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Patent Record Full View Thursday, January 16 2025 Derwent Innovation

# PATENT/PUBLICATION:US20050240147A1

## Key summary data

| | | | |
|---|---|---|---|
| Patent | Dead | Publication date | 2005-10-27 |
| DWPI family | Alive | Expiration date | 2024-04-21 (estimated) |
| INPADOC family | Alive | Remaining life | (0 year(s)) |
| Original assignee | ExploraMed II Inc., Menlo Park, CA, US | Domain Influence | 100.00 |
| Optimized assignee | ACCLARENT INC | Strategic Importance | 83.22 |
| Ultimate parent | JOHNSON & JOHNSON | Combined Patent Impact | 100.00 |

### Bibliography

### DWPI title

Disorder e.g. sinusitis, diagnosing/treating method, involves placing port device in nasal cavity, where device comprises device insertion port and valve that inserts working device through insertion port

### Original Title

**Devices, systems and methods for diagnosing and treating sinusitus and other disorders of the ears, nose and/or throat**

### Assignee/Applicant

Standardized: **EXPLORAMED II INCUS**

Original: ExploraMed II Inc., Menlo Park, CA, US

### Optimized Assignee/Ultimate Parent

| Optimized Assignee | Ultimate Parent |
|---|---|
| ACCLARENT INC | JOHNSON & JOHNSON |

Neurent 1115
Neurent v. Foundry
IPR2024-00669

### DWPI Assignee/Applicant

ACCLARENT INC (ACCR-C); EXPLORAMED II INC (EXPL-N); EXPLORAMED NC1 INC (EXPL-N)

**Inventor**

**Makower Joshua, Los Altos, CA, US**
**Chang John, Mountain View, CA, US**

**DWPI Inventor**

CHANG J; CHANG J Y; MAKOWER J

**DWPI accession / Update**

**2005-766121 / 200578**

**Application number / Date**

US2004829917A / 2004-04-21

**Priority number / Date / Country code**

**US2004829917A / 2004-04-21 / US**

**DWPI Priority number / Date / Country code**

US2004829917A / 2004-04-21 / US

**Abstract**

**DWPI abstract**

(US20050240147A1)

**Novelty**

The method involves placing a port device (10) in a nasal cavity that is on a side of an intranasal septum, where the device comprises a device insertion port and a valve that inserts a working device through the insertion port. The working device is advanced through the port device to a location within the nose, nasopharynx or paranasal sinus. The working device is used to perform a diagnostic or therapeutic procedure.

**Detailed description**

INDEPENDENT CLAIMS are also included for the following:

1. an anterior/posterior occlusion and access device comprising an anterior occluder
2. a disorder diagnosing/treating system comprising an anterior/posterior occlusion and access device
3. a device for removing polyps or other tissue from the nose, nasopharynx or paranasal sinus, comprising a flexible catheter.

### Use

Used for diagnosing and treating a disorder e.g. sinusitis, paranasal sinuses (claimed), enlarged nasal turbinates, infection, hearing disorder, allergic condition, facial fracture and other disorders affecting nose, ear and throat.

### Advantage

The port device is placed in the nasal cavity that is on the side of the intranasal septum, thus preventing backflow of blood or other fluid out of the device insertion port when working device is not inserted into the port.

### Drawing description

The drawing shows a partial sectional view of a head of a human patient, depicting a right nasal cavity, right side of nasopharynx and an associated paranasal sinus.
10 - Port device.
14 - Anterior occluder.
16 - Tube.
18 - Posterior occluder.
30 - Device insertion port.

