

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INTEGRATED DNA TECHNOLOGIES, INC.,
Petitioner,

v.

TECAN GENOMICS, INC.,
Patent Owner.

IPR2024-01504

U.S. Patent No. 11,098,357

**PETITIONER'S OBJECTIONS TO
ADMISSIBILITY OF EVIDENCE SUBMITTED BY PATENT OWNER**

Pursuant to 37 C.F.R. § 42.64(b) and the Federal Rules of Evidence (“FRE”), Petitioner Integrated DNA Technologies, Inc. (“IDT”), hereby objects as follows to the admissibility of evidence filed by Patent Owner Tecan Genomics, Inc. in conjunction with the Patent Owner Response filed on July 11, 2025.

Exhibit	Objections
Ex. 2001 —Alkan C, Sajjadian S, & Eichler EE, <i>Limitations of next-generation genome sequence assembly</i> , 8 Nature Methods 61 (2011) (“Alkan”)	FRE 802: To the extent it is being offered to prove the truth of the matter asserted, Exhibit 2001 constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.
Ex. 2002 —Chaisson MJP, Wilson RK, & Eichler EE, <i>Genetic variation and the de novo assembly of human genes</i> , 16 Nature Reviews Genetics 627 (2015) (“Chaisson”)	FRE 401 and 402: The exhibit is not relevant to any ground upon which trial was instituted, including because the exhibit was not cited in the Patent Owner’s Response and because the exhibit is a post-priority document. FRE 402 and 403: The exhibit is not prior art. Therefore, the exhibit’s probative value with respect to any ground upon which trial was instituted is substantially outweighed by the danger of unfair prejudice, confusing the issues, undue delay, wasting time, or needlessly presenting cumulative evidence. FRE 802: To the extent it is being offered to prove the truth of the matter asserted, Exhibit 2002 constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.
Ex. 2003 —United States Patent Application Publication US2022/0145380A1 (“Doan”)	FRE 106: The exhibit is incomplete and ought to be considered, in fairness, at the same time as the remainder of the file history of United States Patent Application Publication US2022/0145380A1.

	FRE 401 and 402: The exhibit is not prior art and therefore is not relevant to any question of patentability. FRE 402 and 403: The exhibit is not prior art. Therefore, the exhibit’s probative value with respect to any ground upon which trial was instituted is substantially outweighed by the danger of unfair prejudice, confusing the issues, undue delay, wasting time, or needlessly presenting cumulative evidence. FRE 802: To the extent it is being offered to prove the truth of the matter asserted, Exhibit 2003 constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.
Ex. 2004—Goodwin S, McPherson JD, & McCombie WR, <i>Coming of age: ten years of next-generation sequencing technologies</i>, 17 Nature Reviews Genetics 333 (2016) (“Goodwin”)	FRE 401 and 402: The exhibit is not prior art and therefore is not relevant to any question of patentability. FRE 402 and 403: The exhibit is not prior art. Therefore, the exhibit’s probative value with respect to any ground upon which trial was instituted is substantially outweighed by the danger of unfair prejudice, confusing the issues, undue delay, wasting time, or needlessly presenting cumulative evidence. FRE 802: To the extent it is being offered to prove the truth of the matter asserted, Exhibit 2004 constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.
Ex. 2005—Kanagawa T, <i>Bias and Artifacts in Multitemplate Polymerase Chain Reactions (PCR)</i>, 96 J. Bioscience & Bioengineering 317 (2003) (“Kanagawa”)	FRE 802: To the extent it is being offered to prove the truth of the matter asserted, Exhibit 2005 constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a

