

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PARSE BIOSCIENCES, INC.,
Petitioner,

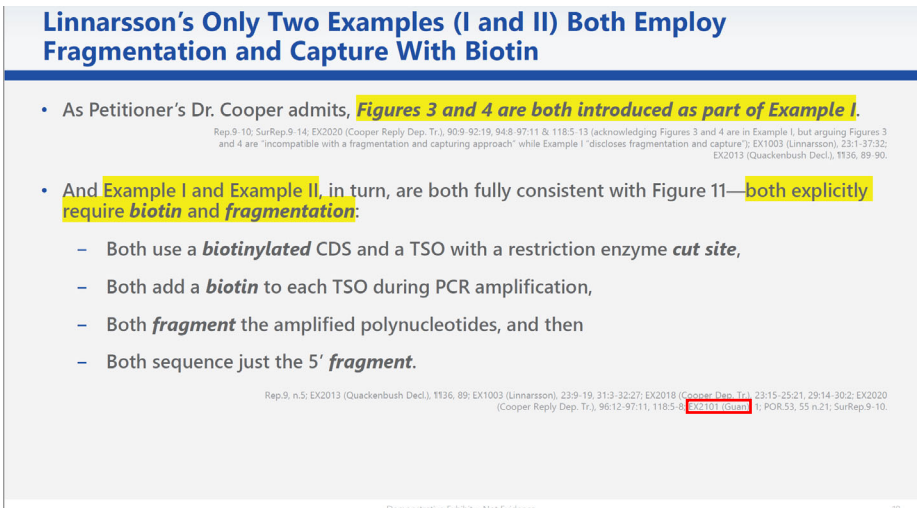
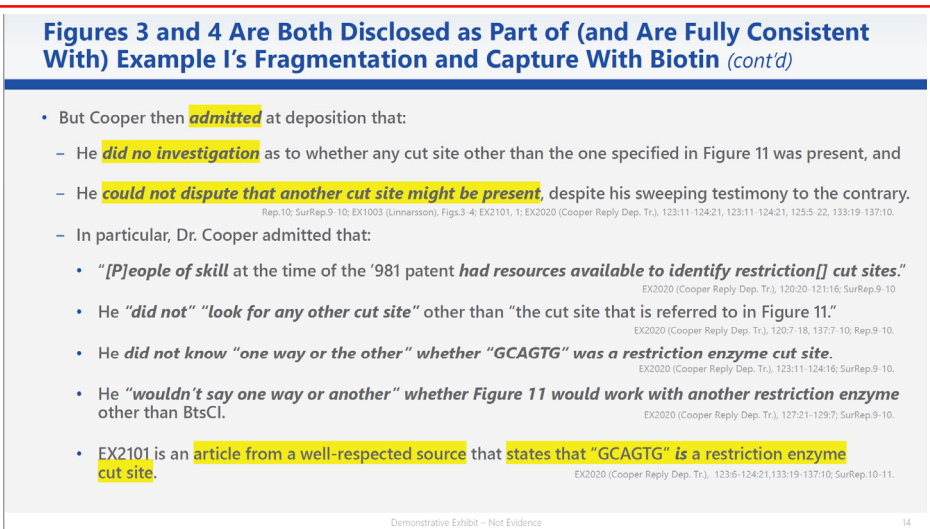
v.

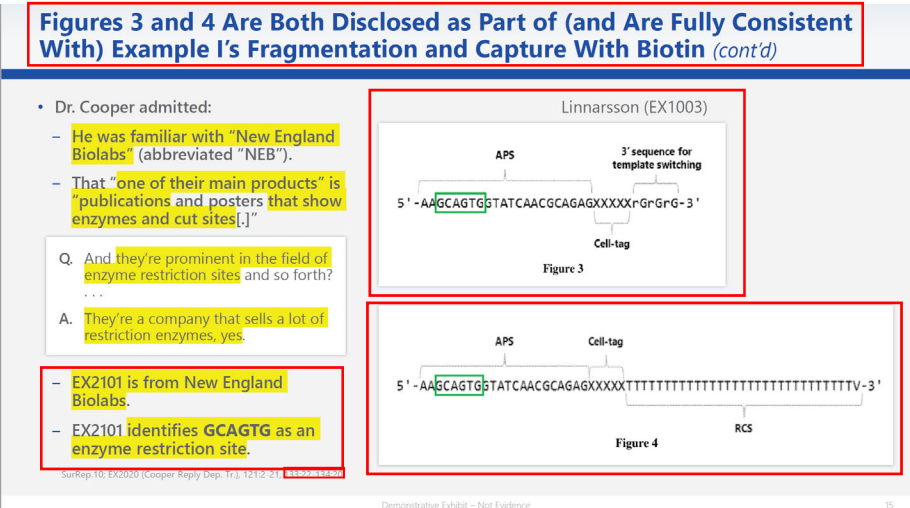
10X GENOMICS, INC.,
Patent Owner.

