Filed on behalf of: **Senior Party, Broad** Paper No. ____

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, UNIVERSITY OF VIENNA, and EMMANUELLE CHARPENTIER,
Junior Party

(Applications 15/947,680; 15/947,700; 15/947,718; 15/981,807; 15/981,808; 15/981,809; 16/136,159; 16/136,165; 16/136,168; 16/136,175; 16/276,361; 16/276,365; 16/276,368; and 16/276,374),

v.

THE BROAD INSTITUTE, INC., MASSACHUSETTS INSTITUTE OF TECHNOLOGY, and PRESIDENT AND FELLOWS OF HARVARD COLLEGE,
Senior Party

(Patents 8,697,359; 8,771,945; 8,795,965; 8,865,406; 8,871,445; 8,889,356; 8,895,308; 8,906,616; 8,932,814; 8,945,839; 8,993,233; 8,999,641; and 9,840,713; and Application 14/704,551).

Patent Interference No. 106,115 (DK)
(Technology Center 1600)

BROAD REPLY 6
(for correction of inventorship)

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I. INTRODUCTION

CVC's Opposition to Broad's Contingent Responsive Motion 6 sets up the classic straw man, misconstruing Broad's position to avoid confronting it. That is, CVC overlooks that Contingent Responsive Motion 6 is a *contingent* motion and will not be addressed unless the PTAB has already found, in ruling on CVC's Substantive Motion 3 on inventorship, that there are inventors who should have been, but were not, named on the involved patents or application.

This crucial fact makes quick work of CVC's two main arguments: that Broad's motion is defective because it fails to identify any unnamed inventors and that it is untimely. For if the PTAB ever takes up Contingent Responsive Motion 6, it would only be after having *already* found that certain individuals (who the PTAB presumably would identify by name) satisfied the inventorship standard and should be named. And, because only such a finding would trigger in the first instance the need to take up Motion 6 and award the relief Broad's contingent motion seeks, laches would not apply. To the contrary, Contingent Responsive Motion 6 is not even ripe until the PTAB makes a finding on CVC's Motion 3 that there are missing inventors.

CVC's remaining opposition arguments should not detain the PTAB for long. The scant attention and absence of any evidence devoted to CVC's irresponsible accusations of bad faith and a breach of the duty of candor indicate that these arguments are not being advanced seriously. Those arguments are a witch hunt—nothing more. Further, CVC oversells its cited authorities for the propositions that the PTAB lacks authority to correct inventorship.

II. PRECISE RELIEF REQUESTED

If the PTAB grants CVC's Substantive Motion 3, in whole or in part, the PTAB should grant Broad's Contingent Responsive Motion 6 and correct the inventorship of the involved patent(s) and/or application to reflect the PTAB's determination regarding correct inventorship.

III. DESCRIPTION OF APPENDICES

Appendix A is a list of cited exhibits; appendix B is the Statement of Material Facts.

IV. ARGUMENT

A. There are no unnamed inventors to identify.

CVC's principal argument (set forth at 2:5-5:7 of its opposition)—that Broad's motion fails because Broad does not specifically identify any unnamed inventors—makes zero sense in light of the posture of this issue. The response is that, according to Broad, there *are* no unnamed inventors for the involved patents and application. As Broad has explained, CVC's motion to invalidate the involved claims based on a purported failure to name all inventors should sink for many reasons, the most important being CVC never performs an inventorship analysis. *See* Paper No. 2475, Broad Opposition 3 at 7:15-10:8. According to CVC's "expert," Dr. Bailey, such an undertaking would be a "mammoth task". MF 65; Ex. 6208, Bailey Tr. 50:2-7, 54:17-55:5. Instead of taking on that task and trying to meet its burden, CVC rested its "invalidity" motion entirely on Bailey's misreading of a declaration involving different applications with different claim sets of different scope than the involved patents and application. MF 65-67; Paper No. 1558, CVC Motion 3 at 1:7-2:1, 6:12-18. So, CVC has come up woefully short in establishing there are any missing inventors; and Broad's position is that there are no missing inventors.