	finding that the exhibit is what Patent Owner claims it is.
Ex. 2006 —Mamanova L, et al., <i>Target-enrichment strategies for next-generation sequencing</i> , 7 Nature Methods 111 (2010) (“Mamanova”)	FRE 401 and 402: The exhibit is not relevant to any ground upon which trial was instituted, including because the exhibit was not cited in the Patent Owner’s Response. FRE 802: To the extent it is being offered to prove the truth of the matter asserted, Exhibit 2006 constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.
Ex. 2007 —Nakamura K, et al., <i>Sequence-specific error profile of Illumina sequencers</i> , 39 Nucleic Acid Rsch. 1 (2011) (“Nakamura”)	FRE 802: To the extent it is being offered to prove the truth of the matter asserted, Exhibit 2007 constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.
Ex. 2008 —Sanger F, Nicklen S, & Coulson, AR, <i>DNA sequencing with chain-terminating inhibitors</i> , 74 Proc. Nat’l Acad. Sci. USA 5463 (1977) (“Sanger”)	FRE 401 and 402: The exhibit is not relevant to any ground upon which trial was instituted, including because the exhibit was not cited in the Patent Owner’s Response. FRE 802: To the extent it is being offered to prove the truth of the matter asserted, Exhibit 2008 constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.
Ex. 2009 —Satam H, et al., <i>Next-Generation Sequencing Technology: Current Trends and Advancements</i> , 12 Biology 1 (2023) (“Satam”)	FRE 106: The exhibit is incomplete and ought to be considered, in fairness, at the same time as the published correction, dated April 24, 2024. FRE 401 and 402: The exhibit is not prior art and therefore is not relevant to any question of patentability.

	FRE 402 and 403: The exhibit is not prior art. Therefore, the exhibit’s probative value with respect to any ground upon which trial was instituted is substantially outweighed by the danger of unfair prejudice, confusing the issues, undue delay, wasting time, or needlessly presenting cumulative evidence. FRE 802: To the extent it is being offered to prove the truth of the matter asserted, Exhibit 2009 constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.
Ex. 2010—Whiteford N, <i>Swift: primary data analysis for the Illumina Solexa sequencing platform</i>, 25 <i>Bioinformatics</i> 2194 (2009) (“Whiteford”)	FRE 802: To the extent it is being offered to prove the truth of the matter asserted, Exhibit 2010 constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.
Ex. 2011—Capurro A, et al., <i>Computational deconvolution of genome wide expression data from Parkinson’s and Huntington’s disease brain tissues using population-specific expression analysis</i>, 8 <i>Frontiers in Neuroscience</i> 1 (2015) (“Capurro”)	FRE 401 and 402: The exhibit is not relevant to any ground upon which trial was instituted, including because the exhibit was not cited in the Patent Owner’s Response and because the exhibit is a post-priority document. FRE 402 and 403: The exhibit is not prior art. Therefore, the exhibit’s probative value with respect to any ground upon which trial was instituted is substantially outweighed by the danger of unfair prejudice, confusing the issues, undue delay, wasting time, or needlessly presenting cumulative evidence. FRE 802: To the extent it is being offered to prove the truth of the matter asserted, this exhibit constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.

Ex. 2012—Carr R, Shen-Orr S, & Borenstein E, <i>Reconstructing the Genomic Content of Microbiome Taxa through Shotgun Metagenomic Deconvolution</i>, 9 PLoS Computational Biol. 1 (2013) (“Carr”)	FRE 401 and 402: The exhibit is not relevant to any ground upon which trial was instituted, including because the exhibit was not cited in the Patent Owner’s Response. FRE 802: To the extent it is being offered to prove the truth of the matter asserted, this exhibit constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.
Ex. 2013—Wang N, et al., <i>UNDO: a Bioconductor R package for unsupervised deconvolution of mixed gene expressions in tumor samples</i>, 31 Bioinformatics 137 (2015) (“Wang”)	FRE 401 and 402: The exhibit is not relevant to any ground upon which trial was instituted, including because the exhibit was not cited in the Patent Owner’s Response and because the exhibit is a post-priority document. FRE 402 and 403: The exhibit is not prior art. Therefore, the exhibit’s probative value with respect to any ground upon which trial was instituted is substantially outweighed by the danger of unfair prejudice, confusing the issues, undue delay, wasting time, or needlessly presenting cumulative evidence. FRE 802: To the extent it is being offered to prove the truth of the matter asserted, this exhibit constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.
Ex. 2014—Wong KH, Jin Y, & Moqtaderi Z, <i>Multiplex Illumina Sequencing Using DNA Barcoding</i>, 7.11 Current Protocols in Molec. Biol. 1 (2013) (“Wong”)	FRE 106: The exhibit is incomplete and ought to be considered, in fairness, at the same time as the remainder of Current Protocols in Molecular Biology. FRE 802: To the extent it is being offered to prove the truth of the matter asserted, Exhibit 2014 constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a

