

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BRUKER SPATIAL BIOLOGY, INC.,
Petitioner

v.

PRESIDENT AND FELLOWS OF HARVARD COLLEGE and
10X GENOMICS,
Patent Owner

Case IPR2024-00526
U.S. Patent No. 11,542,554

PATENT OWNER'S OBJECTIONS TO EVIDENCE

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Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Patent Owner (exclusive licensee), 10x Genomics, Inc. (“10x”), objects under the Federal Rules of Evidence (FRE) and 37 C.F.R. § 42.64(b)(1) to the admissibility of Exhibits 1002, 1003, 1005–1010, 1012, 1014–1018, 1020, 1021, 1025, 1028, 1031–1039, 1043–1045, 1048, 1051, 1053, and 1057–1060 (the “Challenged Evidence”), filed by Petitioner, Bruker Spatial Biology, Inc. (“Bruker”), on January 30, 2024, with Bruker’s (at the time, NanoString’s) Petition for *Inter Partes* Review. 10x’s Objections are timely filed under 37 C.F.R. § 42.64(b)(1), within ten business days of the Board’s August 23, 2024 Decision Granting Institution of *Inter Partes* Review. 10x files these Objections to provide notice to Bruker that 10x may move to exclude the Challenged Evidence under 37 C.F.R. § 42.64(c).

I. IDENTIFICATION OF GROUNDS FOR OBJECTIONS

A. Exhibit 1002

Exhibit 1002 (“EX1002”) purports to be the “Declaration of Kirk Cyzmmek, Ph.D. in Support of Petitioner for *Inter Partes* Review.” 10x objects to paragraphs 1–24, 29, 31–32, 42–43, 71–72, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121–123, 136–139, 141, 157, 179, 184, 196, 209, 225, 265–266, 286, 291–292, 299, 302, 305–306, 329, 334, 337–340, 344, 348, and 354 of EX1002 under FRE 401–403. Bruker does not cite any of these paragraphs in its Petition for IPR, rendering the testimony in these paragraphs irrelevant under FRE 401. 10x

therefore objects to these paragraphs under FRE 402. 10x also objects to these paragraphs under FRE 403 because they have no probative value, create unfair prejudice to 10x, and will only confuse issues and waste the Board's time.

10x also objects to the following paragraphs in EX1002 under FRE 702 and 703 because Dr. Sherman relies on inadmissible evidence that experts in the field would not reasonably rely on in forming an opinion: *see* EX1002, paragraphs 30–38, 40, 44, 46–48, 51, 53–55, 59–63, 65, 67, 72–78, 91–95, 98–99, 102–103, 108–111, 116–117, 120–122, 126, 133–134, 137–168, 170, 173, 175–194, 196–205, 207–210, 212–227, 229–241, 243–260, 261–263, 265–276, 279–285, 287, 293–300, 302–307, 309–314, 316–322, 324, 326–328, 330, 334, 338–339, 343, 345–346, 349–352, and 355–358. These paragraphs in EX1002 rely on inadmissible evidence (discussed below) such as EX1003, 1005–1010, 1012, 1014–1018, 1020–1021, 1025, 1028, 1031–1039, 1043–1045, 1048, 1051, 1053, and/or 1057–1060.

10x further objects to the following paragraphs in EX1002 under FRE 702 because Dr. Sherman's testimony is not based on sufficient facts or data, nor is it the product of reliable principles and methods: *see* EX1002, paragraphs 68–71, 122–123, 125, 131, 132, 136, 137, 140–141, 144, 148, 150–154, 156–161, 163–164, 167–174, 176–188, 190–196, 198–199, 203–205, 207–209, 211–212, 214, 216–217, 220–222, 225, 227, 229–237, 239–243, 247–248, 250–251, 253–254, 256–257, 259–265, 267–275, 277–280, 282, 284–285, 287–291, 293–300, 302–

306, 309–324, 326–328, 330–331, 333–336, 338, 341–344, 347, 349–353, 355, and 357–358. Thus, Dr. Cyzmmek’s testimony will not help the trier of fact understand the evidence or determine a fact in issue. *See* FRE 702; *see also*, 37 C.F.R. § 42.65.

