

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

10X GENOMICS, INC.,
Petitioner

v.

PRESIDENT AND FELLOWS OF HARVARD COLLEGE,
Patent Owner

Case IPR2023-01299
U.S. Patent No. 11,098,303

PETITIONER 10X GENOMICS, INC.'S UPDATED EXHIBIT LIST

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Petitioner 10x Genomics, Inc. (“Petitioner”), files this Updated Exhibit List to accompany filing of Exhibit 1061, the transcript of a teleconference held between the Board and parties on January 19, 2024.

Exhibit No.	Description
1001	U.S. Patent No. 11,098,303 to Zhuang <i>et al.</i> , issued August 24, 2021 (“303 patent”)
1002	Declaration of Paul Spellman, Ph.D.
1003	<i>Curriculum Vitae</i> of Paul Spellman, Ph.D.
1004	File History of U.S. Patent No. 11,098,303 (“303 File History”)
1005	U.S. Patent No. 10,829,814 to Fan <i>et al.</i> , issued November 10, 2020 (“Fan”)
1006	U.S. Provisional Application No. 62/014,538 to Fan <i>et al.</i> , filed on June 19, 2014 (“Fan-Prov”)
1007	Gunderson <i>et al.</i> , “Decoding Randomly Ordered DNA Arrays,” <i>Genome Research</i> , 14(5):870-877 (May 2004) (“Gunderson”)
1008	Larsson <i>et al.</i> , “ <i>In situ</i> detection and genotyping of individual mRNA molecules,” <i>Nature Methods</i> , 7(5):395-397 (April 2010) (“Larsson”)
1009	U.S. Patent No. 8,765,642 to Curry, issued July 1, 2014 (“Curry”)
1010	Levsky <i>et al.</i> , “Fluorescence in situ hybridization: past, present and future,” <i>Journal of Cell Science</i> , 116(4):2833-2838 (July 2003) (“Levsky 2003”)
1011	Gozzetti <i>et al.</i> , “Fluorescence In Situ Hybridization: Uses and Limitations,” <i>Seminars in Hematology</i> , 37(4):320-333 (October 2000) (“Gozzetti”)
1012	Femino <i>et al.</i> , “Visualization of Single RNA Transcripts in Situ,” <i>Science</i> , 280:585-590 (April 1998) (“Femino”)
1013	Raj <i>et al.</i> , “Imaging individual mRNA molecules using multiple singly labeled probes,” <i>Nature Methods</i> , 5(10):877-879 (October 2008) (“Raj”)
1014	Levesque <i>et al.</i> , “Single chromosome transcriptional profiling reveals chromosome-level regulation of gene expression,” <i>Nature Methods</i> , 10(3):246-248 (March 2013) (“Levesque”)
1015	Levsky <i>et al.</i> , “Single-Cell Gene Expression Profiling,” <i>Science</i> , 297:836-840 (August 2002), with Supplemental Materials (“Levsky 2002”)