### Abstract

**Sinusitis, enlarged nasal turbinates, tumors, infections, hearing disorders, allergic conditions, facial fractures and other disorders of the ear, nose and throat are diagnosed and/or treated using minimally invasive approaches and, in many cases, flexible catheters as opposed to instruments having rigid shafts. Various diagnostic procedures and devices are used to perform imaging studies, mucus flow studies, air/gas flow studies, anatomic dimension studies, endoscopic studies and transillumination studies. Access and occluder devices may be used to establish fluid tight seals in the anterior or posterior nasal cavities/nasopharynx and to facilitate insertion of working devices (e.g., scopes, guidewires, catheters, tissue cutting or remodeling devices, electrosurgical devices, energy emitting devices, devices for injecting diagnostic or therapeutic agents, devices for implanting devices such as stents, substance eluting devices, substance delivery implants, etc.**

### Classes/Indexing

### IPC

IPC Code (1-7) **A61F 2/06** A61M 1/00 A61M 29/00 A61F 13/00

(7)

| Current IPC | Invention | Version | Additional | Version |
|---|---|---|---|---|
| Full | A61B 17/24<br>A61B 19/00<br>A61F 13/00<br>A61K 9/22 | 20060101<br>20060101<br>20060101<br>20060101 | A61B 17/22<br>A61B 17/34<br>A61F 2/00<br>A61F 2/18 | 20060101<br>20060101<br>20060101<br>20060101 |

| | | | | |
|---|---|---|---|---|
| | A61M 1/00<br>A61M 29/00 | 20060101<br>20060101 | A61F 2/82<br>A61M 25/00 | 20130101<br>20060101 |
| Main Group | - | - | - | - |
| Subclass | - | - | - | - |

**CPC**

**Current CPC**

| Invention | Additional | Version | Office |
|---|---|---|---|
| **A61B 17/24**<br>**A61B 10/0233**<br>**A61B 10/06**<br>**A61B 17/32053**<br>**A61B 17/320725**<br>**A61B 17/320758**<br>**A61B 17/320783**<br>**A61F 2/82**<br>**A61M 29/02** | **A61B 17/3478**<br>**A61B 2017/22061**<br>**A61F 2/18**<br>**A61F 2250/0039** | **20130101**<br>**20130101**<br>**20130101**<br>**20130101**<br>**20130101**<br>**20130101**<br>**20130101**<br>**20130101**<br>**20130101** | **EP; US**<br>**EP; US**<br>**EP; US**<br>**EP; US**<br>**EP; US**<br>**EP; US**<br>**EP; US**<br>**EP; US**<br>**EP; US** |
| **A61B 1/233**<br>**A61B 17/0218**<br>**A61B 17/1688**<br>**A61B 17/29**<br>**A61B 17/3201**<br>**A61B 17/32056**<br>**A61B 18/02**<br>**A61B 18/042**<br>**A61B 18/12**<br>**A61B 18/18**<br>**A61F 2/186**<br>**A61F 13/2005**<br>**A61M 16/0434**<br>**A61M 25/10**<br>**A61M 31/00**<br>**A61M 31/005**<br>**A61N 1/0541** | **A61B 1/313**<br>**A61B 2017/00477**<br>**A61B 2017/320052**<br>**A61B 2017/320064**<br>**A61B 2018/00327**<br>**A61B 2018/00595**<br>**A61B 2018/0212**<br>**A61B 2018/1405**<br>**A61B 2217/005**<br>**A61B 2217/007** | **20130101**<br>**20130101**<br>**20130101**<br>**20130101**<br>**20130101**<br>**20130101**<br>**20130101**<br>**20130101**<br>**20130101**<br>**20130101**<br>**20130101**<br>**20130101**<br>**20130101**<br>**20130101**<br>**20130101**<br>**20130101**<br>**20130101** | **US**<br>**US**<br>**US**<br>**US**<br>**US**<br>**US**<br>**US**<br>**US**<br>**US**<br>**US**<br>**US**<br>**US**<br>**US**<br>**US**<br>**US**<br>**US**<br>**US** |
| **A61F 11/20** | **-** | **20220101** | **US** |

