

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TRANS OVA GENETICS, LC,
Petitioner,

v.

XY, LLC,
Patent Owner.

Case IPR2018-00250
Patent 8,652,769 B2

Before GRACE KARAFFA OBERMANN, ROBERT A. POLLOCK, and
DAVID COTTA, *Administrative Patent Judges*.

Opinion for the Board filed by *Administrative Patent Judge*
DAVID COTTA.

Opinion Concurring filed by *Administrative Patent Judge*
GRACE KARAFFA OBERMANN.

COTTA, *Administrative Patent Judge*.

FINAL WRITTEN DECISION

Determining that Claims 1–16 are Not Proven Unpatentable
Denying Petitioner’s Motion to Exclude
35 U.S.C. § 318(a) and 37 C.F.R. § 42.64

I. INTRODUCTION

Trans Ova Genetics, LC (“Petitioner”) filed a Petition requesting an *inter partes* review of claims 1–16 of U.S. Patent No. 8,652,769 B2 (Ex. 1001, “the ’769 patent”).¹ Paper 2 (“Pet.”). XY, LLC (“Patent Owner” or “XY”) filed a Preliminary Response to the Petition. Paper 6 (Prelim. Resp.).² We determined, based on the information presented in the Petition and Preliminary Response, that there was a reasonable likelihood that Petitioner would prevail in showing that at least one of the challenged claims was unpatentable under pre AIA 35 U.S.C. § 103(a)³ as obvious over the cited art. Pursuant to 35 U.S.C. § 314, the Board instituted trial on June 27, 2018. Paper 9 (“Institution Decision” or “Inst. Dec.”).

Patent Owner filed a Response to the Petition (Paper 14, “PO Resp.”), Petitioner filed a Reply to Patent Owners’ Response (Paper 18, “Reply”), and Patent Owner filed a Sur-Reply (Paper 27, “Sur-Reply”). Petitioner filed a Motion to Exclude Evidence (Paper 28, “Mot.”), to which Patent Owner filed an Opposition (Paper 32, “Mot. Opp.”) and Petitioner filed a Reply (Paper 33, “Mot. Reply”). On March 21, 2019, the parties presented arguments at an oral hearing. The transcript of the hearing has been entered into the record. Paper 34 (“Tr.”).

¹ Petitioner identifies itself and Intrexon Corporation as real parties in interest. Pet. 2.

² Patent Owner identifies itself and Inguran, LLC, as real parties in interest. Paper 3, 2.

³ The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. §§ 102 and 103. Because the challenged claims of the ’769 patent have an effective filing date before the effective date of the applicable AIA amendments, we refer to the pre-AIA version of 35 U.S.C. § 103 throughout this Decision.

We have jurisdiction under 35 U.S.C. § 6. We issue this Final Written Decision pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. Based on the record before us, we conclude that Petitioner has not demonstrated by a preponderance of the evidence that claims 1–16 of the ’769 patent are unpatentable. We also dismiss as moot Petitioner’s Motion to Exclude as it relates to material not cited in our opinion and deny Petitioner’s Motion to Exclude as it relates to material cited in our opinion.

A. Related Proceedings

Petitioner and Patent Owner identify *XY, LLC v. Trans Ova Genetics, LC*, Case No. 1:17-cv-00944 (D. Colo.) as relating to the ’769 patent. Pet. 2; Paper 3, 2.

B. The ’769 Patent (Ex. 1001)

The ’769 patent issued February 18, 2014, identifying George E. Seidel, Tae Kwang Suh, Kehuan Lu, and David G. Cran as co-inventors. Ex. 1001, [45], [75]. The patent discloses “[e]ven though X-chromosome bearing spermatozoa and Y-chromosome bearing spermatozoa have been differentiated by and separated based upon the difference in emitted fluorescence for many years . . . there remain significant problems yet to be resolved.” *Id.* at 1:54–61. One such problem is that separated X and Y chromosome-bearing sperm populations may contain a “significant number of incorrectly separated spermatozoa that belong in the other population,” which may be attributed to “the lack of uniformity in the amount of fluorochrome bound to the spermatozoal DNA.” *Id.* at 1:65–2:2. Another problem identified by the ’769 patent is that “the amount of stain bound to the DNA” and the “amount of time that elapses during the staining of the DNA may [a]ffect the viability of the sperm resulting in lower fertilization

rates.” *Id.* at 2:18–28. A final problem identified by the ’769 patent is that “cryopreserved sperm may demonstrate increased capacitation, and the length of time such spermatozoa are viable may be shortened.” *Id.* at 2:40–42.

According to the Specification, “[t]he invention involves the substantially uniform binding of fluorochrome(s) to the DNA within mammalian spermatozoa (or sperm cells) allowing such labeled spermatozoa to be separated into high purity X-chromosome bearing and Y-chromosome bearing populations,” including “spermatozoa contained within previously frozen and then thawed semen.” *Id.* at 1:20–27.