B. Exhibit 1003

EX1003 purports to be “Kok Hao Chen et al., Spatially resolved, highly multiplexed RNA profiling in single cells, 348(6233) *Science* 412 (Research Article Summary) – aaa6090-1 - aaa6090-14 (2015).” 10x objects to EX1003 under FRE 403 and 1001–1003 because it is an incomplete document; e.g., EX1003 does not include its supplementary materials. *See, e.g.*, EX1003.003, 015. EX1003 is therefore not a “duplicate” as defined by FRE 1001(e) insofar as the exhibit is not “a copy . . . which accurately reproduces the original.” 10x further objects to EX1003 under FRE 1002 for failure to comply with the best evidence rule.

C. Exhibit 1005

EX1005 purports to be “Olympus Lifescience, Instructions IX71/IX51 Inverted Research Microscope/Inverted Basic Microscope, (2005).” 10x objects to EX1005 as lacking authentication under FRE 901 because Bruker has failed to provide sufficient evidence indicating the origin of the document and has not provided sufficient information regarding its authenticity. EX1005 is not a self-

authenticating document under FRE 902. 10x also objects to EX1005 under FRE 801–802 for containing inadmissible hearsay because Dr. Czymmek relies on EX1005 for the truth of the matter asserted, and its probative value in helping the factfinder does not outweigh its prejudicial effect. *See, e.g.*, EX1002, ¶¶ 51, 53, 146, 166, and 180. EX1005 does not fall under any of the hearsay exceptions, e.g., FRE 803–805 and 807.

D. Exhibit 1006

EX1006 purports to be “Bioptechs, FCS2 (Focht Live-Cell Chamber System) Instructions.” 10x objects to EX1006 as lacking authentication under FRE 901 because Bruker has failed to provide sufficient evidence indicating the origin of the document and has not provided sufficient information regarding its authenticity. EX1006 is not a self-authenticating document under FRE 902. 10x also objects to EX1006 under FRE 801–802 for containing inadmissible hearsay because Bruker improperly relies on EX1006 for the truth of the matter asserted. *See, e.g.*, Petition at 43–44. EX1006 does not fall under any of the hearsay exceptions, e.g., FRE 803–805 and 807.

E. Exhibit 1007

EX1007 purports to be “Sivaraj Sivaramakrishnan et al., *Shear Stress Induced Reorganization of the Keratin Intermediate Filament Network Requires Phosphorylation by Protein Kinase C* ζ, 20 *Molecular Biology of the Cell* 2755-

2765 (2009).” 10x objects to EX1007 under FRE 801–802 for containing inadmissible hearsay because (i) Bruker improperly relies on EX1007 for the truth of the matter asserted—e.g., that the Bioprotechs FCS2 chamber disclosed in Chen purportedly has a temperature control unit. *See, e.g.*, Petition at 24; EX1002, ¶ 142. Moreover, EX1007’s probative value in helping the factfinder does not outweigh its prejudicial effect. EX1007 does not fall under any of the hearsay exceptions, e.g., FRE 803–805 and 807.

10x also objects to EX1007 under FRE 403 and 1001–1003 because it is an incomplete document; e.g., EX1007 does not include its supplementary materials. *See, e.g.*, EX1007.005–.006. EX1007 is therefore not a “duplicate” as defined by FRE 1001(e) insofar as the exhibit is not “a copy . . . which accurately reproduces the original.” 10x accordingly objects to EX1007 under FRE 1002 for failure to comply with the best evidence rule. 10x further objects to EX1007 as lacking authentication under FRE 901 because Bruker has not provided sufficient information regarding its authenticity.

F. Exhibit 1008

EX1008 purports to be “Chatarina Larsson et al., *In situ detection and genotyping of individual mRNA molecules*, 7 Nature Methods 395-397 (2010).”