	finding that the exhibit is what Patent Owner claims it is.
Ex. 2015 —Mardis ER, <i>DNA sequencing technologies: 2006–2016</i> , 12 Nature Protocols 213 (2017) (“Mardis”)	FRE 401 and 402: The exhibit is not prior art and therefore is not relevant to any question of patentability. FRE 402 and 403: The exhibit is not prior art. Therefore, the exhibit’s probative value with respect to any ground upon which trial was instituted is substantially outweighed by the danger of unfair prejudice, confusing the issues, undue delay, wasting time, or needlessly presenting cumulative evidence. FRE 802: To the extent it is being offered to prove the truth of the matter asserted, Exhibit 2015 constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.
Ex. 2016 —Transcript for the June 26, 2025 Deposition of Peter A. Sims	Petitioner hereby preserves and renews all objections made on the record during the June 26, 2025 Deposition of Peter A. Sims. FRE 106: This exhibit may be an incomplete and/or inaccurate transcript of the June 26, 2025 deposition of Dr. Peter A. Sims because the transcript does not include any forthcoming errata sheet. To the extent the witness submits an errata sheet, it must in fairness be considered at the same time as the exhibit.
Ex. 2023 —Daniel Aird et al., <i>Analyzing and minimizing PCR amplifications bias in Illumina sequencing libraries</i> , 12 Genome Biol. (2011)	FRE 401 and 402: The exhibit is not relevant to any ground upon which trial was instituted, including because the exhibit was not cited in the Patent Owner’s Response. FRE 802: To the extent it is being offered to prove the truth of the matter asserted, this exhibit constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.

Ex. 2024—Peter J. A. Cock et al., <i>The Sanger FASTQ file format for sequences with quality scores, and the Solexa/Illumina FASTQ variants</i>, 38 Nucleic Acids Res. 6 (2009)	FRE 401 and 402: The exhibit is not relevant to any ground upon which trial was instituted, including because the exhibit was not cited in the Patent Owner’s Response. FRE 802: To the extent it is being offered to prove the truth of the matter asserted, this exhibit constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.
Ex. 2025—Aaron McKenna et al., <i>The Genome Analysis Toolkit: A MapReduce framework for analyzing next-generation DNA sequencing data</i>, 20 Genome Res. 1297 (2010)	FRE 802: To the extent it is being offered to prove the truth of the matter asserted, this exhibit constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.
Ex. 2026—Hugo Y. K. Lam et al., <i>Detecting and annotating genetic variations using the HugeSeq pipeline</i>, 30 Nat. Biotech. 3 (2012)	FRE 401 and 402: The exhibit is not relevant to any ground upon which trial was instituted, including because the exhibit was not cited in the Patent Owner’s Response. FRE 802: To the extent it is being offered to prove the truth of the matter asserted, this exhibit constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.
Ex. 2027—Heng Li et al., <i>The Sequence Alignment/Map format and SAMtools</i>, 25 Bioinformatics 16 (2009)	FRE 401 and 402: The exhibit is not relevant to any ground upon which trial was instituted, including because the exhibit was not cited in the Patent Owner’s Response. FRE 802: To the extent it is being offered to prove the truth of the matter asserted, this exhibit constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a