Case No. IPR2023-00876
U.S. Patent No. 10,155,981

**PETITIONER'S OBJECTIONS TO PATENT OWNER'S
DEMONSTRATIVES**

Pursuant to Board’s May 31, 2024 Order Setting Oral Argument, Petitioner Parse Biosciences, Inc. (“Parse”) hereby objects to Patent Owner’s demonstratives as follows:

Portions of the Demonstratives	Objections
Slide 10: Citation to EX2101 (Guan) (boxed in red)  Linnarsson's Only Two Examples (I and II) Both Employ Fragmentation and Capture With Biotin - As Petitioner's Dr. Cooper admits, Figures 3 and 4 are both introduced as part of Example I. Rep.9-10; SurRep.9-14; EX2020 (Cooper Reply Dep. Tr.), 90:9-92:19, 94:8-97:11 & 118:5-13 (acknowledging Figures 3 and 4 are in Example I, but arguing Figures 3 and 4 are "incompatible with a fragmentation and capturing approach" while Example I "discloses fragmentation and capture"; EX1003 (Linnarsson), 23:1-37:32; EX2013 (Quackenbush Decl.), 1136, 89-90. - And Example I and Example II, in turn, are both fully consistent with Figure 11—both explicitly require biotin and fragmentation: - Both use a biotinylated CDS and a TSO with a restriction enzyme cut site, - Both add a biotin to each TSO during PCR amplification, - Both fragment the amplified polynucleotides, and then - Both sequence just the 5' fragment. Rep.9, n.5; EX2013 (Quackenbush Decl.), 1136, 89; EX1003 (Linnarsson), 23:9-19, 31:3-32:27; EX2018 (Cooper Dep. Tr.), 23:15-25:21, 29:14-30:2; EX2020 (Cooper Reply Dep. Tr.), 96:12-97:11, 118:5-8; EX2101 (Guan); POR.53, 55 n.21; SurRep.9-10. Demonstrative Exhibit – Not Evidence 10	Cites to evidence subject to Petitioner’s motion to exclude under FRE 401-403. <i>See</i> Papers 34, 40.
Slide 14: Entire Slide (boxed in red)  Figures 3 and 4 Are Both Disclosed as Part of (and Are Fully Consistent With) Example I's Fragmentation and Capture With Biotin (cont'd) - But Cooper then admitted at deposition that: - He did no investigation as to whether any cut site other than the one specified in Figure 11 was present, and - He could not dispute that another cut site might be present, despite his sweeping testimony to the contrary. Rep.10; SurRep.9-10; EX1003 (Linnarsson), Figs.3-4; EX2101, 1; EX2020 (Cooper Reply Dep. Tr.), 123:11-124:21, 123:11-124:21, 125:5-22, 133:19-137:10. - In particular, Dr. Cooper admitted that: "[P]eople of skill at the time of the '981 patent had resources available to identify restriction[] cut sites." EX2020 (Cooper Reply Dep. Tr.), 120:20-121:16; SurRep.9-10 - He "did not" "look for any other cut site" other than "the cut site that is referred to in Figure 11." EX2020 (Cooper Reply Dep. Tr.), 120:7-18, 137:7-10; Rep.9-10. - He did not know "one way or the other" whether "GCAGTG" was a restriction enzyme cut site. EX2020 (Cooper Reply Dep. Tr.), 123:11-124:16; SurRep.9-10. - He "wouldn't say one way or another" whether Figure 11 would work with another restriction enzyme other than BtsCI. EX2020 (Cooper Reply Dep. Tr.), 127:21-129:7; SurRep.9-10. - EX2101 is an article from a well-respected source that states that "GCAGTG" is a restriction enzyme cut site. EX2020 (Cooper Reply Dep. Tr.), 123:6-124:21, 133:19-137:10; SurRep.10-11. Demonstrative Exhibit – Not Evidence 14	Presents arguments and evidence subject to Petitioner’s motion to exclude under FRE 401-

