15, 16, 20-25 of U.S. Patent

No.12,186,474 to Ragusa. Although the claims at issue are not identical, they are not patentably distinct from each other for the following reasons:

With regard to claims 1, 4, 7, 15, 17, 21, 22 Ragusa claims a system for collecting plasma comprising a controller that uses a donor's weight, height, hematocrit, and total blood volume to calculate a target volume of plasma for collection (see claim 9, "determine a target volume...based *at least* in part on...the donor's total blood volume" emphasis added). The apparatus comprises a needle to withdraw blood from a donor, a blood separator to separate out plasma from a second blood component and return the second component to the donor, an anticoagulant line for introduction of anticoagulant, wherein the controller is programmed to collect plasma into a container until the collection target has been reached, which necessarily entails monitoring the procedure (see claims 15, 20-22). Ragusa's claimed apparatus is designed, configured, and programmed to perform the method claimed by Applicant, thereby anticipating Applicant's instantly claimed method.

With regard to claims 5, 6, 18, 19, Ragusa claims that the controller is programmed to collect the plasma until a target value of plasma product (anticoagulated plasma) or raw plasma (pure plasma) is collected (see claim 16).

With regard to claims 8, 9, 13, 14, 23, 25, 27, 28, Ragusa claims a venous access device, a blood separation device with an outlet connected to a plasma container, a donor line coupled to a first pump, an anticoagulant line connected to an anticoagulant source, and a controller programmed to use total blood volume, hematocrit, and height and weight of the donor to determine the target plasma amount

(plasma product or raw plasma) based on donor parameters, and collect until the target is reached, returning the second component to the donor (see claims 15, 16, 20-23).

With regard to claims 11, 24, see patented claim 23.

With regard to claims 3, 12, 20, and 29, whether or not a procedure is “safe” is a unpatentable mental step. The “safety” of a procedure is the result of patient physiology that occurs as part of a natural phenomenon, and is not eligible for patent protection (see *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 78, 101 U.S.P.Q.2d 1961, (2012).) Accordingly, the safety of the procedure does not patentably distinguish these claims from the cited prior art.

4. Claims 2, 10, 16, 26 are rejected on the ground of nonstatutory double patenting as being unpatentable over claims 15, 16, 20-25 of U.S. Patent No. 12,186,474 to Ragusa in view of claims 7, 22, of US Patent No. 10,792,416 to Ragusa. Although the claims at issue are not identical, they are not patentably distinct from each other for the following reasons:

With regard to claim 2, Ragusa claims a system for collecting plasma that mimics the instantly claimed method (see rejections above). Ragusa does not claim in the '474 patent a step of calculating a donor's body mass index (though the donor's height and weight, used to calculate BMI is used for calculations in claim 23). However, Ragusa '416 claims the step of calculating a donor's body mass index (see claims 7, 22). A person having ordinary skill at the time of filing would be motivated to use a donor's height and weight to calculate a BMI that is then used to calculate a total blood volume, since both calculations are claimed by Ragusa in the patented methods and systems.

5. Claim 30 is rejected on the ground of nonstatutory double patenting as being unpatentable over claims 15, 16, 20-23 of U.S. Patent No.12,186,474 to Ragusa in view of US 2012/0175313 to Barry, Jr. et al. Although the claims at issue are not identical, they are not patentably distinct from each other for the following reasons:

With regard to claim 30, Ragusa claims the elements of the instantly claimed system (see rejections above) with the exception of a weight sensor. Barry discloses an apheresis system with a weigh station 140 with weight sensors to determine the volume of fluid collected by the system (see ¶0055-0056). It would have been obvious to a person having ordinary skill in the art at the time of filing to add the weight sensors as disclosed by Barry to the apheresis apparatus as claimed by Ragusa, in order to determine the volume of fluid collected, as taught by Barry.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LESLIE R DEAK whose telephone number is (571)272-4943. The examiner can normally be reached Monday-Friday, 9am to 5:30pm.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Kish can be reached on 571-272-5554. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center is available to registered users. To file and manage patent submissions in Patent Center, visit: <https://patentcenter.uspto.gov>. Visit <https://www.uspto.gov/patents/apply/patent-center> for more information about Patent Center and <https://www.uspto.gov/patents/docx> for information about filing in DOCX format. For additional questions, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LESLIE R DEAK/
Primary Examiner, Art Unit 3799
22 April 2025

<i>Notice of References Cited</i>	Application/Control No. 19/077,384	Applicant(s)/Patent Under Reexamination Ragusa, Michael	
	Examiner LESLIE R DEAK	Art Unit 3799	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date YYYY-MM-DD	Name	CPC Classification	US Classification
*	A	US-20120175313-A1	2012-07-12	Barry, JR.; John W.	A61M1/362261	210/96.1
*	B	US-10792416-B2	2020-10-06	Ragusa, Michael	A61M1/3644	1/1
*	C	US-12186474-B2	2025-01-07	Ragusa, Michael	A61M1/385	1/1
	D					
	E					
	F					
	G					
	H					
	I					
	J					
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date YYYY-MM-DD	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title, Date, Publisher, Edition or Volume, Pertinent Pages
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in YYYY-MM-DD format are publication dates. Classifications may be US or foreign.

U.S. Patent and Trademark Office
PTO-892 (Rev. 11-2023)

Notice of References Cited

Part of Paper No. 20250416

<i>Search Notes</i> 	Application/Control No. 19/077,384	Applicant(s)/Patent Under Reexamination Ragusa, Michael
	Examiner LESLIE R DEAK	Art Unit 3799

CPC - Searched*		
Symbol	Date	Examiner
(A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.	10/28/2019	LRD
A61M1/029 A61M1/3672 A61M1/3693 A61M1/38 A61M2202/0415 A61M2230/207	11/05/2020	LRD

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
inventor name search, EAST BRS search, consulted foreign search report	10/28/2019	LRD
updated prior searches, consulted primary examiners	02/27/2020	LRD
updated prior searches	05/05/2020	LRD
consulted parent case, updated searches, ODP	11/06/2020	LRD
consulted parent cases, updated searches, ODP	04/30/2024	LRD
updated prior searches	08/27/2024	LRD
updated prior searches, ODP over parent cases	04/16/2025	LRD

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<i>Search Notes</i> 	Application/Control No. 19/077,384	Applicant(s)/Patent Under Reexamination Ragusa, Michael
	Examiner LESLIE R DEAK	Art Unit 3799

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
	"current value of the hematocrit of the donor".clm.	08/27/2024	LRD

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Docket No.: 130670-80106
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Utility Application of:
Haemonetics Corporation

Application No.: Not Yet Assigned

Confirmation No.: N/A

Filed: Concurrently Herewith

Art Unit: N/A

For: SYSTEM AND METHOD FOR COLLECTING
PLASMA

Examiner: Not Yet Assigned

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT (IDS)

Dear Commissioner:

Pursuant to 37 C.F.R. §§ 1.56, 1.97, and 1.98, the attention of the United States Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of the above-identified application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed within three months of the U.S. filing date (37 C.F.R. § 1.97(b)(1)).

In accordance with 37 C.F.R. § 1.98(a)(2)(ii), Applicant has not submitted copies of U.S. patents and U.S. patent applications.

In accordance with 37 C.F.R. § 1.98(d)(1) all of the references are not supplied because they were previously cited by or submitted to the Office in prior application numbers 18/606761 filed March 15, 2024, 17/205400 filed March 18, 2021, 16/931333 filed July 16, 2020, 15/793339 filed October 25, 2017, and 15/608183 filed May 30, 2017 and relied on in the above-identified application for an earlier effective filing date under 35 U.S.C. § 120.

The Examiner is advised that the following applications contain subject matter that may be related to the present application:

ME1 52398351v.1

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /L.R.D/

Terumo v. Haemonetics - PGR2025-00077
Petitioner Terumo Exhibit 1022-0162

Application No.: Not Yet Assigned

Docket No.: 130670-80106

U.S. Application	Filing Date	Publication No. / Patent No.	Status	Att. Docket No.
15/608,183	May 30, 2017	10,758,652	Issued	130670-08002
16/866,078	May 4, 2020	10,980,926	Issued	130670-08005
17/205,374	March 18, 2021	12,171,916	Issued	130670-08006
17/943,410	September 13, 2022	11,738,124	Issued	130670-08007
18/955,269	November 21, 2024		Pending	130670-08008
15/793,339	October 25, 2017	10,792,416	Issued	130670-80102
16/931,333	July 16, 2020	10,980,934	Issued	130670-80103
17/205,400	March 18, 2021	12,186,474	Issued	130670-80104
18/606,761	March 15, 2024	2024-0293604	Published	130670-80105

/LESLIE R DEAK/ (04/16/2025)

In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed as a representation that a search has been made. In accordance with 37 C.F.R. § 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that the information cited in this Information Disclosure Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

It is submitted that the Information Disclosure Statement is in compliance with 37 C.F.R. § 1.98, and the Examiner is respectfully requested to consider the listed references.

Applicant submits herewith \$800 of fee for filing an IDS that causes the cumulative number of applicant-provided or patent owner-provided items of information to exceed 200 in accordance with 37 C.F.R. § 1.17(v).

Applicant believes no fee is due with this submission.

Dated: March 12, 2025

Respectfully submitted,

Electronic signature: /Jonathan C. Lovely, Reg. No. 60,821/

Jonathan C. Lovely

Registration No.: 60,821

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Boston, Massachusetts 02110

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Attorney/Agent For Applicant

PE2E SEARCH - Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
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L51	11	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L52	183	("20010000185" "20020062100" "1025059" "1611725" "20010027156" "20020043492" "20020120227" "20030055375	(US-PGPUB; USPAT)	OR	OFF	OFF	2024/04/30 04:36 PM

		" 20030066807" 2003 0125881" 2003017515 0" 20040186409" 200 50209522" 200502357 33" 20060058167" 20 060155236" 20070112 289" 20080146993" 2 0120175313" 2014003 9373" 20140356851" 20180344921" 208777 8" 2661150" 2750107" 2792172" 3096283" 3145713" 3239136" 3 244362" 3244363" 34 09213" 3456875" 348 9145" 3565330" 3655 058" 3737096" 37748 40" 3987961" 400787 1" 4010894" 4014497" 4040965" 4056224" 4082217" 4086924" 4 140268" 4142670" 41 51844" 4197847" 428 5464" 4300717" 4303 193" 4321921" 43878 48" 4425114" 443007 2" 4447221" 4457747" 4464167" 4466888" 4482342" 4490135" 4 530691" 4534863" 46 43714" 4647279" 465 5742" 4680025" 4684 361" 4692136" 47087 12" 4713176" 473408 9" 4740202" 4740313" 4755300" 4767396" 4795419" 4795448" 4 806247" 4806252" 48 08307" 4850995" 486 9812" 4871462" 4876 013" 4889524" 49118 33" 4934995" 494054 3" 4943273" 4968295" 4983156" 4983158" 4985153" 4994188" 5 039401" 5045048" 50 98372" 5098373" 510 0372" 5100564" 5112 298" 5114396" 51356 67" 5141486" 514729 0" 5154716" 5174894" 5194145" 5217426" 5217427" 5234403" 5 254248" 5273517" 52 77701" 5298016" 529 8171" 5300060" 5316 540" 5318511" 53185 12" 5348533" 536854				
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		2" "5368555" "5386734" "5387174" "5387187" "5 5403272" "5405308" "5 417650" "5431814" "54 37598" "5437624" "546 2667" "5470483" "5484 396" "5494592" "55056 85" "5514070" "554306 2" "5551941" "5585007" "5607579" "5649903" "5 5651766" "5656163" "5 665061" "5712798" "57 28060" "5733253" "573 3446" "5733545" "5738 792" "5762791" "57796 60" "5783085" "579235 1" "5849203" "5882289" "5906589" "5919125" "5 5964724" "5970432" "5 980760" "6007725" "60 59979" "6207063" "623 4989" "6296602" "6464 624" "6497676" "65583 07" "6623443" "674319 2" "7115205" "7186231" "7270645" "7704454" "8 8628489" "8702637" "8 759094").PN.					
L53	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L54	11	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L55	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2024/04/30 04:36 PM
L56	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2024/04/30 04:36 PM
L57	5	"20120175313"	(USPAT)	OR	OFF	OFF	2024/04/30 04:36 PM
L58	13	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2024/04/30 04:36 PM
L59	9	L23 and prim\$3	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2024/04/30 04:36 PM
L60	0	(10/302682).APP.	(USPAT; USOCR)	OR	OFF	OFF	2024/04/30 04:36 PM
L61	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	2024/04/30 04:36 PM
L62	190	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L63	987	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM

L64	220	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L65	3	((US-20030125881-A1).did. AND PGPB.dbnm.) OR ((US-10758652-B2 OR US-6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/04/30 04:36 PM
L66	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/04/30 04:36 PM
L67	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L68	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/04/30 04:36 PM
L69	16	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2024/04/30 04:36 PM
L70	200	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "3489145" "3565330" "3655058" "3737096" "3774840" "3987961" "4007871" "4010894" "4014497" "4040965" "4056224" "4082217" "4086924" "4140268" "4142670" "4151844" "4197847" "4285464" "4300717" "4303193" "4321921" "4387848" "4425114" "4430072" "4447221" "4457747" "4464167" "4466888" "4482342" "4490135" "4530691" "4534863" "4643714" "4647279" "4655742" "4680025" "4684361" "4692136" "4708712" "4713176" "4734089"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/04/30 04:36 PM

		"4740202" "4740313"					
		"4755300" "4767396"					
		"4795419" "4795448"					
		"4806247" "4806252"					
		"4808307" "4850995"					
		"4869812" "4871462"					
		"4876013" "4889524"					
		"4911833" "4934995"					
		"4940543" "4943273"					
		"4968295" "4983156"					
		"4983158" "4985153"					
		"4994188" "5039401"					
		"5045048" "5098372"					
		"5098373" "5100372"					
		"5100564" "5112298"					
		"5114396" "5135667"					
		"5141486" "5147290"					
		"5154716" "5174894"					
		"5194145" "5217426"					
		"5217427" "5234403"					
		"5254248" "5273517"					
		"5277701" "5298016"					
		"5298171" "5300060"					
		"5316540" "5318511"					
		"5318512" "5348533"					
		"5368542" "5368555"					
		"5386734" "5387174"					
		"5387187" "5403272"					
		"5405308" "5417650"					
		"5431814" "5437598"					
		"5437624" "5462667"					
		"5470483" "5484396"					
		"5494592" "5505685"					
		"5514070" "5543062"					
		"5551941" "5585007"					
		"5607579" "5649903"					
		"5651766" "5656163"					
		"5665061" "5712798"					
		"5728060" "5733253"					
		"5733446" "5733545"					
		"5738792" "5762791"					
		"5779660" "5783085"					
		"5792351" "5849203"					
		"5882289" "5906589"					
		"5919125" "5964724"					
		"5970432" "5980760"					
		"6007725" "6059979"					
		"6207063" "6234989"					
		"6296602" "6464624"					
		"6497676" "6558307"					
		"6623443" "6743192"					
		"7115205" "7186231"					
		"7270645" "7704454"					
		"8628489" "8702637"					
		"8759094" "9283316"					
		"10758652"					
		"20010000185"					
		"20010027156"					

		"20020043492" "20020062100" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm.					
L71	0	"current value of the hematocrit of the donor".clm.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO)); EPO; JPO; DERWENT)	OR	ON	ON	2024/08/27 02:18 PM
L72	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L73	11	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415 and A61M2230/207).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L74	11	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L75	53	((A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L76	8	"20120175313"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L77	9	"20030125881"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L78	44	2009/0215602	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L79	15	"20090215602"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM

L80	2	L1 AND ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L81	12693	((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L82	2513	L10 and hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L83	7	"I11" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L84	6	"I10" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L85	16	"I10" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L86	60	((("RAGUSA") near3 ("Michael"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L87	11	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L88	183	("20010000185" "20020062100" "1025059" "1611725" "20010027156" "20020043492" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344921" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "348	(US-PGPUB; USPAT)	OR	OFF	OFF	2024/08/27 02:19 PM

		9145 "3565330 "3655 058 "3737096 "37748 40 "3987961 "400787 1 "4010894 "4014497" "4040965 "4056224 "4 4082217 "4086924 "4 140268 "4142670 "41 51844 "4197847 "428 5464 "4300717 "4303 193 "4321921 "43878 48 "4425114 "443007 2 "4447221 "4457747" "4464167 "4466888 "4 4482342 "4490135 "4 530691 "4534863 "46 43714 "4647279 "465 5742 "4680025 "4684 361 "4692136 "47087 12 "4713176 "473408 9 "4740202 "4740313" "4755300 "4767396 "4 4795419 "4795448 "4 806247 "4806252 "48 08307 "4850995 "486 9812 "4871462 "4876 013 "4889524 "49118 33 "4934995 "494054 3 "4943273 "4968295" "4983156 "4983158 "4 4985153 "4994188 "5 039401 "5045048 "50 98372 "5098373 "510 0372 "5100564 "5112 298 "5114396 "51356 67 "5141486 "514729 0 "5154716 "5174894" "5194145 "5217426 "5 5217427 "5234403 "5 254248 "5273517 "52 77701 "5298016 "529 8171 "5300060 "5316 540 "5318511 "53185 12 "5348533 "536854 2 "5368555 "5386734" "5387174 "5387187 "5 5403272 "5405308 "5 417650 "5431814 "54 37598 "5437624 "546 2667 "5470483 "5484 396 "5494592 "55056 85 "5514070 "554306 2 "5551941 "5585007" "5607579 "5649903 "5 5651766 "5656163 "5 665061 "5712798 "57 28060 "5733253 "573 3446 "5733545 "5738 792 "5762791 "57796				
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		60" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094").PN.					
L89	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L90	11	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L91	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L92	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L93	6	"20120175313"	(USPAT)	OR	OFF	OFF	2024/08/27 02:19 PM
L94	14	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L95	9	L23 and prim\$3	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L96	0	(10/302682).APP.	(USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L97	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L98	195	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L99	996	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L100	225	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L101	3	((US-20030125881-A1).did. AND PGPB.dbnm.) OR ((US-10758652-B2 OR US-6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/08/27 02:19 PM
L102	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR,	OR	ON	ON	2024/08/27 02:19 PM

			GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L103	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L104	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L105	16	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2024/08/27 02:19 PM
L106	200	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "3489145" "3565330" "3655058" "3737096" "3774840" "3987961" "4007871" "4010894" "4014497" "4040965" "4056224" "4082217" "4086924" "4140268" "4142670" "4151844" "4197847" "4285464" "4300717" "4303193" "4321921" "4387848" "4425114" "4430072" "4447221" "4457747" "4464167" "4466888" "4482342" "4490135" "4530691" "4534863" "4643714" "4647279" "4655742" "4680025" "4684361" "4692136" "4708712" "4713176" "4734089" "4740202" "4740313" "4755300" "4767396" "4795419" "4795448" "4806247" "4806252" "4808307" "4850995" "4869812" "4871462" "4876013" "4889524" "4911833" "4934995" "4940543" "4943273" "4968295" "4983156" "4983158" "4985153" "4994188" "5039401" "5045048" "5098372" "5098373" "5100372")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/08/27 02:19 PM

		"5100564" "5112298"					
		"5114396" "5135667"					
		"5141486" "5147290"					
		"5154716" "5174894"					
		"5194145" "5217426"					
		"5217427" "5234403"					
		"5254248" "5273517"					
		"5277701" "5298016"					
		"5298171" "5300060"					
		"5316540" "5318511"					
		"5318512" "5348533"					
		"5368542" "5368555"					
		"5386734" "5387174"					
		"5387187" "5403272"					
		"5405308" "5417650"					
		"5431814" "5437598"					
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		"5551941" "5585007"					
		"5607579" "5649903"					
		"5651766" "5656163"					
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		"8759094" "9283316"					
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		"20010000185"					
		"20010027156"					
		"20020043492"					
		"20020062100"					
		"20020120227"					
		"20030055375"					
		"20030066807"					
		"20030125881"					
		"20030175150"					
		"20040186409"					
		"20050209522"					
		"20050235733"					
		"20060058167"					
		"20060155236"					
		"20070112289"					
		"20080146993"					

		"20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm.					
L107	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L108	11	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415 and A61M2230/207).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L109	11	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L110	53	((A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L111	8	"20120175313"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L112	9	"20030125881"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L113	44	2009/0215602	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L114	15	"20090215602"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L115	2	L1 AND ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L116	12693	((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM

L117	2513	G01N15/042 OR G01N33/86).CPC.) L10 and hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L118	7	"I11" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L119	6	"I10" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L120	16	"I10" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L121	60	((("RAGUSA") near3 ("Michael"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L122	11	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L123	183	("20010000185" "20020 062100" "1025059" "16 11725" "20010027156" " "20020043492" "20020 120227" "20030055375 " "20030066807" "2003 0125881" "2003017515 0" "20040186409" "200 50209522" "200502357 33" "20060058167" "20 060155236" "20070112 289" "20080146993" "2 0120175313" "2014003 9373" "20140356851" "2 20180344921" "208777 8" "2661150" "2750107" "2792172" "3096283" "3 3145713" "3239136" "3 244362" "3244363" "34 09213" "3456875" "348 9145" "3565330" "3655 058" "3737096" "37748 40" "3987961" "400787 1" "4010894" "4014497" "4040965" "4056224" "4 4082217" "4086924" "4 140268" "4142670" "41 51844" "4197847" "428 5464" "4300717" "4303 193" "4321921" "43878 48" "4425114" "443007 2" "4447221" "4457747" "4464167" "4466888" "4 4482342" "4490135" "4 530691" "4534863" "46 43714" "4647279" "465 5742" "4680025" "4684 361" "4692136" "47087 12" "4713176" "473408 9" "4740202" "4740313"	(US-PGPUB; USPAT)	OR	OFF	OFF	2024/08/27 02:19 PM

		<div> "4755300" "4767396" "4795419" "4795448" "4806247" "4806252" "4808307" "4850995" "4869812" "4871462" "4876013" "4889524" "4911833" "4934995" "4940543" "4943273" "4968295" "4983156" "4983158" "4985153" "4994188" "5039401" "5045048" "5098372" "5098373" "5100372" "5100564" "5112298" "5114396" "5135667" "5141486" "5147290" "5154716" "5174894" "5194145" "5217426" "5217427" "5234403" "5254248" "5273517" "5277701" "5298016" "5298171" "5300060" "5316540" "5318511" "5318512" "5348533" "5368542" "5368555" "5386734" "5387174" "5387187" "5403272" "5405308" "5417650" "5431814" "5437598" "5437624" "5462667" "5470483" "5484396" "5494592" "5505685" "5514070" "5543062" "5551941" "5585007" "5607579" "5649903" "5651766" "5656163" "5665061" "5712798" "5728060" "5733253" "5733446" "5733545" "5738792" "5762791" "5779660" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094").PN.</div>					
L124	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L125	11	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L126	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM

L127	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L128	6	"20120175313"	(USPAT)	OR	OFF	OFF	2024/08/27 02:19 PM
L129	14	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L130	9	L23 and prim\$3	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L131	0	(10/302682).APP.	(USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L132	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	2024/08/27 02:19 PM
L133	195	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L134	996	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L135	225	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L136	3	((US-20030125881-A1).did. AND PGPB.dbnm.) OR ((US- 10758652-B2 OR US- 6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/08/27 02:19 PM
L137	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2024/08/27 02:19 PM
L138	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L139	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2024/08/27 02:19 PM
L140	16	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2024/08/27 02:19 PM
L141	200	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/08/27 02:19 PM

		"3239136" "3244362"					
		"3244363" "3409213"					
		"3456875" "3489145"					
		"3565330" "3655058"					
		"3737096" "3774840"					
		"3987961" "4007871"					
		"4010894" "4014497"					
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		"4140268" "4142670"					
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		"4285464" "4300717"					
		"4303193" "4321921"					
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		"4466888" "4482342"					
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		"4534863" "4643714"					
		"4647279" "4655742"					
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		"4692136" "4708712"					
		"4713176" "4734089"					
		"4740202" "4740313"					
		"4755300" "4767396"					
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		"4983158" "4985153"					
		"4994188" "5039401"					
		"5045048" "5098372"					
		"5098373" "5100372"					
		"5100564" "5112298"					
		"5114396" "5135667"					
		"5141486" "5147290"					
		"5154716" "5174894"					
		"5194145" "5217426"					
		"5217427" "5234403"					
		"5254248" "5273517"					
		"5277701" "5298016"					
		"5298171" "5300060"					
		"5316540" "5318511"					
		"5318512" "5348533"					
		"5368542" "5368555"					
		"5386734" "5387174"					
		"5387187" "5403272"					
		"5405308" "5417650"					
		"5431814" "5437598"					
		"5437624" "5462667"					
		"5470483" "5484396"					
		"5494592" "5505685"					
		"5514070" "5543062"					
		"5551941" "5585007"					

		"5607579" "5649903" "5651766" "5656163" "5665061" "5712798" "5728060" "5733253" "5733446" "5733545" "5738792" "5762791" "5779660" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094" "9283316" "10758652" "20010000185" "20010027156" "20020043492" "20020062100" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm.					
L142	0	"current value of the hematocrit of the donor".clm.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2024/08/27 02:19 PM
L143	702	ragusa.in.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO;	OR	ON	ON	2025/04/14 03:59 PM

L144	20	L143 AND (hematocrit AND "total blood volume")	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/14 04:00 PM
L145	3	L143 AND (hematocrit AND "total blood volume").clm.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/14 04:01 PM
L146	36	"10758652"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/14 04:06 PM
L147	26	L143 AND (index).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/14 04:27 PM
L148	21	"10980826"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/14 04:41 PM
L149	20	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/14 04:42 PM
L150	8	"12186474"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/15 01:50 PM
L151	214	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/04/16 10:28 AM

		"3244363" "3409213"					
		"3456875" "3489145"					
		"3565330" "3655058"					
		"3737096" "3774840"					
		"3987961" "4007871"					
		"4010894" "4014497"					
		"4040965" "4056224"					
		"4082217" "4086924"					
		"4140268" "4142670"					
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		"4303193" "4321921"					
		"4387848" "4425114"					
		"4430072" "4447221"					
		"4457747" "4464167"					
		"4466888" "4482342"					
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		"4647279" "4655742"					
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		"5298171" "5300060"					
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		"5318512" "5348533"					
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		"5386734" "5387174"					
		"5387187" "5403272"					
		"5405308" "5417650"					
		"5431814" "5437598"					
		"5437624" "5462667"					
		"5470483" "5484396"					
		"5494592" "5505685"					
		"5514070" "5543062"					
		"5551941" "5585007"					
		"5607579" "5649903"					

L152	0	"5651766" "5656163" "5665061" "5681273" "5712798" "5728060" "5733253" "5733446" "5733545" "5738792" "5762791" "5779660" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6200287" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8075468" "8454548" "8628489" "8702637" "8759094" "9283316" "10758652" "10792416" "10980926" "20010000185" "20010027156" "20020043492" "20020062100" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050131334" "20050209522" "20050235733" "20060058167" "20060155236" "20060226086" "20070112289" "20080146993" "20090215602" "20120165685" "20120175313" "20140039373" "20140100507" "20140356851" "20180344910" "20200261630" "20200345924" "20210205509" "20230001059").pn. OR ("12186474").urpn. AND (PGPB USPT USOC).dbnm.	(US-PGPUB; USPAT;	OR	ON	ON	2025/04/16
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L153	7	L151 AND mass.clm.	USOCR) (US-PGPUB; USPAT; USOCR)	OR	ON	ON	10:29 AM 2025/04/16 10:29 AM
L154	95	L151 AND weight	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/04/16 11:01 AM
L155	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L156	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415 and A61M2230/207).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L157	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L158	59	((A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L159	11	"20120175313"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L160	11	"20030125881"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L161	65	2009/0215602	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L162	17	"20090215602"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L163	2	L1 AND ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L164	13044	((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM

L165	2569	L10 and hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L166	9	"I11" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L167	8	"I10" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L168	22	"I10" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L169	64	((("RAGUSA") near3 ("Michael"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L170	17	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L171	183	("20010000185" "20020062100" "1025059" "1611725" "20010027156" "20020043492" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344921" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "3489145" "3565330" "3655058" "3737096" "3774840" "3987961" "4007871" "4010894" "4014497" "4040965" "4056224" "4082217" "4086924" "4140268" "4142670" "4151844" "4197847" "4285464" "4300717" "4303193" "4321921" "4387848" "4425114" "4430072" "4447221" "4457747" "4464167" "4466888" "4482342" "4490135" "4530691" "4534863" "4643714" "4647279" "4655742" "4680025" "4684361" "4692136" "4708712" "4713176" "4734089" "4740202" "4740313" "4755300" "4767396" "4795419" "4795448" "4806247" "4806252" "48	(US-PGPUB; USPAT)	OR	OFF	OFF	2025/04/16 11:27 AM