	finding that the exhibit is what Patent Owner claims it is.
Ex. 2028 —Paul Flicek & Ewan Birney, <i>Sense from sequence reads: methods for alignment and assembly</i> , 6 Nat. Methods Supp. 11 (2009)	FRE 401 and 402: The exhibit is not relevant to any ground upon which trial was instituted, including because the exhibit was not cited in the Patent Owner’s Response. FRE 802: To the extent it is being offered to prove the truth of the matter asserted, this exhibit constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.
Ex. 2029 —International Human Genome Sequencing Consortium, <i>Finishing the euchromatic sequence of the human genome</i> , 431 Nat. 21 (2004)	FRE 401 and 402: The exhibit is not relevant to any ground upon which trial was instituted, including because the exhibit was not cited in the Patent Owner’s Response. FRE 802: To the extent it is being offered to prove the truth of the matter asserted, this exhibit constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.
Ex. 2030 —Monya Baker, <i>De novo genome assembly: what every biologist should know</i> , 9 Nat. Methods 4 (2012)	FRE 401 and 402: The exhibit is not relevant to any ground upon which trial was instituted, including because the exhibit was not cited in the Patent Owner’s Response. FRE 802: To the extent it is being offered to prove the truth of the matter asserted, this exhibit constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.
Ex. 2031 —Deanna M. Church et al., <i>Modernizing Reference Genome Assemblies</i> , 9 PLoS Biol. 7 (2011)	FRE 401 and 402: The exhibit is not relevant to any ground upon which trial was instituted, including because the exhibit was not cited in the Patent Owner’s Response.

	FRE 802: To the extent it is being offered to prove the truth of the matter asserted, this exhibit constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.
Ex. 2032—David Stephen Horner et al., <i>Bioinformatics approaches for genomics and post genomics applications of next-generation sequencing</i>, 11 Briefings Informatics 2 (2009)	FRE 401 and 402: The exhibit is not relevant to any ground upon which trial was instituted, including because the exhibit was not cited in the Patent Owner’s Response. FRE 802: To the extent it is being offered to prove the truth of the matter asserted, this exhibit constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.
Ex. 2033—K. Mullis et al., <i>Specific Enzymatic Amplification of DNA In Vitro: The Polymerase Chain Reaction</i>, 51 Cold Spring Harbor Symposia Quantitative Biol. 1(1986)	FRE 401 and 402: The exhibit is not relevant to any ground upon which trial was instituted, including because the exhibit was not cited in the Patent Owner’s Response. FRE 802: To the extent it is being offered to prove the truth of the matter asserted, this exhibit constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a finding that the exhibit is what Patent Owner claims it is.
Ex. 2034— The Cost of Sequencing a Human Genome, Nat’l Inst. Of Health Nat’l Human Genome Research Inst., https://www.genome.gov/about-genomics/fact-sheets/Sequencing-Human-Genome-cost (last visited July 11, 2025)	FRE 401 and 402: The exhibit is not relevant to any ground upon which trial was instituted, including because the exhibit was not cited in the Patent Owner’s Response. FRE 802: To the extent it is being offered to prove the truth of the matter asserted, this exhibit constitutes inadmissible hearsay. FRE 901: Patent Owner has not produced evidence or certification sufficient to support a

	finding that the exhibit is what Patent Owner claims it is.
Ex. 2035 —Declaration of Carlos D. Bustamante, Ph.D.	FRE 401 and 402: For each paragraph not cited in Patent Owner’s Response, the exhibit is not relevant to any ground upon which trial was instituted. FRE 106, 401, 402, and 403: The testimony offered in paragraphs 31-150 is misleading, incomplete, and irrelevant, including because the testimony offered lacks support, mischaracterizes the ’357 patent, mischaracterizes the prior art, and addresses the patentability of subject matter that Patent Owner appears to have conceded is unpatentable based on the proceedings in IPR 2024-01502 and IPR 2024-01506. Therefore, the proffered testimony’s probative value with respect to any ground upon which trial was instituted is substantially outweighed by the danger of unfair prejudice, confusing the issues, undue delay, wasting time, or needlessly presenting cumulative evidence. FRE 702 and 703: The testimony offered in paragraphs 31-150 is not based on sufficient facts or data, the product of reliable principles and methods, and/or a reliable application of the principles and methods to the facts. Right to Cross-Examine: Petitioner reserves the right to cross-examine the declarant or else seek to exclude the exhibit as hearsay.

Dated: July 18, 2025

Respectfully submitted,

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

The undersigned hereby certifies that on July 18, 2025, I caused a true and correct copy of the foregoing PETITIONER'S OBJECTIONS TO ADMISSIBILITY OF EVIDENCE SUBMITTED BY PATENT OWNER to be served on counsel for Patent Owner via email at:

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