	403. <i>See</i> Papers 34, 40.
Slide 15: References to EX2101 (Guan) including arguments made in support (boxed in red): • Heading: “Figures 3 and 4 Are Both Disclosed as Part of (and Are Fully Consistent With) Example I’s Fragmentation and Capture With Biotin” • “EX2101 is from New England Biolabs” • “EX2101 identifies GCAGTG as an enzyme restriction site.” • Annotated Figures 3 and 4  Figures 3 and 4 Are Both Disclosed as Part of (and Are Fully Consistent With) Example I’s Fragmentation and Capture With Biotin <i>(cont’d)</i> • Dr. Cooper admitted: – He was familiar with “New England Biolabs” (abbreviated “NEB”). – That “one of their main products” is “publications and posters that show enzymes and cut sites[.]” Q. And they’re prominent in the field of enzyme restriction sites and so forth? A. They’re a company that sells a lot of restriction enzymes, yes. – EX2101 is from New England Biolabs. – EX2101 identifies GCAGTG as an enzyme restriction site. Figure 3 (Linnarsson (EX1003)) APS 3' sequence for template switching 5' - AAGCAGTGTATCAACGCAGAGXXXXrGrGrG - 3' Cell-tag Figure 4 APS Cell-tag 5' - AAGCAGTGTATCAACGCAGAGXXXXTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTV - 3' RCS SurRep 10: EX2020 (Cooper Reply Dep. Tr.) 121-2-31 Demonstrative Exhibit – Not Evidence 15	Presents arguments and evidence subject to Petitioner’s motion to exclude under FRE 401-403. <i>See</i> Papers 34, 40.
Slide 16: Entire slide (boxed in red)	Presents arguments and

Figures 3 and 4 Are Both Disclosed as Part of (and Are Fully Consistent With) Example I's Fragmentation and Capture With Biotin (cont'd)

• Dr. Cooper admits that EX2101 states that:

- “The Type IIS restriction endonuclease BtsI recognizes and digests at **CGAGTG** (2/0)”
- “The cleavage sequence is **GCA GTG** (2/0), which means that BtsI cuts 2nt – or nucleotides – “after the recognition sequence on the top strand and right after the recognition sequence on the bottom strand.”

Q. Does [EX2101] refresh your recollection one way or the other about whether GCA GTG is an enzyme restriction site?

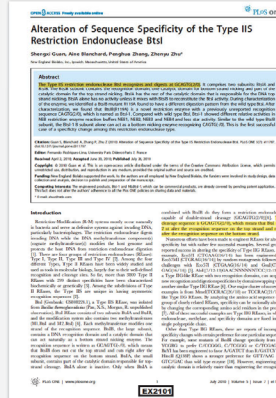
A. Again, I'd have to read through this paper. I don't -- it's from New England Biolabs, and that's what they're saying, but I -- you know, it's hard to -- these are new England Biolabs authors in a PLOS One paper; I'd have to do more homework on this. I don't...

Q. And you didn't do that before you testified that there were no restriction sites in Figures 3 and 4 right?

A. I did not look at this paper.

EX2020 (Cooper Reply Dep. Tr.), 135:22-136:5, 136:13-137:10; SurRep.10-11.

Demonstrative Exhibit – Not Evidence



evidence subject to Petitioner's motion to exclude under FRE 401-403. See Papers 34, 40.