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1016	Lubeck <i>et al.</i> , “Single cell systems biology by super-resolution imaging and combinatorial labeling,” <i>Nature Methods</i> , 9(7):743-748 (July 2012) (“Lubeck 2012”)
1017	Jakt <i>et al.</i> , “A continuum of transcriptional identities visualized by combinatorial fluorescent <i>in situ</i> hybridization,” <i>Development</i> , 140(1):216-225 (January 2013) (“Jakt”)
1018	Shaffer <i>et al.</i> , “Turbo FISH: A Method for Rapid Single Molecule RNA FISH,” <i>PLoS ONE</i> , 8(9):e75120 (September 2013) (“Shaffer”)
1019	Lubeck <i>et al.</i> , “Single-cell <i>in situ</i> RNA profiling by sequential hybridization,” <i>Nature Methods</i> , 11(4):360-361 (April 2014) with Supplemental Materials (“Lubeck 2014”)
1020	U.S. Patent No. 10,457,980 to Cai <i>et al.</i> , issued October 29, 2019 (“Cai”)
1021	International Patent Application Publication No. WO 2013/096851 A1 to Levner <i>et al.</i> , published June 27, 2013 (“Levner”)
1022	U.S. Patent Application Publication No. 2010/0291557 A1 to Livak <i>et al.</i> , published November 18, 2010 (“Livak”)
1023	Jensen, E., “Technical Review: <i>In Situ</i> Hybridization,” <i>The Anatomical Record</i> , 297(8):1349-1353 (May 2014) (“Jensen 2014a”)
1024	Silverman <i>et al.</i> , “Oligonucleotide Probes for RNA-Targeted Fluorescence <i>In Situ</i> Hybridization,” <i>Advances in Clinical Chemistry</i> , 43:79-115 (2007) (“Silverman”)
1025	Kwon, S., “Single-molecule fluorescence <i>in situ</i> hybridization: Quantitative imaging of single RNA molecules,” <i>BMB Reports</i> , 46(2):65-72 (February 2013) (“Kwon”)
1026	U.S. Patent No. 9,896,720 to Raj <i>et al.</i> , issued February 20, 2018 (“Raj 720”)
1027	Deng <i>et al.</i> , “Targeted bisulfite sequencing reveals changes in DNA methylation associated with nuclear reprogramming,” <i>Nature Biotechnology</i> , 27(4):353-360 (April 2009) with Supplemental Materials (“Deng”)
1028	Leung <i>et al.</i> , “Review of Super-Resolution Fluorescence Microscopy for Biology,” <i>Applied Spectroscopy</i> , 65(9):967-980 (September 2011) (“Leung”)

Exhibit No.	Description
1029	Henriques <i>et al.</i> , “PALM and STORM: Unlocking Live-Cell Super-Resolution,” <i>Biopolymers</i> , 95(5):322-331 (May 2011) (“Henriques”)
1030	Chi, K., “Super-resolution microscopy: breaking the limits,” <i>Nature Methods</i> , 6(1):15-18 (January 2009) (“Chi”)
1031	Cai, L., “Turning single cells into microarrays by super-resolution barcoding,” <i>Briefings in Functional Genomics</i> , 12(2):75-80 (March 2013) (“Cai 2013”)
1032	Kamiyama <i>et al.</i> , “Development in the STORM,” <i>Developmental Cell</i> , 23(6):1103-1110 (December 2012) (“Kamiyama”)
1033	Jensen, E., “Technical Review: Types of Imaging – Direct STORM,” <i>The Anatomical Record</i> , 297(12):2227-2231 (December 2014) (“Jensen 2014b”)
1034	U.S. Patent Application Publication No. 2007/0231824 A1 to Chee <i>et al.</i> , published October 4, 2007 (“Chee”)
1035	Shannon, C., “A Mathematical Theory of Communication,” <i>The Bell System Technical Journal</i> , 27(3):379-423 (July 1948) (“Shannon 1948a”)
1036	Shannon, C., “A Mathematical Theory of Communication,” <i>The Bell System Technical Journal</i> , 27(4):623-656 (October 1948) (“Shannon 1948b”)
1037	Hamming, R., <i>Coding and Information Theory</i> , 2 nd Ed., Chapters 1 through 3, Prentice-Hall (1986) (“Hamming”)
1038	Krishnan <i>et al.</i> , “Barcodes for DNA sequencing with guaranteed error correction capability,” <i>Electronics Letters</i> , 47(4):236-237 (March 2011) (“Krishnan”)
1039	Bystrykh, L., “Generalized DNA Barcode Design Based on Hamming Codes,” <i>PLoS ONE</i> , 7(5):e36852 (May 2012) (“Bystrykh”)
1040	U.S. Patent No. 6,654,696 to Davies, issued November 25, 2003 (“Davies”)
1041	U.S. Patent Application Publication No. 2013/0053256 to Hubbell, published February 28, 2013 (“Hubbell”)
1042	Peters <i>et al.</i> , “Accurate whole-genome sequencing and haplotyping from 10 to 20 human cells,” <i>Nature</i> , 487:190-195 (July 2012) (“Peters”)
1043	International Patent Application Publication No. WO 2010/091107 A1 to Kermani <i>et al.</i> , published August 12, 2010