10x objects to EX1008 under FRE 403 and 1001–1003 because it is an incomplete document; e.g., EX1008 does not include its supplementary notes and figures. *See,*

e.g., EX1008.001–.003. EX1008 is therefore not a “duplicate” as defined by FRE 1001(e) insofar as the exhibit is not “a copy . . . which accurately reproduces the original.” 10x further objects to EX1008 under FRE 1002 for failure to comply with the best evidence rule. Additionally, 10x objects to EX1008 as lacking authentication under FRE 901 because Bruker has not provided sufficient information regarding its authenticity.

G. Exhibit 1009

EX1009 purports to be “Emmanuelle Querido and Pascal Chartrand, “Chapter 12 Using Fluorescent Proteins to Study mRNA Trafficking in Living Cells,” 85 Methods In Cell Biology, Elsevier Inc. 273-292 (2008).” 10x objects to EX1009 under FRE 401–403. Petitioner has not established that EX1009 is a prior-art publication to U.S. Patent No. 11,542,554—rendering EX1009 irrelevant under FRE 401. 10x Genomics therefore objects to EX1009 under FRE 402. 10x also objects to EX1009 under FRE 403 because it has no probative value, creates unfair prejudice to 10x, and will only confuse issues and waste the Board’s time.

10x further objects to EX1009 under FRE 403 and 1001–1003 because it is an incomplete document; e.g., EX1009 does not contain a cover page or table of contents. EX1009 is therefore not a “duplicate” as defined by FRE 1001(e) insofar as the exhibit is not “a copy . . . which accurately reproduces the original.” 10x accordingly objects to EX1009 under FRE 1002 for failure to comply with the best

evidence rule. Additionally, 10x objects to EX1009 as lacking authentication under FRE 901 because Bruker has failed to provide sufficient evidence indicating the origin of the document and has not provided sufficient information regarding its authenticity.

H. Exhibit 1010

EX1010 purports to be “Andrea M. Femino et al., “[13] Visualization of Single Molecules of mRNA in Situ,” 361 *Methods in Enzymology*, Elsevier Science (USA) 245-304 (2003).” 10x objects to EX1010 under FRE 403 and 1001–1003 because it is an incomplete document; e.g., EX1010 does not contain a cover page or table of contents. EX1010 is therefore not a “duplicate” as defined by FRE 1001(e) insofar as the exhibit is not “a copy . . . which accurately reproduces the original.” 10x further objects to EX1010 under FRE 1002 for failure to comply with the best evidence rule. Additionally, 10x objects to EX1010 as lacking authentication under FRE 901 because Bruker has failed to provide sufficient evidence indicating the origin of the document and has not provided sufficient information regarding its authenticity.

I. Exhibit 1012

EX1012 purports to be “Alison J. North, *Seeing is believing? A beginners’ guide to practical pitfalls in image acquisition*, 172 *The Journal of Cell Biology* 9-18 (2006).” 10x objects to EX1012 under FRE 403 and 1001–1003 because it is an

incomplete document; e.g., EX1012 does not include its supplemental materials. *See, e.g.*, EX1012.009–.010. EX1012 is therefore not a “duplicate” as defined by FRE 1001(e) insofar as the exhibit is not “a copy . . . which accurately reproduces the original.” 10x further objects to EX1012 under FRE 1002 for failure to comply with the best evidence rule. Additionally, 10x objects to EX1012 as lacking authentication under FRE 901 because Bruker has not provided sufficient information regarding its authenticity.

J. Exhibit 1014

EX1014 purports to be “Paul James, *Water Objectives A personal exploration.....all is not what it seems*, Microscopy UK 1-8 (2004).” 10x objects to EX1014 as lacking authentication under FRE 901 because Bruker has failed to provide sufficient evidence indicating the origin of the document and has not provided sufficient information regarding its authenticity. EX1014 is not a self-authenticating document under FRE 902. 10x also objects to EX1014 under FRE 801–802 for containing inadmissible hearsay because Dr. Czymmek relies on EX1014 for the truth of the matter asserted, and its probative value in helping the factfinder does not outweigh its prejudicial effect. *See, e.g.*, EX1002, ¶¶ 285 and 296. EX1014 does not fall under any of the hearsay exceptions, e.g., FRE 803–805 and 807.

