

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PARSE BIOSCIENCES, INC.,
Petitioner

v.

10X GENOMICS, INC.,
Patent Owner

Case IPR2023-00876
Patent 10,155,981

PATENT OWNER’S AUTHORIZED SUPPLEMENTAL PAPER IDENTIFYING EXEMPLARY NEW AND IMPROPER ARGUMENTS AND THEORIES IN PETITIONER’S REPLY AND RELATED PAPERS¹

¹ This paper is submitted pursuant to the Board’s May 1, 2024 authorizing email.

All emphases are added except as noted, and abbreviations are those in the POR.

Original Theory/Evidence	New Theory/Evidence
Linnarsson-McCloskey combination used McCloskey’s second tag (barcode) of “7 nucleotides.” EX1002, ¶192 (“McCloskey[’s]... barcode comprises 7 nucleotides... POSA could...use... 7 nucleotides...”); Pet.55-56 (citing EX1002, ¶192).	Linnarsson-McCloskey combination’s second tag (barcode) <i>not limited to 7 nucleotides</i> ; 7 nucleotide length (16,384 barcodes) “just an example in McCloskey.” Rep.13; EX1059, ¶¶83-84; <i>see, e.g.</i> , EX2020, 45:1-58:1, esp. 57:17-58:1.
No reliance on McCloskey application US2007002640 (“McCloskey II”) in Petition or Cooper’s original declaration. <i>See generally</i> Pet.; EX1002. <i>See, e.g.</i> , EX2020, 58:2-22.	Reply and Cooper’s reply declaration relying on McCloskey II and testimony from a different IPR to modify McCloskey’s barcode to “20-30” nucleotides. Rep.13-14 (relying on additional opinions in EX2011); EX1059, ¶85.
Mapping CDS/TSO fragmentation and capture examples, including biotin and restriction enzyme cut sites, to tagged polynucleotide limitations; Fig.11 mapped together with Figs.2-4 as single embodiment (no discussion/explanation of mapping across any separate embodiments); no argued disclosure based on Linnarsson claim 1 or arguments involving Linnarsson claim 27. Pet.41-43, 45-47; EX1002, ¶¶139-141, 143-144 ([1C]), 153-155 ([1D]), 163-166 ([1E]); <i>see also</i> EX1002, ¶198 (fragmentation in [1G]); <i>see, e.g.</i> , EX2020, 76:13-90:1, 90:9-92:19, 94:8-97:11, 104:2-106:5.	Disclaiming reliance on CDS/TSO fragmentation and capture examples, arguing biotin and restriction enzyme cut sites are optional and not used in Linnarsson Figs.2-4 (or, per deposition, Linnarsson claim 1); Figs.2-4 (and, per deposition, Linnarsson claim 1) are different embodiments from Fig.11. Rep.5-7, 23-24; EX1059, ¶¶33-45, 66-70; <i>see, e.g.</i> , EX2020, 118:5-122:14, 123:11-125:4, 129:2-7, 131:20-137:10. Also arguing Linnarsson claim 27 indicates fragmentation is optional in these embodiments. Rep.6; EX1059, ¶¶47, 72.
Tag ligated to the end of the CDS/TSO with no identified modification to CDS/TSO having biotin and enzyme restriction cut sites. Pet.68 (Ground 2); EX1002 ¶243.	Ligation accomplished by avoiding fragmentation and capture disclosures with biotin and enzyme restriction cut sites (<i>see above</i>) or by making new modifications to the CDS/TSO— <i>e.g.</i> , removing biotin, adding it later, moving the Bts cut site, etc. Rep.24; EX1059, ¶¶109-112, 116-118; <i>see</i> EX2020, 75:13-78:19.
Mapping to eukaryotic cells (<i>e.g.</i> , “tissue of interest,” mouse cells), never mentioning yeast or bacteria, and to	Disclaiming reliance on mammalian cells or other cells—relying instead on yeast, and on bacteria (which, “in