C. Challenged Claims

Petitioner challenges claims 1–16 of the ’769 patent. Claims 1 and 16, the only independent claims among the claims challenged in this proceeding, are reproduced below:

1. A method of producing a frozen-thawed sorted artificial insemination sample comprising:
 - thawing frozen sperm cells;
 - staining said thawed sperm cells with a concentration of a Hoechst 33342 greater than 40 micromolar;
 - establishing the staining temperature between about 30° C. and about 40 C.°;
 - determining a sex characteristic of said sperm cells;
 - separating said sperm cells according to the determination of their sex characteristic;
 - isolating sperm cells separated according to the determination of their sex characteristic in a collection element at a rate of greater than 1000 sperm per second for either X-chromosome bearing sperm or Y-chromosome bearing sperm;
 - establishing a frozen-thawed sorted artificial insemination sample from said sperm cells isolated in said

collection element; and

fertilizing an egg with said frozen-thawed sorted artificial insemination sample at success levels of at least about 70% of the success levels with sperm cells that have not been separated and/or frozen.

16. A method of producing a frozen-thawed sorted sperm sample comprising:

thawing frozen sperm cells;

staining said thawed sperm cells with a concentration of Hoechst 33342 greater than 40 micromolar for a period of time sufficient to achieve uniform staining;

establishing the staining temperature between about 30°C. and about 40 C.°;

determining a sex characteristic of said sperm cells;

separating said sperm cells according to the determination of their sex characteristic;

isolating sperm cells separated according to the determination of their sex characteristic in a collection element; and

establishing a frozen-thawed sorted sperm sample from said sperm cells isolated in said collection element, the frozen-thawed sorted sperm sample being capable of fertilizing an egg at success levels of at least about 70% of the success levels with sperm cells that have not been separated and/or frozen.

Ex. 1001, 30:19–40, 32:7–25.

D. The Asserted Grounds of Unpatentability

Petitioner challenges the patentability of claims 1–16 of the '769 patent on the following grounds (Pet. 6):

Ground	References	Basis	Claim(s) Challenged
1	Lu ⁴ and Johnson '94 ⁵	§ 103(a)	16

⁴ Lu et al., *In Vitro Fertilization with Flow-Cytometrically-Sorted Bovine Sperm*, 52(8) THERIOGENOLOGY 1393–1405 (1999) (Ex. 1005, “Lu”).

⁵ Johnson et al., *Recent Advances in Sex Preselection of Cattle: Flow Cytometric Sorting of X- & Y-Chromosome Bearing Sperm Based*

Ground	References	Basis	Claim(s) Challenged
2	Lu and Rens ⁶	§ 103(a)	1–5, 7–12, and 14–15
3	Lu, Rens, and Seidel ⁷	§ 103(a)	6 and 13
4	Seidel, Lu, and Johnson '94	§ 103(a)	16
5	Seidel, Lu, Johnson '94, and Rens	§ 103(a)	1–15

Petitioner submits the Declarations of Johnathan H. Hartnett (Ex. 1002) and Dr. David J. Miller (Ex. 1003) in support of the Petition. Patent Owner submits the Declarations of Craig Miles (Ex. 2003) and George Andrew Lever Rosbrook (Ex. 2005) in support of Patent Owner's Response.

II. AVAILABILITY OF LU AS PRIOR ART

We instituted review on five grounds, all of which include Lu (Ex. 1005), a journal article published in a 1999 volume of the journal *Theriogenology*. Inst. Dec 20. Petitioner asserts that Lu is a prior art printed publication under 35 U.S.C. § 102(a). Pet. 26–27. Patent Owner contends that Lu does not qualify as prior art because it is the inventors' own work, and thus not the work of "another." PO Resp. 1–16. Because all five grounds include and rely upon Lu, this case turns on whether Lu qualifies as prior art. Based on the arguments and evidence presented during this

on DNA to Produce Progeny, 41 THERIOGENOLOGY 51–56 (1994) (Ex. 1005, "Johnson '94")

⁶ Rens et al., US Patent No. 5,985,216, issued Nov. 16, 1999 (Ex. 1007, "Rens").

⁷ Seidel et al., WO 99/33956, published July 8, 1999 (Ex. 1006, "Seidel").

review, we determine that Petitioner has not persuasively established that Lu is available as prior art under pre-AIA 35 U.S.C. § 102(a).

A. *Factual Background*

The Lu Reference

The Lu reference identifies “K. H. Lu, D. G. Cran, and G. E. Seidel, Jr.” as authors and further acknowledges that “D. Green (Cogent, UK) gave permission to cite unpublished work.” *Id.* Mr. Green’s work appears to be reflected in Lu Table 3 (reproduced below with highlighting added).

Table 3. Effect of stain concentration on cleavage and development rates of frozen-thawed, stained, sorted sperm (Green, et al., unpublished)

Bull	No. ejaculates	Hoechst 33342 conc. (μM)	Staining time required (min)	No. oocytes	% cleaved	% blastocysts/oocyte
1	3	224	190	368	44 ^a	17
1	3	2,240	60	373	60 ^b	23
2	1	224	190	86	23 ^a	0 ^a
2	1	2,240	60	81	42 ^b	16 ^b

^{a,b} Percentages within bulls within columns with different superscripts differ ($P < .025$, χ^2).