Exhibit No.	Description
1044	U.S. Patent Application Publication No. 2010/0323348 A1 to Hamady <i>et al.</i> , published December 23, 2010
1045	File History of U.S. Patent No. 10,829,814 (“814 Patent File History”)
1046	Redline Comparison of Fan (EX1005) and Fan-Prov (EX1006)
1047	Vizgen’s Initial Infringement Claim Chart, <i>10x Genomics, Inc. v. Vizgen, Inc.</i> , Case No. 1:22-cv-00595 (D. Del.), served November 23, 2022 (CONFIDENTIAL – PROTECTIVE ORDER MATERIAL)
1048	Digital CCD Camera C4742-95-12HR Instruction Manual, Version 1.4, Hamamatsu Photonics K.K. (April 2007)
1049	U.S. Patent No. 10,267,808 B2 to Cai, issued April 23, 2019 (“Cai 808”)
1050	International Patent Application No. WO 2014/182528 A2 to Cai <i>et al.</i> , published November 1, 2014 (“Cai PCT”)
1051	Revised Scheduling Order, <i>10x Genomics, Inc. v. Vizgen, Inc.</i> , Case No. 1:22-cv-00595 (D. Del.), filed April 11, 2023
1052	Bates <i>et al.</i> , “Stochastic Optical Reconstruction Microscopy (STORM): A Method for Superresolution Fluorescence Imaging,” <i>Cold Spring Harbor Protocols</i> , 498-520 (2013)
1053	U.S. Provisional Application No. 62/142,653 to Zhuang <i>et al.</i> , filed on April 3, 2015 (“653 Application”)
1054	U.S. Provisional Application No. 62/050,636 to Zhuang <i>et al.</i> , filed September 15, 2014 (“636 Application”)
1055	U.S. Provisional Application No. 62/031,062 to Zhuang <i>et al.</i> , filed July 30, 2014 (“062 Application”)
1056	Mujumdar <i>et al.</i> , “Cyanine Dye Labeling Reagents: Sulfoindocyanine Succinimidyl Esters,” <i>Bioconjugate Chemistry</i> , 4(2):105-111 (March 1993) (“Majumdar”)
1057	Arhel <i>et al.</i> , “Quantitative four-dimensional tracking of cytoplasmic and nuclear HIV-1 complexes,” <i>Nature Methods</i> , 3(10):817-824 (October 2006) (“Arhel”)
1058	Schermelleh <i>et al.</i> , “A guide to super-resolution fluorescence microscopy,” <i>The Journal of Cell Biology</i> , 190(2):165-175 (July 2010) (“Schermelleh”)
1059	Vizgen’s Answer, Defenses, and Counterclaims to Plaintiff’s Second Amended Complaint, <i>10x Genomics, Inc. v. Vizgen, Inc.</i> , Case No. 1:22-cv-00595 (D. Del.), filed April 25, 2023

Exhibit No.	Description
1060	Exhibit 9 to Vizgen’s Answer, Defenses, and Counterclaims to Plaintiff’s Second Amended Complaint, <i>10x Genomics, Inc. v. Vizgen, Inc.</i> , Case No. 1:22-cv-00595 (D. Del.), filed April 25, 2023
1061	Transcript of teleconference between Board and Parties, January 19, 2024

Respectfully submitted,

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CERTIFICATE OF SERVICE (37 C.F.R. § 42.6(e))

I certify that the above-captioned **PETITIONER 10X GENOMICS, INC.'S UPDATED EXHIBIT LIST** and **EXHIBIT 1061** were served in their entirety on February 1, 2024, upon the following parties via electronic mail:

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