K. Exhibit 1015

EX1015 purports to be “David L. Spector et al., “[75] Observation of Live Cells in the Light Microscope,” Cells A Laboratory Manual Volume 2: Light Microscopy and Cell Structure, Cold Spring Harbor Laboratory Press, 75.1-75.13 (1998).” 10x objects to EX1015 under FRE 403 because it is an incomplete document; e.g., it is missing part of its table of contents. 10x further objects to EX1015 under FRE 1001–1003 because, e.g.: it contains handwriting on at least page 2 and it contains bleed-through text on at least several pages. EX1015 is therefore not a “duplicate” as defined by FRE 1001(e) insofar as the exhibit is not “a copy . . . which accurately reproduces the original.” 10x further objects to EX1015 under FRE 1002 for failure to comply with the best evidence rule. Additionally, 10x objects to EX1015 as lacking authentication under FRE 901 because Bruker has failed to provide sufficient evidence indicating the origin of the document and has not provided sufficient information regarding its authenticity.

L. Exhibit 1016

EX1016 purports to be “Hamilton, HVXM 8-5 Valve | Laboratory Products, (November 7, 2023).” 10x objects to EX1016 as lacking authentication under FRE 901 because Bruker has failed to provide sufficient evidence indicating the origin of the document and has not provided sufficient information regarding its authenticity. EX1016 is not a self-authenticating document under FRE 902. 10x

further objects to EX1016 under FRE 401–403 because EX1016 is not prior art to the '554 patent and is irrelevant. 10x also objects to EX1016 under FRE 403 because it has no probative value, creates unfair prejudice to 10x, and will only confuse issues and waste the Board's time. Finally, 10x also objects to EX1016 under FRE 801–802 for containing inadmissible hearsay because Dr. Czymmek relies on EX1016 for the truth of the matter asserted, and its probative value in helping the factfinder does not outweigh its prejudicial effect. *See, e.g.*, EX1002, ¶ 241. EX1016 does not fall under any of the hearsay exceptions, e.g., FRE 803–805 and 807.

M. Exhibit 1017

EX1017 purports to be “Clare O'Connor, *Fluorescence In Situ Hybridization (FISH)*, 1(1):171 Nature Education (2008).” 10x objects to EX1017 as lacking authentication under FRE 901 because Bruker has failed to provide sufficient evidence indicating the origin of the document and has not provided sufficient information regarding its authenticity. EX1017 is not a self-authenticating document under FRE 902. 10x further objects to EX1017 under FRE 1001–1003 because, e.g., it is a webpage printout of a journal article—not the journal article itself. EX1017 is therefore not a “duplicate” as defined by FRE 1001(e) insofar as the exhibit is not “a copy . . . which accurately reproduces the original.” 10x further objects to EX1017 under FRE 1002 for failure to comply

with the best evidence rule. 10x also objects to EX1017 under FRE 801–802 for containing inadmissible hearsay because Bruker improperly relies on EX1017 for the truth of the matter asserted. *See, e.g.*, Petition at 5–6. EX1017 does not fall under any of the hearsay exceptions, *e.g.*, FRE 803–805 and 807.

N. Exhibit 1018

EX1018 purports to be “Derek Toomre and Joerg Bewersdorf, A New Wave of Cellular Imaging, 26 Annu. Rev. Cell Dev. Biol. 285-287 (2010).” 10x objects to EX1018 under FRE 403 and 1001–1003 because, *e.g.*, it contains a supplementary page. *See, e.g.*, EX1018.001. EX1018 is therefore not a “duplicate” as defined by FRE 1001(e) insofar as the exhibit is not “a copy . . . which accurately reproduces the original.” 10x further objects to EX1018 under FRE 1002 for failure to comply with the best evidence rule. Additionally, 10x objects to EX1018 as lacking authentication under FRE 901 because Bruker has not provided sufficient information regarding its authenticity.