Ex. 1005, 1398 (highlighting added). Table 3 reports data regarding the effect of stain concentration. As can be seen, Lu attributes the data in Table 3 to “Green, et al., unpublished.”

The ’769 Patent

The ’769 patent identifies the three individuals credited as authors of the Lu reference – K. H. Lu, D. G. Cran, and G. E. Seidel, Jr. – as co-inventors of the ’769 patent. Ex. 1001, 1; PO Resp. 9 (stating that the authors of the Lu reference are co-inventors of the ’769 patent). The ’769

patent also identifies Tae Kwang Suh, who is not named as an author of the Lu reference, as a co-inventor of the '769 patent. Ex. 1001, 1.⁸

The '769 patent includes data copied directly from the Lu reference. This can be seen by comparing the data from Table 3 of the Lu reference (reproduced above) with the data from Table 1 of the '769 patent (reproduced below).

TABLE 1						
Effect of stain concentration on cleavage and developmental rates of oocytes inseminated with separated stained spermatozoa from frozen-thawed sperm.						
Bull	No. Ejaculates	Hoechst 33342 conc. (μM)	Staining time required (min)	No. oocytes	% cleave	% blastocysts/oocyte
1	3	224	190	368	44 ^a	17
1	3	2240	60	373	60 ^b	23
2	1	224	190	86	23 ^a	0 ^a
2	1	2240	60	81	42 ^b	16 ^b

^{a,b}Percentages within bulls within columns with different superscripts differ ($P < .025$, χ^2)

Ex. 1001, 9:55–10:12 (edited to remove column bridging effects). As can be seen, Table 3 of Lu and Table 1 of the '769 patent both disclose data relating to the effect of stain concentration on cleavage and developmental rates of oocytes inseminated with separated stained spermatozoa from frozen-thawed sperm. The data in both tables is identical. In addition, the experiment that provided the data in the two tables is described using substantially identical

⁸ Petitioner does not argue that identification of Tae Kwan Suh as a co-inventor of the '769 patent, but not as an author of Lu reference, makes the Lu reference prior art. Pet. 26–27; Reply 1–23. Accordingly, we do not address this issue. See MPEP § 2132.01 (II) (“An inventor’s or at least one joint inventor’s disclosure of his or her own work within the year before the application filing date cannot be used against the application as prior art under pre-AIA 35 U.S.C. 102(a).”).

language in the Lu reference and in the '769 patent. *Compare* Ex. 1005, 1398, *with* Ex. 1001, 9:37–47.

The '769 patent also incorporates Lu by reference and states that “[c]ertain embodiments of the invention can include devices and methodologies for the use of separated spermatozoa . . . such as those described in [the Lu reference].” Ex. 1001, 9:7–15.

Cogent

The Lu reference identifies “D. Green” as being associated with “Cogent, UK.” Ex. 1005, 1393. “Cogent UK” is a bull stud. Ex. 2003 ¶ 12. “A bull stud is where they care for bulls, male bovine animals, and basically they collect semen from those animals and then sell the semen or use it to inseminate other female bovine animals. And so, largely, they house and feed and care for bulls.” Ex. 1033, 60:7–12 (deposition testimony of Craig Miles); *see also* Ex. 1005, 1393 (indicating that two individuals at Cogent “provided sorted sperm”). In the late 1990’s and extending into the 2000’s, Patent Owner “had a collaborative research agreement” with Cogent. Ex. 2003, ¶ 12.

Craig Miles

Craig Miles (“Miles”) is an intellectual property attorney who represented Patent Owner in patent prosecution and licensing matters. Ex. 2003 ¶¶ 2–5. On behalf of Patent Owner, Mr. Miles “prepared and filed U.S. [Provisional] Patent Application No. 60/253,785 and U.S. Patent [Provisional] Application No. 60/243,787 . . . , both of which were filed November 29, 2000 . . . [and] formed the basis of the application that led to the issuance of [the '769 patent].” *Id.* ¶ 6. He was also a member of Patent Owner’s board of directors from approximately 2005 to 2007. *Id.* ¶ 7.

In his deposition, Mr. Miles testified that he “handled the licensing agreements between XY and Cogent and was responsible to assess the performance of parties and received information about the performance of the parties under those agreements.” Ex. 1033, 180:19–25. He also “assisted in arbitration proceedings against Cogent.” *Id.* at 181:12–13. As a result of these activities, Mr. Miles testified that he had “a huge amount – . . . a lot of information about Cogent and Cogent’s operation, the amount of product they produce, the amount of difficulties they had in producing the product, the collaborative arrangements between XY and Cogent, and Dr. Cran’s involvement with those” as well as “what Cogent did, what they couldn’t do, what their capacities were, what their incapacities were.” *Id.* at 181:5–11, 181:14–16.⁹