		08307" 4850995" 486 9812" 4871462" 4876 013" 4889524" 49118 33" 4934995" 494054 3" 4943273" 4968295" 4983156" 4983158" 4985153" 4994188" 5 039401" 5045048" 50 98372" 5098373" 510 0372" 5100564" 5112 298" 5114396" 51356 67" 5141486" 514729 0" 5154716" 5174894" 5194145" 5217426" 5217427" 5234403" 5 254248" 5273517" 52 77701" 5298016" 529 8171" 5300060" 5316 540" 5318511" 53185 12" 5348533" 536854 2" 5368555" 5386734" 5387174" 5387187" 5403272" 5405308" 5 417650" 5431814" 54 37598" 5437624" 546 2667" 5470483" 5484 396" 5494592" 55056 85" 5514070" 554306 2" 5551941" 5585007" 5607579" 5649903" 5651766" 5656163" 5 665061" 5712798" 57 28060" 5733253" 573 3446" 5733545" 5738 792" 5762791" 57796 60" 5783085" 579235 1" 5849203" 5882289" 5906589" 5919125" 5964724" 5970432" 5 980760" 6007725" 60 59979" 6207063" 623 4989" 6296602" 6464 624" 6497676" 65583 07" 6623443" 674319 2" 7115205" 7186231" 7270645" 7704454" 8628489" 8702637" 8 759094").PN.					
L172	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L173	17	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L174	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L175	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM

L176	9	"20120175313"	(USPAT)	OR	OFF	OFF	2025/04/16 11:27 AM
L177	15	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L178	9	L23 and prim\$3	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L179	0	(10/302682).APP.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L180	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L181	209	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L182	1014	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L183	233	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L184	3	((US-20030125881- A1).did. AND PGPB.dbnm.) OR ((US- 10758652-B2 OR US- 6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/04/16 11:27 AM
L185	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/04/16 11:27 AM
L186	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L187	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L188	20	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L189	200	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/04/16 11:27 AM

		"3456875" "3489145"					
		"3565330" "3655058"					
		"3737096" "3774840"					
		"3987961" "4007871"					
		"4010894" "4014497"					
		"4040965" "4056224"					
		"4082217" "4086924"					
		"4140268" "4142670"					
		"4151844" "4197847"					
		"4285464" "4300717"					
		"4303193" "4321921"					
		"4387848" "4425114"					
		"4430072" "4447221"					
		"4457747" "4464167"					
		"4466888" "4482342"					
		"4490135" "4530691"					
		"4534863" "4643714"					
		"4647279" "4655742"					
		"4680025" "4684361"					
		"4692136" "4708712"					
		"4713176" "4734089"					
		"4740202" "4740313"					
		"4755300" "4767396"					
		"4795419" "4795448"					
		"4806247" "4806252"					
		"4808307" "4850995"					
		"4869812" "4871462"					
		"4876013" "4889524"					
		"4911833" "4934995"					
		"4940543" "4943273"					
		"4968295" "4983156"					
		"4983158" "4985153"					
		"4994188" "5039401"					
		"5045048" "5098372"					
		"5098373" "5100372"					
		"5100564" "5112298"					
		"5114396" "5135667"					
		"5141486" "5147290"					
		"5154716" "5174894"					
		"5194145" "5217426"					
		"5217427" "5234403"					
		"5254248" "5273517"					
		"5277701" "5298016"					
		"5298171" "5300060"					
		"5316540" "5318511"					
		"5318512" "5348533"					
		"5368542" "5368555"					
		"5386734" "5387174"					
		"5387187" "5403272"					
		"5405308" "5417650"					
		"5431814" "5437598"					
		"5437624" "5462667"					
		"5470483" "5484396"					
		"5494592" "5505685"					
		"5514070" "5543062"					
		"5551941" "5585007"					
		"5607579" "5649903"					
		"5651766" "5656163"					

		"5665061" "5712798" "5728060" "5733253" "5733446" "5733545" "5738792" "5762791" "5779660" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094" "9283316" "10758652" "20010000185" "20010027156" "20020043492" "20020062100" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm. ("20180344910").PN.					
L190	2		(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L191	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415 and A61M2230/207).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L192	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM

L193	59	((A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L194	11	"20120175313"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L195	11	"20030125881"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L196	65	2009/0215602	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L197	17	"20090215602"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L198	2	L1 AND ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L199	13044	((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L200	2569	L10 and hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L201	9	"I11" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L202	8	"I10" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L203	22	"I10" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L204	64	((("RAGUSA") near3 ("Michael"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L205	17	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L206	183	("20010000185" "20020062100" "1025059" "1611725" "20010027156" "20020043492" "20020120227" "20030055375	(US-PGPUB; USPAT)	OR	OFF	OFF	2025/04/16 11:27 AM

		" 20030066807" 2003 0125881" 2003017515 0" 20040186409" 200 50209522" 200502357 33" 20060058167" 20 060155236" 20070112 289" 20080146993" 2 0120175313" 2014003 9373" 20140356851" 20180344921" 208777 8" 2661150" 2750107" 2792172" 3096283" 3145713" 3239136" 3 244362" 3244363" 34 09213" 3456875" 348 9145" 3565330" 3655 058" 3737096" 37748 40" 3987961" 400787 1" 4010894" 4014497" 4040965" 4056224" 4082217" 4086924" 4 140268" 4142670" 41 51844" 4197847" 428 5464" 4300717" 4303 193" 4321921" 43878 48" 4425114" 443007 2" 4447221" 4457747" 4464167" 4466888" 4482342" 4490135" 4 530691" 4534863" 46 43714" 4647279" 465 5742" 4680025" 4684 361" 4692136" 47087 12" 4713176" 473408 9" 4740202" 4740313" 4755300" 4767396" 4795419" 4795448" 4 806247" 4806252" 48 08307" 4850995" 486 9812" 4871462" 4876 013" 4889524" 49118 33" 4934995" 494054 3" 4943273" 4968295" 4983156" 4983158" 4985153" 4994188" 5 039401" 5045048" 50 98372" 5098373" 510 0372" 5100564" 5112 298" 5114396" 51356 67" 5141486" 514729 0" 5154716" 5174894" 5194145" 5217426" 5217427" 5234403" 5 254248" 5273517" 52 77701" 5298016" 529 8171" 5300060" 5316 540" 5318511" 53185 12" 5348533" 536854				
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		2" "5368555" "5386734" "5387174" "5387187" "5 5403272" "5405308" "5 417650" "5431814" "54 37598" "5437624" "546 2667" "5470483" "5484 396" "5494592" "55056 85" "5514070" "554306 2" "5551941" "5585007" "5607579" "5649903" "5 5651766" "5656163" "5 665061" "5712798" "57 28060" "5733253" "573 3446" "5733545" "5738 792" "5762791" "57796 60" "5783085" "579235 1" "5849203" "5882289" "5906589" "5919125" "5 5964724" "5970432" "5 980760" "6007725" "60 59979" "6207063" "623 4989" "6296602" "6464 624" "6497676" "65583 07" "6623443" "674319 2" "7115205" "7186231" "7270645" "7704454" "8 8628489" "8702637" "8 759094").PN.					
L207	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L208	17	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L209	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L210	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L211	9	"20120175313"	(USPAT)	OR	OFF	OFF	2025/04/16 11:27 AM
L212	15	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L213	9	L23 and prim\$3	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L214	0	(10/302682).APP.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L215	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L216	209	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L217	1014	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM

L218	233	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L219	3	((US-20030125881-A1).did. AND PGPB.dbnm.) OR ((US-10758652-B2 OR US-6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/04/16 11:27 AM
L220	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/04/16 11:27 AM
L221	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L222	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L223	20	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L224	200	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "3489145" "3565330" "3655058" "3737096" "3774840" "3987961" "4007871" "4010894" "4014497" "4040965" "4056224" "4082217" "4086924" "4140268" "4142670" "4151844" "4197847" "4285464" "4300717" "4303193" "4321921" "4387848" "4425114" "4430072" "4447221" "4457747" "4464167" "4466888" "4482342" "4490135" "4530691" "4534863" "4643714" "4647279" "4655742" "4680025" "4684361" "4692136" "4708712" "4713176" "4734089"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/04/16 11:27 AM

		"4740202" "4740313"					
		"4755300" "4767396"					
		"4795419" "4795448"					
		"4806247" "4806252"					
		"4808307" "4850995"					
		"4869812" "4871462"					
		"4876013" "4889524"					
		"4911833" "4934995"					
		"4940543" "4943273"					
		"4968295" "4983156"					
		"4983158" "4985153"					
		"4994188" "5039401"					
		"5045048" "5098372"					
		"5098373" "5100372"					
		"5100564" "5112298"					
		"5114396" "5135667"					
		"5141486" "5147290"					
		"5154716" "5174894"					
		"5194145" "5217426"					
		"5217427" "5234403"					
		"5254248" "5273517"					
		"5277701" "5298016"					
		"5298171" "5300060"					
		"5316540" "5318511"					
		"5318512" "5348533"					
		"5368542" "5368555"					
		"5386734" "5387174"					
		"5387187" "5403272"					
		"5405308" "5417650"					
		"5431814" "5437598"					
		"5437624" "5462667"					
		"5470483" "5484396"					
		"5494592" "5505685"					
		"5514070" "5543062"					
		"5551941" "5585007"					
		"5607579" "5649903"					
		"5651766" "5656163"					
		"5665061" "5712798"					
		"5728060" "5733253"					
		"5733446" "5733545"					
		"5738792" "5762791"					
		"5779660" "5783085"					
		"5792351" "5849203"					
		"5882289" "5906589"					
		"5919125" "5964724"					
		"5970432" "5980760"					
		"6007725" "6059979"					
		"6207063" "6234989"					
		"6296602" "6464624"					
		"6497676" "6558307"					
		"6623443" "6743192"					
		"7115205" "7186231"					
		"7270645" "7704454"					
		"8628489" "8702637"					
		"8759094" "9283316"					
		"10758652"					
		"20010000185"					
		"20010027156"					

		"20020043492" "20020062100" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm.					
L225	0	"current value of the hematocrit of the donor".clm.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO)); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L226	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L227	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415 and A61M2230/207).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L228	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L229	59	((A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L230	11	"20120175313"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L231	11	"20030125881"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L232	65	2009/0215602	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L233	17	"20090215602"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM

L234	2	L1 AND ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L235	13044	((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L236	2569	L10 and hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L237	9	"I11" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L238	8	"I10" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L239	22	"I10" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L240	64	((("RAGUSA") near3 ("Michael"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L241	17	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L242	183	("20010000185" "20020062100" "1025059" "1611725" "20010027156" "20020043492" "20020120227" "20030055375" "20030066807" "20030125881" "20030175150" "20040186409" "20050209522" "20050235733" "20060058167" "20060155236" "20070112289" "20080146993" "20120175313" "20140039373" "20140356851" "20180344921" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "348	(US-PGPUB; USPAT)	OR	OFF	OFF	2025/04/16 11:27 AM

		9145 "3565330 "3655 058 "3737096 "37748 40 "3987961 "400787 1 "4010894 "4014497" "4040965 "4056224 "4 4082217 "4086924 "4 140268 "4142670 "41 51844 "4197847 "428 5464 "4300717 "4303 193 "4321921 "43878 48 "4425114 "443007 2 "4447221 "4457747" "4464167 "4466888 "4 4482342 "4490135 "4 530691 "4534863 "46 43714 "4647279 "465 5742 "4680025 "4684 361 "4692136 "47087 12 "4713176 "473408 9 "4740202 "4740313" "4755300 "4767396 "4 4795419 "4795448 "4 806247 "4806252 "48 08307 "4850995 "486 9812 "4871462 "4876 013 "4889524 "49118 33 "4934995 "494054 3 "4943273 "4968295" "4983156 "4983158 "4 4985153 "4994188 "5 039401 "5045048 "50 98372 "5098373 "510 0372 "5100564 "5112 298 "5114396 "51356 67 "5141486 "514729 0 "5154716 "5174894" "5194145 "5217426 "5 5217427 "5234403 "5 254248 "5273517 "52 77701 "5298016 "529 8171 "5300060 "5316 540 "5318511 "53185 12 "5348533 "536854 2 "5368555 "5386734" "5387174 "5387187 "5 5403272 "5405308 "5 417650 "5431814 "54 37598 "5437624 "546 2667 "5470483 "5484 396 "5494592 "55056 85 "5514070 "554306 2 "5551941 "5585007" "5607579 "5649903 "5 5651766 "5656163 "5 665061 "5712798 "57 28060 "5733253 "573 3446 "5733545 "5738 792 "5762791 "57796				
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		60" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094").PN.					
L243	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L244	17	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L245	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L246	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L247	9	"20120175313"	(USPAT)	OR	OFF	OFF	2025/04/16 11:27 AM
L248	15	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L249	9	L23 and prim\$3	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L250	0	(10/302682).APP.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L251	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L252	209	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L253	1014	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L254	233	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L255	3	((US-20030125881-A1).did. AND PGPB.dbnm.) OR ((US-10758652-B2 OR US-6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/04/16 11:27 AM
L256	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR,	OR	ON	ON	2025/04/16 11:27 AM

			GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L257	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L258	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L259	20	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L260	200	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713" "3239136" "3244362" "3244363" "3409213" "3456875" "3489145" "3565330" "3655058" "3737096" "3774840" "3987961" "4007871" "4010894" "4014497" "4040965" "4056224" "4082217" "4086924" "4140268" "4142670" "4151844" "4197847" "4285464" "4300717" "4303193" "4321921" "4387848" "4425114" "4430072" "4447221" "4457747" "4464167" "4466888" "4482342" "4490135" "4530691" "4534863" "4643714" "4647279" "4655742" "4680025" "4684361" "4692136" "4708712" "4713176" "4734089" "4740202" "4740313" "4755300" "4767396" "4795419" "4795448" "4806247" "4806252" "4808307" "4850995" "4869812" "4871462" "4876013" "4889524" "4911833" "4934995" "4940543" "4943273" "4968295" "4983156" "4983158" "4985153" "4994188" "5039401" "5045048" "5098372" "5098373" "5100372")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/04/16 11:27 AM

		"5100564" "5112298"					
		"5114396" "5135667"					
		"5141486" "5147290"					
		"5154716" "5174894"					
		"5194145" "5217426"					
		"5217427" "5234403"					
		"5254248" "5273517"					
		"5277701" "5298016"					
		"5298171" "5300060"					
		"5316540" "5318511"					
		"5318512" "5348533"					
		"5368542" "5368555"					
		"5386734" "5387174"					
		"5387187" "5403272"					
		"5405308" "5417650"					
		"5431814" "5437598"					
		"5437624" "5462667"					
		"5470483" "5484396"					
		"5494592" "5505685"					
		"5514070" "5543062"					
		"5551941" "5585007"					
		"5607579" "5649903"					
		"5651766" "5656163"					
		"5665061" "5712798"					
		"5728060" "5733253"					
		"5733446" "5733545"					
		"5738792" "5762791"					
		"5779660" "5783085"					
		"5792351" "5849203"					
		"5882289" "5906589"					
		"5919125" "5964724"					
		"5970432" "5980760"					
		"6007725" "6059979"					
		"6207063" "6234989"					
		"6296602" "6464624"					
		"6497676" "6558307"					
		"6623443" "6743192"					
		"7115205" "7186231"					
		"7270645" "7704454"					
		"8628489" "8702637"					
		"8759094" "9283316"					
		"10758652"					
		"20010000185"					
		"20010027156"					
		"20020043492"					
		"20020062100"					
		"20020120227"					
		"20030055375"					
		"20030066807"					
		"20030125881"					
		"20030175150"					
		"20040186409"					
		"20050209522"					
		"20050235733"					
		"20060058167"					
		"20060155236"					
		"20070112289"					
		"20080146993"					

		"20120175313" "20140039373" "20140356851" "20180344910" "20180344921").pn. AND (PGPB USPT USOC).dbnm.					
L261	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L262	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415 and A61M2230/207).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L263	14	((A61M1/029 and A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L264	59	((A61M1/3672 and A61M1/3693 and A61M1/38 and A61M2202/0415).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L265	11	"20120175313"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L266	11	"20030125881"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L267	65	2009/0215602	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L268	17	"20090215602"	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L269	2	L1 AND ((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR G01N15/042 OR G01N33/86).CPC.)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L270	13044	((A61M1/024 OR A61M1/029 OR A61M1/3672 OR A61M1/3693 OR A61M1/38 OR A61M2202/0415 OR A61M2230/207 OR G01N15/05 OR G01N2015/055 OR	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM

L271	2569	G01N15/042 OR G01N33/86).CPC.) L10 and hematocrit	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L272	9	"I11" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L273	8	"I10" and (hematocrit with anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L274	22	"I10" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L275	64	((("RAGUSA") near3 ("Michael"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L276	17	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L277	183	("20010000185" "20020 062100" "1025059" "16 11725" "20010027156" " "20020043492" "20020 120227" "20030055375 " "20030066807" "2003 0125881" "2003017515 0" "20040186409" "200 50209522" "200502357 33" "20060058167" "20 060155236" "20070112 289" "20080146993" "2 0120175313" "2014003 9373" "20140356851" "2 20180344921" "208777 8" "2661150" "2750107" "2792172" "3096283" "3 145713" "3239136" "3 244362" "3244363" "34 09213" "3456875" "348 9145" "3565330" "3655 058" "3737096" "37748 40" "3987961" "400787 1" "4010894" "4014497" "4040965" "4056224" "4 4082217" "4086924" "4 140268" "4142670" "41 51844" "4197847" "428 5464" "4300717" "4303 193" "4321921" "43878 48" "4425114" "443007 2" "4447221" "4457747" "4464167" "4466888" "4 4482342" "4490135" "4 530691" "4534863" "46 43714" "4647279" "465 5742" "4680025" "4684 361" "4692136" "47087 12" "4713176" "473408 9" "4740202" "4740313"	(US-PGPUB; USPAT)	OR	OFF	OFF	2025/04/16 11:27 AM

		"4755300" "4767396" "4795419" "4795448" "4806247" "4806252" "4808307" "4850995" "4869812" "4871462" "4876013" "4889524" "4911833" "4934995" "4940543" "4943273" "4968295" "4983156" "4983158" "4985153" "4994188" "5039401" "5045048" "5098372" "5098373" "5100372" "5100564" "5112298" "5114396" "5135667" "5141486" "5147290" "5154716" "5174894" "5194145" "5217426" "5217427" "5234403" "5254248" "5273517" "5277701" "5298016" "5298171" "5300060" "5316540" "5318511" "5318512" "5348533" "5368542" "5368555" "5386734" "5387174" "5387187" "5403272" "5405308" "5417650" "5431814" "5437598" "5437624" "5462667" "5470483" "5484396" "5494592" "5505685" "5514070" "5543062" "5551941" "5585007" "5607579" "5649903" "5651766" "5656163" "5665061" "5712798" "5728060" "5733253" "5733446" "5733545" "5738792" "5762791" "5779660" "5783085" "5792351" "5849203" "5882289" "5906589" "5919125" "5964724" "5970432" "5980760" "6007725" "6059979" "6207063" "6234989" "6296602" "6464624" "6497676" "6558307" "6623443" "6743192" "7115205" "7186231" "7270645" "7704454" "8628489" "8702637" "8759094").PN.					
L278	2	("20180344910").PN.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L279	17	"I15" and (hematocrit same anticoagulant)	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L280	1	("10758652").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM

L281	0	("20120175313").PN.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L282	9	"20120175313"	(USPAT)	OR	OFF	OFF	2025/04/16 11:27 AM
L283	15	("4713176" "6348156" "6875191" "7011761" "7087177" "7297272" "7708710" "8075468").PN. OR ("8852140").URPN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L284	9	L23 and prim\$3	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L285	0	(10/302682).APP.	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L286	2	"20140100507"	(USPAT; USOCR)	OR	OFF	OFF	2025/04/16 11:27 AM
L287	209	A61M1/024.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L288	1014	G01n15/05.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L289	233	G01n2015/055.cpc.	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L290	3	((US-20030125881- A1).did. AND PGPB.dbnm.) OR ((US- 10758652-B2 OR US- 6348156-B1).did. AND USPT.dbnm.)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/04/16 11:27 AM
L291	0	L30 AND touchscreen	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2025/04/16 11:27 AM
L292	0	touchscreen WITH plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L293	4	touchscreen SAME plasmapheresis	(US-PGPUB; USPAT; USOCR; DERWENT)	OR	OFF	OFF	2025/04/16 11:27 AM
L294	20	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L295	200	("1025059" "1611725" "2087778" "2661150" "2750107" "2792172" "3096283" "3145713"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2025/04/16 11:27 AM

		"3239136" "3244362"					
		"3244363" "3409213"					
		"3456875" "3489145"					
		"3565330" "3655058"					
		"3737096" "3774840"					
		"3987961" "4007871"					
		"4010894" "4014497"					
		"4040965" "4056224"					
		"4082217" "4086924"					
		"4140268" "4142670"					
		"4151844" "4197847"					
		"4285464" "4300717"					
		"4303193" "4321921"					
		"4387848" "4425114"					
		"4430072" "4447221"					
		"4457747" "4464167"					
		"4466888" "4482342"					
		"4490135" "4530691"					
		"4534863" "4643714"					
		"4647279" "4655742"					
		"4680025" "4684361"					
		"4692136" "4708712"					
		"4713176" "4734089"					
		"4740202" "4740313"					
		"4755300" "4767396"					
		"4795419" "4795448"					
		"4806247" "4806252"					
		"4808307" "4850995"					
		"4869812" "4871462"					
		"4876013" "4889524"					
		"4911833" "4934995"					
		"4940543" "4943273"					
		"4968295" "4983156"					
		"4983158" "4985153"					
		"4994188" "5039401"					
		"5045048" "5098372"					
		"5098373" "5100372"					
		"5100564" "5112298"					
		"5114396" "5135667"					
		"5141486" "5147290"					
		"5154716" "5174894"					
		"5194145" "5217426"					
		"5217427" "5234403"					
		"5254248" "5273517"					
		"5277701" "5298016"					
		"5298171" "5300060"					
		"5316540" "5318511"					
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L296	0	"current value of the hematocrit of the donor".clm.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L297	702	ragusa.in.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO;	OR	ON	ON	2025/04/16 11:27 AM

L298	20	L143 AND (hematocrit AND "total blood volume")	DERWENT) (US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L299	3	L143 AND (hematocrit AND "total blood volume").clm.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L300	36	"10758652"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L301	26	L143 AND (index).clm.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L302	21	"10980826"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L303	20	"10980926"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
L304	8	"12186474"	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); EPO; JPO; DERWENT)	OR	ON	ON	2025/04/16 11:27 AM
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L307	7	L151 AND mass.clm.	USOCR) (US-PGPUB; USPAT; USOCR)	OR	ON	ON	11:27 AM 2025/04/16 11:27 AM
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PE2E SEARCH - Search History (Interference)

There are no Interference searches to show.

Receipt date: 03/12/2025

19/077,384 - GAU: 3799

Doc code: IDS

Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08 (01-25)

Approved for use through 11/30/2027. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application Number		
	Filing Date		
	First Named Inventor	Michael Ragusa	
	Art Unit	N/A	
	Examiner Name	Not Yet Assigned	
	Attorney Docket Number	130670-80106	

U.S. PATENTS							Remove
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Inventor of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	
	1	1025059		1912-04-30	Hatton et al.		
	2	1611725		1926-12-21	Degerth et al.		
	3	2087778		1937-07-20	Nelin		
	4	2661150		1953-12-01	Abbott, Jr.		
	5	2750107		1956-06-12	More		
	6	2792172		1957-05-14	Tait		
	7	3096283		1963-07-02	Hein		
	8	3145713		1964-08-25	Latham, Jr.		

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	9	3239136		1966-03-08	Hein	
	10	3244362		1966-04-05	Hein	
	11	3244363		1966-04-05	Hein	
	12	3409213		1968-11-05	Latham, Jr.	
	13	3456875		1969-07-22	Hein	
	14	3489145		1970-01-13	Judson et al.	
	15	3565330		1971-02-23	Latham, Jr.	
	16	3655058		1972-04-11	Novak	
	17	3737096		1973-06-05	Jones et al.	
	18	3774840		1973-11-27	Boatright	
	19	3987961		1976-10-26	Sinn et al.	

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	20	4007871		1977-02-15	Jones et al.	
	21	4010894		1977-03-08	Kellogg et al.	
	22	4014497		1977-03-29	Spiewok et al.	
	23	4040965		1977-08-09	Kohlheb	
	24	4056224		1977-11-01	Lolachi	
	25	4082217		1978-04-04	Westberg	
	26	4086924		1978-05-02	Latham, Jr.	
	27	4140268		1979-02-20	Lacour	
	28	4142670		1979-03-06	Ishimaru et al.	
	29	4151844		1979-05-01	Cullis et al.	
	30	4197847		1980-04-15	Djerassi	

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	31	4285464		1981-08-25	Latham, Jr.	
	32	4300717		1981-11-17	Latham, Jr.	
	33	4303193		1981-12-01	Latham, Jr.	
	34	4321921		1982-03-30	Laszczower	
	35	4387848		1983-06-14	Kellogg et al.	
	36	4425114		1984-01-10	Schoendorfer et al.	
	37	4430072		1984-02-07	Kellogg et al.	
	38	4447221		1984-05-08	Mulzet	
	39	4457747		1984-07-03	Tu	
	40	4464167		1984-08-07	Schoendorfer et al.	
	41	4466888		1984-08-21	Verkaart	

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	42	4482342		1984-11-13	Lueptow et al.	
	43	4490135		1984-12-25	Troutner	
	44	4530691		1985-07-23	Brown	
	45	4534863		1985-08-13	Bacon et al.	
	46	4643714		1987-02-17	Brose	
	47	4647279		1987-03-03	Mulzet et al.	
	48	4655742		1987-04-07	Vantard	
	49	4680025		1987-07-14	Kruger et al.	
	50	4684361		1987-08-04	Feldman et al.	
	51	4692136		1987-09-08	Feldman et al.	
	52	4708712		1987-11-24	Mulzet	

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53	4713176		1987-12-15	Schoendorfer et al.	
54	4734089		1988-03-29	Cullis	
55	4740202		1988-04-26	Stacey et al.	
56	4740313		1988-04-26	Schoendorfer et al.	
57	4755300		1988-07-05	Fischel et al.	
58	4767396		1988-08-30	Powers	
59	4795419		1989-01-03	Yawn et al.	
60	4795448		1989-01-03	Stacey et al.	
61	4806247		1989-02-21	Schoendorfer et al.	
62	4806252		1989-02-21	Brown et al.	
63	4808307		1989-02-28	Fischel et al.	

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	64	4850995		1989-07-25	Tie et al.	
	65	4869812		1989-09-26	Schoendorfer et al.	
	66	4871462		1989-10-03	Fischel et al.	
	67	4876013		1989-10-24	Shmidt et al.	
	68	4889524		1989-12-26	Fell et al.	
	69	4911833		1990-03-27	Schoendorfer et al.	
	70	4934995		1990-06-19	Cullis	
	71	4940543		1990-07-10	Brown et al.	
	72	4943273		1990-07-24	Pages	
	73	4968295		1990-11-06	Neumann	
	74	4983156		1991-01-08	Knelson	

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	75	4983158		1991-01-08	Headley	
	76	4985153		1991-01-15	Kuroda et al.	
	77	4994188		1991-02-19	Prince	
	78	5039401		1991-08-13	Columbus et al.	
	79	5045048		1991-09-03	Kaleskas et al.	
	80	5098372		1992-03-24	Jonsson	
	81	5098373		1992-03-24	Polaschegg	
	82	5100372		1992-03-31	Headley	
	83	5100564		1992-03-31	Pall et al.	
	84	5112298		1992-05-12	Prince et al.	
	85	5114396		1992-05-19	Unger et al.	

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	86	5135667		1992-08-04	Schoendorfer	
	87	5141486		1992-08-25	Antwiler	
	88	5147290		1992-09-15	Jonsson	
	89	5154716		1992-10-13	Bauman et al.	
	90	5174894		1992-12-29	Ohsawa et al.	
	91	5194145		1993-03-16	Schoendorfer	
	92	5217426		1993-06-08	Bacehowski et al.	
	93	5217427		1993-06-08	Cullis	
	94	5234403	A	1993-08-10	Yoda et al.	
	95	5254248		1993-10-19	Nakamura	
	96	5273517		1993-12-28	Barone et al.	

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	97	5277701		1994-01-11	Christie et al.	
	98	5298016		1994-03-29	Gordon	
	99	5298171		1994-03-29	Biesel	
	100	5300060		1994-04-05	Nelson	
	101	5316540		1994-05-31	McMannis et al.	
	102	5318511		1994-06-07	Riquier et al.	
	103	5318512		1994-06-07	Neumann	
	104	5348533		1994-09-20	Papillon et al.	
	105	5368542		1994-11-29	McMannis et al.	
	106	5368555		1994-11-29	Sussman et al.	
	107	5386734		1995-02-07	Pusinelli	

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	108	5387174		1995-02-07	Rochat	
	109	5387187		1995-02-07	Fell et al.	
	110	5403272		1995-04-04	Deniega et al.	
	111	5405308		1995-04-11	Headley et al.	
	112	5417650		1995-05-23	Gordon	
	113	5431814		1995-07-11	Jorgensen	
	114	5437598		1995-08-01	Antwiler	
	115	5437624		1995-08-01	Langley	
	116	5462667		1995-10-31	Wollinsky et al.	
	117	5470483		1995-11-28	Bene et al.	
	118	5484396		1996-01-16	Naficy	

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	119	5494592		1996-02-27	Latham, Jr. et al.	
	120	5505685		1996-04-09	Antwiler	
	121	5514070		1996-05-07	Pages	
	122	5543062		1996-08-06	Nishimura	
	123	5551941		1996-09-03	Howell	
	124	5585007		1996-12-17	Antanavich et al.	
	125	5607579		1997-03-04	Latham, Jr. et al.	
	126	5649903		1997-07-22	Deniega et al.	
	127	5651766		1997-07-29	Kingsley et al.	
	128	5656163		1997-08-12	Brown	
	129	5665061		1997-09-09	Antwiler	

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	130	5681273		1997-10-28	Brown	
	131	5712798		1998-01-27	Langley et al.	
	132	5728060		1998-03-17	Kingsley et al.	
	133	5733253		1998-03-31	Headley et al.	
	134	5733446		1998-03-31	Holm	
	135	5733545		1998-03-31	Hood, III	
	136	5738792		1998-04-14	Schoendorfer	
	137	5762791		1998-06-09	Deniega et al.	
	138	5779660		1998-07-14	Kingsley et al.	
	139	5783085		1998-07-21	Fischel	
	140	5792351		1998-08-11	Wehrle et al.	