Say the PTAB disagrees, however, and finds, despite CVC's flawed analysis and lack of evidence, that one or more of the individuals CVC alleges are inventors should have been so named on one or more of the involved Broad patents or application. Then, Contingent Responsive Motion 6 is triggered and requests that, instead of invalidating or finding claims unpatentable, the savings provisions of the Patent Act be applied, as the Federal Circuit has said they must, and inventorship be corrected to add those individuals as inventors. *Egenera, Inc. v. Cisco Sys., Inc.*, 972 F.3d 1367, 1376 (Fed. Cir. 2020). Moreover, Broad's motion specifically notes and mentions the individuals

1 that CVC contends are missing inventors. Paper 2117 at Appendix B.

2 If the PTAB finds there are unnamed inventors, it will have necessarily concluded that the
3 inventorship standard is satisfied with respect to the one or more individuals it identifies—that
4 there is sufficient evidence that the individual(s) contributed in a not insignificant manner to the
5 conception of at least one claim, and that their contribution is corroborated by the evidence of
6 record. *Pannu v. Iolab Corp*., 155 F.3d 1344, 1351 (Fed. Cir. 1998).

7 CVC asserts, however, that such a finding by the PTAB is not sufficient. Paper No. 2566,
8 "CVC Opp." at 2:5-5:7. Why is that? CVC doesn't say. What further or different proof of
9 inventorship would possibly be needed beyond a considered conclusion by the PTAB that there
10 was sufficient evidence of the identity of other inventors? CVC doesn't say. Instead, CVC goes
11 off on a tangent about purported "binding concessions that the inventorship of [Broad's] PCT
12 applications were wrong." *Id*. at 4:20-21. The response is that not only is the relevance of this point
13 unclear, but there have been no such "concessions" or "admissions" on Broad's part.

14 In sum, CVC filed a half-baked motion to try to invalidate Broad's claims based on its
15 allegation of missing inventors without providing any inventorship analysis or appropriate
16 evidence. If, despite those failings, the PTAB still finds there are missing inventors, then the relief
17 requested in this contingent motion would be warranted based on the PTAB's finding and
18 identification of the individuals it deems should have been named as inventors.

19 **B. Laches doesn't apply.**

20 CVC's laches argument is equally misguided. The mistaken premise on which
21 CVC's argument rests is that Broad's contingent motion "comes long after Broad knew the
22 correct inventorship of its patents…." CVC Opp. at 6:14-15. Again, Broad does not and never did
23 believe there are any missing inventors on the involved patents and application, and CVC's
24 ineffectual motion does not establish otherwise.

And again, if the PTAB disagrees and finds one or more individuals should have been named inventors, then, *and only then*, would Broad's contingent motion ripen. It is the opposite of laches; here, Broad has filed an unripe, anticipatory, contingent motion that springs into ripeness the instant it is needed. There will have been no delay between the need for relief arising and the pendency of Broad's motion seeking that relief.

The laches cases CVC cites are off point. They involve one who claims to be an omitted inventor seeking to be added, but waiting unreasonably to do so. *See Advanced Cardiovascular Sys., Inc. v. Scimed Life Sys., Inc.*, 988 F.2d 1157 (Fed. Cir. 1993) (laches did not apply when an *unnamed inventor* moved for correction of inventorship eight years after patent issuance because he did not know of the existence of the patent until contacted by the alleged infringer during discovery in a patent infringement action); *Serdarevic v. Advanced Med. Optics, Inc.*, 532 F.3d 1352 (Fed. Cir. 2008) (laches applied when an *unnamed inventor* sought correction of inventorship admitting that she knew about the issuance of the patents eight years before filing suit); *Lismont v. Alexander Binzel Corp.*, 813 F.3d 998 (Fed. Cir. 2016) (laches applied when an *unnamed inventor* waited over six years before bringing suit to correct inventorship).