David Green

As discussed above, the Lu reference states that “D. Green (Cogent, UK) gave permission to cite unpublished work” and attributes the data in Table 3 to “Green, et al., unpublished.” Ex. 1005, 1393, 1398. During his deposition, Mr. Miles testified that David Green was a technician at Cogent. Ex. 1033, 112:15–24, 183:13–183:16. Mr. Miles explained what he meant by this as follows:

⁹ We acknowledge that Mr. Miles, as a former board member of XY, as well as XY’s long-time patent counsel and the filer of the ’769 priority provisional applications, may have some interest in the outcome of this IPR and that Mr. Miles is being compensated by XY for time spent relating to his testimony. Ex. 2003 ¶¶ 4–7; Ex. 1033, 21:7–14, 158:8–22. However, we note that Mr. Miles’ testimony was under oath and subject to cross-examination. We find Mr. Miles’ testimony to be credible as to the facts for which it is cited herein.

Q. I believe during your testimony here today, you referred to Mr. Green as a bench technician. Do you recall that?

A. That's correct.

Q. What did you mean by the phrase "bench technician"?

A. Typically within a laboratory setting, you have a principal investigator, the individual that's the person who supervises and instructs the other individuals within that research team. And when I refer to a bench technician, I'm referring to an individual who, basically, is employed to come in and to actually physically perform the experiments that are conceived of or provided to him per – by the supervisory research investigator.

Id. at 183:13–184:5.

Mr. Miles' characterization of Mr. Green as a "technician" was not based entirely on a conversation between Mr. Miles and Dr. Cran that Petitioner has moved to exclude as hearsay. *See infra* p. 19. When questioned on this point at his deposition, Mr. Miles testified that his characterization of Mr. Green as a technician was also based on Mr. Miles' "familiar[ity] with Cogent's activities and the way that their structure was built." Ex. 1033, 112:15–21; *see also id.* at 185:21–186:5 ("Q. So your determination that Mr. Green was a bench technician was based solely on a single conversation that you had with Dr. Cran; correct? A. I don't think that's entirely correct, and I don't think I testified that it was solely based on that. I understand the structure of Cogent at the time, and I understand what Dr. Cran's position was as XY's liaison."); *id.* at 92:19–93:2 (testifying that his understanding of Mr. Green's role was based in part on his "own knowledge of the people at Cogent at that time"). Mr. Miles also noted that

Cogent “didn’t have very many employees” (*id.* 112:15–113:3), which lends credence to the assertion that Mr. Miles would understand the role of an individual Cogent employee. Accordingly, we agree with Patent Owner that “Patent Owner presented non-hearsay testimony from Craig Miles that Green was a mere lab technician.” PO Sur-Reply 2.

Dr. David Cran

Mr. Miles testifies that Dr. David Cran was Patent Owner’s primary liaison to Cogent. Ex. 2003 ¶ 13; Ex. 1033, 63:3–11. As with Mr. Miles’ testimony regarding Mr. Green, this testimony is not based solely on the conversation that Petitioner has moved to exclude as hearsay. It is also based on Mr. Miles’ “interaction with the XY board and [his] activities with XY in general” as well as his “activities as outside counsel for XY.” Ex. 1033, 64:12–65:7. Dr. Cran is deceased. Ex. 2003 ¶ 18.

Prosecution of the ’769 patent and priority applications

The ’769 patent claims priority from two provisional applications, U.S. Provisional Patent Application Nos. 60/253,785 (“the ’785 provisional application”) and 60/253,787 (“the 787 provisional application”). Ex. 1001. The two provisional applications were filed on November 29, 2000. *Id.* The ’769 patent resulted from an application that was, itself, a continuation of two prior non-provisional patent applications (“the parent” and “grandparent applications”). *Id.*

Mr. Miles testified that, when drafting the ’785 provisional application, he copied the data from Lu Table 3 and pasted it into Table 1 of the ’785 provisional application. Ex. 1003, 77:16–21. Mr. Miles further testified that he deleted the reference to “Green et al. unpublished” in the

caption to the table because he did not believe the data was properly attributable to Mr. Green. *Id.* at 77:22–78:13.¹⁰

The two provisional patent applications did not name Dr. Cran as an inventor, identifying only Drs. Lu, Suh, and Seidel as joint inventors. Ex. 1003, 38:20–39:13. During prosecution of the parent application, six years after the filing of the '785 and '787 provisional applications, Patent Owner filed a Declaration identifying Drs. Seidel, Lu, Suh, and Cran as inventors. Ex. 1032. This Declaration was refiled on July 26, 2013, in connection with the application that resulted in the '769 patent. *Id.*

During prosecution of the application that resulted in the '769 patent, the pending claims were rejected as obvious over a combination of prior art including the Lu reference. Ex. 1019, 10–12. Patent Owner overcame this rejection on the merits without ever arguing that the Lu reference represented the inventors' own work. See Ex. 1022, 9–10 (arguing that the cited art failed to disclose “establishing a frozen-thawed sorted artificial insemination sample having a number of isolated sperm cells between one million and three million and the step of fertilizing an egg with said frozen-thawed sorted artificial insemination sample in an artificial insemination”); Ex. 1023, 3 (Office Action withdrawing obviousness rejection as to certain claims); Ex. 1024, 7–8 (arguing that the cited art failed to disclose, *inter alia*, fertilizing an egg at success levels of at least 70% of the success levels with sperm cells that have not been separated and/or