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	141	5849203		1998-12-15	Brown et al.	
	142	5882289		1999-03-16	Sakota et al.	
	143	5906589		1999-05-25	Gordon et al.	
	144	5919125		1999-07-06	Berch	
	145	5964724		1999-10-12	Rivera et al.	
	146	5970432		1999-10-19	Ishimoto et al.	
	147	5980760		1999-11-09	Min et al.	
	148	6007725		1999-12-28	Brown	
	149	6059979		2000-05-09	Brown	
	150	6200287	B1	2001-03-13	Keller et al.	
	151	6207063	B1	2001-03-27	Brown	

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	152	6234989	B1	2001-05-22	Brierton et al.	
	153	6296602	B1	2001-10-02	Headley	
	154	6464624	B2	2002-10-15	Pages	
	155	6497676	B1	2002-12-24	Childers et al.	
	156	6558307	B2	2003-05-06	Headley	
	157	6623443	B1	2003-09-23	Polaschegg	
	158	6743192	B1	2004-06-01	Sakota et al.	
	159	7115205	B2	2006-10-03	Robinson et al.	
	160	7186231	B2	2007-03-06	Takagi et al.	
	161	7270645	B2	2007-09-18	Langley et al.	
	162	7704454	B1	2010-04-27	Langley et al.	

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	163	8075468	B2	2011-12-13	Min et al.	
	164	8454548	B2	2013-06-04	Ohashi et al.	
	165	8628489	B2	2014-01-14	Pages et al.	
	166	8702637	B2	2014-04-22	Pages et al.	
	167	8759094	B2	2014-06-24	Ranby	
	168	9283316	B2	2016-03-15	Flexman	
	169	10758652	B2	2020-09-01	Ragusa	
	170	10792416	B2	2020-10-06	Ragusa	
	171	10980926	B2	2021-04-20	Ragusa	
	172	10980934	B2	2021-04-20	Ragusa	
	173	11738124	B2	2023-08-29	Ragusa, Michael	

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	First Named Inventor	Michael Ragusa		
	Art Unit	N/A		
	Examiner Name	Not Yet Assigned		
	Attorney Docket Number	130670-80106		

	174	12171916	B2	2024-12-24	Ragusa, Michael	
	175	12186474	B2	2025-01-07	Ragusa, Michael	

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U.S. PATENT APPLICATION PUBLICATIONS

Remove

Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Inventor or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	20010000185	A1	2001-04-05	Keller et al.	
	2	20010027156	A1	2001-10-04	Egozy et al.	
	3	20020043492	A1	2002-04-18	Bischof	
	4	20020062100	A1	2002-05-23	Pierce et al.	
	5	20020120227	A1	2002-08-29	Childers et al.	
	6	20030055375	A1	2003-03-20	Holst et al.	
	7	20030066807	A1	2003-04-10	Suzuki	

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

Application Number		
Filing Date		
First Named Inventor	Michael Ragusa	
Art Unit	N/A	
Examiner Name	Not Yet Assigned	
Attorney Docket Number	130670-80106	

	8	20030125881	A1	2003-07-03	Ryan	
	9	20030175150	A1	2003-09-18	Grimm	
	10	20040186409	A1	2004-09-23	Cavalcanti et al.	
	11	20050131334	A1	2005-06-16	Langley et al.	
	12	20050209522	A1	2005-09-22	Tadokoro et al.	
	13	20050235733	A1	2005-10-27	Holst et al.	
	14	20060058167	A1	2006-03-16	Ragusa et al.	
	15	20060155236	A1	2006-07-13	Gara et al.	
	16	20060226086	A1	2006-10-12	Robinson et al.	
	17	20070112289	A1	2007-05-17	Cavalcanti et al.	
	18	20080146993	A1	2008-06-19	Krishna	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application Number			
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	First Named Inventor	Michael Ragusa		
	Art Unit	N/A		
	Examiner Name	Not Yet Assigned		
	Attorney Docket Number	130670-80106		

	19	20120165685	A1	2012-06-28	Weasler et al.	
	20	20120175313	A1	2012-07-12	Barry, JR. et al.	
	21	20140039373	A1	2014-02-06	Ragusa et al.	
	22	20140100507	A1	2014-04-10	Flexman, Greg	
	23	20140356851	A1	2014-12-04	Pages et al.	
	24	20180344910	A1	2018-12-06	Ragusa	
	25	20200261630	A1	2020-08-20	Ragusa	
	26	20240293604	A1	2024-09-05	Ragusa, Michael	

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FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1	2735985	CN	Y	2005-10-26	Shanghai Dahua Medical Apparatus Co., Ltd		☒

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

Application Number		
Filing Date		
First Named Inventor	Michael Ragusa	
Art Unit	N/A	
Examiner Name	Not Yet Assigned	
Attorney Docket Number	130670-80106	

	2	103354755	CN	A	2013-10-16	Haemonetics Corp		☒
	3	69434848	DE		2007-04-12	Gambro Inc		☒
	4	0128683	EP	A2	1984-12-19	Baxter Travenol Laboratories, Inc		☐
	5	0171749	EP	A1	1986-02-19	Terumo Corp		☐
	6	0208061	EP	A1	1987-01-14	Biotest Pharma GmbH		☐
	7	257755	EP	A1	1988-03-02	Haemonetics Corp		☐
	8	0578086	EP	A1	1994-01-12	Terumo Corp		☐
	9	619145	EP	A2	1994-10-12	Electromedics, Inc		☐
	10	0654277	EP	A1	1995-05-24	Cobe Laboratories, Inc		☐
	11	664159	EP	A1	1995-07-26	Haemonetics Corp		☐
	12	799645	EP	A1	1997-10-08	Haemonetics Corp		☐

**INFORMATION DISCLOSURE
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Application Number	
Filing Date	
First Named Inventor	Michael Ragusa
Art Unit	N/A
Examiner Name	Not Yet Assigned
Attorney Docket Number	130670-80106

	13	0885619	EP	A1	1998-12-23	Terumo Corp		☐
	14	1057534	EP	A1	2000-12-06	Haemonetics Corp		☐
	15	1128887	EP	A1	2001-09-05	Baxter Int		☐
	16	1295619	EP	A2	2003-03-26	Terumo Corp		☐
	17	1374927	EP	A1	2004-01-02	Terumo Corp		☐
	18	2258898	FR	A1	1975-08-22	Heraeus Christ Gmbh,dt		☐
	19	2047110	GB	A	1980-11-26	Hogman, C F		☐
	20	S59-006952	JP	A	1984-01-14	Hitachi Koki KK		☒
	21	S59-069166	JP	A	1984-04-19	Nikkiso Co Ltd.		☒
	22	H02-052665	JP	A	1990-02-22	Nissho KK		☒
	23	H03-131268	JP	A	1991-06-04	Fresenius AG		☒

**INFORMATION DISCLOSURE
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First Named Inventor	Michael Ragusa	
Art Unit	N/A	
Examiner Name	Not Yet Assigned	
Attorney Docket Number	130670-80106	

	24	H07-075746	JP	A	1995-03-20	Electromedics Inc.		☒
	25	H08-131539	JP	A	1996-05-28	Terumo Corp.		☒
	26	H09-192215	JP	A	1997-07-29	Nakane Takaharu		☒
	27	2002-282352	JP	A	2002-10-02	Terumo Corp		☒
	28	2002-291872	JP	A	2002-10-08	Terumo Corp		☒
	29	2003-516175	JP	A	2003-05-13	Baxter International, Inc.		☒
	30	2008-506424	JP	A	2008-03-06	Haemonetics Corp		☒
	31	2021-500950	JP	A	2021-01-14	Haemonetics Corp.		☒
	32	2252788	RU	C1	2005-05-27	Mepotex		☒
	33	2601449	RU	C2	2016-11-10	Fenval Ink		☒
	34	660718	SU	A1	1979-05-05	Sp K B Biofizicheskoy Apparatu		☐

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application Number			
	Filing Date			
	First Named Inventor	Michael Ragusa		
	Art Unit	N/A		
	Examiner Name	Not Yet Assigned		
	Attorney Docket Number	130670-80106		

	35	762982	SU	A1	1980-09-15	Sp K B Biofizicheskoj Apparatu		☐
	36	1146098	SU	A1	1985-03-23	Sp K B Biofiz App		☐
	37	1985/02561	WO	A1	1985-06-20	Baxter Travenol Laboratories, Inc		☐
	38	1990/00059	WO	A1	1990-01-11	Sirchia, Girolamo		☐
	39	1990/07383	WO	A1	1990-07-12	Haemonetics Corp		☐
	40	1994/06535	WO	A1	1994-03-31	Fischel, Halbert		☐
	41	1996/11747	WO	A2	1996-04-25	Transfusion, Technologies Corporation		☐
	42	1996/33023	WO	A1	1996-10-24	Cobe Laboratories, Inc		☐
	43	2002/05059	WO	A2	2002-01-17	Baxter Int		☐
	44	2007/041716	WO	A1	2007-04-12	Gambro, Inc		☐
	45	2011/028887	WO	A2	2011-03-10	Becton, Dickinson And Company		☐

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application Number			
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	Art Unit	N/A		
	Examiner Name	Not Yet Assigned		
	Attorney Docket Number	130670-80106		

	46	2012/091720	WO	A1	2012-07-05	Haemonetics Corp		☐
	47	2019/084278	WO	A1	2019-05-02	Haemonetics Corp		☐

If you wish to add additional Foreign Patent Document citation information, please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1	Haemonetics Nomogram - Male, 2 pages, May 1990.	☐
	2	LEMMENS et al., Estimating blood volume in obese and morbidly obese patients. Obes Surg. 2006 Jun;16(6):773-6.	☐
	3	NADLER et al., Prediction of blood volume in normal human adults. Surgery. 1962 Feb;51(2):224-32.	☐
	4	WINTERS, Complications of donor apheresis. J Clin Apher. 2006 Jul;21(2):132-41.	☐
	5	International Search Report and Written Opinion for Application No. PCT/US2018/033826, dated August 3, 2018, 10 pages.	☐
	6	International Search Report and Written Opinion for Application No. PCT/US2018/057528, dated January 7, 2019, 17 pages.	☐

If you wish to add additional non-patent literature document citation information, please click the Add button

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application Number	
	Filing Date	
	First Named Inventor	Michael Ragusa
	Art Unit	N/A
	Examiner Name	Not Yet Assigned
	Attorney Docket Number	130670-80106

EXAMINER SIGNATURE			
Examiner Signature	/LESLIE R DEAK/ (04/16/2025)	Date Considered	
*EXAMINER: Initial if reference considered and whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			
<p>¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.</p>			

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application Number	
	Filing Date	
	First Named Inventor	Michael Ragusa
	Art Unit	N/A
	Examiner Name	Not Yet Assigned
	Attorney Docket Number	130670-80106

TIMING STATEMENT

Please see 37 CFR 1.97(e) to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached timing statement under 37 CFR 1.97(e).

☒ A timing statement under 37 CFR 1.97(e) is not submitted herewith.

TIMING FEE

☐ The fee set forth in 37 CFR 1.17(p) has been submitted herewith.

COPIES

☒ An identification of an earlier application pursuant to 37 CFR 1.98(d)(1) is attached.

SIZE FEE ASSERTION

Please see 37 CFR 1.17(v) and the [IDS Auto-Load Instructions](#) for completing this form to make the appropriate selection of an assertion under 37 CFR 1.98. For the information disclosure statement (IDS) submitted herewith, the applicant or patent owner certifies the following with respect to the cumulative number of applicant-provided or patent-owner provided items of information submitted to date including those in the accompanying IDS (select only one):

☐ No IDS size fee is required under 37 CFR 1.17(v) at this time.

☐ The IDS is accompanied by the IDS size fee under 37 CFR 1.17(v)(1).

☐ The IDS is accompanied by the IDS size fee under 37 CFR 1.17(v)(2).

☒ The IDS is accompanied by the IDS size fee under 37 CFR 1.17(v)(3).

SIGNATURE

A signature of the applicant or representative is required in accordance with 37 CFR 1.33 and 11.18. Please see 37 CFR 1.4(d) for the form of the signature.

Signature	/Jonathan C. Lovely, Reg. No. 60,821/	Date (YYYY-MM-DD)	2025-03-12
Name/Print	Jonathan C. Lovely	Registration Number	60,821

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

Application Number	
Filing Date	
First Named Inventor	Michael Ragusa
Art Unit	N/A
Examiner Name	Not Yet Assigned
Attorney Docket Number	130670-80106

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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The information provided by you in this form will be subject to the following routine uses:

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5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
19/077,384	03/12/2025	Michael Ragusa	130670-80106	8047
86738	7590	04/10/2025	EXAMINER	
MCCARTER & ENGLISH, LLP BOSTON			CENTRAL, DOCKET	
265 Franklin Street				
Boston, MA 02110				
			ART UNIT	PAPER NUMBER
			OPAP	
			NOTIFICATION DATE	DELIVERY MODE
			04/10/2025	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket@mccarter.com

<i>Decision Granting Request for Prioritized Examination (Track I)</i>	Application No. 19/077,384	Applicant(s) Ragusa, Michael	
	Examiner CHERYL P GIBSON BAYLOR	Art Unit OPET	AIA (FITF) Status Yes
<p>1. THE REQUEST FILED <u>12 March 2025</u> IS GRANTED .</p> <p>The above-identified application has met the requirements for prioritized examination</p> <p>A. ☒ for an original nonprovisional application (Track I).</p> <p>B. ☐ for an application undergoing continued examination (RCE).</p> <p>2. The above-identified application will undergo prioritized examination. The application will be accorded special status throughout its entire course of prosecution until one of the following occurs:</p> <p>A. filing a <u>petition for extension of time</u> to extend the time period for filing a reply;</p> <p>B. filing an <u>amendment to amend the application to contain more than four independent claims, more than thirty total claims</u>, or a multiple dependent claim;</p> <p>C. filing a <u>request for continued examination</u> ;</p> <p>D. filing a notice of appeal;</p> <p>E. filing a request for suspension of action;</p> <p>F. mailing of a notice of allowance;</p> <p>G. mailing of a final Office action;</p> <p>H. completion of examination as defined in 37 CFR 41.102; or</p> <p>I. abandonment of the application.</p> <p>Telephone inquiries with regard to this decision should be directed to CHERYL GIBSON BAYLOR at (571)272-3213. In his/her absence, calls may be directed to Petition Help Desk at (571) 272-3282.</p>			
/CHERYL GIBSON BAYLOR/ Paralegal Specialist, OPET			



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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
19/077,384	03/12/2025		4600	130670-80106	30	4

CONFIRMATION NO. 8047

FILING RECEIPT



0000000086053653

86738
MCCARTER & ENGLISH, LLP BOSTON
265 Franklin Street
Boston, MA 02110

Date Mailed: 03/20/2025

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a corrected Filing Receipt, including a properly marked-up ADS showing the changes with strike-through for deletions and underlining for additions. If you received a "Notice to File Missing Parts" or other Notice requiring a response for this application, please submit any request for correction to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections provided that the request is grantable.

Inventor(s)

Michael Ragusa, Hingham, MA;

Applicant(s)

Haemonetics Corporation, Boston, MA;

Power of Attorney: The patent practitioners associated with Customer Number 86738

Domestic Applications for which benefit is claimed

This application is a CON of 18/606,761 03/15/2024
which is a CON of 17/205,400 03/18/2021 PAT 12,186,474
which is a CON of 16/931,333 07/16/2020 PAT 10,980,934
which is a CON of 15/793,339 10/25/2017 PAT 10,792,416
which is a CIP of 15/608,183 05/30/2017 PAT 10,758,652

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <http://www.uspto.gov> for more information.) - **None.**
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 03/18/2025

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 19/077,384**

Projected Publication Date: 06/26/2025

Non-Publication Request: No

Early Publication Request: No

Title

SYSTEM AND METHOD FOR COLLECTING PLASMA

Preliminary Class

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

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SYSTEM AND METHOD FOR COLLECTING PLASMA

Priority

[0001] This application is a continuation of and claims priority from co-pending U.S. Application No. 18/606,761, entitled “System and Method for Collecting Plasma,” filed March 15, 2024, attorney docket number 130670-80105, and naming Michael Ragusa as inventor, the disclosure of which is incorporated herein, in its entirety, by reference.

[0002] U.S. Application No. 18/606,761, in turn, is a continuation of and claims priority from U.S. Application No. 17/205,400, entitled “System and Method for Collecting Plasma,” filed March 18, 2021, now U.S. Patent No. 12,186,474, attorney docket number 130670-80104, and naming Michael Ragusa as inventor, the disclosure of which is incorporated herein, in its entirety, by reference.

[0003] U.S. Application No. 17/205,400, in turn, is a continuation of and claims priority from U.S. Application No. 16/931,333, entitled “System and Method for Collecting Plasma,” filed July 16, 2020, now U.S. Patent No. 10,980,934, attorney docket number 130670-80103, and naming Michael Ragusa as inventor, the disclosure of which is incorporated herein, in its entirety, by reference.

[0004] U.S. Application No. 16/931,333, in turn, is a continuation of and claims priority from U.S. Application No. 15/793,339, entitled “System and Method for Collecting Plasma,” filed October 25, 2017, now U.S. Patent No. 10,792,416, attorney docket number 130670-80102 (formerly 1611/C86), and naming Michael Ragusa as inventor, the disclosure of which is incorporated herein, in its entirety, by reference.

[0005] U.S. Application No. 15/793,339 is a continuation-in-part of and claims priority to U.S. Patent Application No. 15/608,183, entitled “System and Method for Collecting Plasma,” filed May 30, 2017, now U.S. Patent No. 10,758,652, attorney docket number 130670-08002 (formerly 1611/C80), and naming Michael Ragusa as inventor, the disclosure of which is incorporated herein, in its entirety, by reference.

Technical Field

[0006] The present invention relates to systems and methods for blood apheresis, and more particularly system and methods for collecting a plasma product.

Background Art

[0007] Apheresis is a procedure in which individual blood components can be separated and collected from whole blood temporarily withdrawn from a subject. Typically, whole blood is withdrawn through a needle inserted into a vein of the subjects arm and into a cell separator, such as a centrifugal bowl. Once the whole blood is separated into its various components, one or more of the components (e.g., plasma) can be removed from the centrifugal bowl. The remaining components can be returned to the subject along with optional compensation fluid to make up for the volume of the removed component. The process of drawing and returning continues until the quantity of the desired component has been collected, at which point the process is stopped. A central feature of apheresis systems is that the processed but unwanted components are returned to the donor. Separated blood components may include, for example, a high density component such as red blood cells, an intermediate density component such as platelets or white blood cells, and a lower density component such as plasma.

[0008] Many jurisdictions have regulations regarding the amount of whole blood and/or blood components that can be removed from a donor. For example, the U.S. Food and Drug Administration (“the FDA”) sets both an upper limit on the volume of plasma that may be collected (e.g., 800 ml for an adult weighing more than 175 pounds) as well as an upper limit on the total collection volume (e.g., 880 ml for an adult weighing more than 175 pounds). Prior art plasma collection systems are unable to determine the total volume of plasma that has been collected (e.g., because the product collected is a mixture of plasma and anticoagulant) and, therefore collect based on the total collection volume, even if the total volume of plasma that has been collected is below the limit prescribed by the FDA. Additionally, prior art collection systems do not tailor the amount of plasma collected to the individual (e.g., other than what weight group they fall into) and, therefore, the percentage of the patient’s plasma that is collected varies widely from patient to patient (e.g., only 23% percent of the plasma is collected for some patients and 29% - or greater – of the plasma is collected for others).

Summary of the Invention

[0009] In accordance with some embodiments of the present invention, a method for collecting plasma includes determining the weight and hematocrit of a donor, and inserting a venous-access device into the donor. Once the venous access device is inserted, the method may withdraw whole blood from the donor through the venous-access device and a draw line that is connected to a blood component separation device. The method may then introduce anticoagulant into the withdrawn whole blood through an anticoagulant line and separate, using the blood component separation device, the withdrawn whole blood into a plasma component and at least a second blood component. Once separated, the plasma component may be collected from the blood component separation device and into a plasma collection container. During processing, the method may calculate (1) a percentage of anticoagulant in the collected plasma component, and (2) a volume of pure plasma collected within the plasma collection container. The volume of pure plasma may be based, at least in part, on the calculated percentage of anticoagulant in the collected plasma component. The method may continue the process (e.g., withdrawing whole blood, introducing anticoagulant into the whole blood, separating the blood, collecting the plasma, and calculating the percentage of anticoagulant and volume of pure plasma) until a target volume of pure plasma is collected within the plasma collection container.

[0010] In some embodiments, the method may determine a change in volume within an anticoagulant container, and the calculated percentage of anticoagulant in the collected plasma may be based, at least in part, on the change in volume within the anticoagulant container. Additionally or alternatively, the method may determine a volume of anticoagulant introduced into the whole blood based on a number of rotations of an anticoagulant pump. In such embodiments, the calculated percentage of anticoagulant in the collected plasma may be based, at least in part, on the number of rotations of the anticoagulant pump. The method may also determine a volume of anticoagulant within the blood component separation device, and the calculated percentage of anticoagulant in the collected plasma may be based, at least in part, on the volume of anticoagulant within the blood component separation device.

[0011] In further embodiments, the method may monitor the volume and/or weight of the plasma component collected within the plasma collection container (e.g., using a weight sensor), and the calculated volume of pure plasma collected within the plasma collection device may be

based, at least in part, on the monitored volume and/or weight of the collected plasma component. Additionally or alternatively, determining the hematocrit of the donor may include monitoring a volume of red blood cells collection within the blood separation device. In such embodiments, the determined hematocrit of the donor may be based, at least in part, on the monitored volume of red blood cells collected within the blood separation device and the volume of whole blood withdrawn from the donor.

[0012] The target volume of pure plasma may be based, at least in part, on the weight of the donor. The percentage of anticoagulant in the collected plasma component may include at least a portion of the anticoagulant introduced into the withdrawn blood and at least a portion of a volume of anticoagulant that is added to the system during a priming step. After collecting at least a portion of the target volume of pure plasma, the method may return the second blood component to the donor through a return line.

[0013] In accordance with additional embodiments, a system for collecting plasma includes a venous-access device for drawing whole blood from a subject and returning blood components to the subject, and a blood component separation device for separating the drawn blood into a plasma component and a second blood component. The blood component separation device has an outlet and is configured to send the plasma component to a plasma container. The system may also include a blood draw line fluidly connected to the venous-access device and an anticoagulant line connected to an anticoagulant source. The blood draw line transports drawn whole blood to the blood component separation device, and the flow through the blood draw line may be controlled by a blood draw pump. The anticoagulant line may introduce anticoagulant into the drawn whole blood.

[0014] Additionally, the system may include a controller that controls the operation of the centrifuge bowl. The controller may also calculate (1) a percentage of anticoagulant in the collected plasma component, and (2) a volume of pure plasma collected within the plasma container. The volume of pure plasma may be based, at least in part, upon the percentage of anticoagulant in the collected plasma component. The controller may stop the blood draw pump when a target volume of pure plasma (e.g., based, at least in part, on the weight of the donor) is collected within the plasma container. In some embodiments, the percentage of anticoagulant in

the collected plasma component may be based, at least in part, on the volume of anticoagulant added to the drawn whole blood and the subject's hematocrit.

[0015] The system may also include an anticoagulant source weight sensor that measures the weight of the anticoagulant source. The controller may monitor the change in volume within the anticoagulant container based on the measured weight of the anticoagulant source, and the calculated percentage of anticoagulant in the collected plasma may be based, at least in part, on the change in volume within the anticoagulant source. Additionally or alternatively, the controller may monitor the number of rotations of an anticoagulant pump to determine a volume of anticoagulant introduced into the whole blood. In such embodiments, the calculated percentage of anticoagulant in the collected plasma may be based, at least in part, on the number of rotations of the anticoagulant pump.

[0016] In some embodiments, the system may include an optical sensor located on the blood component separation device. The optical sensor may monitor the contents of the blood component separation device and determine if a volume of anticoagulant remains within the blood component separation device. The calculated percentage of anticoagulant in the collected plasma may be based, at least in part, on the volume of anticoagulant within the blood component separation device.

[0017] In additional embodiments, the system may also include a plasma container weight sensor that monitors a volume and/or weight of the plasma component collected within the plasma collection container. The calculated volume of pure plasma collected within the plasma collection container may be based, at least in part, on the monitored volume and/or weight of collected plasma component. The system may also have an optical sensor located on the blood component separation device. The optical sensor may monitor the volume of red blood cells collected within the blood separation device. The controller may then determine the subject's hematocrit based, at least in part, upon on the monitored volume of red blood cells collected within the blood separation device and the volume of whole blood withdrawn from the donor. The percentage of anticoagulant in the collected plasma component may include at least a portion of the anticoagulant introduced into the withdrawn blood and at least a portion of a volume of anticoagulant added to the system during a priming step.

[0018] In accordance with additional embodiments, a method for collecting plasma determines the weight, height, and hematocrit of a donor, and calculates a donor plasma volume based, at least in part, on the weight, height and hematocrit of the donor. The method then calculates a target plasma collection volume based, at least in part, on the calculated donor plasma volume and a target percentage of plasma (e.g., between 26.5 and 29.5 percent of the donor's plasma volume), and withdraws whole blood from the donor through the venous-access device and a first line that is connected to a blood component separation device. As the whole blood is withdrawn, the method may introduce anticoagulant into the withdrawn whole blood through an anticoagulant line.

[0019] The blood component separation device separates the withdrawn whole blood into a plasma component and at least a second blood component, and the method may collect the plasma component from the blood component separation device and into a plasma collection container. During processing, the method may calculate a volume of pure plasma collected within the plasma collection container. The method continues the withdrawing, introduction of anticoagulant, separating, collecting, and calculating steps until the volume of pure plasma collected within the plasma collection container equals the target plasma collection volume.

[0020] In some embodiments, after collecting at least a portion of the target plasma collection volume, the method may return the contents of the blood component separation device to the donor through the first line. Additionally or alternatively, the method may calculate an intravascular deficit based, at least in part on, the volume of pure plasma collected and the volume of the contents of the blood component separation device that are returned to the donor. The method may also return a volume of saline to the donor to obtain a target intravascular deficit. The target intravascular deficit may be between -250 and 500 milliliters (e.g., it may be 0 milliliters or 250 milliliters). The donor plasma volume may be calculated based, at least in part, on the donor's body mass index that, in turn, is calculated based on the donor's weight and height.

[0021] In further embodiments, the method may include calculating a percentage of anticoagulant in the collected plasma component. In such embodiments, the volume of pure plasma may be based, at least in part, on the calculated percentage of anticoagulant in the collected plasma component. The calculated percentage of anticoagulant in the collected plasma

may be based, at least in part, on a change in volume within the anticoagulant container, the number of rotations of the anticoagulant pump, and/or the volume of anticoagulant within the blood component separation device. The method may determine the change in volume within the anticoagulant container, the volume of anticoagulant introduced into the whole blood, and/or the volume of anticoagulant within the blood component separation device. The percentage of anticoagulant in the collected plasma component may include at least a portion of the anticoagulant introduced into the withdrawn blood and at least a portion of a volume of anticoagulant added during a priming step.

[0022] In some embodiments, the method may include monitoring a volume or and/or weight of the plasma component collected within the plasma collection container. In such embodiments, the calculated volume of pure plasma collected within the plasma collection device may be based, at least in part, on the monitored volume and/or weight of collected plasma component. To determine the donor's hematocrit, the method may monitor the volume of red blood cells collected within the blood separation device. The hematocrit of the donor may be based, at least in part, on the monitored volume of red blood cells collected within the blood separation device and the volume of whole blood withdrawn from the donor.

[0023] In accordance with still further embodiments, a system for collecting plasma includes a venous-access device for drawing whole blood from a subject and returning blood components to the subject, and a blood component separation device for separating the drawn blood into a plasma component and a second blood component. The blood component separation device may have an outlet and may send the plasma component to a plasma container. The system may also have a first line and an anticoagulant line. The first line may be fluidly connected to the venous-access device and may (1) transport drawn whole blood to the blood component separation device and (2) return fluid within the blood component separation device to the subject. The flow through the first line may be controlled by a first pump. The anticoagulant line may be connected to an anticoagulant source and may introduce anticoagulant into the drawn whole blood.