Here, in contrast to the cases CVC cites, the request to add any inventors (albeit contingent) did not come from any purportedly unnamed inventors, nor did it arise from any prior belief by the patent owners/applicants that inventors were omitted. Rather, the request was spurred by the (unmeritorious) accusation of CVC, a stranger to the involved patents and application, arguing that the inventorship in these involved patents or claims is incorrect. Tellingly, none of the supposed omitted inventors have asserted that they are a co-inventor. Due to Broad's diligence in filing this contingent motion promptly after CVC's accusation in its motion, before the need for the motion arose, there cannot have been any conceivable delay.

1 **C. CVC's accusations of bad faith are irresponsible.**

2 Whereas CVC's laches argument is merely wrong, CVC's accusations of deceptive intent, 3 inequitable conduct, and bad faith are reckless. *See* CVC Opp. at 7:4-8:13. To be clear, CVC has 4 conjured the idea that the inventorship in the involved patents and application is wrong based on 5 its distorted and biased reading of the Kowalski declaration. CVC never performed an appropriate 6 inventorship analysis for the involved patents and application because, according to its "expert", 7 such an undertaking would be too hard. MF 65; Ex. 6208, Bailey Tr. 54:17-55:5. Instead, CVC 8 performed only its inadequate and unprecedented word-search exercise. From that flawed premise, 9 CVC leaps to the unwarranted conclusion that there was bad faith in naming inventors, for the sole 10 purpose, says CVC, of increasing the pool of potential corroborators in some future imagined 11 interference.

12 CVC evidently has not appreciated the lesson of *Nevel v. Hoeller*, Patent Int. No. 104,025, 13 Paper No. 65 (B.P.A.I. May 10, 2000). Ex. 3311. Nevel argued that because Hoeller's 14 "corresponding" Japanese patent listed two more inventors than listed in the U.S. application, the 15 U.S. inventorship was incorrect; Nevel also alluded to "possible inequitable conduct." *Id*. at *3. 16 Similar to CVC here, Nevel did not address whether the Japanese application disclosed or claimed 17 anything different. *Id*. at *4. Nevel also "did not set forth sufficient factual basis" that the Japanese 18 inventorship was correct as opposed to the U.S. application. *Id*. The BPAI ruled that, due to the 19 lack of evidence, even further discovery would not be allowed, writing at page 5:

> 20 Party Nevel is much too quick to presume a mistake in inventorship, and much 21 much too quick to raise the specter of inequitable conduct. On this record, nothing 22 has been demonstrated which is even remotely close to inequitable conduct. In light 23 of the directive in 37 CFR § 1.601 for construing the rules to secure the just, speedy, 24 and inexpensive determination of every interference, "fishing expeditions" will not 25 be condoned and "witch hunts" will be aggressively quelched. Here, party Nevel's 26 motion is a fishing expedition with respect to the inventorship issue and a witch 27 hunt with respect to the issue of possible inequitable conduct.

Inequitable conduct, acting in bad faith, and a breach of the duty of candor are serious actions—an accusation of such wrongdoing is equally serious. CVC's lack of evidence and its imagined motive fall well short of proving any such conduct, let alone clearly and convincingly so. *See* Ex. 3312, *Nichols v. Tabakoff*, Patent Int. No. 104,522, Paper No. 108 at 65 (B.P.A.I. July 3, 2003) ("A determination of inequitable conduct cannot be based on drawing inferences from inferences from inferences."). Certainly, CVC has not shown that intent to deceive is the single most reasonable inference to be drawn from the facts is that Broad intended to deceive. *Therasense, Inc. v. Becton, Dickinson and Co.*, 649 F.3d 1276, 1290 (Fed. Cir. 2011). Quite the contrary, the facts show Broad's good faith. CVC's allegations epitomize the so-called "plague" of unwarranted charges of inequitable conduct and serve as a "negative contribution to the rightful administration of justice." *Burlington Indus., Inc. v. Dayco Corp.*, 849 F.2d 1418, 1422 (Fed. Cir. 1988).