**Current Combination Codes CPC**

**Original CPC**

| Invention | Additional | Version | Office |
|---|---|---|---|
| A61B 17/24 | | 20130101 | US |
| A61B 1/233 | | 20130101 | US |
| A61B 10/0233 | | 20130101 | US |
| A61B 10/06 | | 20130101 | US |
| A61B 17/0218 | | 20130101 | US |
| A61B 17/1688 | | 20130101 | US |
| A61B 17/29 | A61B 1/313 | 20130101 | US |
| A61B 17/3201 | A61B 17/3478 | 20130101 | US |
| A61B 17/32053 | A61B 2017/00477 | 20130101 | US |
| A61B 17/32056 | A61B 2017/22061 | 20130101 | US |
| A61B 17/320725 | A61B 2017/320052 | 20130101 | US |
| A61B 17/320758 | A61B 2017/320064 | 20130101 | US |
| A61B 17/320783 | A61B 2018/00327 | 20130101 | US |
| A61B 18/02 | A61B 2018/00595 | 20130101 | US |
| A61B 18/042 | A61B 2018/0212 | 20130101 | US |
| A61B 18/12 | A61B 2018/1405 | 20130101 | US |
| A61B 18/18 | A61B 2217/005 | 20130101 | US |
| A61F 2/186 | A61B 2217/007 | 20130101 | US |
| A61F 2/82 | A61F 2/18 | 20130101 | US |
| A61F 13/2005 | A61F 2250/0039 | 20130101 | US |
| A61M 16/0434 | | 20130101 | US |
| A61M 25/10 | | 20130101 | US |
| A61M 29/02 | | 20130101 | US |
| A61M 31/00 | | 20130101 | US |
| A61M 31/005 | | 20130101 | US |
| A61N 1/0541 | | 20130101 | US |
| A61F 11/20 | - | 20220101 | US |

**Original Combination Codes CPC**

**US Class**

Current: **604/096.01**; 604/028; 604/101.01; 623/001.11

Original: **604/096.01**; 604/101.01; 604/028; 623/001.11

Field Of search: -

**Locarno Class**

-

**DWPI class**

S01 S02 S03 X26 P32 P34

**DWPI manual codes**

**DWPI manual codes**

**EPI Manual Codes: S01-E02A2; S02-J04B3; S03-E07A; X26-G; X26-U02**

**DWPI chemistry resource numbers**

DWPI Chemistry Resource Numbers

-

**DWPI registry numbers**

**DWPI Registry Numbers**

**-**

**Plasdoc punch codes**

Plasdoc Punch Codes

-

**Plasdoc key serial codes**

**Plasdoc Key Serial Codes**

**-**

**Enhanced polymer indexing**

Expand Enhanced Polymer Indexing

**Chemical fragment codes**

**Expand Chemical Fragment Codes**

**Legal status**

**Predictive Analytics**

| Predictive Type | Data |
|---|---|
| **Probability of Grant** | **-** |

| | |
|---|---|
| **Probability of Early Lapse** | - |
| **Probability of Restoration Post-Lapse** | - |