[0024] The system may also include a controller that controls the operation of the centrifuge bowl and the first pump. The controller may calculate (1) a donor plasma volume, (2) a target plasma collection volume, and (3) a volume of pure plasma collected within the plasma container. The donor plasma volume may be based, at least in part, on a weight and height of the

donor and a hematocrit of the donor. The target plasma collection volume may be based, at least in part, on the calculated donor plasma volume and a target percentage of plasma. The volume of pure plasma collected within the plasma container may be based, at least in part, upon a percentage of anticoagulant in the collected plasma component. The controller may stop the first pump when the calculated volume of pure plasma collected within the plasma collection container equals the target plasma collection volume.

[0025] In further embodiments, the controller may return, after collecting at least a portion of the target plasma collection volume, fluid remaining within the blood component separation device via the first line. Additionally or alternatively, the controller may calculate an intravascular deficit based, at least in part on, the volume of pure plasma collected and the volume of the contents of the blood component separation device returned to the donor. The system may also include a saline line that fluidly connects to a saline source and the blood component separation device. The controller may return a volume of saline to the donor to obtain a target intravascular deficit (e.g., between -250 and 500 milliliters).

[0026] The controller may calculate the donor's body mass index based, at least in part, on the weight and height of the donor. The donor plasma volume may, in turn, be calculated based, at least in part, on the donor's body mass index. The target percentage of plasma may be between 26.5 and 29.5 percent (e.g., 28.5 percent) of the donor's plasma volume.

[0027] In additional embodiments, the controller may calculate the percentage of anticoagulant in the collected plasma component, for example, based on the volume of anticoagulant added to the drawn whole blood, and the subject's hematocrit. The system may also include an anticoagulant source weight sensor that measures the weight of the anticoagulant source. The controller may then monitor a change in volume within the anticoagulant container based on the measured weight of the anticoagulant source. The calculated percentage of anticoagulant in the collected plasma may be based, at least in part, on the change in volume within the anticoagulant source. Additionally or alternatively the controller may monitor a number of rotations of the anticoagulant pump to determine the volume of anticoagulant introduced into the whole blood. In such embodiments, the calculated percentage of anticoagulant in the collected plasma may be based, at least in part, on the number of rotations of the anticoagulant pump.

[0028] The system may also include an optical sensor and/or a plasma container weight sensor. The optical sensor may be located on the blood component separation device and may monitor the contents of the blood component separation device to determine if a volume of anticoagulant remains within the blood component separation device. The calculated percentage of anticoagulant in the collected plasma may then be based, at least in part, on the volume of anticoagulant within the blood component separation device. The plasma container weight sensor may monitor a volume and/or weight of the plasma component collected within the plasma container. The calculated volume of pure plasma collected within the plasma collection device may then be based, at least in part, on the monitored volume and/or weight of collected plasma component. The optical sensor may also monitor the volume of red blood cells collected within the blood separation device, and the controller may determine the subject's hematocrit based, at least in part, upon on the monitored volume of red blood cells collected within the blood separation device and the volume of whole blood withdrawn from the donor. The percentage of anticoagulant in the collected plasma component may include at least a portion of the anticoagulant introduced into the withdrawn blood and at least a portion of a volume of anticoagulant added during a priming step.

Brief Description of the Drawings

[0029] The foregoing features of the invention will be more readily understood by reference to the following detailed description, taken with reference to the accompanying drawings, in which:

[0030] Fig. 1 schematically shows a perspective view of a blood processing system in accordance with some embodiments of the present invention.

[0031] Fig. 2 schematically shows a top view of the blood processing system of Figure 1, in accordance with some embodiments of the present invention;

[0032] Fig. 3 schematically shows a disposable set installed within the blood processing system of Figure 1, in accordance with some embodiments of the present invention.

[0033] Fig. 4 is a flowchart depicting a method of collecting plasma, in accordance with embodiments of the present invention.

[0034] Fig. 5 is a flowchart depicting an alternative method of collecting plasma, in accordance with further embodiments of the present invention.

Detailed Description of Specific Embodiments

[0035] Illustrative embodiments of the present invention provide blood processing systems and methods for collecting a target volume of pure plasma. The system and method calculate a percentage of anticoagulant collected within a plasma collection container (e.g., in addition to the plasma that is collected within the container) based on the amount of anticoagulant added to the system and the hematocrit of the donor. The system/method may then calculate the volume of pure plasma (e.g., plasma without anticoagulant) that has been collected within the container. Further embodiments may tailor the volume of plasma collected based on the donor's plasma volume and a target percentage of plasma to collect. Details of the illustrative embodiments are discussed below.

[0036] As shown in Figures 1 and 2, the blood processing system 100 includes a cabinet 110 that houses the main components of the system 100 (e.g., the non-disposable components). Within the cabinet 110, the system 100 may include a first/blood pump 232 that draws whole blood from a subject, and a second/anticoagulant pump 234 that pumps anticoagulant through the system 100 and into the drawn whole blood. Additionally, the system 100 may include a number of valves that may be opened and/or closed to control the fluid flow through the system 100. For example, the system 100 may include a donor valve 120 that may open and close to selectively prevent and allow fluid flow through a donor line 218 (e.g., an inlet line; Fig. 3), and a plasma valve 130 that selectively prevents and allows fluid flow through an outlet/plasma line 222 (Fig. 3). Some embodiments may also include a saline valve 135 that selectively prevents and allows saline to flow through a saline line 223.

[0037] To facilitate the connection and installation of a disposable set and to support the corresponding fluid containers, the system 100 may include an anticoagulant pole 150 on which the anticoagulant solution container 210 (Fig. 3) may be hung, and a saline pole 160 on which a saline solution container 217 (Fig. 3) may be hung (e.g., if the procedure being performed requires the use of saline). Additionally, in some applications, it may be necessary and/or desirable to filter the whole blood drawn from the subject for processing. To that end, the system

100 may include blood filter holder 170 in which the blood filter (located on the disposable set) may be placed.

[0038] As discussed in greater detail below, apheresis systems 100 in accordance with embodiments of the present invention withdraw whole blood from a subject through a venous access device 206 (Fig. 3) using the blood pump 232. As the system 100 withdraws the whole blood from the subject, the whole blood enters a blood component separation device 214, such as a Latham type centrifuge (other type of separation chambers and devices may be used, such as, without limitation, an integral blow-molded centrifuge bowl, as described in U.S. Patent Nos. 4,983,158 and 4,943,273, which are hereby incorporated by reference). The blood component separation device 214 separates the whole blood into its constituent components (e.g., red blood cells, white blood cell, plasma, and platelets). Accordingly, to facilitate operation of the separation device 214, the system 100 may also include a well 180 in which the separation device 214 may be placed and in which the separation device 214 rotates (e.g., to generate the centrifugal forces required to separate the whole blood).

[0039] To allow the user/technician to monitor the system operation and control/set the various parameters of the procedure, the system 100 may include a user interface 190 (e.g., a touch screen device) that displays the operation parameters, any alarm messages, and buttons which the user/technician may depress to control the various parameters. Additional components of the blood processing system 100 are discussed in greater detail below (e.g., in relation to the system operation).

[0040] FIG. 3 is a schematic block diagram of the blood processing system 100 and a disposable collection set 200 (with an inlet disposable set 200A and an outlet disposable set 200B) that may be loaded onto/into the blood processing system 100, in accordance with the present invention. The collection set 200 includes a venous access device 206 (e.g., a phlebotomy needle) for withdrawing blood from a donor's arm 208, a container of anti-coagulant 210, a centrifugation bowl 214 (e.g., a blood component separation device), a saline container 217, and a final plasma collection bag 216. The blood/inlet line 218 couples the venous access device 206 to an inlet port 220 of the bowl 214, the plasma/outlet line 222 couples an outlet port 224 of the bowl 214 to the plasma collection bag 216, and a saline line 223 connects the outlet port 224 of the bowl 214 to the saline container 217. An anticoagulant line 225 connects the anti-

coagulant container 210 to the inlet line 218. In addition to the components mentioned above and as shown in Figure 3, the blood processing system 100 includes a controller 226, a motor 228, and a centrifuge chuck 230. The controller 226 is operably coupled to the two pumps 232 and 234, and to the motor 228, which, in turn, drives the chuck 230. The controller 226 may be operably coupled to and in communication with the user interface 190.

[0041] In operation, the disposable collection set 200 (e.g., the inlet disposable set 200A and the outlet disposable set 200B) may be loaded onto/into the blood processing system 100 prior to blood processing. In particular, the blood/inlet line 218 is routed through the blood/first pump 232 and the anticoagulant line 225 from the anti-coagulant container 210 is routed through the anticoagulant/second pump 234. The centrifugation bowl 214 may then be securely loaded into the chuck 230. Once the bowl 214 is secured in place, the technician may install the outlet disposable set 200B. For example the technician may connect a bowl connector 300 to the outlet 224 of the bowl 214, install the plasma container 216 into the weight sensor 195, run the saline line 223 through valve 135, and run the plasma/outlet line 222 through valve 130 and the line sensor 185. Once the disposable set 200 is installed and the anticoagulant and saline containers 210/217 are connected, the system 100 is ready to begin blood processing.

[0042] Figure 4 is a flowchart depicting an exemplary method of collecting plasma in accordance with various embodiments of the present invention. Prior to connecting the donor to the blood processing device 100, it is beneficial (and perhaps necessary in some instances) to obtain/determine some information regarding the donor, namely, the donor's weight (Step 410) and hematocrit (Step 415). Not only does this information help determine if the individual is a viable donor and the volumes of blood components that may be withdrawn/collected (e.g., per the FDA guidelines), the hematocrit may be used during processing to help collect a target volume of plasma. The technician may obtain/determine the donor's weight by weighing the donor (e.g., on a scale). To obtain/determine the donor's hematocrit, the technician may draw a blood sample from the donor and test the sample of blood. Additionally or alternatively, as discussed in greater detail below, the system may determine the hematocrit during blood processing. For example, the blood processing device 100 may include a hematocrit sensor (not shown) that determines the hematocrit of the blood flowing into the blood processing device 100

and/or the system 100 may determine the hematocrit based on a volume of red blood cells collected within the bowl 214.

[0043] Once the lines 222/223 are in place and the technician has determined the donor's weight and/or hematocrit (if needed), the user/technician may insert the venous access device 206 into the donor's arm 208 (Step 420). Next, the controller 226 activates the two pumps 232, 234 and the motor 228. Operation of the two pumps 232, 234 causes whole blood to be drawn from the donor (step 425), anticoagulant from container 210 to be introduced into the drawn whole blood (step 430), and the now anticoagulated whole blood to be delivered to the inlet port 220 of the bowl 214.

[0044] It should be noted that the anticoagulant line 225 may also include a bacteria filter (not shown) that prevents any bacteria in the anticoagulant source 210, the anticoagulant, or the anticoagulant line 225 from entering the system 100 and/or the subject. Additionally, the anticoagulant line 225 may include an air detector 140 that detects the presence of air within the anticoagulant. The presence of air bubbles within any of the system 100 lines can be problematic for the operation the system 100 and may also be harmful to the subject if the air bubbles enter the blood stream. Therefore, the air detector may be connected to an interlock that stops the flow within the anticoagulant line 225 in the event that an air bubble is detected (e.g., by stopping the anticoagulant pump 234), thereby preventing the air bubbles from entering the subject.

[0045] As the anti-coagulated whole blood is withdrawn from the subject and contained within the blood component separation device 214, the blood component separation device 214 separates the whole blood into several blood components (Step 435). For example, the blood component separation device 214 may separate the whole blood into a first, second, third, and, perhaps, fourth blood component. More specifically, the blood component separation device 214 (and the centrifugal forces created by rotation of the separation device 214) can separate the whole blood into plasma, platelets, red blood cells ("RBC"), and, perhaps, white blood cells ("WBC"). The higher density component, i.e., RBC, is forced to the outer wall of the bowl 214 while the lower density plasma lies nearer the core. A buffy coat is formed between the plasma and the RBC. The buffy coat is made up of an inner layer of platelets, a transitional layer of platelets and WBC and an outer layer of WBC. The plasma is the component closest to the

outlet port and is the first fluid component displaced from the bowl 214 via the outlet port 224 as additional anticoagulated whole blood enters the bowl 214 through the inlet port 220.

[0046] As shown in Figure 3, the system 100 may also include an optical sensor 213 that may be applied to a shoulder portion of the bowl 214. The optical sensor monitors each layer of the blood components as they gradually and coaxially advance toward the core from the outer wall of the bowl 214. The optical sensor 213 may be mounted in a position (e.g., within the well 180) at which it can detect the buffy coat and/or the red blood cells reaching a particular radius, and the steps of drawing the whole blood from the subject/donor and introducing the whole blood into the bowl 12 may be altered and/or terminated in response to the detection.

[0047] Additionally, in some embodiments, the optical sensor 213 may be used to determine the hematocrit of the donor during processing. For example, as the bowl 214 fills with red blood cells and the optical sensor 213 detects the layer of red blood cells, the system 100 (e.g., the controller) can determine the volume of red blood cells within bowl 214 based on the location of the red blood cell layer and the fixed/known bowl volume. The system 100 may then calculate the donor hematocrit based on the volume of red blood cells within the bowl and the volume of whole blood that has been processed to that point.

[0048] Once the blood component separation device 214 has separated the blood into the various components, one or more of the components can be removed from the blood component separation device 214. For instance, the plasma may be removed to a plasma container 216 (e.g., a plasma bottle) through line 222 (Step 440). As noted above, some embodiments of the system 100 may include a weight sensor 195 (Fig. 1) that measures the amount of plasma collected. The plasma collection process may continue until a target volume of pure plasma (discussed in greater detail below) is collected within the plasma collection container 216. Although not shown, if the blood processing system 100 and/or the disposable set 200 include platelet, red blood cell, and/or white blood cell bags, each of the bags/containers may include similar weight sensors (e.g., load cells).

[0049] In some embodiments, the system 100 may also include a line sensor 185 (mentioned above) that can determine the type of fluid (e.g., plasma, platelets, red blood cells etc.) exiting the blood component separation device 214. In particular, the line sensor 185 consists of an LED which emits light through the blood components leaving the bowl 214 and a

photo detector which receives the light after it passes through the components. The amount of light received by the photo detector is correlated to the density of the fluid passing through the line. For example, if plasma is exiting the bowl 214, the line sensor 185 will be able to detect when the plasma exiting the bowl 214 becomes cloudy with platelets (e.g., the fluid exiting the bowl 214 is changing from plasma to platelets). The system 100 may then use this information to either stop the removal of blood components from the bowl 214, stop drawing whole blood from the subject, or redirect the flow by, for example, closing one valve and opening another.

[0050] It is important to note that during processing, the osmolarity of the red blood cells prevents the anticoagulant introduced into the whole blood from entering/remaining with the red blood cells (e.g., within the bowl 214). Rather, the anticoagulant mixes with the plasma component. Therefore, the anticoagulant exits the bowl 214 with the plasma and is collected within collection container 216 along with the plasma. In other words, the weight of the product measured by the weight sensor 195 is the weight of the plasma, as well as any anticoagulant that is mixed with the plasma – the weight provided by the weight sensor 195 is not the weight of pure plasma.

[0051] Additionally, whole blood contains a variable amount of plasma, as determined by the donor's hematocrit. The hematocrit for typical donors can vary from 38% to 54%, which means that for 100 ml of whole blood, the volume of plasma can vary from 36 to 62 ml. Furthermore, the amount of anticoagulant added to the withdrawn whole blood is fixed (e.g., it does not depend on the hematocrit of the donor), meaning that the percentage of anticoagulant in the collected plasma may vary from 9.7% to 12.7% for donor hematocrits between 38% to 54%, respectively. Therefore, not only does the volume measured by the weight sensor 195 include the volume of anticoagulant, that volume of anticoagulant may vary from donor to donor based on the hematocrit.

[0052] As mentioned above, some embodiments of the present invention continue the blood processing/separation procedure until a target volume of pure plasma (e.g., plasma only – without the volume of any anticoagulant mixed with the plasma included in the target volume) is collected within the plasma collection container 216. To that end, some embodiments of the present invention may calculate the volume of pure plasma within the plasma collection container 216. For example, the technician or the system 100 (e.g., the controller) may calculate

the percentage of anticoagulant within the collected plasma (Step 455) (e.g., the plasma contained within the plasma collection container 216) based on the amount of anticoagulant added/metered into the whole blood and the hematocrit of the donor. The technician and/or system can calculate the percentage of anticoagulant according to the following equation, where AC is the amount of anticoagulant added to the system 100. As noted above, because the osmolarity of the red blood cells prevents the anticoagulant from mixing with it, essentially all of the anticoagulant exits the bowl 214 and is collected within the plasma collection container 216 along with the plasma.

$$\text{[0053] } \%AC = \frac{1}{1 + (AC-1)(1-Hct_D)}$$

[0054] The amount of anticoagulant that is added to the system 100 can be determined in a number of ways. For example, the system 100 can base the amount of anticoagulant (e.g., the value of “AC” in the above equation) on the predetermined ratio of anticoagulant per unit of anticoagulated whole blood. In some embodiments, the value of “AC” may be the inverse of the predetermined ratio (e.g., “AC” would be 16 if the ratio of anticoagulant to anticoagulated whole blood was 1:16). Additionally or alternatively, the technician/system 100 can monitor the volume of anticoagulant added to the system. In such embodiments, the technician/system can monitor the volume of anticoagulant added to the system 100 based on the number of rotations of the anticoagulant pump (e.g., each rotation of the anticoagulant pump introduces a set volume of anticoagulant into the system 100) and/or based on the change in weight of the anticoagulant container 210 as measured by a weight sensor (discussed in greater detail below).

[0055] Once the technician/system 100 has calculated the percentage of anticoagulant within the plasma collection container 216, the technician/system 100 may then use this information to calculate the volume of pure plasma within the plasma collection container 216 (Step 465). For example, the technician/system 100 may determine the volume of anticoagulant within the container (based on the percentage of anticoagulant within the container 216) and subtract this volume from the total volume of fluid within the container 216 as measured by the weight sensor 195. The system 100 may continue to monitor the volume of pure plasma collected within the container 216 and continue processing whole blood (e.g., continue performing Steps 425, 430, 435, 440, 455, 460 and 465) until a target volume of pure plasma is collected within

the plasma collection container 216 (Step 470) (e.g., 800 mL for an adult donor weighing more than 175 pounds or other limit prescribed by the FDA or similar governing body).

[0056] Once the system 100 has collected the target volume of pure plasma within the plasma collection container 216, the system 100 can return the remaining components (e.g., the components remaining within the bowl 214) to the subject (Step 475). For example, when all the plasma has been removed and the bowl 214 is full of RBCs (and any other blood component not collected), the controller 226 stops the draw of whole blood from the subject and reverses the direction of the blood/first pump 232 to draw the RBCs (and other components) from the bowl 214 directly back to the subject. Alternatively, if the system 100 is so equipped, the system may return the components to the subject via a dedicated return line.

[0057] In addition to the non-collected blood components (e.g., the components remaining in the bowl 214), the system 100 may also return saline to the patient/subject. The saline may be used as a compensation fluid to make up for the volume of the blood component (e.g., plasma) that was removed and collected, and is not being returned to the patient. To that end, during the return step (e.g., Step 475), the saline valve 135 may be opened to allow saline from the saline container 217 to flow through the saline line 223 and into the bowl 214 (via outlet 224), where it can be returned to the patient/donor with or after the remaining blood components.

[0058] It should be noted that some embodiments may perform some additional and optional steps to help determine the volume of pure plasma within the plasma collection container 216. For example, as mentioned above, some embodiments may monitor the change in weight of the anticoagulant container 210 (e.g., as measured by a weight sensor/load cell on the anticoagulant container 210) (step 445). This measurement provides an indication of the volume of anticoagulant that has been added to the system 100, and may be used help determine the percentage of anticoagulant within the plasma collection container 216. Additionally or alternatively, some embodiments may similarly, monitor the change in weight and/or volume of the plasma and anticoagulant collected within the plasma collection container 216 (e.g., via weight sensor 195) (step 450). This measurement may be used to calculate of the total volume of pure plasma collected within the plasma collection container 216 (e.g., to obtain the total weight from which to subtract the calculated volume of anticoagulant).

[0059] Some embodiments may also (optionally) monitor the volume of anticoagulant remaining in the bowl 214 (step 460) (e.g., anticoagulant that did not mix with the plasma and/or otherwise remained in the bowl). For example, the system 100 may utilize the optical sensor on the bowl 214 to determine whether any anticoagulant remains within the bowl 214. If it does, the method 400/system 100 may modify the calculation of the amount of pure plasma collected within the plasma collection container (e.g., either increase the calculated amount or decreased the calculated amount), based on the volume of anticoagulant remaining within the bowl 214.

[0060] The various embodiment of the present invention described above provide numerous benefits over prior art plasma collection systems. In particular, as noted above, prior art plasmapheresis devices end plasma collection based on a total volume of anticoagulated plasma (e.g., pure plasma plus the added anticoagulant). Although this is the easiest method because it requires only that the product collection container be weighed, the amount of true product – the pure plasma – is dependent on the donor's hematocrit. In other words, prior art systems will collect more plasma from low hematocrit donors than from high hematocrit donors because of the variation of the percentage of anticoagulant in the product. Various embodiments of the present invention address the issues of prior art systems by collecting a standard volume (e.g., a target volume) of pure plasma from each donor. As noted above, embodiments of the present invention accomplish this by using knowledge of the donor's hematocrit and the amount of anticoagulant collected within the plasma collection container 216 (e.g., by counting pump rotations and/or using scale/weight sensors, etc.) to determine the percentage of anticoagulant in the product. Additionally, by stopping the plasma collection process based on a volume of pure plasma collected, embodiments of the present invention are able to collect a greater volume of plasma as compared to prior art systems that stop based on a plasma/anticoagulant mixture.

[0061] Figure 5 shows an alternative method for collecting plasma, using the system (or similar system) shown within Figures 1-3, that bases the total volume of plasma to collect on the individual donor (e.g., based on their height, weight, hematocrit, blood volume and/or plasma volume). In a manner similar to that described above for the method shown in Figure 4, prior to connecting the donor to the blood processing device 100, the system/method may obtain/determine some information regarding the donor, namely, the donor's weight and height (Step 505) and hematocrit (Step 510). For example, the technician may obtain/determine the

donor's weight by weighing the donor (e.g., on a scale) and the donor's height by measuring the donor. To obtain/determine the donor's hematocrit (e.g., in a manner similar to that described above), the technician may test a blood sample or the system may determine the hematocrit during blood processing using a hematocrit sensor and/or based on the volume of red blood cells collected within the bowl 214.

[0062] Using the donor height and weight, and the hematocrit, the system 100/method 500 may calculate the donor's plasma volume (e.g., the volume of plasma within the donor's blood) (Step 515). For example, the system 100/method 500 may calculate the donor/subject's body mass index ("BMI") using the donor's height and weight (e.g., $BMI = \text{weight}/\text{height}^2$), and then the total blood volume within the donor/subject using the calculated BMI (e.g., see Lemmens et al., *Estimating Blood Volume in Obese and Morbidly Obese Patients*, Obesity Surgery, 2006:16, 773-776, the subject matter incorporated herein by reference). The total blood volume may be calculated using the following equation:

$$\text{[0063]} \text{ InBV} = \frac{70}{\sqrt{BMI_p/22}}$$

[0064] In the above equation, InBV is the indexed blood volume (e.g., the donor's total blood volume), BMI_p is the patient's BMI (e.g., kg/m²), 22 is the BMI value (e.g., also in kg/m²) for an ideal body weight (IBW), and 70 is the total blood volume (in mL/kg) for a donor at their ideal weight (BMI = 22 kg/m²). Once the system 100 has calculated the total blood volume within the donor/subject, the system 100 (e.g., the controller) may then determine/calculate the volume of plasma within the donor's blood (Step 515) based, for example, on the donor's hematocrit.

[0065] As mentioned above, the embodiment shown in Figure 5 bases the volume of plasma to collect on the individual donor. To that end, once the system 100/method 500 has determined the donor's plasma volume, the system 100/method 500 may then calculate the target volume of plasma to collect (Step 520). For example, the system 100/method 500 may multiply the total plasma volume within the patient by a target percentage of plasma to collect to obtain the target plasma volume to collect (e.g., if the total plasma volume is 2700 ml and the target percentage to collect is 28.5%, then the target plasma volume to collect is 769.5 ml). The target percentage of plasma to collect may depend on the application and/or the donor, and may be

input directly into the system 100 (e.g., using the user interface 190) or may be preset from the factory. In some embodiments, the target percentage may be between 26.5 and 30%, and preferably may be 28.5%. However, in other embodiments, the target percentage may be below 26.5% or above 30%.

[0066] Once the lines 222/223 are in place and the system 100/method 500 has calculated the target plasma volume, the user/technician may insert the venous access device 206 into the donor's arm 208 (Step 525). Next, in a manner similar to that described above for the method shown in Figure 4, the controller 226 activates the two pumps 232, 234 and the motor 228. Operation of the two pumps 232, 234 causes whole blood to be drawn from the donor (step 530), anticoagulant from container 210 to be introduced into the drawn whole blood (step 535), and the now anticoagulated whole blood to be delivered to the inlet port 220 of the bowl 214.

[0067] As the anti-coagulated whole blood is withdrawn from the subject and introduced into the blood component separation device 214, the blood component separation device 214 separates the whole blood into the respective blood components (e.g., into plasma, platelets, RBC, and, perhaps, WBC) (Step 540). As discussed above, the higher density component, i.e., RBC, is forced to the outer wall of the bowl 214 and the plasma is the component closest to the outlet port and, therefore, is the first fluid component displaced from the bowl 214 via the outlet port 224 as additional anticoagulated whole blood enters the bowl 214 through the inlet port 220. During separation and processing, the optical sensor 213 monitors each layer of the blood components as they gradually and coaxially advance toward the core from the outer wall of the bowl 214, and the steps of drawing the whole blood from the subject/donor and introducing the whole blood into the bowl 12 may be altered and/or terminated in response to the detection. Additionally, as discussed above, the optical sensor 213 may be used to determine the hematocrit of the donor during processing (e.g., if it is not known and/or determined prior to the start of processing).

[0068] Once the blood component separation device 214 has separated the blood into the various components, the plasma may be removed to a plasma container 216 (e.g., a plasma bottle) through line 222 (Step 545). As noted above, some embodiments of the system 100 may include a weight sensor 195 (Fig. 1) that measures the amount of plasma collected. The plasma collection process may continue until the target plasma collection volume (discussed in greater

detail below) is collected within the plasma collection container 216. If equipped with the line sensor 185, the system 100 may then use the information from the sensor 185 to either stop the removal of blood components from the bowl 214, stop drawing whole blood from the subject, or redirect the flow by, for example, closing one valve and opening another.

[0069] As mentioned above, some embodiments of the present invention continue the blood processing/separation procedure until a target plasma collection volume is collected. In order to ensure that this volume does not include the volume of any anticoagulant collected within the container 216, the target plasma collection volume should only include the volume of pure plasma (e.g., plasma only – without the volume of any anticoagulant mixed with the plasma included in the target volume). To that end and in a manner similar to that described above, some embodiments of the present invention may calculate the volume of pure plasma within the plasma collection container 216. To determine the volume of pure plasma, the technician or the system 100 (e.g., the controller) may calculate the percentage of anticoagulant within the collected plasma (Step 560) (e.g., the plasma contained within the plasma collection container 216) based on the amount of anticoagulant added/metered into the whole blood and the hematocrit of the donor (see equation provided above). The amount of anticoagulant that is added to the system 100 can be determined in any of the ways mentioned above (e.g., based on the predetermined ratio of anticoagulant per unit of anticoagulated whole blood, by monitoring the volume of anticoagulant added to the system, etc.).

[0070] Once the technician/system 100 has calculated the percentage of anticoagulant within the plasma collection container 216, the technician/system 100 may then use this information to calculate the volume of pure plasma within the plasma collection container 216 (Step 570). For example, as discussed above, the technician/system 100 may determine the volume of anticoagulant within the container (based on the percentage of anticoagulant within the container 216) and subtract this volume from the total volume of fluid within the container 216 as measured by the weight sensor 195. The system 100 may continue to monitor the volume of pure plasma collected within the container 216 and continue processing whole blood (e.g., continue performing Steps 530, 535, 540, 545, 560, 570 and, possibly, steps 550, 555 and 565) until the volume of pure plasma collected within the plasma collection container 216 reaches the

target plasma volume (Step 575) (e.g., as calculated based on the individual plasma volume of the donor and the target percentage of plasma to collect).

[0071] Once the system 100 has collected the target plasma volume within the plasma collection container 216, the system 100 can return the remaining components (e.g., the components remaining within the bowl 214) to the subject (Step 580) by stopping the draw of whole blood from the subject and reversing the direction of the blood/first pump 232 to draw the RBCs (and other components) from the bowl 214 and back to the subject (e.g., directly via the blood/inlet line 218 or, if so equipped, via a dedicated return line.