¹⁰ The deletion of the reference to “Green et al. unpublished” in the table caption occurred prior to the conversation between Mr. Miles and Dr. Cran that Petitioner has moved to exclude as hearsay. Ex. 1003, 91:5–7 (Mr. Miles' testimony that he did not speak with Dr. Cran in pre-filing due diligence); see also *infra* p. 19 (addressing motion to exclude).

frozen”); Ex. 1025, 6 (allowing claims on the basis that the cited art, which included the Lu reference, did not teach a 70% success rate).

B. Analysis

An inventor’s own work is not prior art under § 102(a). *See Allergan, Inc. v. Apotex Inc.*, 754 F.3d 952, 968 (Fed. Cir. 2014); *In re Katz*, 687 F.2d 450, 454 (Fed. Cir. 1982). “The question of whether a reference is a work of others for the purposes of § 102(a) is, like that of inventorship, a question of law based on underlying facts.” *Allergan*, 754 F.3d at 969 (citing *Ethicon, Inc. v. U.S. Surgical Corp.*, 135 F.3d 1456, 1460 (Fed. Cir. 1998)). In determining whether a reference is the work of the named inventor(s), the inquiry focuses on whether the relevant content of the reference – which includes “the design, trial, and analysis of results” – was solely the work of the inventor(s). *See Allergan*, 754 F.3d at 969; *Riverwood Int’l Corp. v. R.A. Jones & Co.*, 324 F.3d 1346, 1356 (Fed. Cir. 2003) (“What is significant is not merely the differences in the listed inventors, but whether the portions of the reference relied on as prior art, and the subject matter of the claims in question, represent the work of a common inventive entity.”).

Petitioner bears the burden to demonstrate, by a preponderance of the evidence, that the challenged claims are unpatentable. 35 U.S.C. § 316(e). In an IPR proceeding based on prior art, this burden necessarily includes the burden to establish that the references relied upon qualify as prior art. In this case, with respect to the Lu reference, we find that Petitioner has not met that burden.

Petitioner contends that it has met its burden to show that Lu is available as prior art because it does not represent the work of a common inventive entity to the ’769 patent. As evidence, Petitioner relies on the fact

that Lu attributes Table 3 to “Green, et al., unpublished.” Reply 2. In addition, the Lu reference states that “D. Green (Cogent, UK) gave permission to cite unpublished work.” Ex. 1005, 1. Petitioner argues that “Green’s permission would have been unnecessary if the cited work was the inventors’ alone.” Reply 11.

We agree with Petitioner that the attribution of Table 3 to “Green, et al.,” and the statement that Mr. Green “gave permission” to cite his work suggest that Mr. Green made material contributions to Table 3. Ex. 1005, 1393, 1398. Indeed, we relied on these statements in granting institution. Inst. Dec. 11–13. However, this evidence must be balanced against evidence identified by Patent Owner that suggests that Mr. Green’s contribution to Table 3 did not rise to the level required to consider the subject matter described in Table 3 of the Lu reference to be the work of another.

We begin by considering the Lu reference itself. Although the Lu reference includes some indications that Mr. Green’s contributions to Table 3 were sufficient to consider him an author of the subject matter of Table 3, Mr. Green was not named as an author of the Lu reference. Ex. 1005, 1393. Rather, the Lu reference identifies only Drs. Lu, Cran, and Seidel as “authors” and provides a footnote that thanks Mr. Green, along with four individuals who “provided sorted sperm.” *Id.* We acknowledge that the subject matter of the Lu reference is not coextensive with the experiment described in Table 3, and, thus, the omission of Mr. Green from the authorship group does not necessarily speak to whether Mr. Green conceived the experiment described in Table 3. However, Mr. Green’s omission does show that his contribution was insufficient to deem him an author of the Lu reference. In addition, the fact that Mr. Green gave “permission” to use the

data recited in Table 3, even though he was not named an author of the reference, suggests that Mr. Green did not consider himself to be an author of the Lu reference.

The fact that Mr. Green was not named as an inventor of the '769 patent also suggests that Mr. Green did not conceive the subject matter of Table 3 of Lu. The evidence suggests that the decision not to name Mr. Green an inventor of the '769 patent was intentional. Mr. Miles, the attorney who prepared and filed the provisional patent applications that formed the basis of the application that ultimately issued as the '769 patent, was aware of the Lu reference and had formed an understanding of Mr. Green's contribution to Table 3. Ex. 1033, 77:16–21 (testimony that Mr. Miles copied Lu Table 3 into the '785 provisional application); *id.* at 77:33–78:13 (testimony that Miles deleted the reference to “Green et al. unpublished” because he did not believe the data was properly attributable to Mr. Green). *Id.* at 77:22–78:13. Mr. Miles nonetheless did not include Mr. Green as an inventor on the '785 provisional application. *Id.* at 38:20–39:13. Similarly, during prosecution of the application that resulted in the '769 patent and of its parent application, Patent Owner filed a Request for Correction of Inventorship to add Dr. Cran as an inventor, but did not seek to add Mr. Green. Ex. 1032.

