

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

10X GENOMICS, INC,
Petitioner,

v.

BRUKER SPATIAL BIOLOGY, INC.,
Patent Owner.

Case IPR2023-01298
U.S. Patent No. 11,377,689

**PATENT OWNER'S OPPOSITION TO PETITIONER'S MOTION TO
EXCLUDE EVIDENCE**

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While Petitioner seeks to exclude 80 paragraphs-worth of Dr. Sherman's declaration pursuant to FRE Rules 702 and 703, it never identifies even a single genuine defect in his methodologies. Rather, Petitioner makes the dubious contention that Dr. Sherman, a professor at the University of Michigan with over 40 years of experience, including in spatial genomics, somehow lacks adequate qualifications to testify. Beyond this, Petitioner offers up mere disagreements with Dr. Sherman's conclusions, as if a motion to exclude is an opportunity for a supplemental brief on the merits.

In fact, a "motion to exclude is not a vehicle for addressing the weight to be given evidence—arguments regarding weight should appear only in the merits documents." Consolidated Trial Practice Guide (Nov. 2019) at 79. "Motions to exclude concern admissibility of evidence under the Federal Rules of Evidence, not improper briefing." *Apple Inc. v. Masimo Corporation*, IPR2022-01291, Paper 81 at 134-135 (P.T.A.B. Nov. 6, 2024).

Putting aside that Petitioner's arguments are not the proper subject of a motion to exclude, there is no question that Dr. Sherman's conclusions are amply supported by extensive facts and reliable methodology, which Petitioner ignores. Petitioner's Motion should accordingly be denied.

I. LEGAL STANDARD

Petitioner bears the burden to show that it is entitled to the relief requested under 37 C.F.R. § 42.20(c). Under FRE Rule 702, an expert witness, qualified by “knowledge, skill, experience, training, or education,” may testify in the form of an opinion. There is “no requirement of a perfect match between the expert’s experience and the relevant field.” *SEB S.A. v. Montgomery Ward & Co.*, 594 F.3d 1360, 1373 (Fed. Cir. 2010). Where the expert is qualified, it is the trier of fact’s “role to evaluate the weight to be given to the testimony of dueling qualified experts.” *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1306 (Fed. Cir. 2011).

Moreover, an “expert may state an opinion — and give the reasons for it — without first testifying to the underlying facts or data” but may be required to disclose those bases on cross-examination. FRE 705. “An argument regarding whether the expert’s opinions have been shown to be reliable or supported by underlying facts go to the weight of the evidence, not its admissibility.” *Palo Alto Networks, Inc. v. Finjan, Inc.*, IPR2016-00151, Paper 51 at 24 (P.T.A.B. Mar. 15, 2017). The Board, “sitting as a non-jury tribunal with administrative expertise, is well positioned to determine and assign appropriate weight to evidence presented.”

Smith & Nephew, Inc. v. Arthrex, Inc., IPR2016-00918, Paper 42 at 79 (P.T.A.B. Oct. 16, 2017).

II. ARGUMENT

Petitioner presents four arguments in support of its motion to exclude: (1) that Dr. Sherman is not qualified under Rules 702 and 703, (2) that Dr. Sherman's opinions are unsupported by underlying facts and data, (3) that Dr. Sherman relies too heavily on the '689 Patent, and (4) that Dr. Sherman's opinions in an unrelated case from years prior were criticized. As detailed below, these arguments are without merit.

A. Dr. Sherman Is Highly Qualified

Petitioner contends that Dr. Sherman's testimony should be excluded because "Dr. Sherman is not qualified to provide expert opinions on spatial transcriptomics and the state of the art as of the 689 patent's 2018 claimed priority date." Paper 47 ("Motion") at 5.

Dr. Sherman, however, has over 40 years of experience. EX2006 ¶¶ 4-13. He has a Bachelor's degree in chemistry from the University of California, Santa Cruz and a Ph.D. in organic chemistry from Columbia University. *Id.* ¶¶ 4-5. Dr. Sherman completed two postdoctoral terms at Yale University and the Massachusetts Institute of Technology followed up with years of research at Biogen

Research Corporation and the John Innes Institute. *Id.* ¶¶ 6-8. Dr. Sherman is now a tenured professor of chemistry at the University of Michigan. *Id.* ¶ 10. As Petitioner points out, Dr. Sherman’s lab performs “drug analysis, drug dissolution, analytical chemistry, HPLC mass spectrometry, ELISA arrays, [and] microbiology.” Motion at 5-6. This alone puts to rest any question about his qualifications.