**INPADOC Legal Status**

| Gazette Date | Code | Description |
|---|---|---|
| 2021-07-21 | MAFP + | MAINTENANCE FEE PAYMENT PAYMENT OF MAINTENANCE FEE, 12TH YEAR, LARGE ENTITY (ORIGINAL EVENT CODE: M1553) ENTITY STATUS OF PATENT OWNER: LARGE ENTITY FEE PAYMENT YEAR 12 |
| 2017-07-24 | FPAY + | FEE PAYMENT FEE PAYMENT YEAR 8 |
| 2013-07-02 | AS | ASSIGNMENT ACCLARENT, INC., CALIFORNIA CHANGE OF NAME ASSIGNOR:EXPLORAMED NC1, INC. REEL/FRAME:030745/0678 2005-04-29 |
| 2013-03-13 | FPAY + | FEE PAYMENT FEE PAYMENT YEAR 4 |
| 2010-12-28 | CC | CERTIFICATE OF CORRECTION |
| 2010-01-13 | STCF | INFORMATION ON STATUS: PATENT GRANT PATENTED CASE |
| 2005-09-19 | AS | ASSIGNMENT EXPLORAMED NC2, INC., CALIFORNIA ASSIGNMENT OF ASSIGNORS INTEREST ASSIGNORS:LAMSON, THEODORE CHARLES MAKOWER, JOSHUA CATANESE III, JOSEPH AND OTHERS REEL/FRAME:017004/0584 2005-07-11 |
| 2005-09-19 | AS | ASSIGNMENT EXPLORAMED NC2, INC., CALIFORNIA ASSIGNMENT OF ASSIGNORS INTEREST ASSIGNORS:LAMSON, THEODORE CHARLES MAKOWER, JOSHUA CATANESE III, JOSEPH AND OTHERS REEL/FRAME:017004/0584 2005-07-11 |
| 2005-01-24 | AS | ASSIGNMENT EXPLORAMED NC1, INC., CALIFORNIA ASSIGNMENT OF ASSIGNORS INTEREST ASSIGNOR:EXPLORAMED II, INC. REEL/FRAME:016167/0641 2005-01-18 |
| 2005-01-24 | AS | ASSIGNMENT EXPLORAMED NC1, INC., CALIFORNIA ASSIGNMENT OF ASSIGNORS INTEREST ASSIGNOR:EXPLORAMED II, INC. REEL/FRAME:016167/0641 2005-01-18 |
| 2004-09-07 | AS | ASSIGNMENT EXPLORAMED II, INC., CALIFORNIA ASSIGNMENT OF ASSIGNORS INTEREST ASSIGNORS:MAKOWER, JOSHUA CHANG, JOHN Y. REEL/FRAME:015773/0955 2004-07-28 |
| 2004-09-07 | AS | ASSIGNMENT EXPLORAMED II, INC., CALIFORNIA ASSIGNMENT OF ASSIGNORS INTEREST ASSIGNORS:MAKOWER, JOSHUA CHANG, JOHN Y. REEL/FRAME:015773/0955 2004-07-28 |

Get Family Legal Status

**US Reassignments**

**Expand Reassignments**

**Family**

**Family**

Expand INPADOC Family (421) **INPADOC family:** Alive

Expand DWPI Family (14); Countries/Regions (109) **DWPI family:** Alive

**Claims**

**Claims**

**1**. A method for diagnosing and/or treating sinusitis or another disorder affecting the nose, paranasal sinuses or other anatomical structures of the ear, nose or throat, said method comprising the steps of: (A) placing a port device in the nostril or nasal cavity on at least one side of the intranasal septum, said port device comprising a device insertion port and a valve that is operative to allow a working device to be inserted through said device insertion port while preventing blood or other fluid from backflowing out of the device insertion port at least when no working device is inserted therethrough;
(B) advancing at least one working device through the port device to a location within the nose, nasopharynx or paranasal sinus; and
(C) using the working device to perform a diagnostic or therapeutic procedure

Expand All Claims (91)

**Description**

**Drawing description**

Expand Drawing Description

**Description**

**Expand Description**

**Citations**

**Citation** *Record level*

Citing Patents (787)

*First 100 citing patents displayed following; click View as Result set to see all*

| | Publication number | Publication date | Application date | Assignee/Applicant | Title |
|---|---|---|---|---|---|
| | AU2017217934B2 | 2021-02-18 | 2017-02-10 | AERIN MEDICAL INC | Hyaline cartilage shaping |
| | CN102271749A | 2011-12-07 | 2009-12-22 | Acclarent Inc. | - |
| | CN110711026A | 2020-01-21 | 2015-09-03 | BOVIE MEDICAL CORP | Electrosurgical snare device |

