

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 SUPPLEMENTAL PAPER REGARDING
QUACKENBUSH REPORT EXCERPT**

LIST OF EXHIBITS

Exhibit	Description
EX2001	U.S. Patent Pub. No. 2007/0020640 A1
EX2002	File History of U.S. App. No. 13/859,450
EX2003	Dictionary of Microbiology and Molecular Biology (2d ed. 1987)
EX2004	File History of U.S. App. No. 14/792,094
EX2005	File History of U.S. App. No. 13/387,343
EX2006	U.S. Patent Pub. No. 2007/0238113
EX2007	Laird <i>et al.</i> , <i>Hairpin-bisulfite PCR: assessing epigenetic methylation patterns on complementary strands of individual DNA molecules</i> , 101 PNAS 204-09 (Dec. 12, 2003)
EX2008	Parse Biosciences, Inc. v. 10x, Genomics Inc., IPR2023-00958, Pap.1 (May 25, 2023)
EX2009	File History of U.S. App. No. 14/172,694
EX2010	Declaration of Sayem Osman
EX2011	Parse Biosciences, Inc. v. 10x, Genomics Inc., IPR2023-00958, EX1002 (May 25, 2023) (Declaration of Gregory Cooper, Ph.D.)
EX2012	Parse Biosciences, Inc. v. 10x, Genomics Inc., IPR2023-00958, EX1054 (May 25, 2023) (Georgi K. Marinov <i>et al.</i> , <i>From single-cell to cell-pool transcriptomes: Stochastically in gene expression and RNA splicing</i> , 24.3 Genome Research 496-510 (2014) (“Marinov”))
EX2013	Declaration of Dr. John Quackenbush
EX2014	Bruce Alberts, <i>et al.</i> , <i>Molecular Biology of the Cell</i> , Garland Science (4th ed. 2002)
EX2015	Declaration of Sayem Osman
EX2016	Piovesan <i>et al.</i> , <i>On the length, weight, and GT content of the human genome</i> , BMC Res. Notes 12:106 (2019) (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6391780/#:~:text=Considering%20a%20mean%20weight%20in,units%2Fcarat.htm)
EX2017	T. Chauhan, <i>T4 DNA Ligase: Introduction, Functions, Applications, and Protocol</i> , (available at https://geneticeducation.co.in/t4-dna-ligase/)
EX2018	Deposition Transcript of Gregory Cooper, Ph.D.
EX2019	Li <i>et al.</i> , <i>Amplification and analysis of DNA sequences in single human sperm and diploid cells</i> , Nature 335(6189):414-417 (1998)

Exhibit	Description
EX2020	May 2, 2024 Deposition Transcript of Gregory Cooper, Ph.D.
EX2021	<i>Parse Biosciences, Inc. v. 10x, Genomics Inc.</i> , IPR2023-00955, Pap.1 (May 25, 2023)
EX2022	<i>Parse Biosciences, Inc. v. 10x Genomics, Inc.</i> IPR2023-00955, EX1002 (Apr. 20, 2023) (Declaration of Gregory Cooper, Ph.D.)
EX2101	S. Guan, A. Blanchard, P. Zhang, & Z. Zhu, <i>Alteration of Sequence Specificity of the Type IIS Restriction Endonuclease BtsI</i> , (July 26, 2010) (marked as EX2101 in Dr. Cooper's May 2, 2024 deposition (EX2020))
EX2102	C. Wangsanuwat <i>et al</i> , <i>Efficient and cost-effective bacterial mRNA sequencing from low input samples through ribosomal RNA depletion</i> , BMC Genomics (2020) 21:717 (marked as EX2102 in Dr. Cooper's May 2, 2024 deposition (EX2020))
EX2103	V. Llorens-Rico <i>et al</i> , Single-cell approaches in human microbiome research, Cell (2022) 185:2725 (marked as EX2103 in Dr. Cooper's May 2, 2024 deposition (EX2020))
EX2104	N. Sarkar, <i>Polyadenylation of mRNA in Prokaryotes</i> , Annu. Rev. Biochem (1997) 66:173-97 (marked as EX1067 in Dr. Cooper's May 2, 2024 deposition (EX2020))
EX2105	S. Slomovic <i>et al.</i> , <i>RNA Polyadenylation in Prokaryotes and Organelles; Different Tails Tell Different Tales</i> , Critical Revs. In Plant Scis. (2006) 25:65-77 (marked as EX1068 in Dr. Cooper's May 2, 2024 deposition (EX2020))

Petitioner’s allegations that Dr. Quackenbush has taken inconsistent positions are incorrect. Pap.36; Rep.3-4. Quackenbush has not opined that “sequencing the plurality of tagged polynucleotides” “*requires* sequencing the ‘entirety’ of a ‘tagged polynucleotide.’” Pap.36. Rather, Petitioner and its expert, Dr. Cooper, argued in the Petition (and opening expert declaration) that this “sequencing” limitation is met because Linnarsson teaches sequencing the entire tagged polynucleotide. EX1002, ¶¶138, 146, 151, 197-199; Pet.56-57; EX2013, ¶¶54, 58; EX1057, 172:20-173:20; *see also* POR.22-25; POSR.8-9. In response, Quackenbush explained that Cooper mischaracterizes Linnarsson, which does not teach sequencing of the entire tagged polynucleotide, and thus has not established that Linnarsson teaches the “sequencing” limitation. EX2013, ¶¶54-57; *see also* POR.23, 25. Notably, Petitioner and Cooper did not assert that Linnarsson meets the “sequencing” limitation because it teaches sequencing a portion of the tagged polynucleotide. Pet.56-57; EX1002, ¶¶195-199. Nor did they attempt to show that if Linnarsson sequences only a portion of the tagged polynucleotide, that the sequenced portion is sufficient to identify the tags and the sample sequence, as required. Pet.56-57; EX1002, ¶¶195-199.

There is therefore no inconsistency between Quackenbush’s opinions here and his District Court opinions, where he opined that the sequencing limitation itself does not require sequencing the entire polynucleotide. EX1067, ¶¶160-161.

Respectfully submitted: /Megan Raymond/ July 2, 2024

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of PATENT OWNER'S SUPPLEMENTAL PAPER REGARDING QUACKENBUSH REPORT EXCERPT 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 R. Reines (<i>pro hac vice</i>) edward.reines@weil.com Weil, Gotshal & Manges LLP 201 Redwood Shores Parkway

	Redwood Shores, CA 94065 Telephone: (650) 802-3022 By Electronic Mail
--	---

Dated: July 2, 2024

Respectfully submitted,

By: /Sayem Osman/
Sayem Osman