CVC's failure here is not inconsequential. It has, at best, advanced a frivolous argument resulting in unnecessary briefing and increased costs for all. Such behavior should not be condoned nor should it be overlooked. Here the sword of equity should fall the other way. *See* 37 C.F.R. § 42.12; *see also* Paper No. 2, Standing Order § 208.7 ("An allegation of inequitable conduct or fraud that fails to make out a facially sufficient case may result in sanctions or a referral to the Office of Enrollment and Discipline."). It is past time for CVC's irresponsible allegations to stop.

D. The PTAB has authority to correct inventorship.

Contrary to CVC's assertions, the PTAB *does* grant motions to correct inventorship of patents and applications in interference proceedings without the involvement of the Director of the PTO. For applications, 37 C.F.R. § 1.48(i) directs that a request to correct the inventorship in an interference must be in the form of a motion; § 1.324(d) sets forth how to correct inventorship in a patent that is involved in an interference. *See also* Ex. 3313, *Flamm v. Vinogradov*, Patent Int. No. 104,807, Paper No. 20 (B.P.A.I. Dec. 11, 2002) (granting motions to correct inventorship of

1 a patent *and* an application); Ex. 3314, *Chai v. Frame*, 10 U.S.P.Q.2d 1460, Patent Int. No. 101,432
2 (B.P.A.I. 1988) (granting motion to correct inventorship of an application); Ex. 3315, *Thomas v.*
3 *Eicken*, 219 U.S.P.Q. 900 (B.P.A.I 1983) (granting motion to correct inventorship of an
4 application).

5 Only after it grants a motion to correct inventorship does the PTAB have reason to return
6 the patent or application to another authority at the PTO to ensure that all of the statutory
7 requirements for correcting inventorship have been met. *See, e.g.*, Ex. 3313, *Flamm*, Paper No. 20
8 at *5 (ordering both the patent and application for which the motions to correct inventorship were
9 granted be returned to the Technology Center "for consideration of the procedural requirements
10 for a change in inventorship").

11 CVC cites *Honeywell Int'l Inc. v. Arkema Inc.*, 939 F.3d 1345, 1349 (Fed. Cir. 2019); that
12 case did not relate to correcting inventorship in an interference. Rather, in *Honeywell*, the Federal
13 Circuit vacated a post grant review decision by the PTAB that rejected a request for authorization
14 to file a motion to obtain a Certificate of Correction related to a priority claim. *Id*. at 1351.

15 While CVC represents that the Director alone has the authority to correct inventorship in
16 all circumstances, the Code of Federal Regulations and the Manual of Patent Examining Procedure
17 ("MPEP") say otherwise. These authorities tell us that the Director may delegate the determination
18 of petitions. 37 C.F.R. § 1.181(g); *see also* MPEP § 1001. More specifically,

> 19 All situations not specifically provided for in the regulations of this part will be
> 20 decided in accordance with the merits of each situation by or under the authority of
> 21 the Director, subject to such other requirements as may be imposed, and such
> 22 decision will be communicated to the interested parties in writing.

23 37 C.F.R. § 1.182. The MPEP more clearly states, "[a]uthority not herein delegated has been
24 reserved to the Director of the USPTO and may be delegated to appropriate officials on an *ad*
25 *hoc* basis." MPEP § 1002.02. As to authority relevant here, only requests "under 37 C.F.R. § 1.48

filed on or after September 16, 2012 to correct inventorship in a nonprovisional application" have been delegated to an authority other than the Director, specifically to the Director of Office of Patent Application Processing. MPEP § 1002.02(q)(1). Therefore, the Director may delegate to the PTAB the authority to grant requests to correct inventorship in patents since that authority is not otherwise delegated.