CDS with a poly-T sequence to tag mRNA with a poly-A tail. Pet.37-39, 41-42, 44-47; EX1002, ¶¶67, 120-21, 127, 139-41, 143, 153-56, 163-66, 213; <i>see, e.g.</i> , EX2020, 59:1-64:2, 71:10-21.	general” and as a “rule,” do not have a poly-A tail). Rep.11-13; EX1059, ¶¶86-87; EX1061; EX1063; <i>see, e.g.</i> , EX2020, 72:10-75:8.
Sequencing limitation is met by Linnarsson teaching sequencing <i>entirety</i> of the tagged polynucleotide. Pet.56-57; EX1002, ¶198.	Sequencing limitation is met by Linnarsson sequencing only a <i>portion</i> of the tagged polynucleotide. Rep.5; EX1059, ¶¶54-63.
Motivation to combine relies on “each”/“every”/“substantially all” mRNA be “uniquely” tagged. Pet.41, 54; EX1002, ¶92; EX2022, ¶222.	No requirement that “all the mRNA molecules” be tagged; only need to tag “a subset of molecules” and could accomplish with “gene family-specific” RCS. Rep.12-13; EX1059, ¶¶18, 89.
Ligation occurs at some unspecified time “after extension” to the CDS or TSO. EX2018, 54:8-21 (“I <i>did not explicitly say a timing element</i> there...”); EX1002, ¶¶237-244; Pet.66-68.	Ligation occurs “before amplification” and “after the first reverse transcription step.” Rep.17; EX1059, ¶¶113-115.
No assertion in Petition or Cooper’s original declaration that McCloskey or Linnarsson are analogous to the ’981 patent (rather than to each other), or that the Petition’s or original declaration’s descriptions showed they were; no assertion about analogousness and Hug. Pet.52; EX1002, ¶187; <i>see</i> Rep.24-25 (no citations to petition).	New assertions that Linnarsson/McCloskey/Hug analogous to ’981. EX1059, ¶¶124, 127-128; Rep.24-25 & n.6; EX2020, 20:4-28:16, esp. 23:11-19. Also incorporating by reference (Rep.25) Cooper’s arguments he had already provided “detailed obviousness analysis... including explanations of how they are analogous” and in same field “as the ’981...” in EX1002. EX1059, ¶126; <i>see, e.g.</i> , EX2020, 20:4-26:19.
Hug (EX1007) was not part of the combination of references making up the Petition’s grounds. <i>See</i> Pet.37, 66-69.	“[O]bvious to modify... Hug’s linker molecule to” function as part of Petitioner’s asserted combination of references. EX1059, ¶122 (cited Rep.18). <i>See, e.g.</i> , EX2020, 144:9-145:17.
McCloskey is prior art, relying on EX1028. Pet.29-30 (citing EX1028).	McCloskey is prior art, abandoning EX1028 and relying instead on new EX1065. Rep.3 (citing EX1065).

Respectfully submitted: /J. Steven Baughman/

May 10, 2024

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of PATENT OWNER’S AUTHORIZED SUPPLEMENTAL PAPER IDENTIFYING EXEMPLARY NEW AND IMPROPER ARGUMENTS AND THEORIES IN PETITIONER’S REPLY AND RELATED PAPERS has been served in its entirety by causing the aforementioned document to be electronically mailed to the following attorneys of record for the Petitioner listed below:

Petitioner’s Counsel of Record:

Lead Counsel:	Derek C. Walter Reg. No. 74,656 derek.walter@weil.com Weil, Gotshal & Manges LLP 201 Redwood Shores Parkway Redwood Shores, CA 94065 Telephone: (650) 802-3934 By Electronic Mail
Backup Counsel:	Adrian C. Percer Registration No. 46,986 adrian.percer@weil.com Weil, Gotshal & Manges LLP 201 Redwood Shores Parkway Redwood Shores, CA 94065 Telephone: (650) 802-3124 William Sutton Ansley Registration No. 67,828 sutton.ansley@weil.com Weil, Gotshal & Manges LLP 2001 M Street NW, Suite 600 Washington, DC 20036 Telephone: (202) 682-7018 By Electronic Mail

	Edward Reines (<i>pro hac vice</i>) Edward.reines@weil.com Weil, Gotshal & Manges LLP 2001 M Street NW, Suite 600 Washington, DC 20036 Telephone: (650) 802-3022 By Electronic Mail
--	---

Dated: May 10, 2024

Respectfully submitted,

By: /Sayem Osman/
Sayem Osman