Slide 28: References to EX2101 (Guan) including arguments made in support (boxed in red):

- “But fragmentation is not optional in Linnarsson’s STRT method”
- “Dr. Cooper admits he did no analysis to support his demonstrably false assertion that Figures 3 and 4 have no restriction enzyme cut site (and that a publication from reputable authors shows they do).”
- “Consistent with Dr. Cooper’s ‘part and parcel’ opinion, Figures 3 and 4 are part of the fragmentation and capture approach because they do have restriction enzyme cut sites.”

Presents arguments and evidence subject to Petitioner's motion to exclude under FRE 401-403. See Papers 34, 40.

- “And this is consistent with Linnarsson, which introduces Figures 3 and 4 within Example I, which uses fragmentation and capture.”

Petitioner’s New Sequencing Reply Theories Fail

- Petitioner belatedly argued the sequencing limitation is met because “Linnarsson does not require fragmentation.”
Rep.5-6; EX1059 (Cooper Reply Decl.), 11:33-47, 64-73; SurRep.8-9.
 - Dr. Cooper repeatedly argued Figures 3 and 4 confirm fragmentation is optional because “Figures 3 and 4 do not include... *a restriction enzyme cut site at all...*”
E.g., EX1059 (Cooper Reply Decl.), 11:118, 42, 66-67 (testifying Figures 3 and 4 “do not include... any restriction enzyme cut site”); SurRep.9-10; see Slide 13.
 - Dr. Cooper also testified that the “biotin (in the case of both the CDS and TSO) and restriction enzyme cut site (in the case of the TSO) are part and parcel of the fragmentation method used in Figure 11.”
EX1059 (Cooper Reply Decl.), 131; SurRep.9-10.
- But fragmentation is not optional in Linnarsson’s STRT method.
EX1003 (Linnarsson), 21:13-25, Fig.11, 26:9-20, 35:17-27; EX2013 (Quackenbush Decl.), 158, 90-91; POR.24-25, 55-56 n.21; SurRep.9-14, 19; see Slides 6-17.
 - Dr. Cooper *admits he did no analysis to support his demonstrably false assertion that Figures 3 and 4 have no restriction enzyme cut site* (and that a *publication from reputable authors shows they do*).
See Slide 14; EX2101 (Guan), 1; EX2020 (Cooper Reply Dep. Tr.), 120:7-18, 133:22-137-10; SurRep.10.
 - Consistent with Dr. Cooper’s “part and parcel” opinion, *Figures 3 and 4 are part of the fragmentation and capture approach because they do have restriction enzyme cut sites.*
See Slides 6-17; EX2020 (Cooper Reply Dep. Tr.), 123:11-125:4, 129:2-7, 133:22-137:10; Rep.5; EX1059 (Cooper Reply Decl.), 131; SurRep.10-11.
 - And this is consistent with Linnarsson, which *introduces Figures 3 and 4 within Example I, which uses fragmentation and capture.*
See Slides 6-17; EX1003 (Linnarsson), 23:1-24:20; EX2020 (Cooper Reply Dep. Tr.), 90:9-92:19, 94:8-97:11, 118:5-8 (acknowledging its inclusion of fragmentation and capture”); SurRep.11.

Demonstrative Exhibit – Not Evidence

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Dated: July 23, 2024

Respectfully submitted,

/Derek C. Walter/

Lead Counsel for Petitioner

Reg. No. 74,656

Weil, Gotshal & Manges LLP

201 Redwood Shores Parkway

Redwood Shores, CA 94065

CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing **PETITIONER’S
OBJECTIONS TO EVIDENCE UNDER 37 C.F.R. § 42.64** was served in its
entirety on July 23rd, 2024 via electronic email pursuant to C.F.R § 42.6(e) to the
counsel for 10x Genomics, Inc., at the addresses below:

J. Steven Baughman (Reg. No. 47,414)
Megan Raymond (Reg. No. 72,997)
GROOMBRIDGE, WU, BAUGHMAN
& STONE LLP
801 17th Street, NW, Suite 1050
Washington, DC 20006
P: (202) 505-5832
steve.baughman@groombridgewu.com
megan.raymond@groombridgewu.com

10X-Parse-IPR@groombridgewu.com

Counsel for Patent Owner

Dated: July 23, 2024

By: /Derek C. Walter/
Derek C. Walter
Lead Counsel for Petitioner
Reg. No. 74,656