E. Lin's lack of consent does not prevent the relief Broad seeks.

Finally, the PTAB should reject CVC's argument that the lack of consent by Lin is reason to deny the contingent motion. CVC Opp. at 5:9-6:11. First of all, Lin's consent is not needed at all unless the PTAB determines that Lin is a missing inventor on one or more of the involved patents and application. Moreover, even if the PTAB determines that Lin is to be added, Lin's consent to be added as an inventor is not strictly necessary, and CVC has not cited a case to the contrary. The authorities CVC cites involved either joint inventorship under 35 U.S.C. § 116 or ownership of a trademark to obtain a registration, both irrelevant to the issue here. *Kimberly-Clark Corp. v. Proctor & Gamble Distrib. Co.*, 973 F.2d 911, 917 (Fed. Cir. 1992) (finding no joint inventorship where the purported joint inventors are "completely ignorant of what each other has done until years after their individual independent efforts"); *Chien Ming Huang v. Tzu Wei Chen Food Co*, 849 F.2d 1458 (Fed. Cir. 1988) (trademark ownership).

With respect to correction of inventorship in a patent under 35 U.S.C. § 256, there is leeway when it comes to an inventor not providing consent. MPEP § 1481.02 states in part that "[i]f an inventor is not available, or refuses, to submit a statement, the assignee of the patent *may wish* to consider filing a reissue application to correct inventorship, because the inventor's statement is not required for a non-broadening reissue application to correct inventorship." MPEP § 1481.02(I.) (emphasis added). The language "may wish" indicates discretion when an inventor does not consent—not an absolute bar to correction. And, in Broad's motion, Broad requested relief that

1 the PTAB can provide, suspension of the rules or the ability to correct inventorship via the reissue
2 route suggested in MPEP § 1481.02. Paper 2117 at 6:11-7:6.

3 Even if Lin's consent were a non-waivable statutory requirement to correct inventorship,
4 *Honeywell*, cited by CVC, teaches that Broad does not have to show that the requirements of 35
5 U.S.C. §§ 116 and 256 are met before it can file a motion for leave to seek correction from the
6 Director. *Honeywell*, 939 F.3d at 1350. The Federal Circuit in *Honeywell* concluded it was an
7 abuse of discretion for the PTAB to require Honeywell to show that the requirements to correct
8 the priority chain of a patent had been met before authorizing Honeywell to file a motion for leave
9 to petition the Director for a Certificate of Correction. *Id*. To hold now that the requirements to
10 correct inventorship are not met would be improper.

11 **V. CONCLUSION**

12 If the PTAB grants CVC Motion 3, in whole or in part, the PTAB should grant this motion
13 and correct the inventorship for any involved patent(s) and/or application as needed.