O. Exhibit 1020

EX1020 purports to be “Sheel Shah et al., Dynamics and spatial genomics of the nascent transcriptome by intron seqFISH, 174(2) Cell 363-376 (2018).” 10x objects to EX1020 under FRE 401–403. Petitioner has not established that EX1020 is a prior-art publication to U.S. Patent No. 11,542,554—rendering EX1020 irrelevant under FRE 401. 10x Genomics therefore objects to EX1020 under FRE

402. 10x also objects to EX1020 under FRE 403 because it has no probative value, creates unfair prejudice to 10x, and will only confuse issues and waste the Board's time.

Additionally, 10x objects to EX1020 under FRE 403 and 1001–1003 because, e.g., it does not include its supplementary materials. *See, e.g.*, EX1020.005–.006 and .020. EX1020 is therefore not a “duplicate” as defined by FRE 1001(e) insofar as the exhibit is not “a copy . . . which accurately reproduces the original.” 10x accordingly objects to EX1020 under FRE 1002 for failure to comply with the best evidence rule. 10x further objects to EX1020 as lacking authentication under FRE 901 because Bruker has not provided sufficient information regarding its authenticity.

P. Exhibit 1021

EX1021 purports to be “Jeffrey R. Moffitt and Xiaowei Zhuang, RNA Imaging with Multiplexed Error Robust Fluorescence in situ Hybridization, 572 Methods Enzymol 1-49 (2016).” 10x objects to EX1021 under FRE 401–403. Petitioner has not established that EX1021 is a prior-art publication to U.S. Patent No. 11,542,554—rendering EX1021 irrelevant under FRE 401. 10x therefore objects to EX1021 under FRE 402. 10x also objects to EX1021 under FRE 403 because it has no probative value, creates unfair prejudice to 10x, and will only confuse issues and waste the Board's time.

Additionally, 10x objects to EX1021 under FRE 403 and 1001–1003

because, e.g., it does not include its supporting protocol and code. *See, e.g.,*

EX1021.033. EX1021 is therefore not a “duplicate” as defined by FRE 1001(e)

insofar as the exhibit is not “a copy . . . which accurately reproduces the original.”

10x accordingly objects to EX1021 under FRE 1002 for failure to comply with the

best evidence rule. 10x further objects to EX1021 as lacking authentication under

FRE 901 because Bruker has not provided sufficient information regarding its

authenticity.

Q. Exhibit 1025

EX1025 purports to be “Emilie A. Delaune et al., Single-Cell-Resolution Imaging of the Impact of Notch Signaling and Mitosis on Segmentation Clock Dynamics, 23 Developmental Cell, Elsevier Inc. 995-1005 (2012).” 10x objects to EX1025 under FRE 403 and 1001–1003 because, e.g., it does not include its supplemental information. *See, e.g.,* EX1025.002 and .010. EX1025 is therefore not a “duplicate” as defined by FRE 1001(e) insofar as the exhibit is not “a copy . . . which accurately reproduces the original.” 10x accordingly objects to EX1025 under FRE 1002 for failure to comply with the best evidence rule. 10x further objects to EX1025 as lacking authentication under FRE 901 because Bruker has not provided sufficient information regarding its authenticity.

R. Exhibit 1028

EX1028 purports to be “Allen Ehrlicher et al., “Chapter 21 Optical Neuronal Guidance,” 83 *Methods in Cell Biology*, Elsevier Inc. 495-520 (2007).” 10x objects to EX1028 under FRE 403 and 1001–1003 because it is an incomplete document; e.g., EX1028 does not contain a cover page or table of contents. EX1028 is therefore not a “duplicate” as defined by FRE 1001(e) insofar as the exhibit is not “a copy . . . which accurately reproduces the original.” 10x further objects to EX1028 under FRE 1002 for failure to comply with the best evidence rule. Additionally, 10x objects to EX1028 as lacking authentication under FRE 901 because Bruker has failed to provide sufficient evidence indicating the origin of the document and has not provided sufficient information regarding its authenticity.