Yet, beyond this, Dr. Sherman confirms that he has direct experience with the specific technology at issue in this case—spatial genomics. As Dr. Sherman explained in his declaration, in “my capacity as a researcher, I am familiar with 10x Genomics’s Visium product line and have used it in my research to develop inhibitors of HIV Nef in human T cells.” EX2006 ¶ 10. Petitioner explored Dr. Sherman’s qualifications during his deposition, where he further confirmed his familiarity with the types of spatial genomics technology at issue here:

Q: Do you have any experience in your research using commercial products for spatial transcriptomics?

A: Yes. For my HIV drug discovery project, yes.

Q: What products -- product or products did you use in that research?

A: We -- at Michigan, we have core laboratories that have both 10x Genomics and NanoString’s capabilities, so I have used them both.

EX1056 at 20:21-21:3. Petitioner's assertion that Dr. Sherman's background and experience are "poorly suited" to the field of spatial transcriptomics is without merit. *See* Motion at 6.

B. The Facts And Data Underlying Dr. Sherman's Opinions Are In His Declaration

Petitioner further contends that Dr. Sherman's testimony should be excluded because "Dr. Sherman speculates from the viewpoint of a person of ordinary skill in the art, but fails to provide underlying facts or data on which his opinions are based." *Id.* at 3-4. Specifically, Petitioner takes issue with Dr. Sherman's opinions in his declaration about what a POSA would understand about the molecular biology concepts of bi-directional extension, gap extensions, and identifier oligonucleotides. *Id.*

Experts, however, may base their opinions on their experience and education. *See* FRE 703; *Arkansas Game & Fish Comm'n v. United States*, 736 F.3d 1364, 1377-78 (Fed. Cir. 2013) (finding no abuse of discretion in admitting expert testimony where the expert's estimates "were based on his experience and observations of trees over a 40-year career in forestry"). As detailed above, Dr. Sherman has 40 years of extensive education and experience in biochemistry, including even with spatial transcriptomics. If ever there were opinions about

biochemical concepts (such as bidirectional extension, gap extension, and identifier oligonucleotides) that should be given deference, it is the opinions of Dr. Sherman.

Moreover, it is not the case that Dr. Sherman's opinions are mere *ipse dixit*. They are rather based on reasoning that Petitioner has had a full opportunity to investigate through cross-examination. Dr. Sherman outlined the materials he considered in forming his opinions. EX2006 ¶ 14. Dr. Sherman defined a POSA as "someone with a Ph.D. in a relevant field, such as molecular biology, genetics, chemistry, biochemistry, organic chemistry, microbiology, or a related discipline" and explained that a POSA would have a strong understanding of amplification and sequencing of nucleic acids, design of oligonucleotide strands with specific sequences, and ligating nucleic acids among other competencies. *Id.* ¶¶ 23-24. Dr. Sherman further explained that a POSA would have recognized challenges with bi-directional extension because merely "adding enzymes would not necessarily cause a bi-directional extension reaction to occur." *Id.* ¶ 64. Likewise, as to gap extension and identifier oligonucleotides, Dr. Sherman's opinion on what a POSA would have understood about each topic is laid out in his declaration testimony and supported by his personal experience and knowledge. *Id.* ¶¶ 70-71, 94-95.

While Petitioner now seeks to have these opinions excluded, it cannot deny that it had a full and fair opportunity to question Dr. Sherman about each of the

disputed topics on cross-examination. Indeed, the transcript shows that Petitioner did just that. See EX1056 at 44:13-46:21, 56:3-10 (questions regarding bidirectional extension); *id.* at 55:9-57:17 (questions regarding gap extension); *id.* at 64:8-69:11 (questions regarding oligonucleotides). This fact further confirms that exclusion is inappropriate. See *Micro Chem., Inc. v. Lextron, Inc.*, 317 F.3d 1387, 1392 (Fed. Cir. 2003) (affirming the trial court’s decision not to exclude the plaintiff’s expert damages testimony where the “defendants had ample opportunity to rebut” that testimony during cross-examination). As the Supreme Court highlighted in *Daubert*, vigorous “cross-examination” is an “appropriate means” of attacking admissible evidence. *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 596 (1993).