14 Dated: May 6, 2021 Respectfully submitted,

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APPENDIX A – EXHIBIT LIST

Exhibit	Description
3011	U.S. Patent No. 8,697,359, issued on April 15, 2014, to Feng Zhang ("the 359 Patent").
3013	U.S. Patent No. 8,895,308, issued on November 25, 2014, to Feng Zhang and Fei Ran ("the 308 Patent")
3014	U.S. Patent No. 8,906,616, issued on December 9, 2014, to Feng Zhang et al. ("the 616 Patent")
3015	U.S. Patent No. 8,771,945, issued on July 8, 2014, to Feng Zhang ("the 945 Patent")
3016	U.S. Patent No. 8,889,356, issued on November 18, 2014, to Feng Zhang ("the 356 Patent")
3017	U.S. Patent No. 8,865,406, issued on October 21, 2014, to Feng Zhang and Fei Ran ("the 406 Patent")
3022	U.S. Patent No. 8,945,839, issued on February 3, 2015, to Feng Zhang ("the 839 Patent")
3024	U.S. Patent No. 8,993,233, issued on March 31, 2015 to Feng Zhang et al. ("the 233 Patent")
3027	U.S. Patent No. 8,795,965, issued on August 5, 2014, to Feng Zhang ("the 965 Patent")
3029	U.S. Patent No. 8,871,445, issued on October 28, 2014, to Le Cong and Feng Zhang ("the 445 Patent")
3037	U.S. Patent No. 8,932,814, issued on January 13, 2015, to Le Cong and Feng Zhang ("the 814 Patent")
3043	U.S. Patent 9,840,713, issued on December 12, 2017 to Feng Zhang ("the 713 Patent")
3047	U.S. Patent No. 8,999,641, issued on April 7, 2015 to Feng Zhang et al. ("the 641 Patent")
3050	U.S. Patent Application No. 14/704,551, filed on May 5, 2015 to Feng Zhang et al. ("the '551 Application")
3311	*Nevel v. Hoeller*, Patent Int. No. 104,025, Paper No. 65 (B.P.A.I. May 10, 2000).
3312	*Nichols v. Tabakoff*, Patent Int. No. 104,522, Paper No. 108 (B.P.A.I. July 3, 2003).
3313	*Flamm v. Vinogradov*, Patent Int. No. 104,807, Paper No. 20 (B.P.A.I. Dec. 11, 2002).
3314	*Chai v. Frame*, 10 U.S.P.Q.2d 1460, Patent Int. No. 101,432 (B.P.A.I. 1988).
3315	*Thomas v. Eicken*, 219 U.S.P.Q. 900, Patent Int. No. 100,341 (B.P.A.I. 1983).
4295	Thomas Kowalski Declaration filed in Opposition of European Patent No. EP 2771468, executed on June 15, 2016, 16 pages
4313	The Broad Institute, Inc.; Massachusetts Institute of Technology; President and Fellows of Harvard College, Submission in opposition proceedings, Opposition of European Patent No. EP 2771468, filed June 30, 2016, 3 pages
4323	File History for U.S. Pat. Appl. No. 14/324,960
6059	Emails from December 14, 2012 through December 16, 2020 from Steven Trybus to Shuailiang Lin, 4 pages
6208	Deposition Transcript of Scott Bailey, Ph.D., January 19, 2021

1 **APPENDIX B – MATERIAL FACTS**

2 **<u>Broad's Material Facts (1-47) with CVC's Responses:</u>**

3 **1.** If the PTAB grants CVC Substantive Motion 3 in whole or in part as to the involved
4 patents, there has been a determination that there has been error in not naming an inventor on an
5 issued patent.

6 **RESPONSE:** Admitted that there is an error but denied that the error is correctable.

7 **2.** If the PTAB grants CVC Substantive Motion 3 in whole or in part as to the involved
8 application 14/704,551, there has been a determination that there has been error in not naming an
9 inventor on the application.

10 **RESPONSE:** Admitted that there is an error but denied that the error is correctable.

11 **<u>Patents</u>**

12 **3.** U.S. Patent No. 8,697,359 was filed on October 15, 2013, issued on April 15, 2014, and
13 names Feng Zhang as an inventor. Ex. 3011, face page.

14 **RESPONSE:** Admitted.

15 **4.** CVC alleges that Le Cong, Patrick Hsu, Shuailiang Lin, Randall Platt, and Fei Ran should
16 be added as inventors of U.S. Patent No. 8,697,359. Paper 1558, 7.

17 **RESPONSE:** Admitted.

18 **5.** The necessary consents of the current inventor, the assignees, and the alleged unnamed
19 inventors to add one or more of Le Cong, Patrick Hsu, Randall Platt, and Fei Ran, as inventors to
20 U.S. Patent No. 8,697,359 are submitted herewith. Paper 2117, Appx. C.

21 **RESPONSE:** Denied.

22 **6.** U.S. Patent No. 8,771,945 was filed on February 18, 2014, issued on July 8, 2014, and
23 names Feng Zhang as an inventor. Ex. 3015, face page.

24 **RESPONSE:** Admitted.