The subject matter copied from the Lu reference to the '769 patent is not mere background material. Indeed, according to Petitioner, the “principal support for the claims – and the **only** support for the ‘at least 70%’ success rate – is located in two passages [derived from Lu].” Pet. 13. Further, it was the 70% limitation, supported by the material copied from the Lu reference, that the Examiner relied upon in allowing the '769 patent.

Ex. 1025, 6 (allowing claims on the basis that the cited art did not teach a 70% success rate).

We acknowledge that the question to be resolved is not whether Mr. Green should have been named as an inventor of the '769 patent, but rather whether he should be considered an author of relevant portions of the Lu reference. However, given that the '769 patent reproduces the data and the experiment that is the subject of Lu's Table 3 almost identically (*see* discussion *supra* pp. 7–8), and given that the subject matter reproduced from Lu is central to the claims (*see* discussion *supra* pp. 15–16), the inventorship of the '769 patent bears directly on the issue of whether Mr. Green should be considered an author of the relevant subject matter in the Lu reference. More particularly, the decision to add Dr. Cran, but not Mr. Green, as an inventor on a patent application that included subject matter central to the claims and identical to that presented in, and accompanying, Lu's Table 3 suggests that Mr. Green was not an author of Lu's Table 3.

Petitioner argues that naming Mr. Green an inventor could have affected Patent Owner's ownership stake in the invention. Reply 11. However, this argument is pure speculation as Patent Owner has not directed us to any evidence that suggests that the decision not to name Mr. Green an inventor was motivated by a desire to deprive Mr. Green or his employer, Cogent, of an ownership stake. Indeed, Petitioner has not identified any evidence that naming Mr. Green as an inventor would, in fact, have affected Patent Owner's ownership interest. *See* Ex. 1033, 116:10–117:22 (Miles' testimony that he did not know whether naming Mr. Green as an inventor would have affected Patent Owner's interest in the patent, explaining that it would depend on the underlying agreements between Patent Owner and

Cogent). As Patent Owner points out, it is equally possible that had Mr. Green made “an inventive contribution, his interest would have been assigned to Patent Owner by contract.” Sur-Reply 15–16 n.9. In sum, the record is devoid of any evidence of impropriety in the determination as to who to name as inventors of the ’769 patent or its predecessor applications.

The decision not to identify Mr. Green as an author of the Lu reference or as an inventor of the ’769 patent is consistent with Mr. Green’s job description. As discussed above, Mr. Green was employed by Cogent, a bull stud that houses, cares for, and collects semen from bulls. *See supra* pp. 8–9. Mr. Green himself was a “bench technician” at Cogent – i.e., “an individual who, basically, is employed to come in and to actually physically perform the experiments that are conceived of or provided to him per – by the supervisory research investigator.” Ex. 1033, 183:17–184:5. This supports Patent Owner’s position that Mr. Green’s role in carrying out the experiment described in Lu’s Table 3 does not make the Lu reference the work of another under 35 U.S.C. § 102(a). *In re Katz*, 687 F.2d at 450, 455–56 (holding that a publication that identified an inventor and two students as authors was not the work of another, and thus not prior art, because the work performed by students in “testing features of the invention” was performed under the direction and supervision of the inventor); *see also Sewall v. Walters*, 21 F.3d 411, 417 (Fed. Cir. 1994) (holding that an individual was not an inventor based on work implementing a design dictated by the inventor); *Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, 758 F.2d 613, 624 (Fed. Cir. 1985) (“An inventor ‘may use the services, ideas and aid of others in the process of perfecting his invention without losing his right to a patent.’”).

In sum, there is substantial evidence that David Green did not make an inventive contribution to Lu's Table 3. We are particularly persuaded by Patent Owner's contemporaneous decision — made at a time when all of the named inventors were alive (*see* Ex. 1032) and when the evidence was relatively fresh — not to name Mr. Green as an inventor on the '785 and '787 provisional applications, the parent application, or the application that resulted in the '769 patent. The decision not to name Mr. Green as an inventor strongly suggests that Mr. Green did not make an inventive contribution to Lu's Table 3. That Mr. Green was considered a “bench technician,” and that the authors of the Lu reference did not see fit to include Mr. Green in the authorship group for the Lu reference, lends weight to Patent Owner's determination not to name Mr. Green as an inventor. Certainly, the attribution of Table 3 to “Green, et al.,” and the statement that Mr. Green “gave permission” to cite his work may be interpreted to suggest that Mr. Green made material contributions to Table 3. However, when all of the evidence is considered together, we find that Petitioner has not carried its burden to prove, by a preponderance of the evidence, that the work described in Lu's Table 3 is the work of another.