| | | | | | |
|---|---|---|---|---|---|
| | CN111330146A | 2020-06-26 | 2015-11-06 | PHAGENESIS LTD | Catheter for recovery of dysphagia |
| | CN111683616A | 2020-09-18 | 2018-12-18 | BIOSENSE WEBSTER ISRAEL LTD | Balloon catheter with internal distal end |
| | CN113993572A | 2022-01-28 | 2020-07-23 | INNOVHEART S R L | DEVICE FOR ARRANGING GUIDE WIRES AROUND HEART VALVE |
| | CN116747412A | 2023-09-15 | 2023-06-20 | BEIJING YONGYI RUNCHENG TECH CO LTD | Multi-section paclitaxel drug balloon catheter convenient to connect |
| | EP2394564A4 | 2013-02-20 | 2009-11-06 | OLYMPUS MEDICAL SYSTEMS CORP | MEDICAL TUBE |
| | EP2664350A1 | 2013-11-20 | 2009-07-30 | ACCLARENT INC | Paranasal ostium finder devices |
| | EP2664350B1 | 2019-08-28 | 2009-07-30 | ACCLARENT INC | Paranasal ostium finder devices |
| | RU2529806C2 | 2014-09-27 | 2009-12-22 | AKKLARENT INK | SYSTEM FOR EXTENDING NARROWED PARTS OF RESPIRATORY WAYS |
| | US10016304B2 | 2018-07-10 | 2015-07-16 | TUSKER MEDICAL INC | Earplug assembly for iontophoresis system |
| | US10022535B2 | 2018-07-17 | 2016-07-25 | COCHLEAR LTD | Securing an implanted medical device in a patient |
| | US10130515B2 | 2018-11-20 | 2015-03-18 | TUSKER MEDICAL INC | Mechanically registered videoscopic myringotomy/tympanostomy tube placement system |
| | US10143591B2 | 2018-12-04 | 2015-09-11 | ACCLARENT INC | Low profile eustachian tube dilation system |
| | US10265115B2 | 2019-04-23 | 2017-09-06 | AERIN MEDICAL INC | Methods and devices to treat nasal airways |
| | US10369337B2 | 2019-08-06 | 2016-04-26 | ENTELLUS MEDICAL INC | Balloon dilation catheter for use in sinus passageways |
| | US10449268B2 | 2019-10-22 | 2017-04-14 | ALLERGAN IND S A S | Stable hydrogel compositions including additives |
| | US10470647B2 | 2019-11-12 | 2018-03-22 | SPIWAY LLC | Surgical tissue protection sheath |
| | US10478344B2 | 2019-11-19 | 2016-05-13 | TUSKER MEDICAL INC | Adhesive earplugs useful for sealing the ear canal |
| | US10517580B2 | 2019-12-31 | 2015-06-27 | BOSTON SCIENT SCIMED INC | Multi-lumen-catheter retractor system for a minimally invasive, operative gastrointestinal treatment |
| | US10561829B2 | 2020-02-18 | 2018-12-28 | ENTELLUS MEDICAL INC | Method and articles for treating the sinus system |
| | US10588489B2 | 2020-03-17 | 2016-08-07 | BOSTON SCIENT SCIMED INC | Endoluminal system and method for gastrointestinal treatment |