While Petitioner may ultimately disagree with Dr. Sherman’s testimony as a factual matter, such “disagreements go to the weight to be afforded the testimony and not its admissibility.” *ActiveVideo Networks, Inc. v. Verizon Communs., Inc.*, 694 F.3d 1312, 1333 (Fed. Cir. 2012). As this tribunal has similarly explained, “argument regarding whether the expert’s opinions have been shown to be reliable or supported by underlying facts go to the weight of the evidence, not its admissibility.” *Palo Alto Networks*, Paper 51 at 24; see *Daubert*, 509 U.S. at 595 (“The focus [of a Rule 702 inquiry], of course, must be solely on principles and

methodology, not on the conclusions that they generate.”). Thus, as a matter of law, neither Petitioner’s disagreements with Dr. Sherman’s conclusions nor its complaints that Dr. Sherman did not cite enough evidence cannot justify the exclusion of testimony, let alone 80 paragraphs of Dr. Sherman’s declaration.

C. Dr. Sherman Appropriately Relies On Disclosures From The ’689 Patent

Petitioner contends that Dr. Sherman’s testimony should be excluded because Dr. Sherman “erroneously relies on disclosures in the 689 patent for teaching a POSA.” Motion at 4. In particular, Petitioner criticizes Dr. Sherman for citing the ’689 patent for its teachings about the importance to a POSA of treating a tissue sample to facilitate the binding of nucleic acid probes, alleging that he “provides no evidence from the prior art” that would lead a POSA to do so. *Id.* at 4-5. Petitioner’s superficial argument to this effect is unpersuasive.

As an initial matter, Petitioner does not explain why it is incorrect for Dr. Sherman to rely on the ’689 patent for this purpose, providing no basis to think the substance of the ’689 patent is unreliable for this purpose. In explaining why treating a tissue sample is a real, novel, and important step for the invention, it is perfectly natural and appropriate for Dr. Sherman to cite the ’689 patent itself. Indeed, precisely because Dr. Sherman is discussing a novel step, it would be odd

for Dr. Sherman to rely on other prior art references, and Petitioner's insistence that Dr. Sherman do so is strange.

Nevertheless, to demonstrate the novelty of the tissue treatment step, Dr. Sherman contrasts the So-456 reference with Figure 21B from the '689 patent. EX2006 ¶¶ 44-47. In Dr. Sherman's opinion, Figure 21B of the '689 patent discloses the importance of treating a tissue sample whereas the So-456 reference does not. *Id.* ¶¶ 44-47, 50-53. The difference between the two references supports Dr. Sherman's opinion about what a POSA would understand from the '689 patent. Petitioner cites to no case that would require Dr. Sherman to rely on yet additional prior art in determining what a POSA would recognize from the '689 patent.

D. The Prior Case Involving Dr. Sherman Is Irrelevant

Finally, Petitioner contends that Dr. Sherman's testimony should be excluded because many years ago in an unrelated case some opinions he offered were criticized by a single District Court judge. Motion at 6. In that case, Dr. Sherman allegedly relied upon documents that post-dated the priority date in assessing the level of skill in the art. *Merck Sharp & Dohme Corp. v. Sandoz Inc.*, No. 3:12-CV-03289-PGS-LHG, 2015 WL 5089543, at *8-9 (D.N.J. Aug. 27, 2015). Notably,

the judge in that case did not exclude his opinions, but merely gave them the appropriate weight. *Id.*

Petitioner's citation to the District Court's opinion is just an irrelevant potshot. Petitioner does not even contend that Dr. Sherman erred in the same way here. Nor does Petitioner cite any case supporting the proposition that an expert's opinion must be excluded because it was merely criticized in an unrelated case. Just the opposite, in the prior case cited by Petitioner, the District Court was well-equipped to weigh Dr. Sherman's credibility. The Board can easily do the same here. But 80 paragraphs of Dr. Sherman's opinion should not be excluded merely because Petitioner disagrees with his conclusions or does not recognize the facts upon which those conclusions are based.

III. CONCLUSION

For the foregoing reasons, the Board should deny Petitioner's Motion to Exclude Evidence Under 37 C.F.R. § 42.64(c) (Paper 47).

Dated: February 21, 2025

Respectfully submitted,

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CERTIFICATE OF PAGE COUNT

Pursuant to 37 C.F.R. § 42.24(a)(1)(v), the undersigned certifies that this document complies with the 15-page limitation.

Respectfully submitted,

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Dated: February 21, 2025

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of **PATENT OWNER'S
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were served on February 21, 2025, via email pursuant to 37 C.F.R. § 42.6(e) to
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