[0072] It is important to note that, because the system 100/method 500 collect and do not return some of the blood components (e.g., the plasma), the volume of fluid that is returned to the donor/subject is less than the volume that was removed. This, in turn, creates an intravascular deficit that is equal to the amount of plasma collected (e.g., the volume of whole blood removed from the donor minus the volume of plasma collected/not returned). In instances in which the intravascular deficit is too large, the donor is at risk of fainting when the procedure is complete and they get up to leave the facility. To reduce the intravascular deficit (and the risk of donor injury), as noted above, some embodiments of the present invention return saline to the patient/subject (Step 585). The saline may be used as a compensation fluid to make up for the volume of the blood component (e.g., plasma) removed. To that end, during the return step (e.g., Step 580), the controller 226 (or the technician) may open the saline valve to allow saline from the saline container 217 to flow through the saline line 223 and into the bowl 214 (via outlet 224), where it can be returned to the patient/donor with or after the remaining blood components.

[0073] As mentioned above, the volume of plasma that is collected from the donor varies from donor to donor (e.g., because it is based on the donor's height, weight, hematocrit, and blood volume). Therefore, the volume of saline that is returned to the donor to reduce the intravascular deficit may similarly be dependent on the donor. To that end, when returning the contents of the separation device and the saline (Steps 580 and 585) to the donor, the system 100/method 500 may calculate the intravascular deficit (Step 590) based on the total volume of whole blood removed from the donor and the volume of blood components and saline that has been returned (or based on the volume of plasma collected and the volume of blood components

and saline that have been returned). The system 100/method 500 may continue returning saline until the donor's intravascular deficit reaches a target intravascular deficit (Step 595).

[0074] The target intravascular deficit may be any intravascular deficit that reduces the donor's risk for fainting and may be the same for each donor. For example, the target intravascular deficit may be set to 0 mL or 250 mL for each donor. Alternatively, like the target plasma volume to collect, the target intravascular deficit may be different for each donor. In other words, the target intravascular deficit may be set to 0 mL for some donors and 250 mL for others. It should be noted that 0 and 250 mL are provided as examples only and other embodiments may have target intravascular deficits between 0 and 250, or greater than 250 mL. Additionally, in some instances, it may be beneficial to return more fluid to the donor than was removed/collected. In such instances, the target intravascular deficit may be set less than zero (e.g., -1 to -250 mL) so that the donor has more fluid/volume after the procedure than they did before the procedure.

[0075] Like the method 400 shown in Figure 4, the method 500 may similarly perform some additional and optional steps to help determine the volume of pure plasma within the plasma collection container 216. For example, some embodiments may monitor the change in weight of the anticoagulant container 210 (e.g., as measured by a weight sensor/load cell on the anticoagulant container 210) (step 550). This measurement provides an indication of the volume of anticoagulant that has been added to the system 100, and may be used help determine the percentage of anticoagulant within the plasma collection container 216. Additionally or alternatively, some embodiments may similarly, monitor the change in weight and/or volume of the plasma and anticoagulant collected within the plasma collection container 216 (e.g., via weight sensor 195) (step 555). This measurement may be used to calculate of the total volume of pure plasma collected within the plasma collection container 216 (e.g., to obtain the total weight from which to subtract the calculated volume of anticoagulant). Also, some embodiments may also monitor the volume of anticoagulant remaining in the bowl 214 (step 565) (e.g., anticoagulant that did not mix with the plasma and/or otherwise remained in the bowl) using the optical sensor on the bowl 214 to determine whether any anticoagulant remains within the bowl 214 and modify the calculation of the amount of pure plasma collected within the plasma

collection container (e.g., either increase the calculated amount or decreased the calculated amount), based on the volume of anticoagulant remaining within the bowl 214.

[0076] As noted above, prior art systems that follow the current FDA nomogram for plasma collection collect a volume of plasma product (e.g., anticoagulant and plasma mixed together) based solely on the weight of the donor – the same volume is collected from every donor at the same weight. However, the total blood volume and plasma volume for two donors may vary greatly. For example, when comparing two donors in the same weight grouping according to the FDA nomogram – one obese and one not obese – the obese donor will effectively have a lower blood volume than the non-obese donor. Furthermore, with respect to the total plasma volume, donors with high hematocrit will have lower plasma volumes. In other words, because the total blood volume and total plasma volume vary from donor to donor (even among donors that weight the same), the percentage of the donor's plasma that is ultimately collected may vary widely from donor to donor. By tailoring the plasma collection to the donor (e.g., based on the donor's height, weight, BMI, hematocrit, total blood volume, and/or total plasma volume) and collecting a predetermined percent of plasma from each donor, embodiments of the preset invention are able to collect a greater volume of plasma (e.g., pure plasma) from some donors but less plasma from more vulnerable donors (e.g., smaller donors with high hematocrit, donors with lower plasma volume, etc.), as compared to systems that do not base the collection volume on the individual donor.

[0077] Similarly, current systems do not tailor the saline return volume to the patient (e.g., each donor at a given level receives the same volume of saline, for example, if the target plasma product volume is 800 mL, the donor will receive 500 mL of saline). However, because prior art systems collect based on the volume of the plasma product (which includes both plasma and anticoagulant) and the volume of pure plasma that is actually collected (and therefore, the volume removed from the donor) varies based on the donor hematocrit, the intravascular deficit for each donor will vary. In other words, the volume of saline returned to the donor may be sufficient for some, but insufficient for others. By tailoring the saline return to the individual donor, embodiments of the present invention are able to ensure that each donor has the same intravascular deficit (if any) once the procedure is complete. This, in turn, allows embodiments of the present invention to achieve isovolemia for each donor and greatly reduce any adverse

reactions that the donor may experience (e.g., falling, fainting, light-headedness, vasovagal reactions, etc.).

[0078] It is also important to note that, although the various embodiments discussed above are in relation to a blood processing system that collects plasma, the features discussed herein may be applied to any type of blood processing system. For example, the features described herein may be implemented on blood processing systems that collect and/or process red blood cells, platelets and/or white blood cells.

[0079] The embodiments of the invention described above are intended to be merely exemplary; numerous variations and modifications will be apparent to those skilled in the art. All such variations and modifications are intended to be within the scope of the present invention as defined in any appended claims.

What is claimed is:

1. A method for collecting plasma comprising:

calculating a donor total blood volume based, at least in part, on a weight and a height of a donor;

calculating a target plasma amount to collect based, at least in part, on the calculated donor total blood volume and a hematocrit of the donor, the target plasma amount to collect tailored to the donor;

withdrawing whole blood from the donor through a venous-access device and a first line, the first line connected to a blood component separation device of a blood processing system, the blood processing system having a controller configured to stop collecting plasma when the target plasma amount to collect has been collected into a plasma collection container;

introducing anticoagulant into the withdrawn whole blood through an anticoagulant line;

separating the withdrawn whole blood into a plasma component and at least a second blood component; and

collecting the plasma component from the blood component separation device into the plasma collection container until the target plasma amount to collect is reached in the plasma collection container.

2. The method according to claim 1, further comprising:

calculating the donor's body mass index based, at least in part on the weight and the height of the donor, the target plasma amount to collect calculated based, at least in part, on the donor's body mass index.

3. The method according to claim 1, wherein the calculated target plasma amount to collect is an optimized safe amount to be collected from the donor.

4. The method according to claim 1, further comprising:

returning, after collecting at least a portion of the target plasma amount to collect, the contents of the blood component separation device to the donor through the first line.

5. The method according to claim 1, wherein the target plasma amount to collect is a target amount of pure plasma to collect.

6. The method according to claim 1, wherein the target plasma amount to collect is a target amount of anticoagulated plasma to collect.

7. The method according to claim 1, further comprising:

monitoring an amount of plasma component collected within the plasma collection container.

8. A system for collecting plasma comprising:

a venous-access device for drawing whole blood from a donor and returning blood components to the donor;

a blood component separation device for separating the drawn whole blood into a plasma component and at least a second blood component, the blood component separation device having an outlet and being configured to send the plasma component to a plasma collection container;

a first line fluidly connected to the venous-access device and configured to transport drawn whole blood to the blood component separation device and return fluid within the blood component separation device to the donor, the flow through the first line being controlled by a first pump;

an anticoagulant line connected to an anticoagulant source, the anticoagulant line configured to introduce anticoagulant into the drawn whole blood; and

a controller configured to control the operation of the blood component separation device and the first pump, the controller configured to calculate a target plasma amount to collect based, at least in part, on the donor's total blood volume and a hematocrit of the donor, the donor's total

blood volume based, at least in part, on a weight and height of the donor, the target plasma amount to collect tailored to the donor.

9. The system according to claim 8, wherein the controller is further configured to stop collecting plasma when the target amount of plasma to collect has been collected into the plasma collection container.

10. The system according to claim 8, wherein the controller is further configured to:

calculate the donor's body mass index based, at least in part on the weight and height of the donor, the target plasma amount to collect calculated based, at least in part, on the donor's body mass index.

11. The system according to claim 8, wherein the controller is further configured to calculate the donor's total blood volume.

12. The system according to claim 8, wherein the calculated target plasma amount to collect is an optimized safe amount to be collected from the donor.

13. The system according to claim 8, wherein the controller is further configured to:

return, after collecting at least a portion of the target plasma amount to collect, the contents of the blood component separation device to the donor through the first line.

14. The system according to claim 8, wherein the target plasma amount to collect is a target amount of pure plasma to collect or a target amount of anticoagulated plasma to collect.

15. A method for collecting plasma comprising:

determining individual characteristics of a donor, the individual characteristics of the donor including a weight, a height and a hematocrit of the donor;

calculating a donor total blood volume based, at least in part, on the weight and height of the donor;

calculating a target plasma amount to collect based, at least in part, on the calculated donor total blood volume and the hematocrit of the donor, the target plasma amount to collect being tailored to the individual characteristics of the donor;

withdrawing whole blood from the donor through a venous-access device and a first line, the first line connected to a blood component separation device;

introducing anticoagulant into the withdrawn whole blood through an anticoagulant line;

separating the withdrawn whole blood into a plasma component and at least a second blood component; and

collecting the plasma component from the blood component separation device and into a plasma collection container.

16. The method according to claim 15, further comprising:

calculating the donor's body mass index based, at least in part, on the weight and height of the donor, the target plasma amount to collect calculated based, at least in part, on the donor's body mass index.

17. The method according to claim 15, further comprising:

returning, after collecting at least a portion of the target plasma amount to collect, the contents of the blood component separation device to the donor through the first line.

18 The method according to claim 15, wherein the target plasma amount to collect is a target amount of pure plasma to collect.

19. The method according to claim 15, wherein the target plasma amount to collect is a target amount of anticoagulated plasma to collect.

20. The method according to claim 15, wherein the target plasma amount to collect is an optimized safe amount to be collected from the donor.

21. The method according to claim 15, further comprising:

stopping the collection of the plasma component from the blood component separation device into the plasma collection container when the target plasma amount to collect is reached in the plasma collection container.

22. The method according to claim 15, wherein the blood component separation device is part of a blood processing system, the blood processing system having a controller configured to stop collecting the plasma component when the target plasma amount to collect has been collected into the plasma collection container.

23. A system for collecting plasma comprising:

a venous-access device for drawing whole blood from a donor and returning blood components to the donor;

a blood component separation device for separating the drawn whole blood into a plasma component and at least a second blood component, the blood component separation device having an outlet and being configured to send the plasma component to a plasma collection container;

a first line fluidly connected to the venous-access device and configured to transport drawn whole blood to the blood component separation device and return fluid within the blood component separation device to the donor, the flow through the first line being controlled by a first pump;

an anticoagulant line connected to an anticoagulant source, the anticoagulant line configured to introduce anticoagulant into the drawn whole blood; and

a controller configured to control the operation of the blood component separation device and the first pump, the controller configured to (1) receive individual characteristics of the donor, the individual characteristics including a weight, height, and hematocrit of the donor, and (2) calculate a target plasma amount to collect based, at least in part, on the donor's total blood volume and a hematocrit of the donor, the donor's total blood volume based, at least in part, on the weight and height of the donor, the target plasma amount to collect being tailored to the individual characteristics of the donor.

24. The system of claim 23, wherein the controller is further configured to calculate the donor's total blood volume.

25. The system according to claim 23, wherein the controller is further configured to stop collecting the plasma component when the target amount of plasma to collect has been collected into the plasma collection container.

26. The system according to claim 23, wherein the controller is further configured to:

calculate the donor's body mass index based, at least in part on the weight and height of the donor, the target plasma amount to collect calculated based, at least in part, on the donor's body mass index.

27. The system according to claim 23, wherein the controller is further configured to:

return, after collecting at least a portion of the target plasma amount to collect, the contents of the blood component separation device to the donor through the first line.

28. The system according to claim 23, wherein the target plasma amount to collect is a target amount of pure plasma to collect or a target amount of anticoagulated plasma to collect.

29. The system according to claim 23, wherein the target plasma amount to collect is an optimized safe amount to be collected from the donor.

30. The system according to claim 23, further comprising:

a plasma collection container weight sensor configured to monitor a volume or weight of plasma component collected within the plasma collection container.

Abstract

A method for collecting plasma includes determining the weight, height, and hematocrit of a donor, and calculating a donor plasma volume and a target plasma collection volume. The target plasma collection volume is based on the donor plasma volume and a target percentage of plasma. The method then withdraws blood from the donor through a line connected to a blood component separation device, and introduces anticoagulant into the withdrawn blood. The blood component separation device separates the blood into a plasma component and a second blood component, and the plasma component is collected from the blood component separation device and into a plasma collection container. The method may then calculate the volume of pure plasma collected within the plasma collection container, and continue processing/collecting until the calculated volume of pure plasma equals the target plasma collection volume.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Utility Application of:
Haemonetics Corporation

Application No.: Not Yet Assigned

Confirmation No.: N/A

Filed: Concurrently Herewith

Art Unit: N/A

For: SYSTEM AND METHOD FOR COLLECTING
PLASMA

Examiner: Not Yet Assigned

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT (IDS)

Dear Commissioner:

Pursuant to 37 C.F.R. §§ 1.56, 1.97, and 1.98, the attention of the United States Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of the above-identified application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed within three months of the U.S. filing date (37 C.F.R. § 1.97(b)(1)).

In accordance with 37 C.F.R. § 1.98(a)(2)(ii), Applicant has not submitted copies of U.S. patents and U.S. patent applications.

In accordance with 37 C.F.R. § 1.98(d)(1) all of the references are not supplied because they were previously cited by or submitted to the Office in prior application numbers 18/606761 filed March 15, 2024, 17/205400 filed March 18, 2021, 16/931333 filed July 16, 2020, 15/793339 filed October 25, 2017, and 15/608183 filed May 30, 2017 and relied on in the above-identified application for an earlier effective filing date under 35 U.S.C. § 120.

The Examiner is advised that the following applications contain subject matter that may be related to the present application:

U.S. Application	Filing Date	Publication No. / Patent No.	Status	Att. Docket No.
15/608,183	May 30, 2017	10,758,652	Issued	130670-08002
16/866,078	May 4, 2020	10,980,926	Issued	130670-08005
17/205,374	March 18, 2021	12,171,916	Issued	130670-08006
17/943,410	September 13, 2022	11,738,124	Issued	130670-08007
18/955,269	November 21, 2024		Pending	130670-08008
15/793,339	October 25, 2017	10,792,416	Issued	130670-80102
16/931,333	July 16, 2020	10,980,934	Issued	130670-80103
17/205,400	March 18, 2021	12,186,474	Issued	130670-80104
18/606,761	March 15, 2024	2024-0293604	Published	130670-80105

In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed as a representation that a search has been made. In accordance with 37 C.F.R. § 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that the information cited in this Information Disclosure Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

It is submitted that the Information Disclosure Statement is in compliance with 37 C.F.R. § 1.98, and the Examiner is respectfully requested to consider the listed references.

Applicant submits herewith \$800 of fee for filing an IDS that causes the cumulative number of applicant-provided or patent owner-provided items of information to exceed 200 in accordance with 37 C.F.R. § 1.17(v).

Applicant believes no fee is due with this submission.

Dated: March 12, 2025

Respectfully submitted,

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UTILITY PATENT APPLICATION TRANSMITTAL <small>(Only for new nonprovisional applications under 37 CFR 1.53(b))</small>	Attorney Docket No. 130670-80106	
	First Named Inventor Michael Ragusa	
	Title	SYSTEM AND METHOD FOR COLLECTING PLASMA
	Priority Mail Express® Label No.	

APPLICATION ELEMENTS <small>See MPEP chapter 600 concerning utility patent application contents.</small> 1. ☐ Fee Transmittal Form <small>(PTO/SB/17 or equivalent)</small> 2. ☐ Applicant asserts small entity status. <small>See 37 CFR 1.27</small> 3. ☐ Applicant certifies micro entity status. See 37 CFR 1.29. <small>Applicant must attach form PTO/SB/15A or B or equivalent.</small> 4. ☒ Specification [Total Pages <u>32</u>] <small>Both the claims and abstract must start on a new page. (See MPEP § 608.01(a) for information on the preferred arrangement)</small> 5. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets <u>5</u>] 6. ☐ Inventor's Oath or Declaration [Total Pages <u>1</u>] <small>(including substitute statements under 37 CFR 1.64 and assignments serving as an oath or declaration under 37 CFR 1.63(e))</small> a. ☐ Newly executed (original or copy) b. ☒ A copy from a prior application (37 CFR 1.63(d)) 7. ☒ Application Data Sheet * See note below. <small>See 37 CFR 1.76 (PTO/AIA/14 or equivalent)</small> 8. CD-ROM or CD-R <small>in duplicate, large table, or Computer Program (Appendix)</small> ☐ Landscape Table on CD 9. Nucleotide and/or Amino Acid Sequence Submission <small>(if applicable, items a. – c. are required)</small> a. ☐ Computer Readable Form (CRF) b. ☐ Specification Sequence Listing on: i. ☐ CD-ROM or CD-R (2 copies); or ii. ☐ Paper c. ☐ Statements verifying identity of above copies	ADDRESS TO: Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 ACCOMPANYING APPLICATION PAPERS 10. ☐ Assignment Papers <small>(cover sheet & document(s))</small> Name of Assignee <div style="border: 1px solid black; height: 30px; width: 100%;"></div> 11. ☐ 37 CFR 3.73(c) Statement <small>(when there is an assignee)</small> ☒ Power of Attorney 12. ☐ English Translation Document (if applicable) 13. ☒ Information Disclosure Statement <small>(PTO/SB/08 or PTO-1449)</small> ☐ Copies of citations attached 14. ☐ Preliminary Amendment 15. ☐ Return Receipt Postcard <small>(MPEP § 503) (Should be specifically itemized)</small> 16. ☐ Certified Copy of Priority Document(s) <small>(if foreign priority is claimed)</small> 17. ☐ Nonpublication Request <small>Under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or equivalent.</small> 18. ☒ Other: Certification and Request for Prioritized Examination Under 37 CFR 1.102(e); Information Disclosure Statement Transmittal Letter and Information Disclosure Statement Size Fee - Written Assertion under 37 CFR 1.98
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***Note:** (1) Benefit claims under 37 CFR 1.78 and foreign priority claims under 1.55 **must** be included in an Application Data Sheet (ADS).
(2) For applications filed under 35 U.S.C. 111, the application must contain an ADS specifying the applicant if the applicant is an assignee, person to whom the inventor is under an obligation to assign, or person who otherwise shows sufficient proprietary interest in the matter. See 37 CFR 1.46(b).

19. CORRESPONDENCE ADDRESS					
☒ The address associated with Customer Number: <u>86738</u> OR ☐ Correspondence address below					
Name					
Address					
City		State		Zip Code	
Country		Telephone		Email	
Signature		/Jonathan C. Lovely, Reg. No. 60,821/		Date	
Name (Print/Type)		Jonathan C. Lovely		March 12, 2025	
				Registration No. (Attorney/Agent)	
				60,821	

SYSTEM AND METHOD FOR COLLECTING PLASMA

Priority

[0001] This application is a continuation of and claims priority from co-pending U.S. Application No. 18/606,761, entitled “System and Method for Collecting Plasma,” filed March 15, 2024, attorney docket number 130670-80105, and naming Michael Ragusa as inventor, the disclosure of which is incorporated herein, in its entirety, by reference.

[0002] U.S. Application No. 18/606,761, in turn, is a continuation of and claims priority from U.S. Application No. 17/205,400, entitled “System and Method for Collecting Plasma,” filed March 18, 2021, now U.S. Patent No. 12,186,474, attorney docket number 130670-80104, and naming Michael Ragusa as inventor, the disclosure of which is incorporated herein, in its entirety, by reference.

[0003] U.S. Application No. 17/205,400, in turn, is a continuation of and claims priority from U.S. Application No. 16/931,333, entitled “System and Method for Collecting Plasma,” filed July 16, 2020, now U.S. Patent No. 10,980,934, attorney docket number 130670-80103, and naming Michael Ragusa as inventor, the disclosure of which is incorporated herein, in its entirety, by reference.

[0004] U.S. Application No. 16/931,333, in turn, is a continuation of and claims priority from U.S. Application No. 15/793,339, entitled “System and Method for Collecting Plasma,” filed October 25, 2017, now U.S. Patent No. 10,792,416, attorney docket number 130670-80102 (formerly 1611/C86), and naming Michael Ragusa as inventor, the disclosure of which is incorporated herein, in its entirety, by reference.

[0005] U.S. Application No. 15/793,339 is a continuation-in-part of and claims priority to U.S. Patent Application No. 15/608,183, entitled “System and Method for Collecting Plasma,” filed May 30, 2017, now U.S. Patent No. 10,758,652, attorney docket number 130670-08002 (formerly 1611/C80), and naming Michael Ragusa as inventor, the disclosure of which is incorporated herein, in its entirety, by reference.

Technical Field

[0006] The present invention relates to systems and methods for blood apheresis, and more particularly system and methods for collecting a plasma product.

Background Art

[0007] Apheresis is a procedure in which individual blood components can be separated and collected from whole blood temporarily withdrawn from a subject. Typically, whole blood is withdrawn through a needle inserted into a vein of the subjects arm and into a cell separator, such as a centrifugal bowl. Once the whole blood is separated into its various components, one or more of the components (e.g., plasma) can be removed from the centrifugal bowl. The remaining components can be returned to the subject along with optional compensation fluid to make up for the volume of the removed component. The process of drawing and returning continues until the quantity of the desired component has been collected, at which point the process is stopped. A central feature of apheresis systems is that the processed but unwanted components are returned to the donor. Separated blood components may include, for example, a high density component such as red blood cells, an intermediate density component such as platelets or white blood cells, and a lower density component such as plasma.

[0008] Many jurisdictions have regulations regarding the amount of whole blood and/or blood components that can be removed from a donor. For example, the U.S. Food and Drug Administration (“the FDA”) sets both an upper limit on the volume of plasma that may be collected (e.g., 800 ml for an adult weighing more than 175 pounds) as well as an upper limit on the total collection volume (e.g., 880 ml for an adult weighing more than 175 pounds). Prior art plasma collection systems are unable to determine the total volume of plasma that has been collected (e.g., because the product collected is a mixture of plasma and anticoagulant) and, therefore collect based on the total collection volume, even if the total volume of plasma that has been collected is below the limit prescribed by the FDA. Additionally, prior art collection systems do not tailor the amount of plasma collected to the individual (e.g., other than what weight group they fall into) and, therefore, the percentage of the patient’s plasma that is collected varies widely from patient to patient (e.g., only 23% percent of the plasma is collected for some patients and 29% - or greater – of the plasma is collected for others).

Summary of the Invention

[0009] In accordance with some embodiments of the present invention, a method for collecting plasma includes determining the weight and hematocrit of a donor, and inserting a venous-access device into the donor. Once the venous access device is inserted, the method may withdraw whole blood from the donor through the venous-access device and a draw line that is connected to a blood component separation device. The method may then introduce anticoagulant into the withdrawn whole blood through an anticoagulant line and separate, using the blood component separation device, the withdrawn whole blood into a plasma component and at least a second blood component. Once separated, the plasma component may be collected from the blood component separation device and into a plasma collection container. During processing, the method may calculate (1) a percentage of anticoagulant in the collected plasma component, and (2) a volume of pure plasma collected within the plasma collection container. The volume of pure plasma may be based, at least in part, on the calculated percentage of anticoagulant in the collected plasma component. The method may continue the process (e.g., withdrawing whole blood, introducing anticoagulant into the whole blood, separating the blood, collecting the plasma, and calculating the percentage of anticoagulant and volume of pure plasma) until a target volume of pure plasma is collected within the plasma collection container.

[0010] In some embodiments, the method may determine a change in volume within an anticoagulant container, and the calculated percentage of anticoagulant in the collected plasma may be based, at least in part, on the change in volume within the anticoagulant container. Additionally or alternatively, the method may determine a volume of anticoagulant introduced into the whole blood based on a number of rotations of an anticoagulant pump. In such embodiments, the calculated percentage of anticoagulant in the collected plasma may be based, at least in part, on the number of rotations of the anticoagulant pump. The method may also determine a volume of anticoagulant within the blood component separation device, and the calculated percentage of anticoagulant in the collected plasma may be based, at least in part, on the volume of anticoagulant within the blood component separation device.

[0011] In further embodiments, the method may monitor the volume and/or weight of the plasma component collected within the plasma collection container (e.g., using a weight sensor), and the calculated volume of pure plasma collected within the plasma collection device may be

based, at least in part, on the monitored volume and/or weight of the collected plasma component. Additionally or alternatively, determining the hematocrit of the donor may include monitoring a volume of red blood cells collection within the blood separation device. In such embodiments, the determined hematocrit of the donor may be based, at least in part, on the monitored volume of red blood cells collected within the blood separation device and the volume of whole blood withdrawn from the donor.

[0012] The target volume of pure plasma may be based, at least in part, on the weight of the donor. The percentage of anticoagulant in the collected plasma component may include at least a portion of the anticoagulant introduced into the withdrawn blood and at least a portion of a volume of anticoagulant that is added to the system during a priming step. After collecting at least a portion of the target volume of pure plasma, the method may return the second blood component to the donor through a return line.

[0013] In accordance with additional embodiments, a system for collecting plasma includes a venous-access device for drawing whole blood from a subject and returning blood components to the subject, and a blood component separation device for separating the drawn blood into a plasma component and a second blood component. The blood component separation device has an outlet and is configured to send the plasma component to a plasma container. The system may also include a blood draw line fluidly connected to the venous-access device and an anticoagulant line connected to an anticoagulant source. The blood draw line transports drawn whole blood to the blood component separation device, and the flow through the blood draw line may be controlled by a blood draw pump. The anticoagulant line may introduce anticoagulant into the drawn whole blood.

[0014] Additionally, the system may include a controller that controls the operation of the centrifuge bowl. The controller may also calculate (1) a percentage of anticoagulant in the collected plasma component, and (2) a volume of pure plasma collected within the plasma container. The volume of pure plasma may be based, at least in part, upon the percentage of anticoagulant in the collected plasma component. The controller may stop the blood draw pump when a target volume of pure plasma (e.g., based, at least in part, on the weight of the donor) is collected within the plasma container. In some embodiments, the percentage of anticoagulant in

the collected plasma component may be based, at least in part, on the volume of anticoagulant added to the drawn whole blood and the subject's hematocrit.

[0015] The system may also include an anticoagulant source weight sensor that measures the weight of the anticoagulant source. The controller may monitor the change in volume within the anticoagulant container based on the measured weight of the anticoagulant source, and the calculated percentage of anticoagulant in the collected plasma may be based, at least in part, on the change in volume within the anticoagulant source. Additionally or alternatively, the controller may monitor the number of rotations of an anticoagulant pump to determine a volume of anticoagulant introduced into the whole blood. In such embodiments, the calculated percentage of anticoagulant in the collected plasma may be based, at least in part, on the number of rotations of the anticoagulant pump.

[0016] In some embodiments, the system may include an optical sensor located on the blood component separation device. The optical sensor may monitor the contents of the blood component separation device and determine if a volume of anticoagulant remains within the blood component separation device. The calculated percentage of anticoagulant in the collected plasma may be based, at least in part, on the volume of anticoagulant within the blood component separation device.

[0017] In additional embodiments, the system may also include a plasma container weight sensor that monitors a volume and/or weight of the plasma component collected within the plasma collection container. The calculated volume of pure plasma collected within the plasma collection container may be based, at least in part, on the monitored volume and/or weight of collected plasma component. The system may also have an optical sensor located on the blood component separation device. The optical sensor may monitor the volume of red blood cells collected within the blood separation device. The controller may then determine the subject's hematocrit based, at least in part, upon on the monitored volume of red blood cells collected within the blood separation device and the volume of whole blood withdrawn from the donor. The percentage of anticoagulant in the collected plasma component may include at least a portion of the anticoagulant introduced into the withdrawn blood and at least a portion of a volume of anticoagulant added to the system during a priming step.

[0018] In accordance with additional embodiments, a method for collecting plasma determines the weight, height, and hematocrit of a donor, and calculates a donor plasma volume based, at least in part, on the weight, height and hematocrit of the donor. The method then calculates a target plasma collection volume based, at least in part, on the calculated donor plasma volume and a target percentage of plasma (e.g., between 26.5 and 29.5 percent of the donor's plasma volume), and withdraws whole blood from the donor through the venous-access device and a first line that is connected to a blood component separation device. As the whole blood is withdrawn, the method may introduce anticoagulant into the withdrawn whole blood through an anticoagulant line.

[0019] The blood component separation device separates the withdrawn whole blood into a plasma component and at least a second blood component, and the method may collect the plasma component from the blood component separation device and into a plasma collection container. During processing, the method may calculate a volume of pure plasma collected within the plasma collection container. The method continues the withdrawing, introduction of anticoagulant, separating, collecting, and calculating steps until the volume of pure plasma collected within the plasma collection container equals the target plasma collection volume.