| | | | | | |
|---|---|---|---|---|---|
| | US10603059B2 | 2020-03-31 | 2017-02-10 | AERIN MEDICAL INC | Hyaline cartilage shaping |
| | US10610412B2 | 2020-04-07 | 2017-08-11 | TUSKER MEDICAL INC | Tympanic membrane pressure equalization tube delivery system |
| | US10806435B2 | 2020-10-20 | 2015-02-03 | BIBBINSTRUMENTS AB | Endoscopic biopsy instrument and method for taking a biopsy sample with helical cutting edge provided at the tip of a guidewire |
| | US10881843B2 | 2021-01-05 | 2018-08-23 | ENTELLUS MEDICAL INC | Methods and devices for treating sinusitis |
| | US10966866B2 | 2021-04-06 | 2019-02-04 | TUSKER MEDICAL INC | Tympanostomy tube delivery device with rotatable flexible shaft |
| | US10986984B2 | 2021-04-27 | 2018-12-06 | SPIWAY LLC | Surgical tissue protection sheath |
| | US10987512B2 | 2021-04-27 | 2018-11-19 | TUSKER MEDICAL INC | System and method for providing iontophoresis at tympanic membrane |
| | US11083878B2 | 2021-08-10 | 2020-12-27 | ENTELLUS MEDICAL INC | Method and articles for treating the sinus system |
| | US11116566B2 | 2021-09-14 | 2017-12-20 | AERIN MEDICAL INC | Soft palate treatment |
| | US11185626B2 | 2021-11-30 | 2017-10-06 | MASSACHUSETTS INST TECHNOLOGY | Systems, apparatus, and methods for administering a substance |
| | US11419671B2 | 2022-08-23 | 2019-12-03 | NEURENT MEDICAL LTD | Systems and methods for therapeutic nasal neuromodulation |
| | US11426576B2 | 2022-08-30 | 2020-05-25 | COCHLEAR LTD | Securing an implanted medical device in a patient |
| | US11457971B2 | 2022-10-04 | 2019-04-05 | AERIN MEDICAL INC | Methods and devices to treat nasal airways |
| | US11497835B2 | 2022-11-15 | 2019-09-30 | INTERSECT ENT INC | Self-expanding devices and methods therefor |
| | US11510722B2 | 2022-11-29 | 2019-10-03 | AERIN MEDICAL INC | Pressure sensitive tissue treatment device |
| | US11510806B2 | 2022-11-29 | 2019-09-09 | LUMEN DEVICES LLC | Devices, systems and methods for the treatment of sleep apnea |
| | US11517425B2 | 2022-12-06 | 2019-07-25 | INNOVHEART S R L | Device for implanting a prosthesis for a heart valve and assembly procedure |
| | US11654216B2 | 2023-05-23 | 2019-12-26 | INTERSECT ENT INC | Self-expanding devices and methods therefor |
| | US11806265B2 | 2023-11-07 | 2020-08-27 | SPIROX INC | Apparatus and methods for correcting nasal valve collapse |
| | US11819590B2 | 2023-11-21 | 2020-05-12 | SURMODICS INC | Apparatus and methods for coating medical devices |

| | | | | | |
|---|---|---|---|---|---|
| | US11883232B2 | 2024-01-30 | 2018-09-11 | OLYMPUS MEDICAL SYSTEMS CORP | Radial ultrasound capsule and system |
| | US11992194B2 | 2024-05-28 | 2022-09-26 | BOSTON SCIENT SCIMED INC | Substantially rigid and stable endoluminal surgical suite for treating a gastrointestinal lesion |
| | US12004724B2 | 2024-06-11 | 2021-05-06 | MEDTRONIC XOMED INC | Endoscope cleaning system |
| | US12004800B2 | 2024-06-11 | 2019-12-03 | NEURENT MEDICAL LTD | Systems and methods for therapeutic nasal neuromodulation |
| | US12064577B2 | 2024-08-20 | 2020-08-28 | INTERSECT ENT INC | Drug-coated balloon |
| | US12064580B2 | 2024-08-20 | 2020-10-16 | ENTELLUS MEDICAL INC | Method and articles for treating the sinus system |
| | US12082872B2 | 2024-09-10 | 2021-06-10 | NEURENT MEDICAL LTD | Systems and methods for therapeutic nasal neuromodulation |
| | US12089830B2 | 2024-09-17 | 2022-05-23 | BOSTON SCIENT SCIMED INC | Multi-lumen-catheter retractor system for a minimally-invasive, operative gastrointestinal treatment |
| | US12108979B2 | 2024-10-08 | 2024-01-12 | NEURENT MEDICAL LTD | Systems and methods for improving sleep with therapeutic nasal treatment |
| | US20050059956A1 | 2005-03-17 | 2004-04-12 | UNIV JOHNS HOPKINS | Devices for intraocular drug delivery |
| | US20050282102A1 | 2005-12-22 | 2004-06-16 | CMS DENTAL APS | Kit for use by dental professionals |
| | US20060095066A1 | 2006-05-04 | 2005-01-18 | EXPLORAMED NC1 INC | Devices, systems and methods for treating disorders of the ear, nose and throat |
| | US20070255356A1 | 2007-11-01 | 2007-04-27 | ONDINE INT LTD | PHOTODISINFECTION DELIVERY DEVICES AND METHODS |
| | US20070276314A1 | 2007-11-29 | 2006-05-26 | - | Nasolacrimal duct probing, intubating and irrigating device |
| | US20080033353A1 | 2008-02-07 | 2007-07-24 | ENTELLUS MEDICAL INC | DEVICE AND METHOD FOR TREATMENT OF SINUSITIS |
| | US20080082045A1 | 2008-04-03 | 2006-09-15 | - | Methods and devices for facilitating visualization in a surgical environment |
| | US20090030274A1 | 2009-01-29 | 2008-07-31 | ACCLARENT INC | ENDOSCOPIC METHODS AND DEVICES FOR TRANSNASAL PROCEDURES |
| | US20090124958A1 | 2009-05-14 | 2008-07-02 | - | DEVICE AND METHODS FOR TREATMENT OF TISSUE |
| | US20090192489A1 | 2009-07-30 | 2009-04-07 | - | SINUS DELIVERY OF SUSTAINED RELEASE THERAPEUTICS |
| | US20090198179A1 | 2009-08-06 | 2008-12-12 | - | DELIVERY DEVICES AND METHODS |