S. Exhibit 1031

EX1031 purports to be “Harvard Apparatus, *PHD 22/2000 Syringe Pump Series User’s Manual*, (1996).” 10x objects to EX1031 as lacking authentication under FRE 901 because Bruker has failed to provide sufficient evidence indicating the origin of the document and has not provided sufficient information regarding its authenticity. EX1031 is not a self-authenticating document under FRE 902. 10x also objects to EX1031 under FRE 801–802 for containing inadmissible hearsay because Dr. Czymmek relies on EX1031 for the truth of the matter asserted, and its probative value in helping the factfinder does not outweigh its prejudicial effect.

See, e.g., EX1002, ¶ 303. EX1031 does not fall under any of the hearsay exceptions, *e.g.*, FRE 803–805 and 807.

T. Exhibit 1032

EX1032 purports to be “Feimo Shen et al., “[32] Digital Autofocus Methods for Automated Microscopy,” 414 *Methods in Enzymology*, Elsevier Inc. 620-632 (2006).” 10x objects to EX1032 under FRE 403 and 1001–1003 because it is an incomplete document; *e.g.*, EX1032 does not contain a cover page or table of contents. EX1032 is therefore not a “duplicate” as defined by FRE 1001(e) insofar as the exhibit is not “a copy . . . which accurately reproduces the original.” 10x further objects to EX1032 under FRE 1002 for failure to comply with the best evidence rule. Additionally, 10x objects to EX1032 as lacking authentication under FRE 901 because Bruker has failed to provide sufficient evidence indicating the origin of the document and has not provided sufficient information regarding its authenticity.

U. Exhibit 1033

EX1033 purports to be “Olympus Lifescience, *Inverted Research System Microscopes IX71/IX81 IX2 Series Manual Olympus IX-71*, (2009).” 10x objects to EX1033 as lacking authentication under FRE 901 because Bruker has failed to provide sufficient evidence indicating the origin of the document and has not provided sufficient information regarding its authenticity. EX1033 is not a self-

authenticating document under FRE 902. 10x also objects to EX1033 under FRE 801–802 for containing inadmissible hearsay because Bruker improperly relies on EX1033 for the truth of the matter asserted. *See, e.g.*, Petition at 64. EX1033 does not fall under any of the hearsay exceptions, e.g., FRE 803–805 and 807.

V. Exhibits 1034–1038

EX1034–1038 purport to be portions of the file history of U.S. Patent Application No. 17/395,534—(i) EX1034 purports to be “Information Disclosure Statement (IDS) dated August 6, 2021, submitted by Applicant during prosecution of U.S. Patent Application No. 17/395,534 before the United States Patent and Trademark Office”; (ii) EX1035 purports to be “Non-Final Rejection issued by the United States Patent and Trademark Office dated March 4, 2022, during prosecution of U.S. Patent Application No. 17/395,534” (iii) EX1035 purports to be “Notice of Allowance issued by the United States Patent and Trademark Office dated June 21, 2022, during prosecution of U.S. Patent Application No. 17/395,534”; (iv) EX1036 purports to be “Notice of Allowance issued by the United States Patent and Trademark Office dated June 21, 2022, during prosecution of U.S. Patent Application No. 17/395,534”; (v) EX1037 purports to be “Pending and Amended claims filed by the Applicant on February 14, 2022, during prosecution of U.S. Patent Application No. 17/395,534 before the United States Patent and Trademark Office”; and (vi) EX1038 purports to be “Applicant’s

Arguments and Remarks made in an Amendment, Amendment/Request for ReConsideration-After Non-Final Rejection and Claims filed by the Applicant on June 3, 2022, during prosecution of U.S. Patent Application No. 17/395,534 before the United States Patent and Trademark Office.”