1 **7.** CVC alleges that Le Cong, Patrick Hsu, Shuailiang Lin, Randall Platt, and Fei Ran should
2 be added as inventors of U.S. Patent No. 8,771,945. Paper 1558, 7.
3 **RESPONSE:** Admitted.
4 **8.** The necessary consents of the current inventor, the assignees, and the alleged unnamed
5 inventors to add one or more of Le Cong, Patrick Hsu, Randall Platt, and Fei Ran as inventors to
6 U.S. Patent No. 8,771,945 are submitted herewith. Paper 2117, Appx. D.
7 **RESPONSE:** Denied.
8 **9.** U.S. Patent No. 8,795,965 was filed on February 18, 2014, issued on August 5, 2014, and
9 names Feng Zhang as an inventor. Ex. 3027, face page.
10 **RESPONSE:** Admitted.
11 **10.** CVC alleges that Randall Platt, Le Cong, Fei Ran, Patrick Hsu, and Shuailiang Lin should
12 be added as inventors of U.S. Patent No. 8,795,965. Paper 1558, 7.
13 **RESPONSE:** Admitted.
14 **11.** The necessary consents of the current inventor, the assignees, and the alleged unnamed
15 inventors to add one or more of Randall Platt, Le Cong, Fei Ran, and Patrick Hsu as inventors to
16 U.S. Patent No. 8,795,965 are submitted herewith. Paper 2117, Appx. E.
17 **RESPONSE:** Denied.
18 **12.** U.S. Patent No. 8,865,406 was filed on March 24, 2014, issued on October 21, 2014, and
19 names Feng Zhang and Fei Ran as inventors. Ex. 3017, face page.
20 **RESPONSE:** Admitted.
21 **13.** CVC alleges that Le Cong, Patrick Hsu, Shuailiang Lin, and Randall Platt should be added
22 as inventors of U.S. Patent No. 8,865,406. Paper 1558, 7.
23 **RESPONSE:** Admitted.

1 **14.** The necessary consents of the current inventors, the assignees, and the alleged unnamed
2 inventors to add one or more of Le Cong, Patrick Hsu, and Randall Platt as inventors to U.S.
3 Patent No. 8,865,406 are submitted herewith. Paper 2117, Appx. F.
4 **RESPONSE:** Denied.
5 **15.** U.S. Patent No. 8,871,445 was filed on April 23, 2014, issued on October 28, 2014, and
6 names Feng Zhang and Le Cong as inventors. Ex. 3029, face page.
7 **RESPONSE:** Admitted.
8 **16.** CVC alleges that Patrick Hsu, Shuailiang Lin, Randall Platt, and Fei Ran should be added
9 as inventors of U.S. Patent No. 8,871,445. Paper 1558, 8.
10 **RESPONSE:** Admitted.
11 **17.** The necessary consents of the current inventors, the assignees, and the alleged unnamed
12 inventors to add one or more of Patrick Hsu, Randall Platt, and Fei Ran as inventors to U.S.
13 Patent No. 8,871,445 are submitted herewith. Paper 2117, Appx. G.
14 **RESPONSE:** Denied.
15 **18.** U.S. Patent No. 8,889,356 was filed on February 18, 2014, issued on November 18, 2014,
16 and names Feng Zhang as an inventor. Ex. 3016, face page.
17 **RESPONSE:** Admitted.
18 **19.** CVC alleges that Le Cong, Patrick Hsu, Shuailiang Lin, Randall Platt, and Fei Ran should
19 be added as inventors of U.S. Patent No. 8,889,356. Paper 1558, 9.
20 **RESPONSE:** Admitted.
21 **20.** The necessary consents of the current inventor, the assignees, and the alleged unnamed
22 inventors to add one or more of Le Cong, Patrick Hsu, Randall Platt, and Fei Ran as inventors to
23 U.S. Patent No. 8,889,356 are submitted herewith. Paper 2117, Appx. H.

1 **RESPONSE:** Denied.