| | | | | | |
|---|---|---|---|---|---|
| | US20100004557A1 | 2010-01-07 | 2009-09-17 | - | METHOD FOR DIAGNOSIS AND TREATMENT OF PROCESSING DIFFICULTIES, INTEGRATION PROBLEMS, IMBALANCES AND ABNORMAL POSTURES |
| | US20100198191A1 | 2010-08-05 | 2009-12-29 | ACCLARENT INC | METHOD AND SYSTEM FOR TREATING TARGET TISSUE WITHIN THE EUSTACHIAN TUBE |
| | US20100217296A1 | 2010-08-26 | 2009-12-22 | ACCLARENT INC | Silent Effusion Removal |
| | US20110071349A1 | 2011-03-24 | 2009-09-23 | ENTELLUS MEDICAL INC | ENDOSCOPE SYSTEM FOR TREATMENT OF SINUSITIS |
| | US20110190767A1 | 2011-08-04 | 2011-04-05 | - | Cavity Ablation Apparatus and Method |
| | US20120179158A1 | 2012-07-12 | 2011-01-06 | - | Sinus Ablation Devices, Methods, And Systems |
| | US20130231534A1 | 2013-09-05 | 2013-04-12 | MACROPLATA INC | FLOATING, MULTI-LUMEN-CATHETER RETRACTOR SYSTEM FOR A MINIMALLY-INVASIVE, OPERATIVE GASTROINTESTINAL TREATMENT |
| | US20160081857A1 | 2016-03-24 | 2015-09-11 | ACCLARENT INC | Low Profile Eustachian Tube Dilation System |
| | US20170119306A1 | 2017-05-04 | 2017-01-18 | QIU CHUNYUAN | SYSTEMS, METHODS AND DEVICES FOR DIAGNOSING SLEEP APNEA |
| | US20200170699A1 | 2020-06-04 | 2020-02-05 | AERIN MEDICAL INC | METHODS OF TREATING NASAL AIRWAYS |
| | US20210401479A1 | 2021-12-30 | 2021-06-11 | BIOSENSE WEBSTER ISRAEL LTD | APPARATUS AND METHOD FOR ABLATING EUSTACHIAN TUBE |
| | US20230173239A1 | 2023-06-08 | 2021-12-06 | BAE KYONGTAE | LUMEN-APPOSING SHUNT DEVICE TRANSPORTING FLUID BETWEEN TWO BODY CAVITIES |
| | US7419497B2 | 2008-09-02 | 2006-10-04 | ACCLARENT INC | Methods for treating ethmoid disease |
| | US7427136B2 | 2008-09-23 | 2006-03-20 | ZELINSKY DEBORAH | Method for diagnosis and treatment of processing difficulties, integration problems, imbalances and abnormal postures |
| | US7713255B2 | 2010-05-11 | 2009-04-07 | INTERSECT ENT INC | Sinus delivery of sustained release therapeutics |
| | US7842062B2 | 2010-11-30 | 2007-07-24 | ENTELLUS MEDICAL INC | Method and device for remodeling the uncinate process |
| | US7951131B2 | 2011-05-31 | 2010-09-15 | INTERSECT ENT INC | Sinus delivery of sustained release therapeutics |
| | US8088101B2 | 2012-01-03 | 2007-10-26 | ACCLARENT INC | Devices, systems and methods for treating disorders of the ear, nose and throat |