10x objects to EX1034–1038 under FRE 1001–1003 because they are incomplete documents; e.g., EX1034–1038 contain only portions of the complete file history of U.S. Patent Application No. 17/395,534. EX1034–1038 are therefore not “duplicate[s]” as defined by FRE 1001(e) insofar as the exhibits are not “a copy . . . which accurately reproduces the original.” 10x further objects to EX1034–1038 under FRE 1002 for failure to comply with the best evidence rule. Additionally, 10x objects to EX1034–1038 as lacking authentication under FRE 901 because Bruker has failed to provide sufficient evidence indicating the origin of the document and has not provided sufficient information regarding its authenticity.

W. Exhibit 1039

EX1039 purports to be “Kristen A. Brileya et al., Bioflim growth mode promotes maximum carrying capacity and community stability during product inhibition syntrophy, 5 *Frontiers in Microbiology* 1-13 (2014).” 10x objects to EX1039 under FRE 403 and 1001–1003 because, e.g., it does not include its supplementary material. *See, e.g.*, EX1039.011. EX1039 is therefore not a

“duplicate” as defined by FRE 1001(e) insofar as the exhibit is not “a copy . . . which accurately reproduces the original.” 10x accordingly objects to EX1039 under FRE 1002 for failure to comply with the best evidence rule. 10x further objects to EX1039 as lacking authentication under FRE 901 because Bruker has not provided sufficient information regarding its authenticity.

X. Exhibit 1043

EX1043 purports to be “Nikon MicroscopyU, Culture Chambers for Live-Cell Imaging (August 2015).” 10x objects to EX1043 as lacking authentication under FRE 901 because Bruker has failed to provide sufficient evidence indicating the origin of the document and has not provided sufficient information regarding its authenticity. EX1043 is not a self-authenticating document under FRE 902. 10x also objects to EX1043 under FRE 801–802 for containing inadmissible hearsay because Bruker improperly relies on EX1043 for the truth of the matter asserted. *See, e.g.*, Petition at 57. EX1043 does not fall under any of the hearsay exceptions, *e.g.*, FRE 803–805 and 807.

Y. Exhibit 1044

EX1044 purports to be “Cassandra S. Niman et al., Controlled microfluidic switching in arbitrary time sequences with low drag, 13 Lab Chip 2389-2396.” 10x objects to EX1044 under FRE 403 and 1001–1003 because, *e.g.*, it does not include its supplementary information. *See, e.g.*, EX1044.001, .004, and .006.

EX1044 is therefore not a “duplicate” as defined by FRE 1001(e) insofar as the exhibit is not “a copy . . . which accurately reproduces the original.” 10x accordingly objects to EX1044 under FRE 1002 for failure to comply with the best evidence rule. 10x further objects to EX1044 as lacking authentication under FRE 901 because Bruker has not provided sufficient information regarding its authenticity.

Z. Exhibit 1045

EX1045 purports to be “Thermo Fischer Scientific, Fluorescence SpectraViewer.” 10x objects to EX1045 under FRE 401–403 because EX1045 is not prior art to the ’554 patent and is irrelevant. 10x also objects to EX1045 under FRE 403 because it has no probative value, creates unfair prejudice to 10x, and will only confuse issues and waste the Board’s time. 10x objects to EX1045 as lacking authentication under FRE 901 because Bruker has failed to provide sufficient evidence indicating the origin of the document and has not provided sufficient information regarding its authenticity. EX1045 is not a self-authenticating document under FRE 902. 10x also objects to EX1045 under FRE 801–802 for containing inadmissible hearsay because Dr. Czymmek relies on EX1045 for the truth of the matter asserted, and its probative value in helping the factfinder does not outweigh its prejudicial effect. *See, e.g.,* EX1002, ¶ 267. EX1045 does not fall under any of the hearsay exceptions, e.g., FRE 803–805 and

807.