[0020] In some embodiments, after collecting at least a portion of the target plasma collection volume, the method may return the contents of the blood component separation device to the donor through the first line. Additionally or alternatively, the method may calculate an intravascular deficit based, at least in part on, the volume of pure plasma collected and the volume of the contents of the blood component separation device that are returned to the donor. The method may also return a volume of saline to the donor to obtain a target intravascular deficit. The target intravascular deficit may be between -250 and 500 milliliters (e.g., it may be 0 milliliters or 250 milliliters). The donor plasma volume may be calculated based, at least in part, on the donor's body mass index that, in turn, is calculated based on the donor's weight and height.

[0021] In further embodiments, the method may include calculating a percentage of anticoagulant in the collected plasma component. In such embodiments, the volume of pure plasma may be based, at least in part, on the calculated percentage of anticoagulant in the collected plasma component. The calculated percentage of anticoagulant in the collected plasma

may be based, at least in part, on a change in volume within the anticoagulant container, the number of rotations of the anticoagulant pump, and/or the volume of anticoagulant within the blood component separation device. The method may determine the change in volume within the anticoagulant container, the volume of anticoagulant introduced into the whole blood, and/or the volume of anticoagulant within the blood component separation device. The percentage of anticoagulant in the collected plasma component may include at least a portion of the anticoagulant introduced into the withdrawn blood and at least a portion of a volume of anticoagulant added during a priming step.

[0022] In some embodiments, the method may include monitoring a volume or and/or weight of the plasma component collected within the plasma collection container. In such embodiments, the calculated volume of pure plasma collected within the plasma collection device may be based, at least in part, on the monitored volume and/or weight of collected plasma component. To determine the donor's hematocrit, the method may monitor the volume of red blood cells collected within the blood separation device. The hematocrit of the donor may be based, at least in part, on the monitored volume of red blood cells collected within the blood separation device and the volume of whole blood withdrawn from the donor.

[0023] In accordance with still further embodiments, a system for collecting plasma includes a venous-access device for drawing whole blood from a subject and returning blood components to the subject, and a blood component separation device for separating the drawn blood into a plasma component and a second blood component. The blood component separation device may have an outlet and may send the plasma component to a plasma container. The system may also have a first line and an anticoagulant line. The first line may be fluidly connected to the venous-access device and may (1) transport drawn whole blood to the blood component separation device and (2) return fluid within the blood component separation device to the subject. The flow through the first line may be controlled by a first pump. The anticoagulant line may be connected to an anticoagulant source and may introduce anticoagulant into the drawn whole blood.

[0024] The system may also include a controller that controls the operation of the centrifuge bowl and the first pump. The controller may calculate (1) a donor plasma volume, (2) a target plasma collection volume, and (3) a volume of pure plasma collected within the plasma container. The donor plasma volume may be based, at least in part, on a weight and height of the

donor and a hematocrit of the donor. The target plasma collection volume may be based, at least in part, on the calculated donor plasma volume and a target percentage of plasma. The volume of pure plasma collected within the plasma container may be based, at least in part, upon a percentage of anticoagulant in the collected plasma component. The controller may stop the first pump when the calculated volume of pure plasma collected within the plasma collection container equals the target plasma collection volume.

[0025] In further embodiments, the controller may return, after collecting at least a portion of the target plasma collection volume, fluid remaining within the blood component separation device via the first line. Additionally or alternatively, the controller may calculate an intravascular deficit based, at least in part on, the volume of pure plasma collected and the volume of the contents of the blood component separation device returned to the donor. The system may also include a saline line that fluidly connects to a saline source and the blood component separation device. The controller may return a volume of saline to the donor to obtain a target intravascular deficit (e.g., between -250 and 500 milliliters).

[0026] The controller may calculate the donor's body mass index based, at least in part, on the weight and height of the donor. The donor plasma volume may, in turn, be calculated based, at least in part, on the donor's body mass index. The target percentage of plasma may be between 26.5 and 29.5 percent (e.g., 28.5 percent) of the donor's plasma volume.

[0027] In additional embodiments, the controller may calculate the percentage of anticoagulant in the collected plasma component, for example, based on the volume of anticoagulant added to the drawn whole blood, and the subject's hematocrit. The system may also include an anticoagulant source weight sensor that measures the weight of the anticoagulant source. The controller may then monitor a change in volume within the anticoagulant container based on the measured weight of the anticoagulant source. The calculated percentage of anticoagulant in the collected plasma may be based, at least in part, on the change in volume within the anticoagulant source. Additionally or alternatively the controller may monitor a number of rotations of the anticoagulant pump to determine the volume of anticoagulant introduced into the whole blood. In such embodiments, the calculated percentage of anticoagulant in the collected plasma may be based, at least in part, on the number of rotations of the anticoagulant pump.

[0028] The system may also include an optical sensor and/or a plasma container weight sensor. The optical sensor may be located on the blood component separation device and may monitor the contents of the blood component separation device to determine if a volume of anticoagulant remains within the blood component separation device. The calculated percentage of anticoagulant in the collected plasma may then be based, at least in part, on the volume of anticoagulant within the blood component separation device. The plasma container weight sensor may monitor a volume and/or weight of the plasma component collected within the plasma container. The calculated volume of pure plasma collected within the plasma collection device may then be based, at least in part, on the monitored volume and/or weight of collected plasma component. The optical sensor may also monitor the volume of red blood cells collected within the blood separation device, and the controller may determine the subject's hematocrit based, at least in part, upon on the monitored volume of red blood cells collected within the blood separation device and the volume of whole blood withdrawn from the donor. The percentage of anticoagulant in the collected plasma component may include at least a portion of the anticoagulant introduced into the withdrawn blood and at least a portion of a volume of anticoagulant added during a priming step.

Brief Description of the Drawings

[0029] The foregoing features of the invention will be more readily understood by reference to the following detailed description, taken with reference to the accompanying drawings, in which:

[0030] Fig. 1 schematically shows a perspective view of a blood processing system in accordance with some embodiments of the present invention.

[0031] Fig. 2 schematically shows a top view of the blood processing system of Figure 1, in accordance with some embodiments of the present invention;

[0032] Fig. 3 schematically shows a disposable set installed within the blood processing system of Figure 1, in accordance with some embodiments of the present invention.

[0033] Fig. 4 is a flowchart depicting a method of collecting plasma, in accordance with embodiments of the present invention.

[0034] Fig. 5 is a flowchart depicting an alternative method of collecting plasma, in accordance with further embodiments of the present invention.

Detailed Description of Specific Embodiments

[0035] Illustrative embodiments of the present invention provide blood processing systems and methods for collecting a target volume of pure plasma. The system and method calculate a percentage of anticoagulant collected within a plasma collection container (e.g., in addition to the plasma that is collected within the container) based on the amount of anticoagulant added to the system and the hematocrit of the donor. The system/method may then calculate the volume of pure plasma (e.g., plasma without anticoagulant) that has been collected within the container. Further embodiments may tailor the volume of plasma collected based on the donor's plasma volume and a target percentage of plasma to collect. Details of the illustrative embodiments are discussed below.

[0036] As shown in Figures 1 and 2, the blood processing system 100 includes a cabinet 110 that houses the main components of the system 100 (e.g., the non-disposable components). Within the cabinet 110, the system 100 may include a first/blood pump 232 that draws whole blood from a subject, and a second/anticoagulant pump 234 that pumps anticoagulant through the system 100 and into the drawn whole blood. Additionally, the system 100 may include a number of valves that may be opened and/or closed to control the fluid flow through the system 100. For example, the system 100 may include a donor valve 120 that may open and close to selectively prevent and allow fluid flow through a donor line 218 (e.g., an inlet line; Fig. 3), and a plasma valve 130 that selectively prevents and allows fluid flow through an outlet/plasma line 222 (Fig. 3). Some embodiments may also include a saline valve 135 that selectively prevents and allows saline to flow through a saline line 223.

[0037] To facilitate the connection and installation of a disposable set and to support the corresponding fluid containers, the system 100 may include an anticoagulant pole 150 on which the anticoagulant solution container 210 (Fig. 3) may be hung, and a saline pole 160 on which a saline solution container 217 (Fig. 3) may be hung (e.g., if the procedure being performed requires the use of saline). Additionally, in some applications, it may be necessary and/or desirable to filter the whole blood drawn from the subject for processing. To that end, the system

100 may include blood filter holder 170 in which the blood filter (located on the disposable set) may be placed.

[0038] As discussed in greater detail below, apheresis systems 100 in accordance with embodiments of the present invention withdraw whole blood from a subject through a venous access device 206 (Fig. 3) using the blood pump 232. As the system 100 withdraws the whole blood from the subject, the whole blood enters a blood component separation device 214, such as a Latham type centrifuge (other type of separation chambers and devices may be used, such as, without limitation, an integral blow-molded centrifuge bowl, as described in U.S. Patent Nos. 4,983,158 and 4,943,273, which are hereby incorporated by reference). The blood component separation device 214 separates the whole blood into its constituent components (e.g., red blood cells, white blood cell, plasma, and platelets). Accordingly, to facilitate operation of the separation device 214, the system 100 may also include a well 180 in which the separation device 214 may be placed and in which the separation device 214 rotates (e.g., to generate the centrifugal forces required to separate the whole blood).

[0039] To allow the user/technician to monitor the system operation and control/set the various parameters of the procedure, the system 100 may include a user interface 190 (e.g., a touch screen device) that displays the operation parameters, any alarm messages, and buttons which the user/technician may depress to control the various parameters. Additional components of the blood processing system 100 are discussed in greater detail below (e.g., in relation to the system operation).

[0040] FIG. 3 is a schematic block diagram of the blood processing system 100 and a disposable collection set 200 (with an inlet disposable set 200A and an outlet disposable set 200B) that may be loaded onto/into the blood processing system 100, in accordance with the present invention. The collection set 200 includes a venous access device 206 (e.g., a phlebotomy needle) for withdrawing blood from a donor's arm 208, a container of anti-coagulant 210, a centrifugation bowl 214 (e.g., a blood component separation device), a saline container 217, and a final plasma collection bag 216. The blood/inlet line 218 couples the venous access device 206 to an inlet port 220 of the bowl 214, the plasma/outlet line 222 couples an outlet port 224 of the bowl 214 to the plasma collection bag 216, and a saline line 223 connects the outlet port 224 of the bowl 214 to the saline container 217. An anticoagulant line 225 connects the anti-

coagulant container 210 to the inlet line 218. In addition to the components mentioned above and as shown in Figure 3, the blood processing system 100 includes a controller 226, a motor 228, and a centrifuge chuck 230. The controller 226 is operably coupled to the two pumps 232 and 234, and to the motor 228, which, in turn, drives the chuck 230. The controller 226 may be operably coupled to and in communication with the user interface 190.

[0041] In operation, the disposable collection set 200 (e.g., the inlet disposable set 200A and the outlet disposable set 200B) may be loaded onto/into the blood processing system 100 prior to blood processing. In particular, the blood/inlet line 218 is routed through the blood/first pump 232 and the anticoagulant line 225 from the anti-coagulant container 210 is routed through the anticoagulant/second pump 234. The centrifugation bowl 214 may then be securely loaded into the chuck 230. Once the bowl 214 is secured in place, the technician may install the outlet disposable set 200B. For example the technician may connect a bowl connector 300 to the outlet 224 of the bowl 214, install the plasma container 216 into the weight sensor 195, run the saline line 223 through valve 135, and run the plasma/outlet line 222 through valve 130 and the line sensor 185. Once the disposable set 200 is installed and the anticoagulant and saline containers 210/217 are connected, the system 100 is ready to begin blood processing.

[0042] Figure 4 is a flowchart depicting an exemplary method of collecting plasma in accordance with various embodiments of the present invention. Prior to connecting the donor to the blood processing device 100, it is beneficial (and perhaps necessary in some instances) to obtain/determine some information regarding the donor, namely, the donor's weight (Step 410) and hematocrit (Step 415). Not only does this information help determine if the individual is a viable donor and the volumes of blood components that may be withdrawn/collected (e.g., per the FDA guidelines), the hematocrit may be used during processing to help collect a target volume of plasma. The technician may obtain/determine the donor's weight by weighing the donor (e.g., on a scale). To obtain/determine the donor's hematocrit, the technician may draw a blood sample from the donor and test the sample of blood. Additionally or alternatively, as discussed in greater detail below, the system may determine the hematocrit during blood processing. For example, the blood processing device 100 may include a hematocrit sensor (not shown) that determines the hematocrit of the blood flowing into the blood processing device 100

and/or the system 100 may determine the hematocrit based on a volume of red blood cells collected within the bowl 214.

[0043] Once the lines 222/223 are in place and the technician has determined the donor's weight and/or hematocrit (if needed), the user/technician may insert the venous access device 206 into the donor's arm 208 (Step 420). Next, the controller 226 activates the two pumps 232, 234 and the motor 228. Operation of the two pumps 232, 234 causes whole blood to be drawn from the donor (step 425), anticoagulant from container 210 to be introduced into the drawn whole blood (step 430), and the now anticoagulated whole blood to be delivered to the inlet port 220 of the bowl 214.

[0044] It should be noted that the anticoagulant line 225 may also include a bacteria filter (not shown) that prevents any bacteria in the anticoagulant source 210, the anticoagulant, or the anticoagulant line 225 from entering the system 100 and/or the subject. Additionally, the anticoagulant line 225 may include an air detector 140 that detects the presence of air within the anticoagulant. The presence of air bubbles within any of the system 100 lines can be problematic for the operation the system 100 and may also be harmful to the subject if the air bubbles enter the blood stream. Therefore, the air detector may be connected to an interlock that stops the flow within the anticoagulant line 225 in the event that an air bubble is detected (e.g., by stopping the anticoagulant pump 234), thereby preventing the air bubbles from entering the subject.

[0045] As the anti-coagulated whole blood is withdrawn from the subject and contained within the blood component separation device 214, the blood component separation device 214 separates the whole blood into several blood components (Step 435). For example, the blood component separation device 214 may separate the whole blood into a first, second, third, and, perhaps, fourth blood component. More specifically, the blood component separation device 214 (and the centrifugal forces created by rotation of the separation device 214) can separate the whole blood into plasma, platelets, red blood cells ("RBC"), and, perhaps, white blood cells ("WBC"). The higher density component, i.e., RBC, is forced to the outer wall of the bowl 214 while the lower density plasma lies nearer the core. A buffy coat is formed between the plasma and the RBC. The buffy coat is made up of an inner layer of platelets, a transitional layer of platelets and WBC and an outer layer of WBC. The plasma is the component closest to the

outlet port and is the first fluid component displaced from the bowl 214 via the outlet port 224 as additional anticoagulated whole blood enters the bowl 214 through the inlet port 220.

[0046] As shown in Figure 3, the system 100 may also include an optical sensor 213 that may be applied to a shoulder portion of the bowl 214. The optical sensor monitors each layer of the blood components as they gradually and coaxially advance toward the core from the outer wall of the bowl 214. The optical sensor 213 may be mounted in a position (e.g., within the well 180) at which it can detect the buffy coat and/or the red blood cells reaching a particular radius, and the steps of drawing the whole blood from the subject/donor and introducing the whole blood into the bowl 12 may be altered and/or terminated in response to the detection.

[0047] Additionally, in some embodiments, the optical sensor 213 may be used to determine the hematocrit of the donor during processing. For example, as the bowl 214 fills with red blood cells and the optical sensor 213 detects the layer of red blood cells, the system 100 (e.g., the controller) can determine the volume of red blood cells within bowl 214 based on the location of the red blood cell layer and the fixed/known bowl volume. The system 100 may then calculate the donor hematocrit based on the volume of red blood cells within the bowl and the volume of whole blood that has been processed to that point.

[0048] Once the blood component separation device 214 has separated the blood into the various components, one or more of the components can be removed from the blood component separation device 214. For instance, the plasma may be removed to a plasma container 216 (e.g., a plasma bottle) through line 222 (Step 440). As noted above, some embodiments of the system 100 may include a weight sensor 195 (Fig. 1) that measures the amount of plasma collected. The plasma collection process may continue until a target volume of pure plasma (discussed in greater detail below) is collected within the plasma collection container 216. Although not shown, if the blood processing system 100 and/or the disposable set 200 include platelet, red blood cell, and/or white blood cell bags, each of the bags/containers may include similar weight sensors (e.g., load cells).

[0049] In some embodiments, the system 100 may also include a line sensor 185 (mentioned above) that can determine the type of fluid (e.g., plasma, platelets, red blood cells etc.) exiting the blood component separation device 214. In particular, the line sensor 185 consists of an LED which emits light through the blood components leaving the bowl 214 and a

photo detector which receives the light after it passes through the components. The amount of light received by the photo detector is correlated to the density of the fluid passing through the line. For example, if plasma is exiting the bowl 214, the line sensor 185 will be able to detect when the plasma exiting the bowl 214 becomes cloudy with platelets (e.g., the fluid existing the bowl 214 is changing from plasma to platelets). The system 100 may then use this information to either stop the removal of blood components from the bowl 214, stop drawing whole blood from the subject, or redirect the flow by, for example, closing one valve an opening another.

[0050] It is important to note that during processing, the osmolarity of the red blood cells prevents the anticoagulant introduced into the whole blood from entering/remaining with the red blood cells (e.g., within the bowl 214). Rather, the anticoagulant mixes with the plasma component. Therefore, the anticoagulant exits the bowl 214 with the plasma and is collected within collection container 216 along with the plasma. In other words, the weight of the product measured by the weight sensor 195 is the weight of the plasma, as well as any anticoagulant that is mixed with the plasma – the weight provided by the weight sensor 195 is not the weight of pure plasma.

[0051] Additionally, whole blood contains a variable amount of plasma, as determined by the donor's hematocrit. The hematocrit for typical donors can vary from 38% to 54%, which means that for 100 ml of whole blood, the volume of plasma can vary from 36 to 62 ml. Furthermore, the amount of anticoagulant added to the withdrawn whole blood is fixed (e.g., it does not depend on the hematocrit of the donor), meaning that the percentage of anticoagulant in the collected plasma may vary from 9.7% to 12.7% for donor hematocrits between 38% to 54%, respectively. Therefore, not only does the volume measured by the weight sensor 195 include the volume of anticoagulant, that volume of anticoagulant may vary from donor to donor based on the hematocrit.

[0052] As mentioned above, some embodiments of the present invention continue the blood processing/separation procedure until a target volume of pure plasma (e.g., plasma only – without the volume of any anticoagulant mixed with the plasma included in the target volume) is collected within the plasma collection container 216. To that end, some embodiments of the present invention may calculate the volume of pure plasma within the plasma collection container 216. For example, the technician or the system 100 (e.g., the controller) may calculate

the percentage of anticoagulant within the collected plasma (Step 455) (e.g., the plasma contained within the plasma collection container 216) based on the amount of anticoagulant added/metered into the whole blood and the hematocrit of the donor. The technician and/or system can calculate the percentage of anticoagulant according to the following equation, where AC is the amount of anticoagulant added to the system 100. As noted above, because the osmolarity of the red blood cells prevents the anticoagulant from mixing with it, essentially all of the anticoagulant exits the bowl 214 and is collected within the plasma collection container 216 along with the plasma.

$$\text{[0053] } \%AC = \frac{1}{1 + (AC-1)(1-Hct_D)}$$

[0054] The amount of anticoagulant that is added to the system 100 can be determined in a number of ways. For example, the system 100 can base the amount of anticoagulant (e.g., the value of “AC” in the above equation) on the predetermined ratio of anticoagulant per unit of anticoagulated whole blood. In some embodiments, the value of “AC” may be the inverse of the predetermined ratio (e.g., “AC” would be 16 if the ratio of anticoagulant to anticoagulated whole blood was 1:16). Additionally or alternatively, the technician/system 100 can monitor the volume of anticoagulant added to the system. In such embodiments, the technician/system can monitor the volume of anticoagulant added to the system 100 based on the number of rotations of the anticoagulant pump (e.g., each rotation of the anticoagulant pump introduces a set volume of anticoagulant into the system 100) and/or based on the change in weight of the anticoagulant container 210 as measured by a weight sensor (discussed in greater detail below).

[0055] Once the technician/system 100 has calculated the percentage of anticoagulant within the plasma collection container 216, the technician/system 100 may then use this information to calculate the volume of pure plasma within the plasma collection container 216 (Step 465). For example, the technician/system 100 may determine the volume of anticoagulant within the container (based on the percentage of anticoagulant within the container 216) and subtract this volume from the total volume of fluid within the container 216 as measured by the weight sensor 195. The system 100 may continue to monitor the volume of pure plasma collected within the container 216 and continue processing whole blood (e.g., continue performing Steps 425, 430, 435, 440, 455, 460 and 465) until a target volume of pure plasma is collected within

the plasma collection container 216 (Step 470) (e.g., 800 mL for an adult donor weighing more than 175 pounds or other limit prescribed by the FDA or similar governing body).

[0056] Once the system 100 has collected the target volume of pure plasma within the plasma collection container 216, the system 100 can return the remaining components (e.g., the components remaining within the bowl 214) to the subject (Step 475). For example, when all the plasma has been removed and the bowl 214 is full of RBCs (and any other blood component not collected), the controller 226 stops the draw of whole blood from the subject and reverses the direction of the blood/first pump 232 to draw the RBCs (and other components) from the bowl 214 directly back to the subject. Alternatively, if the system 100 is so equipped, the system may return the components to the subject via a dedicated return line.

[0057] In addition to the non-collected blood components (e.g., the components remaining in the bowl 214), the system 100 may also return saline to the patient/subject. The saline may be used as a compensation fluid to make up for the volume of the blood component (e.g., plasma) that was removed and collected, and is not being returned to the patient. To that end, during the return step (e.g., Step 475), the saline valve 135 may be opened to allow saline from the saline container 217 to flow through the saline line 223 and into the bowl 214 (via outlet 224), where it can be returned to the patient/donor with or after the remaining blood components.

[0058] It should be noted that some embodiments may perform some additional and optional steps to help determine the volume of pure plasma within the plasma collection container 216. For example, as mentioned above, some embodiments may monitor the change in weight of the anticoagulant container 210 (e.g., as measured by a weight sensor/load cell on the anticoagulant container 210) (step 445). This measurement provides an indication of the volume of anticoagulant that has been added to the system 100, and may be used help determine the percentage of anticoagulant within the plasma collection container 216. Additionally or alternatively, some embodiments may similarly, monitor the change in weight and/or volume of the plasma and anticoagulant collected within the plasma collection container 216 (e.g., via weight sensor 195) (step 450). This measurement may be used to calculate of the total volume of pure plasma collected within the plasma collection container 216 (e.g., to obtain the total weight from which to subtract the calculated volume of anticoagulant).

[0059] Some embodiments may also (optionally) monitor the volume of anticoagulant remaining in the bowl 214 (step 460) (e.g., anticoagulant that did not mix with the plasma and/or otherwise remained in the bowl). For example, the system 100 may utilize the optical sensor on the bowl 214 to determine whether any anticoagulant remains within the bowl 214. If it does, the method 400/system 100 may modify the calculation of the amount of pure plasma collected within the plasma collection container (e.g., either increase the calculated amount or decreased the calculated amount), based on the volume of anticoagulant remaining within the bowl 214.

[0060] The various embodiment of the present invention described above provide numerous benefits over prior art plasma collection systems. In particular, as noted above, prior art plasmapheresis devices end plasma collection based on a total volume of anticoagulated plasma (e.g., pure plasma plus the added anticoagulant). Although this is the easiest method because it requires only that the product collection container be weighed, the amount of true product – the pure plasma – is dependent on the donor's hematocrit. In other words, prior art systems will collect more plasma from low hematocrit donors than from high hematocrit donors because of the variation of the percentage of anticoagulant in the product. Various embodiments of the present invention address the issues of prior art systems by collecting a standard volume (e.g., a target volume) of pure plasma from each donor. As noted above, embodiments of the present invention accomplish this by using knowledge of the donor's hematocrit and the amount of anticoagulant collected within the plasma collection container 216 (e.g., by counting pump rotations and/or using scale/weight sensors, etc.) to determine the percentage of anticoagulant in the product. Additionally, by stopping the plasma collection process based on a volume of pure plasma collected, embodiments of the present invention are able to collect a greater volume of plasma as compared to prior art systems that stop based on a plasma/anticoagulant mixture.

[0061] Figure 5 shows an alternative method for collecting plasma, using the system (or similar system) shown within Figures 1-3, that bases the total volume of plasma to collect on the individual donor (e.g., based on their height, weight, hematocrit, blood volume and/or plasma volume). In a manner similar to that described above for the method shown in Figure 4, prior to connecting the donor to the blood processing device 100, the system/method may obtain/determine some information regarding the donor, namely, the donor's weight and height (Step 505) and hematocrit (Step 510). For example, the technician may obtain/determine the

donor's weight by weighing the donor (e.g., on a scale) and the donor's height by measuring the donor. To obtain/determine the donor's hematocrit (e.g., in a manner similar to that described above), the technician may test a blood sample or the system may determine the hematocrit during blood processing using a hematocrit sensor and/or based on the volume of red blood cells collected within the bowl 214.

[0062] Using the donor height and weight, and the hematocrit, the system 100/method 500 may calculate the donor's plasma volume (e.g., the volume of plasma within the donor's blood) (Step 515). For example, the system 100/method 500 may calculate the donor/subject's body mass index ("BMI") using the donor's height and weight (e.g., $BMI = \text{weight}/\text{height}^2$), and then the total blood volume within the donor/subject using the calculated BMI (e.g., see Lemmens et al., *Estimating Blood Volume in Obese and Morbidly Obese Patients*, Obesity Surgery, 2006:16, 773-776, the subject matter incorporated herein by reference). The total blood volume may be calculated using the following equation:

$$\text{[0063]} \text{ InBV} = \frac{70}{\sqrt{BMI_p/22}}$$

[0064] In the above equation, InBV is the indexed blood volume (e.g., the donor's total blood volume), BMI_p is the patient's BMI (e.g., kg/m²), 22 is the BMI value (e.g., also in kg/m²) for an ideal body weight (IBW), and 70 is the total blood volume (in mL/kg) for a donor at their ideal weight (BMI = 22 kg/m²). Once the system 100 has calculated the total blood volume within the donor/subject, the system 100 (e.g., the controller) may then determine/calculate the volume of plasma within the donor's blood (Step 515) based, for example, on the donor's hematocrit.

[0065] As mentioned above, the embodiment shown in Figure 5 bases the volume of plasma to collect on the individual donor. To that end, once the system 100/method 500 has determined the donor's plasma volume, the system 100/method 500 may then calculate the target volume of plasma to collect (Step 520). For example, the system 100/method 500 may multiply the total plasma volume within the patient by a target percentage of plasma to collect to obtain the target plasma volume to collect (e.g., if the total plasma volume is 2700 ml and the target percentage to collect is 28.5%, then the target plasma volume to collect is 769.5 ml). The target percentage of plasma to collect may depend on the application and/or the donor, and may be

input directly into the system 100 (e.g., using the user interface 190) or may be preset from the factory. In some embodiments, the target percentage may be between 26.5 and 30%, and preferably may be 28.5%. However, in other embodiments, the target percentage may be below 26.5% or above 30%.

[0066] Once the lines 222/223 are in place and the system 100/method 500 has calculated the target plasma volume, the user/technician may insert the venous access device 206 into the donor's arm 208 (Step 525). Next, in a manner similar to that described above for the method shown in Figure 4, the controller 226 activates the two pumps 232, 234 and the motor 228. Operation of the two pumps 232, 234 causes whole blood to be drawn from the donor (step 530), anticoagulant from container 210 to be introduced into the drawn whole blood (step 535), and the now anticoagulated whole blood to be delivered to the inlet port 220 of the bowl 214.

[0067] As the anti-coagulated whole blood is withdrawn from the subject and introduced into the blood component separation device 214, the blood component separation device 214 separates the whole blood into the respective blood components (e.g., into plasma, platelets, RBC, and, perhaps, WBC) (Step 540). As discussed above, the higher density component, i.e., RBC, is forced to the outer wall of the bowl 214 and the plasma is the component closest to the outlet port and, therefore, is the first fluid component displaced from the bowl 214 via the outlet port 224 as additional anticoagulated whole blood enters the bowl 214 through the inlet port 220. During separation and processing, the optical sensor 213 monitors each layer of the blood components as they gradually and coaxially advance toward the core from the outer wall of the bowl 214, and the steps of drawing the whole blood from the subject/donor and introducing the whole blood into the bowl 12 may be altered and/or terminated in response to the detection. Additionally, as discussed above, the optical sensor 213 may be used to determine the hematocrit of the donor during processing (e.g., if it is not known and/or determined prior to the start of processing).

[0068] Once the blood component separation device 214 has separated the blood into the various components, the plasma may be removed to a plasma container 216 (e.g., a plasma bottle) through line 222 (Step 545). As noted above, some embodiments of the system 100 may include a weight sensor 195 (Fig. 1) that measures the amount of plasma collected. The plasma collection process may continue until the target plasma collection volume (discussed in greater

detail below) is collected within the plasma collection container 216. If equipped with the line sensor 185, the system 100 may then use the information from the sensor 185 to either stop the removal of blood components from the bowl 214, stop drawing whole blood from the subject, or redirect the flow by, for example, closing one valve and opening another.