| | | | | | |
|---|---|---|---|---|---|
| | US8088103B2 | 2012-01-03 | 2009-11-03 | ADVANCED CATHETER THERAPIES INC | Occlusion perfusion catheter |
| | US8109918B2 | 2012-02-07 | 2009-06-06 | INTERSECT ENT INC | Sinus delivery of sustained release therapeutics |
| | US8118757B2 | 2012-02-21 | 2007-04-30 | ACCLARENT INC | Methods and devices for ostium measurement |
| | US8146400B2 | 2012-04-03 | 2007-07-31 | ACCLARENT INC | Endoscopic methods and devices for transnasal procedures |
| | US8216214B2 | 2012-07-10 | 2007-03-12 | ETHICON ENDO SURGERY INC | Power modulation of a scanning beam for imaging, therapy, and/or diagnosis |
| | US8439687B1 | 2013-05-14 | 2006-12-29 | ACCLARENT INC | Apparatus and method for simulated insertion and positioning of guidewares and other interventional devices |
| | US8452392B2 | 2013-05-28 | 2009-07-27 | ACCLARENT INC | Systems and methods for anesthetizing ear tissue |
| | US8568439B2 | 2013-10-29 | 2012-03-13 | ENTELLUS MEDICAL INC | Method of confirming location of guide wire |
| | US8802131B2 | 2014-08-12 | 2009-08-14 | INTERSECT ENT INC | Devices and methods for delivering active agents to the osteomeatal complex |
| | US8894567B2 | 2014-11-25 | 2010-06-11 | OLYMPUS MEDICAL SYSTEMS CORP | Medical tube |
| | US8945088B2 | 2015-02-03 | 2010-04-28 | ACCLARENT INC | Apparatus and methods for dilating and modifying ostia of paranasal sinuses and other intranasal or paranasal structures |
| | US8979888B2 | 2015-03-17 | 2009-07-30 | ACCLARENT INC | Paranasal ostium finder devices and methods |
| | US9039680B2 | 2015-05-26 | 2008-04-21 | ACCLARENT INC | Implantable devices and methods for delivering drugs and other substances to treat sinusitis and other disorders |
| | US9050440B2 | 2015-06-09 | 2009-02-23 | ACCLARENT INC | Multi-conduit balloon catheter |
| | US9079762B2 | 2015-07-14 | 2006-09-22 | ETHICON ENDO SURGERY INC | Micro-electromechanical device |
| | US9173733B1 | 2015-11-03 | 2006-08-21 | ABBOTT CARDIOVASCULAR SYSTEMS | Tracheobronchial implantable medical device and methods of use |
| | US9192490B2 | 2015-11-24 | 2014-09-25 | AUDUBON TECHNOLOGIES LLC | Device for maintaining patent paranasal sinus ostia |
| | US9238126B2 | 2016-01-19 | 2012-04-04 | SANOVAS INC | Biofeedback controlled deformation of sinus ostia |
| | US9320876B2 | 2016-04-26 | 2007-07-24 | ENTELLUS MEDICAL INC | Sinusitis treatment system and method of use |

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