AA. Exhibit 1048

EX1048 purports to be “Peder Skafte-Pedersen et al., *A self-contained, programmable microfluidic cell culture system with real-time microscopy access*, 14 Biomed Microdevices 385-399 (2012).” 10x objects to EX1048 under FRE 403 and 1001–1003 because, e.g., it does not include its supplementary material. *See, e.g.*, EX1048.001–.002. EX1048 is therefore not a “duplicate” as defined by FRE 1001(e) insofar as the exhibit is not “a copy . . . which accurately reproduces the original.” 10x accordingly objects to EX1048 under FRE 1002 for failure to comply with the best evidence rule. 10x further objects to EX1048 as lacking authentication under FRE 901 because Bruker has not provided sufficient information regarding its authenticity.

BB. Exhibit 1051

EX1051 purports to be “Michael H. Winer et al., Application of a three-dimensional (3D) particle tracking method to microfluidic particle focusing, 14 Lab Chip 1443-1451 (2014).” 10x objects to EX1051 under FRE 403 and 1001–1003 because, e.g., it does not include its supplementary information. *See, e.g.*, EX1051.001. EX1051 is therefore not a “duplicate” as defined by FRE 1001(e) insofar as the exhibit is not “a copy . . . which accurately reproduces the original.” 10x accordingly objects to EX1051 under FRE 1002 for failure to comply with the

best evidence rule. 10x further objects to EX1051 as lacking authentication under FRE 901 because Bruker has not provided sufficient information regarding its authenticity.

CC. Exhibit 1053

EX1053 purports to be “Olympus Lifescience, Research Inverted System Microscope IX71/IX81 IX2 Series, (2005).” 10x objects to EX1053 as lacking authentication under FRE 901 because Bruker has failed to provide sufficient evidence indicating the origin of the document and has not provided sufficient information regarding its authenticity. EX1053 is not a self-authenticating document under FRE 902. 10x also objects to EX1053 under FRE 801–802 for containing inadmissible hearsay because Dr. Czymmek relies on EX1053 for the truth of the matter asserted, and its probative value in helping the factfinder does not outweigh its prejudicial effect. *See, e.g.*, EX1002, ¶¶ 53–55. EX1053 does not fall under any of the hearsay exceptions, e.g., FRE 803–805 and 807.

DD. Exhibit 1057

EX1057 purports to be “Thermo Fischer Scientific, FluoSpheres™ Carboxylate-Modified Microspheres, (January 9, 2024).” 10x objects to EX1057 under FRE 401–403 because EX1057 is not prior art to the ’554 patent and is irrelevant. 10x also objects to EX1057 under FRE 403 because it has no probative value, creates unfair prejudice to 10x, and will only confuse issues and waste the

Board's time. 10x objects to EX1057 as lacking authentication under FRE 901 because Bruker has failed to provide sufficient evidence indicating the origin of the document and has not provided sufficient information regarding its authenticity. EX1057 is not a self-authenticating document under FRE 902. 10x also objects to EX1057 under FRE 801–802 for containing inadmissible hearsay because Dr. Czymmek relies on EX1057 for the truth of the matter asserted, and its probative value in helping the factfinder does not outweigh its prejudicial effect. *See, e.g.*, EX1002, ¶ 267. EX1057 does not fall under any of the hearsay exceptions, e.g., FRE 803–805 and 807.

EE. Exhibits 1058–1060

EX1058–1060 purport to be metadata for EX1005, EX1033, and EX1053—respectively. 10x objects to EX1058–1060 as lacking authentication under FRE 901 because Bruker has failed to provide sufficient evidence indicating the origin of the documents and has not provided sufficient information regarding their authenticity. EX1058–1060 are not self-authenticating documents under FRE 902.

II. CONCLUSION

10x's objections to the Challenged Evidence are timely. 10x therefore reserves the right to move to exclude the Challenged Evidence under 37 C.F.R. § 42.64(c).

Respectfully submitted,

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

I certify that the above-captioned **PATENT OWNER'S OBJECTIONS TO EVIDENCE** was served in its entirety on September 9, 2024 upon the following parties via electronic mail:

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