

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 SUPPLEMENTAL PAPER REGARDING WHY
PETITIONER'S ARGUMENTS ARE NOT NEW OR IMPROPER¹**

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

ALLEGEDLY “NEW THEORY/EVIDENCE”	SUPPORT IN PETITION AND BASIS FOR RESPONSIVENESS
“McCloskey’s disclosure is not limited to 16,384 barcodes. This is just an example in McCloskey.” Rep.13; EX1059, ¶¶83-84; see, e.g., EX2020, 45:1-58:1.	Petition cited broadly to McCloskey’s disclosure of “batch-stamps”, including disclosure of variable length barcodes. Pet. 9, 30 (citing EX1004.004). Responsive to PO’s argument that a longer barcode is required for mammalian cells. <i>See</i> POR 33-36.
Citation to PO’s new evidence in EX2011 to add context to testimony from related IPR and McCloskey II. Rep. 13-14; EX1059, ¶85.	Responsive to Patent Owner’s arguments and out-of-context evidence from EX2011. <i>See</i> POR 7, 34-35; EX2013 ¶¶ 28-33, 73-75.
Citation to Linnarsson’s CDS/TSO examples, including Figs. 2-4, and Linnarsson Claims 1 and 27. <i>See</i> Rep. 5-7, 23-24; EX1059, ¶¶ 33-47, 66-72; EX2020, 118:5-122:14, 123:11-125:4, 129:2-7, 131:20-137:10.	Petition cites broadly to CDS/TSO examples, including Figs. 2-4 that do not use biotin or restriction enzymes. <i>See</i> Pet. 26-27, 42-43, 48, 65. Responsive to Patent Owner’s new construction requiring sequencing the “entirety” of polynucleotides and argument that Linnarsson requires fragmentation. <i>See</i> POR 22-26, 52-59, 55 n.21.
Ligation accomplished through embodiments that do not require fragmentation and capture or by making routine modifications to the CDS/TSO—e.g., 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.	As above, Petition cited Linnarsson embodiments that do not require fragmentation. Pet. 26-27, 42-43, 48, 65. Routine modifications to CDS/TSO discussed in response to PO’s argument that Linnarsson requires fragmentation, and that obviousness requires bodily incorporation. <i>See</i> POR 22-26; 52-67.
Citation to Linnarsson’s use of non-mammalian cells, including “cell culture” and “prokaryotic or eukaryotic single celled organisms including bacteria and yeast.” Rep. 11-13; EX1059, ¶¶86-87; EX1061; EX1063; <i>see, e.g.,</i> EX2020, 72:10-75:8.	Petition not limited to mammalian cells. <i>See</i> Petition at 38-39. Responsive to PO’s new claim construction that the ’981 patent claims require mammalian cells or that Linnarsson is limited to mammalian cells. <i>See</i> POR 33-36; EX2013 ¶¶ 28, 49, 74.
Sequencing limitation is met by Linnarsson because sequencing the	Responsive to PO’s new argument and claim construction that the sequencing

“entirety” of a polynucleotide is not required. Rep.5; EX1059, ¶¶54-63.	limitation requires sequencing the “entirety.” See POR 22-26.
The ’981 patent claims only require tagging “each”/“every”/“substantially all” <i>sample</i> polynucleotides, not all polynucleotides, which could be accomplished with “gene family-specific” RCS. Rep.12-13; EX1059, ¶¶18, 89.	Petition’s motivation to combine relies on a tag “that uniquely identifies each <i>sample</i> polynucleotide,” not all cell polynucleotides. Pet. 52-55. Response to PO’s new claim construction and argument that ’981 Patent claims require tagging all polynucleotides of a cell. See POR 33-36.
Ligation occurs “after extension”/“first reverse transcription” and “before amplification.” Pet. 66-68; Rep.17; EX1059, ¶¶113-115.	Petition describes ligation “after extension,” which is before amplification. Pet. 66-68. Response to PO’s argument about timing of ligation. See POR 57.
Linnarsson/McCloskey/Hug are analogous to ’981. EX1059, ¶¶124, 127-128; Rep.24-25 & n.6; EX2020, 20:4-28:16, esp. 23:11-19. Cooper’s first and second declaration provide “detailed obviousness analysis... including explanations of how they are analogous” and in same field “as the ’981...” in EX1002. EX1059, ¶126; see, e.g., EX2020, 20:4-26:19.	Petition and Cooper provide analysis of analogous backgrounds of Linnarsson, McCloskey and the ’981. Pet. 12-21, 22-36; EX1002 ¶¶27-37, 99-104, 108-117, 186-194; EX1059 ¶¶125-130. Response to PO’s argument on analogous art. POR 68-69; <i>Sanofi-Aventis Deutschland GmbH v. Mylan Pharms.</i> , 66 F.4th 1373, 1379 (Fed. Cir. 2023).
Hug is “an <i>example</i> ...that a POSA would find it obvious and routine to use methods like Hug for ligation, <i>not</i> as a basis for the grounds.” EX1059, ¶¶121-122 (cited Rep.18). See, e.g., EX2020, 144:9-145:17.	The Petition and Reply are clear that Hug—and three other cited references—are illustrative “exemplary methods” of background knowledge on <i>how</i> a POSA would perform ligation. Pet. 67-69; EX1002 ¶¶241-42; POR 17-18.
McCloskey is prior art relying on new EX1065. Rep.3 (citing EX1065).	Petition states that McCloskey “is prior art” and was published “on October 23, 2007.” Pet. 29-30. EX1065 is responsive to PO’s new challenge to McCloskey’s status as prior art. POR 18; see also <i>Hulu v. Sound View</i> , IPR2018-01039, Paper 29 at 15 (P.T.A.B. Dec. 20, 2019).

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Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing **PETITIONER'S SUPPLEMENTAL PAPER REGARDING WHY PETITIONER'S ARGUMENTS ARE NOT NEW OR IMPROPER** are being served on May 23, 2024, via electronic mail pursuant to 37 C.F.R. § 42.6(e) to the counsel for Patent Owner at the addresses below:

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