[0069] As mentioned above, some embodiments of the present invention continue the blood processing/separation procedure until a target plasma collection volume is collected. In order to ensure that this volume does not include the volume of any anticoagulant collected within the container 216, the target plasma collection volume should only include the volume of pure plasma (e.g., plasma only – without the volume of any anticoagulant mixed with the plasma included in the target volume). To that end and in a manner similar to that described above, some embodiments of the present invention may calculate the volume of pure plasma within the plasma collection container 216. To determine the volume of pure plasma, the technician or the system 100 (e.g., the controller) may calculate the percentage of anticoagulant within the collected plasma (Step 560) (e.g., the plasma contained within the plasma collection container 216) based on the amount of anticoagulant added/metered into the whole blood and the hematocrit of the donor (see equation provided above). The amount of anticoagulant that is added to the system 100 can be determined in any of the ways mentioned above (e.g., based on the predetermined ratio of anticoagulant per unit of anticoagulated whole blood, by monitoring the volume of anticoagulant added to the system, etc.).

[0070] Once the technician/system 100 has calculated the percentage of anticoagulant within the plasma collection container 216, the technician/system 100 may then use this information to calculate the volume of pure plasma within the plasma collection container 216 (Step 570). For example, as discussed above, the technician/system 100 may determine the volume of anticoagulant within the container (based on the percentage of anticoagulant within the container 216) and subtract this volume from the total volume of fluid within the container 216 as measured by the weight sensor 195. The system 100 may continue to monitor the volume of pure plasma collected within the container 216 and continue processing whole blood (e.g., continue performing Steps 530, 535, 540, 545, 560, 570 and, possibly, steps 550, 555 and 565) until the volume of pure plasma collected within the plasma collection container 216 reaches the

target plasma volume (Step 575) (e.g., as calculated based on the individual plasma volume of the donor and the target percentage of plasma to collect).

[0071] Once the system 100 has collected the target plasma volume within the plasma collection container 216, the system 100 can return the remaining components (e.g., the components remaining within the bowl 214) to the subject (Step 580) by stopping the draw of whole blood from the subject and reversing the direction of the blood/first pump 232 to draw the RBCs (and other components) from the bowl 214 and back to the subject (e.g., directly via the blood/inlet line 218 or, if so equipped, via a dedicated return line).

[0072] It is important to note that, because the system 100/method 500 collect and do not return some of the blood components (e.g., the plasma), the volume of fluid that is returned to the donor/subject is less than the volume that was removed. This, in turn, creates an intravascular deficit that is equal to the amount of plasma collected (e.g., the volume of whole blood removed from the donor minus the volume of plasma collected/not returned). In instances in which the intravascular deficit is too large, the donor is at risk of fainting when the procedure is complete and they get up to leave the facility. To reduce the intravascular deficit (and the risk of donor injury), as noted above, some embodiments of the present invention return saline to the patient/subject (Step 585). The saline may be used as a compensation fluid to make up for the volume of the blood component (e.g., plasma) removed. To that end, during the return step (e.g., Step 580), the controller 226 (or the technician) may open the saline valve to allow saline from the saline container 217 to flow through the saline line 223 and into the bowl 214 (via outlet 224), where it can be returned to the patient/donor with or after the remaining blood components.

[0073] As mentioned above, the volume of plasma that is collected from the donor varies from donor to donor (e.g., because it is based on the donor's height, weight, hematocrit, and blood volume). Therefore, the volume of saline that is returned to the donor to reduce the intravascular deficit may similarly be dependent on the donor. To that end, when returning the contents of the separation device and the saline (Steps 580 and 585) to the donor, the system 100/method 500 may calculate the intravascular deficit (Step 590) based on the total volume of whole blood removed from the donor and the volume of blood components and saline that has been returned (or based on the volume of plasma collected and the volume of blood components

and saline that have been returned). The system 100/method 500 may continue returning saline until the donor's intravascular deficit reaches a target intravascular deficit (Step 595).

[0074] The target intravascular deficit may be any intravascular deficit that reduces the donor's risk for fainting and may be the same for each donor. For example, the target intravascular deficit may be set to 0 mL or 250 mL for each donor. Alternatively, like the target plasma volume to collect, the target intravascular deficit may be different for each donor. In other words, the target intravascular deficit may be set to 0 mL for some donors and 250 mL for others. It should be noted that 0 and 250 mL are provided as examples only and other embodiments may have target intravascular deficits between 0 and 250, or greater than 250 mL. Additionally, in some instances, it may be beneficial to return more fluid to the donor than was removed/collected. In such instances, the target intravascular deficit may be set less than zero (e.g., -1 to -250 mL) so that the donor has more fluid/volume after the procedure than they did before the procedure.

[0075] Like the method 400 shown in Figure 4, the method 500 may similarly perform some additional and optional steps to help determine the volume of pure plasma within the plasma collection container 216. For example, some embodiments may monitor the change in weight of the anticoagulant container 210 (e.g., as measured by a weight sensor/load cell on the anticoagulant container 210) (step 550). This measurement provides an indication of the volume of anticoagulant that has been added to the system 100, and may be used help determine the percentage of anticoagulant within the plasma collection container 216. Additionally or alternatively, some embodiments may similarly, monitor the change in weight and/or volume of the plasma and anticoagulant collected within the plasma collection container 216 (e.g., via weight sensor 195) (step 555). This measurement may be used to calculate of the total volume of pure plasma collected within the plasma collection container 216 (e.g., to obtain the total weight from which to subtract the calculated volume of anticoagulant). Also, some embodiments may also monitor the volume of anticoagulant remaining in the bowl 214 (step 565) (e.g., anticoagulant that did not mix with the plasma and/or otherwise remained in the bowl) using the optical sensor on the bowl 214 to determine whether any anticoagulant remains within the bowl 214 and modify the calculation of the amount of pure plasma collected within the plasma

collection container (e.g., either increase the calculated amount or decreased the calculated amount), based on the volume of anticoagulant remaining within the bowl 214.

[0076] As noted above, prior art systems that follow the current FDA nomogram for plasma collection collect a volume of plasma product (e.g., anticoagulant and plasma mixed together) based solely on the weight of the donor – the same volume is collected from every donor at the same weight. However, the total blood volume and plasma volume for two donors may vary greatly. For example, when comparing two donors in the same weight grouping according to the FDA nomogram – one obese and one not obese – the obese donor will effectively have a lower blood volume than the non-obese donor. Furthermore, with respect to the total plasma volume, donors with high hematocrit will have lower plasma volumes. In other words, because the total blood volume and total plasma volume vary from donor to donor (even among donors that weight the same), the percentage of the donor's plasma that is ultimately collected may vary widely from donor to donor. By tailoring the plasma collection to the donor (e.g., based on the donor's height, weight, BMI, hematocrit, total blood volume, and/or total plasma volume) and collecting a predetermined percent of plasma from each donor, embodiments of the preset invention are able to collect a greater volume of plasma (e.g., pure plasma) from some donors but less plasma from more vulnerable donors (e.g., smaller donors with high hematocrit, donors with lower plasma volume, etc.), as compared to systems that do not base the collection volume on the individual donor.

[0077] Similarly, current systems do not tailor the saline return volume to the patient (e.g., each donor at a given level receives the same volume of saline, for example, if the target plasma product volume is 800 mL, the donor will receive 500 mL of saline). However, because prior art systems collect based on the volume of the plasma product (which includes both plasma and anticoagulant) and the volume of pure plasma that is actually collected (and therefore, the volume removed from the donor) varies based on the donor hematocrit, the intravascular deficit for each donor will vary. In other words, the volume of saline returned to the donor may be sufficient for some, but insufficient for others. By tailoring the saline return to the individual donor, embodiments of the present invention are able to ensure that each donor has the same intravascular deficit (if any) once the procedure is complete. This, in turn, allows embodiments of the present invention to achieve isovolemia for each donor and greatly reduce any adverse

reactions that the donor may experience (e.g., falling, fainting, light-headedness, vasovagal reactions, etc.).

[0078] It is also important to note that, although the various embodiments discussed above are in relation to a blood processing system that collects plasma, the features discussed herein may be applied to any type of blood processing system. For example, the features described herein may be implemented on blood processing systems that collect and/or process red blood cells, platelets and/or white blood cells.

[0079] The embodiments of the invention described above are intended to be merely exemplary; numerous variations and modifications will be apparent to those skilled in the art. All such variations and modifications are intended to be within the scope of the present invention as defined in any appended claims.

What is claimed is:

1. A method for collecting plasma comprising:

calculating a donor total blood volume based, at least in part, on a weight and a height of a donor;

calculating a target plasma amount to collect based, at least in part, on the calculated donor total blood volume and a hematocrit of the donor, the target plasma amount to collect tailored to the donor;

withdrawing whole blood from the donor through a venous-access device and a first line, the first line connected to a blood component separation device of a blood processing system, the blood processing system having a controller configured to stop collecting plasma when the target plasma amount to collect has been collected into a plasma collection container;

introducing anticoagulant into the withdrawn whole blood through an anticoagulant line;

separating the withdrawn whole blood into a plasma component and at least a second blood component; and

collecting the plasma component from the blood component separation device into the plasma collection container until the target plasma amount to collect is reached in the plasma collection container.

2. The method according to claim 1, further comprising:

calculating the donor's body mass index based, at least in part on the weight and the height of the donor, the target plasma amount to collect calculated based, at least in part, on the donor's body mass index.

3. The method according to claim 1, wherein the calculated target plasma amount to collect is an optimized safe amount to be collected from the donor.

4. The method according to claim 1, further comprising:

returning, after collecting at least a portion of the target plasma amount to collect, the contents of the blood component separation device to the donor through the first line.

5. The method according to claim 1, wherein the target plasma amount to collect is a target amount of pure plasma to collect.

6. The method according to claim 1, wherein the target plasma amount to collect is a target amount of anticoagulated plasma to collect.

7. The method according to claim 1, further comprising:

monitoring an amount of plasma component collected within the plasma collection container.

8. A system for collecting plasma comprising:

a venous-access device for drawing whole blood from a donor and returning blood components to the donor;

a blood component separation device for separating the drawn whole blood into a plasma component and at least a second blood component, the blood component separation device having an outlet and being configured to send the plasma component to a plasma collection container;

a first line fluidly connected to the venous-access device and configured to transport drawn whole blood to the blood component separation device and return fluid within the blood component separation device to the donor, the flow through the first line being controlled by a first pump;

an anticoagulant line connected to an anticoagulant source, the anticoagulant line configured to introduce anticoagulant into the drawn whole blood; and

a controller configured to control the operation of the blood component separation device and the first pump, the controller configured to calculate a target plasma amount to collect based, at least in part, on the donor's total blood volume and a hematocrit of the donor, the donor's total

blood volume based, at least in part, on a weight and height of the donor, the target plasma amount to collect tailored to the donor.

9. The system according to claim 8, wherein the controller is further configured to stop collecting plasma when the target amount of plasma to collect has been collected into the plasma collection container.

10. The system according to claim 8, wherein the controller is further configured to:

calculate the donor's body mass index based, at least in part on the weight and height of the donor, the target plasma amount to collect calculated based, at least in part, on the donor's body mass index.

11. The system according to claim 8, wherein the controller is further configured to calculate the donor's total blood volume.

12. The system according to claim 8, wherein the calculated target plasma amount to collect is an optimized safe amount to be collected from the donor.

13. The system according to claim 8, wherein the controller is further configured to:

return, after collecting at least a portion of the target plasma amount to collect, the contents of the blood component separation device to the donor through the first line.

14. The system according to claim 8, wherein the target plasma amount to collect is a target amount of pure plasma to collect or a target amount of anticoagulated plasma to collect.

15. A method for collecting plasma comprising:

determining individual characteristics of a donor, the individual characteristics of the donor including a weight, a height and a hematocrit of the donor;

calculating a donor total blood volume based, at least in part, on the weight and height of the donor;

calculating a target plasma amount to collect based, at least in part, on the calculated donor total blood volume and the hematocrit of the donor, the target plasma amount to collect being tailored to the individual characteristics of the donor;

withdrawing whole blood from the donor through a venous-access device and a first line, the first line connected to a blood component separation device;

introducing anticoagulant into the withdrawn whole blood through an anticoagulant line;

separating the withdrawn whole blood into a plasma component and at least a second blood component; and

collecting the plasma component from the blood component separation device and into a plasma collection container.

16. The method according to claim 15, further comprising:

calculating the donor's body mass index based, at least in part, on the weight and height of the donor, the target plasma amount to collect calculated based, at least in part, on the donor's body mass index.

17. The method according to claim 15, further comprising:

returning, after collecting at least a portion of the target plasma amount to collect, the contents of the blood component separation device to the donor through the first line.

18 The method according to claim 15, wherein the target plasma amount to collect is a target amount of pure plasma to collect.

19. The method according to claim 15, wherein the target plasma amount to collect is a target amount of anticoagulated plasma to collect.

20. The method according to claim 15, wherein the target plasma amount to collect is an optimized safe amount to be collected from the donor.

21. The method according to claim 15, further comprising:

stopping the collection of the plasma component from the blood component separation device into the plasma collection container when the target plasma amount to collect is reached in the plasma collection container.

22. The method according to claim 15, wherein the blood component separation device is part of a blood processing system, the blood processing system having a controller configured to stop collecting the plasma component when the target plasma amount to collect has been collected into the plasma collection container.

23. A system for collecting plasma comprising:

a venous-access device for drawing whole blood from a donor and returning blood components to the donor;

a blood component separation device for separating the drawn whole blood into a plasma component and at least a second blood component, the blood component separation device having an outlet and being configured to send the plasma component to a plasma collection container;

a first line fluidly connected to the venous-access device and configured to transport drawn whole blood to the blood component separation device and return fluid within the blood component separation device to the donor, the flow through the first line being controlled by a first pump;

an anticoagulant line connected to an anticoagulant source, the anticoagulant line configured to introduce anticoagulant into the drawn whole blood; and

a controller configured to control the operation of the blood component separation device and the first pump, the controller configured to (1) receive individual characteristics of the donor, the individual characteristics including a weight, height, and hematocrit of the donor, and (2) calculate a target plasma amount to collect based, at least in part, on the donor's total blood volume and a hematocrit of the donor, the donor's total blood volume based, at least in part, on the weight and height of the donor, the target plasma amount to collect being tailored to the individual characteristics of the donor.

24. The system of claim 23, wherein the controller is further configured to calculate the donor's total blood volume.

25. The system according to claim 23, wherein the controller is further configured to stop collecting the plasma component when the target amount of plasma to collect has been collected into the plasma collection container.

26. The system according to claim 23, wherein the controller is further configured to:

calculate the donor's body mass index based, at least in part on the weight and height of the donor, the target plasma amount to collect calculated based, at least in part, on the donor's body mass index.

27. The system according to claim 23, wherein the controller is further configured to:

return, after collecting at least a portion of the target plasma amount to collect, the contents of the blood component separation device to the donor through the first line.

28. The system according to claim 23, wherein the target plasma amount to collect is a target amount of pure plasma to collect or a target amount of anticoagulated plasma to collect.

29. The system according to claim 23, wherein the target plasma amount to collect is an optimized safe amount to be collected from the donor.

30. The system according to claim 23, further comprising:

a plasma collection container weight sensor configured to monitor a volume or weight of plasma component collected within the plasma collection container.

Abstract

A method for collecting plasma includes determining the weight, height, and hematocrit of a donor, and calculating a donor plasma volume and a target plasma collection volume. The target plasma collection volume is based on the donor plasma volume and a target percentage of plasma. The method then withdraws blood from the donor through a line connected to a blood component separation device, and introduces anticoagulant into the withdrawn blood. The blood component separation device separates the blood into a plasma component and a second blood component, and the plasma component is collected from the blood component separation device and into a plasma collection container. The method may then calculate the volume of pure plasma collected within the plasma collection container, and continue processing/collecting until the calculated volume of pure plasma equals the target plasma collection volume.



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PATENT AND TRADEMARK OFFICE

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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #
19/077,384

RECEIPT DATE / TIME
03/12/2025 01:12:55 PM Z ET

ATTORNEY DOCKET #
130670-80106

Title of Invention

SYSTEM AND METHOD FOR COLLECTING PLASMA

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	8047	FILED BY	Jonathan Lovely
PATENT CENTER #	69547782	FILING DATE	-
CUSTOMER #	86738	FIRST NAMED INVENTOR	Michael Ragusa
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Jonathan Lovely

Documents

TOTAL DOCUMENTS: 11

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
130670-80106 - Transmittal - - Utility Patent Application PTO AIA-15.pdf	1	Transmittal of New Application	35 KB
130670-80106 - Certification and Request for Prioritized Exam 37 CFR 1102 e PTO AIA-424.pdf	1	Track One Request	36 KB
130670-80106 - Application Data Sheet Fillable PDF.pdf	8	Application Data Sheet	2159 KB
Power of Attorney by Applicant.pdf	2	Power of Attorney	286 KB
130670-80106 Application- APP.TEXT.docx	32	Application body structured text document	52 KB

130670-80106 Figures.pdf	5	Drawings-only black and white line drawings	138 KB
130670-80106 - Information Disclosure Statement Fillable PDF.pdf	28	Information Disclosure Statement (IDS) Form (SB08)	1321 KB
130670-80106 - Information Disclosure Statement Size Fee -- Written Assertion under 37 CFR.pdf	1	Assertion regarding Information Disclosure Statement (IDS) Size Fee (SB/08C)	68 KB
130670-80106 - Information Disclosure Statement IDS.pdf	2	Transmittal Letter	27 KB
Executed Inventor Declaration from USSN 15793339.pdf	1	Oath or Declaration filed	143 KB
130670-80106 Application Aux.pdf	32	Auxiliary PDF of Application	162 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
130670-80106 - Transmittal -- Utility Patent Application PTO AIA-15.pdf	86F619606139B19BBF389867EB30434A59E598185F2C9E0F639FEC10C2ED894F1B78B6100FB1D339F6C3F8893B9FE66B798A67C409FDC22F94AF5064A49FB890
130670-80106 - Certification and Request for Prioritized Exam 37 CFR 1102 e PTO AIA-424.pdf	52E17CF84E155B82A5868B309B64B60EF12A7B714EB703A81A39937411977E1AC862505628EC7B59EB4B750A0DA00A6304273A12735B63932856694E785B27CA
130670-80106 - Application Data Sheet Fillable PDF.pdf	45811BAAD084B0F787F1D27F2371E86FF42E55550A519830D7E00B9BDD97CA09C23EE1E99F171F4F401896720F50E4919E69FFEB73FB692B8E4E1033481803E3
Power of Attorney by Applicant.pdf	69E90260C872BF40A37FE0EC0AA98E27A2DDE1C1A28C9BAA79BD2108B18293C47A875AE57B8BDF43D48366C92E6983150A2F4FE38FDE9D0627D3A1EA1485442D
130670-80106 Application-APP.TEXT.docx	3F4E831AB1DC01B72F523DCA706EE67251F3C1B7D99B58B111DE17A556EEEB92DC8A844AC931C52750235F226A5049246570CE847495EBDA0CFB0BFF983FF224
130670-80106 Figures.pdf	FBCC39C7FE0215672C98101709477476EB128B050D2D392159008D3BE0FBFE609DB4BEA8984FAAA026180600EF6EB3ACD8A5663FDC8BFC68D9F7E9B66A02924D

130670-80106 - Information Disclosure Statement Fillable PDF.pdf	77CBD002DA02FCA2A5F3D33AD6AC88E67E2C7D1EE9156946E041207BFC488689DCD313D6854218959FC4726BA1ECF35776FD7670A738F23CB65BF0881640CB5B
130670-80106 - Information Disclosure Statement Size Fee -- Written Assertion under 37 CFR.pdf	6763C58B11FA9545F7DF17290938AB3C974F6F1B23EA9D869826991600E2CF85694C16E4DB9E7FBD2BACF8127B9E22BA381A79E874328B66A980F73A0D78099F
130670-80106 - Information Disclosure Statement IDS.pdf	9D3D5CD4D9F3CFE0DA1BE7458CDCBB12926F5DC9AAE0F3BF6B0B45AABFEC696BDFBEDAB0C26CD33C0E387B7000C4AE A8A78CFAD862699E27F5B2FD541344FA05
Executed Inventor Declaration from USSN 15793339.pdf	3F4DEFC602A0A38D6EDABF9BDB0381D75B0700BB783B32DB9736B7C5D700DA330C04F2593F50E1DD1A6E720891D8257ED3FE20D2ACDABF69678B957DC4F245AD
130670-80106 Application Aux.pdf	05A651DECF6E80E38693C382E24C4BC53782146EEB9DF885E3F0F92ABD5C74B6FC4155694615A88D23E40EBD8C7326818B3E224D2A7AE18EA24A5ADE30E7FC15

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	130670-80106
		Application Number	
Title of Invention	SYSTEM AND METHOD FOR COLLECTING PLASMA		
The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76. This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.			

Secrecy Order 37 CFR 5.2:

☐	Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)
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Inventor Information:

Inventor 1					Remove
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Michael		Ragusa		
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service					
City	Hingham	State/Province	MA	Country of Residence	US
Mailing Address of Inventor:					
Address 1	4 Willow Circle				
Address 2					
City	Hingham	State/Province	MA		
Postal Code	02043	Country	US		
All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the Add button.					

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below. For further information see 37 CFR 1.33(a).			
☐ An Address is being provided for the correspondence information of this application.			
Customer Number	86738		
Email Address	docket@mccarter.com	Add Email	Remove Email

Application Information:

Title of the Invention	SYSTEM AND METHOD FOR COLLECTING PLASMA		
Attorney Docket Number	130670-80106	Small Entity Status Claimed	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	5	Suggested Figure for Publication (if any)	

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	130670-80106
		Application Number	
Title of Invention	SYSTEM AND METHOD FOR COLLECTING PLASMA		

Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	☒ Customer Number	☐ US Patent Practitioner	☐ Limited Recognition (37 CFR 11.9)
Customer Number	86738		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.

When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status	Pending	<div>Remove</div>	
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
	Continuation of	18/606761	2024-03-15

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number		130670-80106	
		Application Number			
Title of Invention		SYSTEM AND METHOD FOR COLLECTING PLASMA			

Prior Application Status		Patented		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
18/606761	Continuation of	17/205400	2021-03-18	12186474	2025-01-07
Prior Application Status		Patented		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
17/205400	Continuation of	16/931333	2020-07-16	10980934	2021-04-20
Prior Application Status		Patented		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
16/931333	Continuation of	15/793339	2017-10-25	10792416	2020-10-06
Prior Application Status		Patented		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
15/793339	Continuation in part of	15/608183	2017-05-30	10758652	2020-09-01
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button. Add					

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)ⁱ the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Remove			
Application Number	Country ⁱ	Filing Date (YYYY-MM-DD)	Access Code ⁱ (if applicable)
Additional Foreign Priority Data may be generated within this form by selecting the Add button. Add			

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	130670-80106
		Application Number	
Title of Invention	SYSTEM AND METHOD FOR COLLECTING PLASMA		

☐	<p>This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.</p> <p>NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.</p>
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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	130670-80106
		Application Number	
Title of Invention	SYSTEM AND METHOD FOR COLLECTING PLASMA		

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. Priority Document Exchange (PDX) - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

B. Search Results from U.S. Application to EPO - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

NOTE: Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	130670-80106
		Application Number	
Title of Invention	SYSTEM AND METHOD FOR COLLECTING PLASMA		

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.								
Applicant 1			Remove					
If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.								
Clear								
☐ Assignee	☐ Legal Representative under 35 U.S.C. 117	☐ Joint Inventor						
☒ Person to whom the inventor is obligated to assign.	☐ Person who shows sufficient proprietary interest							
If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:								
Name of the Deceased or Legally Incapacitated Inventor:								
If the Applicant is an Organization check here. ☒								
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Address 2								
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Assignee Information including Non-Applicant Assignee Information:

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	130670-80106
		Application Number	
Title of Invention	SYSTEM AND METHOD FOR COLLECTING PLASMA		

Assignee 1

Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.

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If the Assignee or Non-Applicant Assignee is an Organization check here.

☐

Prefix	Given Name	Middle Name	Family Name	Suffix

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Address 2			
City		State/Province	
Country ⁱ		Postal Code	
Phone Number		Fax Number	
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Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button.

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NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). **However, if this Application Data Sheet is submitted with the INITIAL filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).**

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/Jonathan C. Lovely, Reg. No. 60,821/		Date (YYYY-MM-DD)	2025-03-12	
First Name	Jonathan	Last Name	Lovely	Registration Number	60,821

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	130670-80106
		Application Number	
Title of Invention	SYSTEM AND METHOD FOR COLLECTING PLASMA		

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

INFORMATION DISCLOSURE STATEMENT SIZE FEE – WRITTEN ASSERTION UNDER 37 CFR 1.98		
Complete if Known		
Application or Patent No.: Not Yet Assigned	First Named Inventor: Michael Ragusa	Art Unit: N/A
Filing Date: Concurrently Herewith	Attorney Docket Number: 130670-80106	Examiner Not Yet Assigned
<p>Please see 37 CFR 1.17(v) and attached Instructions for completing this form to make the appropriate selection of an assertion under 37 CFR 1.98. For the information disclosure statement (IDS) submitted herewith, the applicant or patent owner certifies the following with respect to the cumulative number of applicant-provided or patent-owner provided items of information submitted to date including those in the accompanying IDS (select only one):</p> <p>☐ No IDS size fee is required under 37 CFR 1.17(v) at this time.</p> <p>☐ The IDS is accompanied by the IDS size fee under 37 CFR 1.17(v)(1).</p> <p>☐ The IDS is accompanied by the IDS size fee under 37 CFR 1.17(v)(2).</p> <p>☒ The IDS is accompanied by the IDS size fee under 37 CFR 1.17(v)(3).</p> <p>NOTE: This form must be accompanied by PTO/SB/08a and/or PTO/SB/08b or equivalent.</p>		
DEPOSIT ACCOUNT		
The Director is authorized to charge the fee indicated above in the amount of \$ <u>800.00</u> for the IDS submitted herewith to deposit account <u>50-4876</u> .		
SIGNATURE		
This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications.		
If applicant or patent owner is a juristic entity (e.g., an LLC or corporation), this form must be signed by a registered practitioner. See 37 CFR 1.31.		
If applicant or patent owner is a person or persons, this form may be signed by either a registered practitioner, or the applicant or patentee. Note that if multiple people together are the applicant or patentee (e.g., there are joint inventors who together are the applicant), then a signature is required from each person who is an applicant or patentee. <i>Submit multiple forms if more than one signature is required, see below*.</i>		
Signature /Jonathan C. Lovely, Reg. No. 60,821/	Date March 12, 2025	
Name (Print/Typed) Jonathan C. Lovely	Practitioner Registration Number (if applicable) 60,821	
☐ * Total of <u>1</u> forms are submitted.		

CERTIFICATION AND REQUEST FOR PRIORITIZED EXAMINATION UNDER 37 CFR 1.102(e) (Page 1 of 1)			
First Named Inventor:	Michael Ragusa	Nonprovisional Application Number (if known):	Not Yet Assigned
Title of Invention:	SYSTEM AND METHOD FOR COLLECTING PLASMA		
<p>APPLICANT HEREBY CERTIFIES THE FOLLOWING AND REQUESTS PRIORITIZED EXAMINATION FOR THE ABOVE-IDENTIFIED APPLICATION.</p> <p>1. The processing fee set forth in 37 CFR 1.17(i)(1) and the prioritized examination fee set forth in 37 CFR 1.17(c) have been filed with the request. The publication fee requirement is met because that fee, set forth in 37 CFR 1.18(d), is currently \$0. The basic filing fee, search fee, and examination fee are filed with the request or have been already been paid. I understand that any required excess claims fees or application size fee must be paid for the application.</p> <p>2. I understand that the application may not contain, or be amended to contain, more than four independent claims, more than thirty total claims, or any multiple dependent claims, and that any request for an extension of time will cause an outstanding Track I request to be dismissed.</p> <p>3. The applicable box is checked below:</p> <p>I. ☒ Original Application (Track One) - Prioritized Examination under § 1.102(e)(1)</p> <p>i. (a) The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a). This certification and request is being filed with the utility application via USPTO patent electronic filing system.</p> <p style="text-align: center;">---OR---</p> <p>(b) The application is an original nonprovisional plant application filed under 35 U.S.C. 111(a). This certification and request is being filed with the plant application in paper.</p> <p>ii. An executed inventor's oath or declaration under 37 CFR 1.63 or 37 CFR 1.64 for each inventor, <u>or</u> the application data sheet meeting the conditions specified in 37 CFR 1.53(f)(3)(i) is filed with the application.</p> <p>II. ☐ Request for Continued Examination - Prioritized Examination under § 1.102(e)(2)</p> <p>i. A request for continued examination has been filed with, or prior to, this form.</p> <p>ii. If the application is a utility application, this certification and request is being filed via USPTO patent electronic filing system.</p> <p>iii. The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a), or is a national stage entry under 35 U.S.C. 371.</p> <p>iv. This certification and request is being filed prior to the mailing of a first Office action responsive to the request for continued examination.</p> <p>v. No prior request for continued examination has been granted prioritized examination status under 37 CFR 1.102(e)(2).</p>			
Signature /Jonathan C. Lovely, Reg. No. 60,821/		Date March 12, 2025	
Name (Print/Typed) Jonathan C. Lovely		Practitioner Registration Number 60,821	
<small>Note: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required. *</small>			
☐ *Total of <u>1</u> forms are submitted.			