Petitioner argues that Patent Owner was required to produce a declaration from either an inventor or an author to establish that Lu was not the work of “another.” Reply 3–5. However, Petitioner does not identify, and we do not find, case law that requires an attribution declaration from an inventor in every circumstance where a patent owner argues that alleged prior art is not the work of another. We are aware of case law finding uncorroborated declarations of interested inventors insufficient to establish that prior art is not the work of another. *See, e.g., EmeraChem Holdings*

LLC v. Volkswagen Group of America, Inc., 859 F.3d 1341, 1347–48 (Fed. Cir. 2017). As distinct from *EmeraChem* and other similar cases, the prior art reference at issue here does not name a non-inventor as an author. Rather, the reference at issue – Lu – includes statements that suggest that a portion of the Lu reference may be attributable to an individual, Mr. Green, who was not named as an author of the reference. However, when these statements are considered together with the evidence suggesting that Mr. Green may not have made an inventive contribution to the material in Lu’s Table 3, the preponderance of the evidence does not support that Lu’s Table 3 was the work of another.

In sum, for the reasons given above, Petitioner has not established, by a preponderance of the evidence, that the Lu reference is prior art to the ’769 patent. Accordingly, because all of Petitioner’s asserted grounds of unpatentability rely upon the Lu reference, Petitioner has not established that any of the challenged claims are unpatentable.

III. MOTION TO EXCLUDE

Petitioner filed a Motion to Exclude. More specifically, Petitioner moved to exclude Exhibits 2001, 2002, and paragraphs 8, 10–14, and 17 of Exhibit 2003 as hearsay under Federal Rule of Evidence 802. Mot. 2. Petitioner also moved to exclude Exhibits 2001 and 2002 as unauthenticated under Federal Rule of Evidence 901. *Id.* Finally, Petitioner moved to exclude paragraphs 8 and 10–14 of Exhibit 2003 as based on insufficient personal knowledge and as improper opinion testimony under Federal Rules of Evidence 602 and 701. *Id.* Patent Owner filed an Opposition to Petitioner’s Motion to Exclude. Petitioner submitted a Reply in support of its Motion to Exclude.

A. Exhibits 2001 and 2002

Exhibit 2001 is a document entitled “XY, Inc., Minutes of Board of Directors Meeting held April 28, 2000.” Ex. 2001, 1. Exhibit 2002 is a document entitled “The XY Files, a timely update to the XY shareholders.” Patent Owner contends that Exhibits 2001 and 2002 are admissible under the business records exception of Federal Rule of Evidence 803(6). Mot. Opp. 2–6. Petitioner contends that Patent Owner has not sufficiently established that the business record hearsay exception applies, that Patent Owner has not addressed the double-hearsay nature of certain statements within Exhibits 2001 and 2002, and that Patent Owner has not properly authenticated these documents. Mot. 6–8, 11–14. We did not rely on Exhibits 2001 and 2002 in reaching our decision. Accordingly, we dismiss Petitioner’s Motion to Exclude as to Exhibits 2001 and 2002 as moot.

B. Exhibit 2003

Exhibit 2003 is a declaration by Craig Miles, an intellectual property attorney who represented Patent Owner on a number of patent prosecution and licensing matters and who served as a member of Patent Owner’s board of directors. Ex. 2003 ¶¶ 1–7. Petitioner contends that paragraphs 8 and 10–14 are inadmissible because they are based, at least in part, on hearsay statements in Exhibits 2001 and 2002. Mot. 5–6. Petitioner also contends that these paragraphs provide improper opinion testimony. *Id.* at 13–14. In addition, Petitioner contends that Mr. Miles’ description of a phone conversation with Dr. Cran in paragraph 17 of the Miles Declaration is inadmissible because Mr. Miles’ testimony regarding Dr. Cran’s statements in that conversation are hearsay. *Id.* at 8–9. We do not rely on the content of paragraphs 8, 10, 11, 14, or 17 in reaching our decision. Accordingly, we

dismiss Petitioner's Motion to exclude these paragraphs as moot.

With respect to paragraph 12, we deny Petitioner's Motion to Exclude. Paragraph 12 of the Miles Declaration reads as follows: "Also[,] in the late 1990s, XY had a collaborative research agreement with a bull stud called Cogent in the United Kingdom." Ex. 2003 ¶ 12.¹¹ This statement is not itself hearsay because it was asserted by Mr. Miles while testifying in this proceeding, i.e., "at the current trial." See Fed. R. Evid. 801(c). Petitioner contends that paragraph 12 is inadmissible because it is based, at least in part, on statements contained in Exhibits 2001 and 2002. We are not persuaded by this argument because paragraph 12 does not rely on Exhibits 2001 and 2002. See Ex. 2003 ¶ 12; Ex. 1033, 59:22–62:18 (Mr. Miles' testimony on basis and meaning of paragraph 12 of his declaration). Petitioner also argues that paragraph 12 should be excluded as improper opinion testimony because it is based on Exhibits 2001 and 2002, to which, according to Petitioner, Mr. Miles is not competent to testify. Mot. 13–14. We are not persuaded by Petitioner's argument because, as discussed, paragraph 12 does not rely on Exhibits 2001 and 2002.