1/5

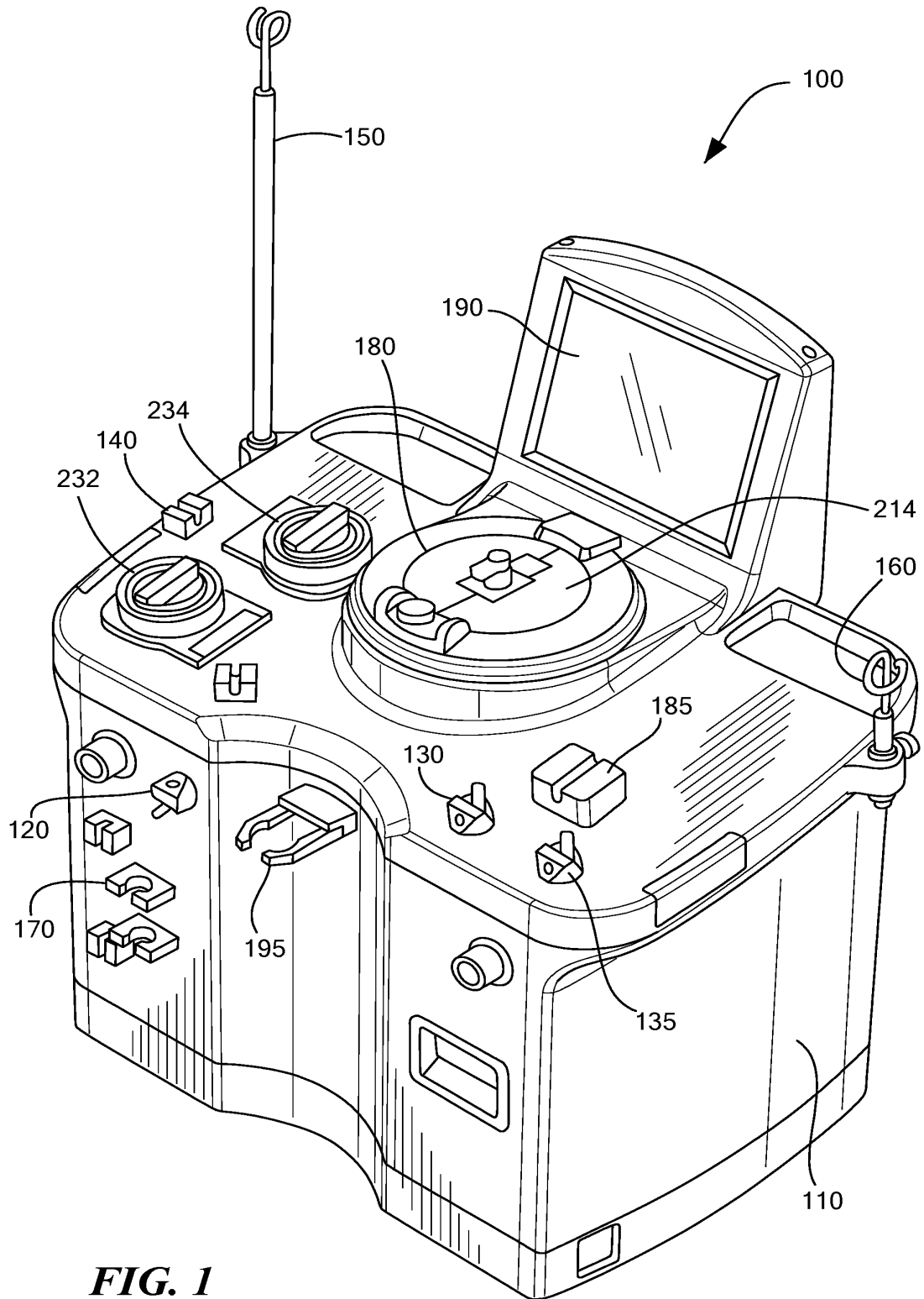
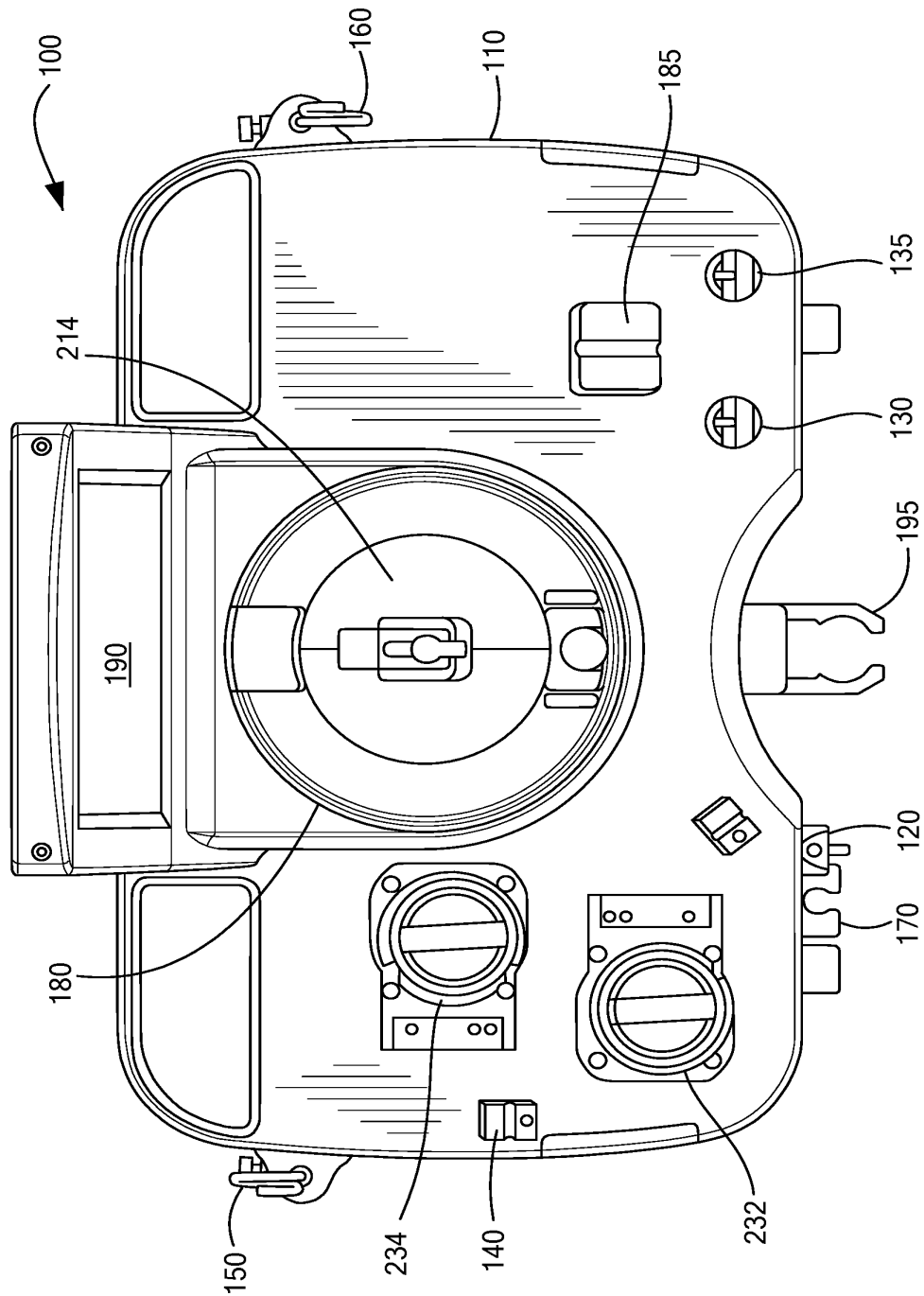
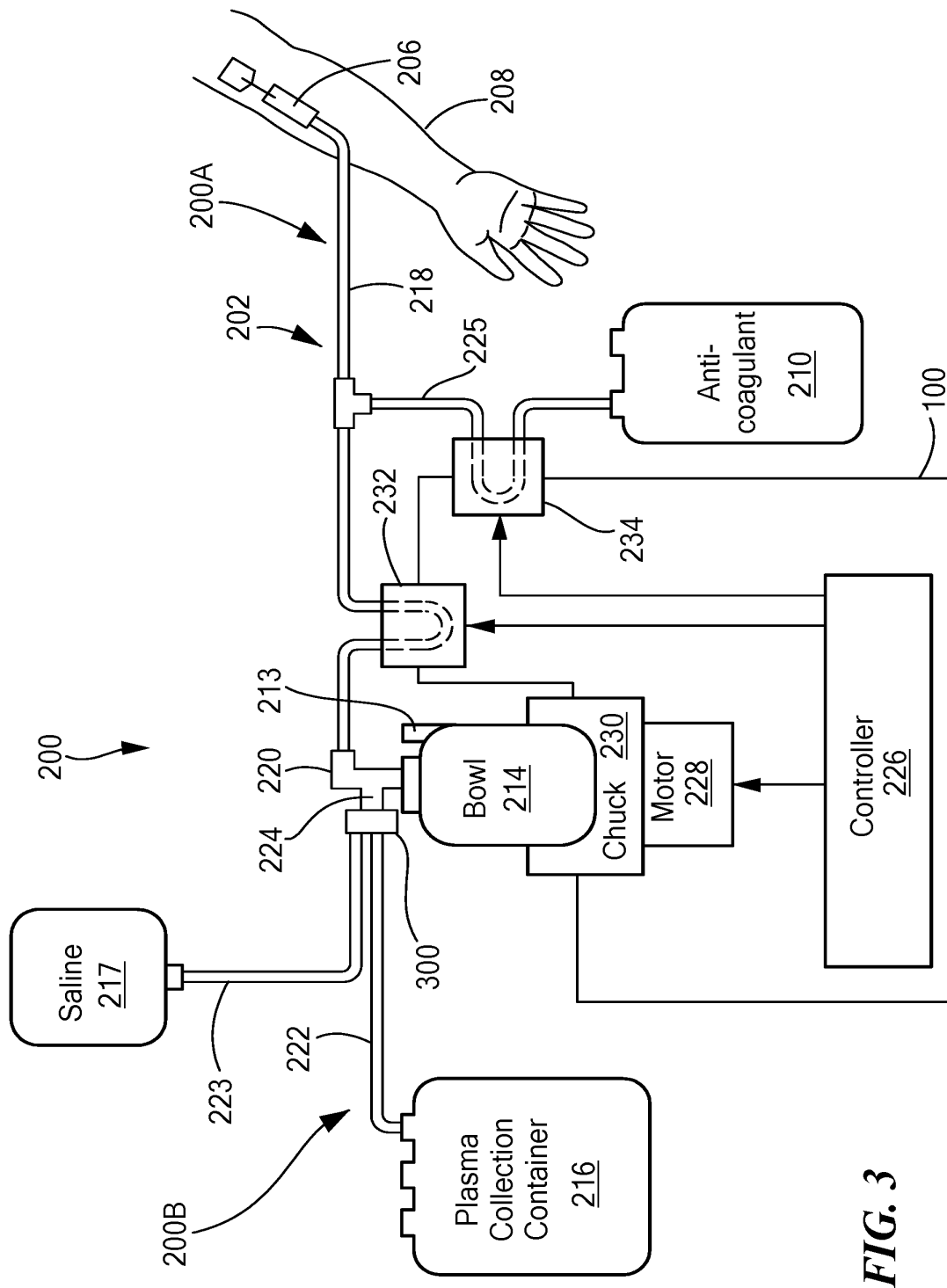


FIG. 1

**FIG. 2**

**FIG. 3**

4/5

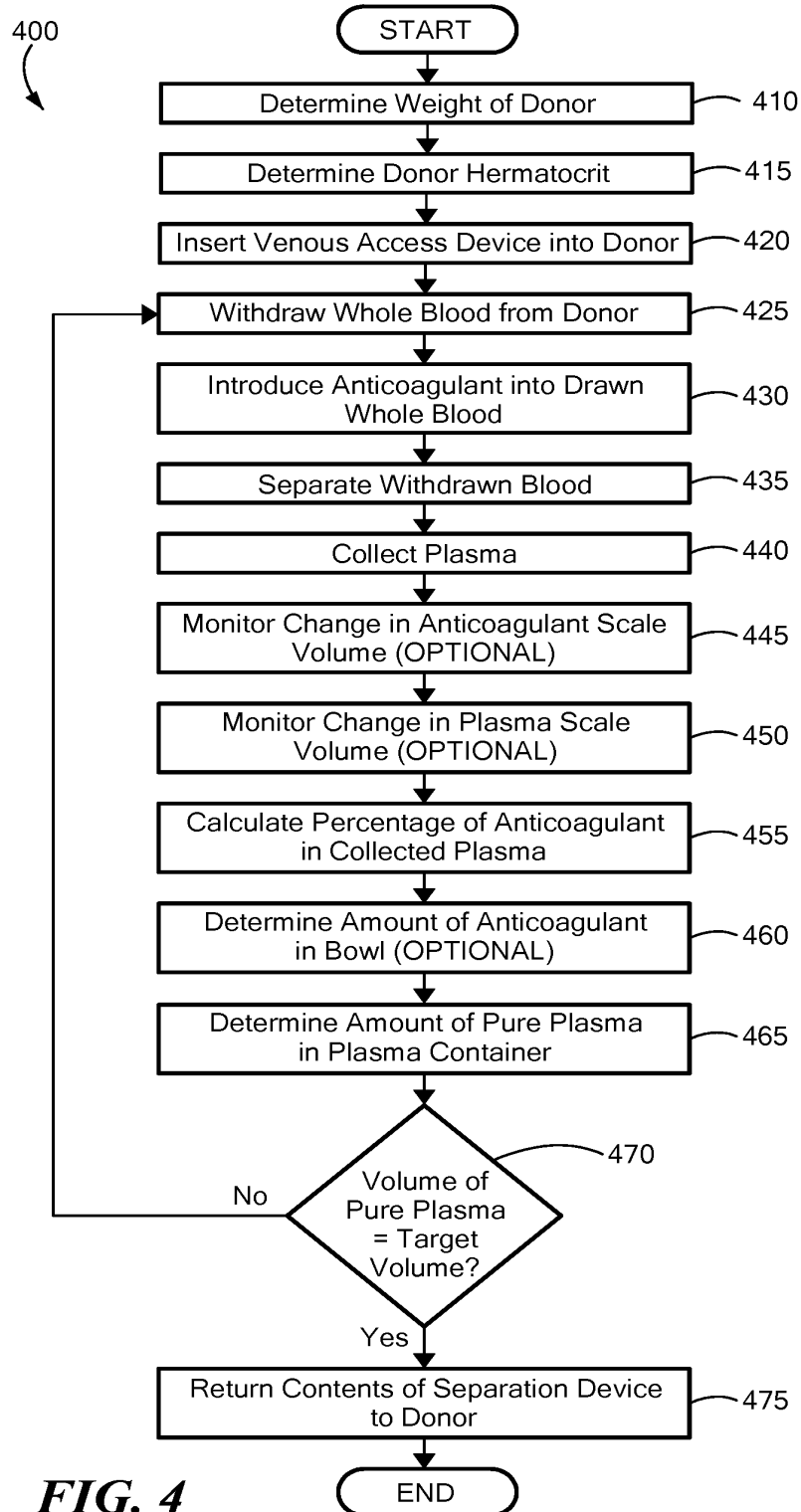
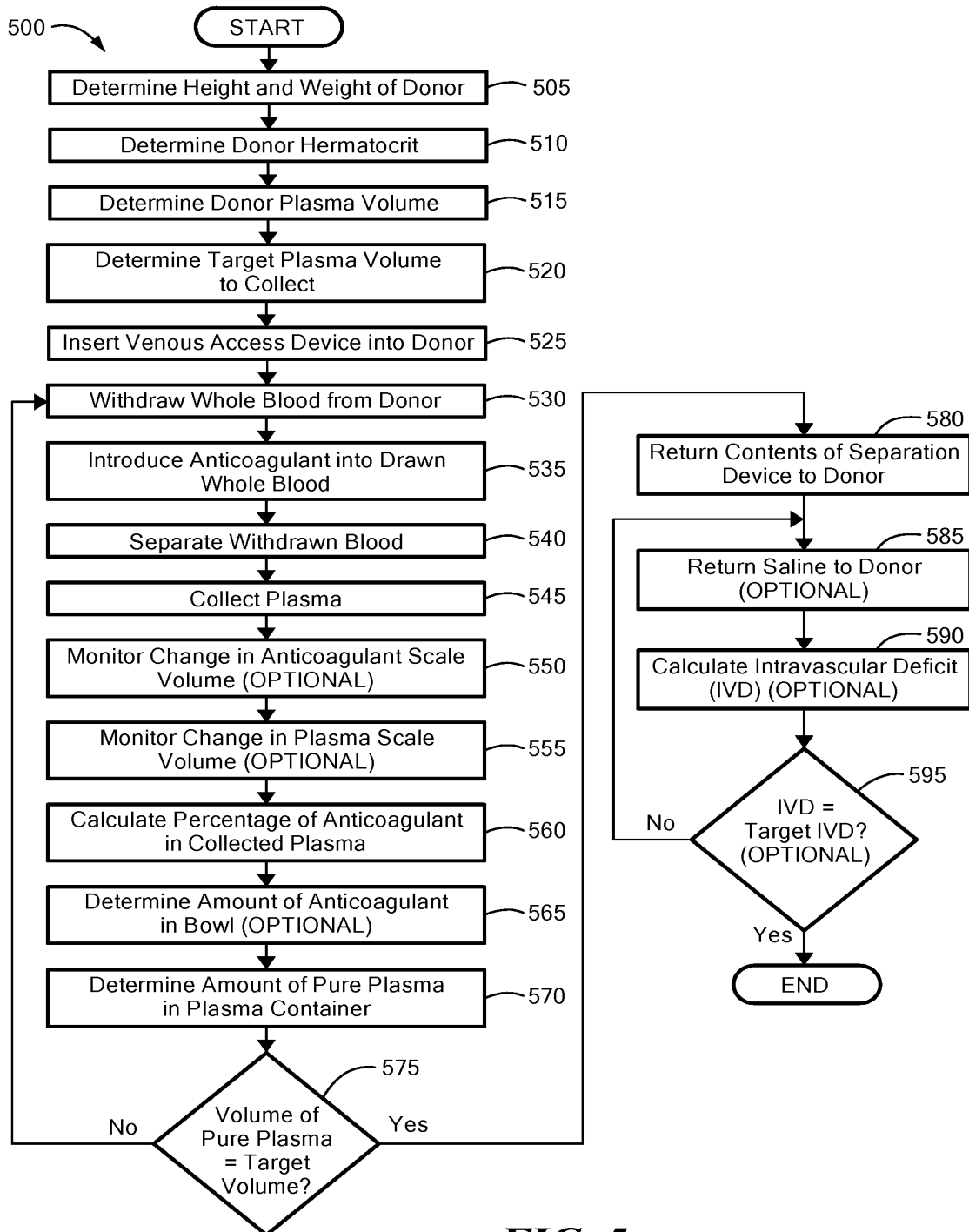


FIG. 4

**FIG. 5**

Doc Code: PA..
Document Description: Power of Attorney

PTO/AIA/82A (07-13)
Approved for use through 09/30/2025. OMB 0651-0035
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	Not Yet Assigned		
Filing Date	Concurrently Herewith		
First Named Inventor	Michael Ragusa		
Title	SYSTEM AND METHOD FOR COLLECTING PLASMA		
Art Unit	N/A		
Examiner Name	Not Yet Assigned		
Attorney Docket Number	130670-80106		
SIGNATURE of Applicant or Patent Practitioner			
Signature	/Jonathan C. Lovely, Reg. No. 60,821/	Date (Optional)	March 12, 2025
Name	Jonathan C. Lovely	Registration Number	60,821
Title (if Applicant is a juristic entity)			
Applicant Name (if Applicant is a juristic entity)			
NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.			
☐	*Total of <u>1</u> forms are submitted.		

POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

☒ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above:

OR

86738

☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

☒ The address associated with the above-mentioned Customer Number

OR

☐ The address associated with Customer Number:

OR

☐ Firm or
Individual Name

Address

City

State

Zip

Country

Telephone

Email

I am the Applicant (If the Applicant is a juristic entity, list the Applicant name in the box):

Haemonetics Corporation

☐ Inventor or Joint Inventor (title not required below)

☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)

☒ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)

☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature

Date (Optional)

Name

John F. Perillo

Title

Vice President, Associate General Counsel and Chief Intellectual Property Officer, Haemonetics Corporation

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ Total of forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1480, Alexandria, VA 22313-1480.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN
APPLICATION DATA SHEET (37 CFR 1.76)**

Title of
Invention

SYSTEM AND METHOD FOR COLLECTING PLASMA

As the below named inventor, I hereby declare that:

This declaration ☐ The attached application, or
is directed to:

☒ United States application or PCT international application number 15/793,339
filed on 10/25/2017

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby state that I have reviewed and understand the contents of the above identified specification,

I acknowledge the duty to disclose all information known to me that is material to patentability in accordance with Title 37, Code of Federal Regulations § 1.56.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

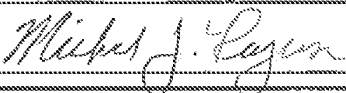
WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Inventor: Michael Ragusa

Date (Optional): Oct 25, 2018

Signature: 

Note: An application data sheet (PTO/AIA/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional PTO/SB/AIA/01 form for each additional inventor.



UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
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ELECTRONIC PAYMENT RECEIPT

APPLICATION # 19/077,384	RECEIPT DATE / TIME 03/12/2025 01:12:55 PM Z ET	ATTORNEY DOCKET # 130670-80106
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Title of Invention

SYSTEM AND METHOD FOR COLLECTING PLASMA

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	-
CONFIRMATION #	8047	FILED BY	Jonathan Lovely
PATENT CENTER #	69547782	AUTHORIZED BY	Jonathan Lovely
CUSTOMER #	86738	FILING DATE	-
CORRESPONDENCE ADDRESS	-	FIRST NAMED INVENTOR	Michael Ragusa

Payment Information

PAYMENT METHOD DA / 504876	PAYMENT TRANSACTION ID E20253BD14439505	PAYMENT AUTHORIZED BY Jonathan Lovely
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FEE CODE	DESCRIPTION	ITEM PRICE(\$)	QUANTITY	ITEM TOTAL(\$)
1011	BASIC FILING FEE - UTILITY (PAPER FILING ALSO REQUIRES NON-ELECTRONIC FILING FEE UNDER 1.16(T))	350.00	1	350.00
1111	UTILITY PATENT APPL. SEARCH FEE	770.00	1	770.00
1311	PATENT APPL. EXAMINATION FEE	880.00	1	880.00
1055	FILING AN APPLICATION OR PRESENTATION OF BENEFIT CLAIM MORE THAN SIX YEARS AFTER EARLIEST BENEFIT DATE	2700.00	1	2700.00
1817	REQUEST FOR PRIORITIZED EXAMINATION	4515.00	1	4515.00

1830	PROCESSING FEE, EXCEPT IN PROVISIONAL APPLICATIONS	150.00	1	150.00
1834	FILING AN INFORMATION DISCLOSURE STATEMENT THAT CAUSES THE CUMULATIVE NUMBER OF APPLICANT-PROVIDED ITEMS OF INFORMATION TO EXCEED 200	800.00	1	800.00
1202	EACH CLAIM IN EXCESS OF 20	200.00	10	2000.00
1201	EACH INDEPENDENT CLAIM IN EXCESS OF THREE	600.00	1	600.00
TOTAL AMOUNT:				\$12,765.00

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Doc code: IDS

Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08 (01-25)

Approved for use through 11/30/2027. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application Number		
	Filing Date		
	First Named Inventor	Michael Ragusa	
	Art Unit	N/A	
	Examiner Name	Not Yet Assigned	
	Attorney Docket Number	130670-80106	

U.S. PATENTS							Remove
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Inventor of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	
	1	1025059		1912-04-30	Hatton et al.		
	2	1611725		1926-12-21	Degerth et al.		
	3	2087778		1937-07-20	Nelin		
	4	2661150		1953-12-01	Abbott, Jr.		
	5	2750107		1956-06-12	More		
	6	2792172		1957-05-14	Tait		
	7	3096283		1963-07-02	Hein		
	8	3145713		1964-08-25	Latham, Jr.		

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application Number			
	Filing Date			
	First Named Inventor	Michael Ragusa		
	Art Unit	N/A		
	Examiner Name	Not Yet Assigned		
	Attorney Docket Number	130670-80106		

	9	3239136		1966-03-08	Hein	
	10	3244362		1966-04-05	Hein	
	11	3244363		1966-04-05	Hein	
	12	3409213		1968-11-05	Latham, Jr.	
	13	3456875		1969-07-22	Hein	
	14	3489145		1970-01-13	Judson et al.	
	15	3565330		1971-02-23	Latham, Jr.	
	16	3655058		1972-04-11	Novak	
	17	3737096		1973-06-05	Jones et al.	
	18	3774840		1973-11-27	Boatright	
	19	3987961		1976-10-26	Sinn et al.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application Number			
	Filing Date			
	First Named Inventor	Michael Ragusa		
	Art Unit	N/A		
	Examiner Name	Not Yet Assigned		
	Attorney Docket Number	130670-80106		

	20	4007871		1977-02-15	Jones et al.	
	21	4010894		1977-03-08	Kellogg et al.	
	22	4014497		1977-03-29	Spiewok et al.	
	23	4040965		1977-08-09	Kohlheb	
	24	4056224		1977-11-01	Lolachi	
	25	4082217		1978-04-04	Westberg	
	26	4086924		1978-05-02	Latham, Jr.	
	27	4140268		1979-02-20	Lacour	
	28	4142670		1979-03-06	Ishimaru et al.	
	29	4151844		1979-05-01	Cullis et al.	
	30	4197847		1980-04-15	Djerassi	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application Number			
	Filing Date			
	First Named Inventor	Michael Ragusa		
	Art Unit	N/A		
	Examiner Name	Not Yet Assigned		
	Attorney Docket Number	130670-80106		

	31	4285464		1981-08-25	Latham, Jr.	
	32	4300717		1981-11-17	Latham, Jr.	
	33	4303193		1981-12-01	Latham, Jr.	
	34	4321921		1982-03-30	Laszczower	
	35	4387848		1983-06-14	Kellogg et al.	
	36	4425114		1984-01-10	Schoendorfer et al.	
	37	4430072		1984-02-07	Kellogg et al.	
	38	4447221		1984-05-08	Mulzet	
	39	4457747		1984-07-03	Tu	
	40	4464167		1984-08-07	Schoendorfer et al.	
	41	4466888		1984-08-21	Verkaart	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application Number			
	Filing Date			
	First Named Inventor	Michael Ragusa		
	Art Unit	N/A		
	Examiner Name	Not Yet Assigned		
	Attorney Docket Number	130670-80106		

	42	4482342		1984-11-13	Lueptow et al.	
	43	4490135		1984-12-25	Troutner	
	44	4530691		1985-07-23	Brown	
	45	4534863		1985-08-13	Bacon et al.	
	46	4643714		1987-02-17	Brose	
	47	4647279		1987-03-03	Mulzet et al.	
	48	4655742		1987-04-07	Vantard	
	49	4680025		1987-07-14	Kruger et al.	
	50	4684361		1987-08-04	Feldman et al.	
	51	4692136		1987-09-08	Feldman et al.	
	52	4708712		1987-11-24	Mulzet	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application Number			
	Filing Date			
	First Named Inventor	Michael Ragusa		
	Art Unit	N/A		
	Examiner Name	Not Yet Assigned		
	Attorney Docket Number	130670-80106		

	53	4713176		1987-12-15	Schoendorfer et al.	
	54	4734089		1988-03-29	Cullis	
	55	4740202		1988-04-26	Stacey et al.	
	56	4740313		1988-04-26	Schoendorfer et al.	
	57	4755300		1988-07-05	Fischel et al.	
	58	4767396		1988-08-30	Powers	
	59	4795419		1989-01-03	Yawn et al.	
	60	4795448		1989-01-03	Stacey et al.	
	61	4806247		1989-02-21	Schoendorfer et al.	
	62	4806252		1989-02-21	Brown et al.	
	63	4808307		1989-02-28	Fischel et al.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application Number			
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	91	5194145		1993-03-16	Schoendorfer	
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	97	5277701		1994-01-11	Christie et al.	
	98	5298016		1994-03-29	Gordon	
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	109	5387187		1995-02-07	Fell et al.	
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	114	5437598		1995-08-01	Antwiler	
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	3	69434848	DE		2007-04-12	Gambro Inc		☒
	4	0128683	EP	A2	1984-12-19	Baxter Travenol Laboratories, Inc		☐
	5	0171749	EP	A1	1986-02-19	Terumo Corp		☐
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	37	1985/02561	WO	A1	1985-06-20	Baxter Travenol Laboratories, Inc		☐
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☐ See attached timing statement under 37 CFR 1.97(e).

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Signature	/Jonathan C. Lovely, Reg. No. 60,821/	Date (YYYY-MM-DD)	2025-03-12
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4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

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Placeholder Sheet for Supplemental Content

Application Number: 19077384

Document Date: 03/12/2025

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