With respect to paragraph 13, our opinion cites the statement that "Dr. Cran was XY's liaison to Cogent" but does not cite any other statements in paragraph 13.¹² Accordingly, we dismiss as moot Petitioner's motion as it

¹¹ We cited paragraph 12 of Miles' declaration *supra* p. 8–9. We find that it provides helpful background for understanding the issues at hand, but we do not consider it critical to our finding that the Lu reference does not represent to work of another under 35 U.S.C. § 102(a).

¹² We cited paragraph 13 of Miles' declaration *supra* p. 11. We find that it provides helpful background for understanding the issues at hand, but we do not consider it critical to our finding that the Lu reference does not represent to work of another under 35 U.S.C. § 102(a).

relates to these uncited aspects of paragraph 13. With respect to the cited material, Petitioner contends that paragraph 13 is inadmissible because it is based, at least in part, on inadmissible statements contained in Exhibits 2001 and 2002. We acknowledge that Mr. Miles cites Exhibits 2001 and 2002 as support for his statement that Dr. Cran was Patent Owner's liaison to Cogent. However, even assuming that Exhibits 2001 and 2002 were inadmissible, we do not exclude Mr. Miles' testimony that "Dr. Cran was XY's liaison to Cogent" because Mr. Miles has additional bases for supporting this testimony. *See* Ex. 2032, 64:12–19 (Mr. Miles' testimony that paragraph 13 of his declaration is based on "personal interactions and communications with Dr. Cran," Exhibits 2001 and 2002, and Mr. Miles' "interaction with the XY board and my activities with XY in general"). Accordingly, for the reasons given, Petitioner's motion to exclude as to paragraph 13 of Exhibit 2003 is denied with respect to the statement that "Dr. Cran was XY's liaison to Cogent" and is otherwise dismissed as moot.

IV. CONCLUSION

Upon consideration of the Petition, Response, Reply, Sur-Reply, the briefing on Patent Owner's Motion to Exclude, and the evidence before us, we determine that Petitioner has not proven by a preponderance of the evidence that claims 1–16 would have been obvious over the prior art cited in the Petition. We dismiss as moot Petitioner's Motion to Exclude Exhibits 2001, 2002, and paragraphs 8, 10, 11, 14, and 17 and portions of paragraph 13 of Exhibit 2003. We deny Petitioner's Motion to Exclude paragraph 12 and the cited portion of paragraph 13 of Exhibit 2003.

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that Petitioner has not proven by a preponderance of the evidence that claims 1–16 are unpatentable;

FURTHER ORDERED that Petitioner’s motion to exclude Exhibits 2001, 2002, and paragraphs 8, 10, 11, 14, and 17 as well portions of paragraph 13 of Exhibit 2003 is dismissed as moot;

FURTHER ORDERED that Petitioner’s motion to exclude paragraph 12 and the cited portion of paragraph 13 of Exhibit 2003 is denied; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TRANS OVA GENETICS, LC,
Petitioner,

v.

XY, LLC,
Patent Owner.

Case IPR2018-00250
Patent 8,652,769 B2

Before GRACE KARAFFA OBERMANN, ROBERT A. POLLOCK, and
DAVID COTTA, *Administrative Patent Judges*.

OBERMANN, *Administrative Patent Judge*, concurring.

For reasons stated in my dissent from the Institution Decision, in my view, the Board should not have instituted review in this case. Paper 9, 1–5 (dissent). The Petition does not identify the issue that formed the basis for trial institution and is resolved by this Final Written Decision—namely, whether Mr. Green is an unattributed coauthor of the Lu reference. That issue appears nowhere in any paper filed prior to trial institution. Further, we expressly denied Petitioner’s request to introduce that issue into the proceeding at the pre-trial stage. Ex. 3001. We also, thereby, cut off any opportunity for Patent Owner to address the issue before trial institution.

I respectfully submit that the Board unfairly reached “outside the information advanced in the Petition and Preliminary Response to identify a triable issue of fact surrounding whether Green contributed to Lu’s work in a manner that qualifies Lu as prior art.” Paper 9, 3 (dissent). Patent Owner endured the burden and expense of a year-long trial (which included navigating the unavailability of a material witness; Dr. Cran, deceased) to successfully refute a factual proposition introduced, not by either party in a pre-trial filing, but by the Board in the Institution Decision. Under the circumstances, I respectfully concur only in the result.

Petitioner:

David Kelly
Steven D. Shipe
Gene J. Yao
BARNES & THORNBURG LLP
David.Kelly@btlaw.com
Steven.Shipe@btlaw.com
Gene.Yao@btlaw.com

Patent Owner:

Kirt O'Neill
Daniel L. Moffett
Andy Rosbrook
Dorian Ojemen
Rehan M. Safiullah
AKIN GUMP STRAUSS HAUER & FELD LLP
koneill@akingump.com
dmoffett@akingump.com
arosbrook@akingump.com
dojemen@akingump.com
rsafiullah@akingump.com