2 **21.** U.S. Patent No. 8,895,308 was filed on June 2, 2014, issued on November 25, 2014, and

3 names Feng Zhang and Fei Ran as inventors. Ex. 3013, face page.

4 **RESPONSE:** Admitted.

5 **22.** CVC alleges that Le Cong, Patrick Hsu, Shuailiang Lin, and Randall Platt should be added

6 as inventors of U.S. Patent No. 8,895,308. Paper 1558, 7.

7 **RESPONSE:** Admitted.

8 **23.** The necessary consents of the current inventors, the assignees, and the alleged unnamed

9 inventors to add one or more of Le Cong, Patrick Hsu, and Randall Platt as inventors to U.S.

10 Patent No. 8,895,308 are submitted herewith. Paper 2117, Appx. I.

11 **RESPONSE:** Denied.

12 **24.** U.S. Patent No. 8,906,616 was filed on May 29, 2014, issued on December 9, 2014, and

13 names Feng Zhang, Le Cong, Patrick Hsu, and Fei Ran as inventors. Ex. 3014, face page.

14 **RESPONSE:** Admitted.

15 **25.** CVC alleges that Shuailiang Lin and Randall Platt should be added as inventors of U.S.

16 Patent No. 8,906,616. Paper 1558, 8.

17 **RESPONSE:** Admitted.

18 **26.** The necessary consents of the current inventors, the assignees, and the alleged unnamed

19 inventors to add Randall Platt as inventor to U.S. Patent No. 8,906,616 are submitted herewith.

20 Paper 2117, Appx. J.

21 **RESPONSE:** Denied.

22 **27.** U.S. Patent No. 8,932,814 was filed on April 22, 2014, issued on January 13, 2015, and

23 names Feng Zhang and Le Cong as inventors. Ex. 3037, face page.

1 **RESPONSE:** Admitted.

2 **28.** CVC alleges that Patrick Hsu, Shuailiang Lin, Randall Platt, and Fei Ran should be added
3 as inventors of U.S. Patent No. 8,932,814. Paper 1558, 9.

4 **RESPONSE:** Admitted.

5 **29.** The necessary consents of the current inventors, the assignees, and the alleged unnamed
6 inventors to add one or more of Patrick Hsu, Randall Platt, and Fei Ran as inventors to U.S.
7 Patent No. 8,932,814 are submitted herewith. Paper 2117, Appx. K.

8 **RESPONSE:** Denied.

9 **30.** U.S. Patent No. 8,945,839 was filed on April 18, 2014, issued on February 3, 2015, and
10 names Feng Zhang as an inventor. Ex. 3022, face page.

11 **RESPONSE:** Admitted.

12 **31.** CVC alleges that Le Cong, Patrick Hsu, Shuailiang Lin, Randall Platt, and Fei Ran should
13 be added as inventors of U.S. Patent No. 8,945,839. Paper 1558, 7.

14 **RESPONSE:** Admitted.

15 **32.** The necessary consents of the current inventor, the assignees, and the alleged unnamed
16 inventors to add one or more of Le Cong, Patrick Hsu, Randall Platt, and Fei Ran as inventors to
17 U.S. Patent No. 8,945,839 are submitted herewith. Paper 2117, Appx. L.

18 **RESPONSE:** Denied.

19 **33.** U.S. Patent No. 8,993,233 was filed on December 12, 2013, issued on March 31, 2015,
20 and names Feng Zhang, Le Cong, Randall Platt, Neville Espi Sanjana, and Fei Ran as inventors.
21 Ex. 3024, face page.

22 **RESPONSE:** Admitted.

1 **34.** CVC alleges that Patrick Hsu, Shuailiang Lin, and Ophir Shalem should be added as
2 inventors of U.S. Patent No. 8,993,233. Paper 1558, 8.
3 **RESPONSE:** Admitted.
4 **35.** The necessary consents of the current inventors, the assignees, and the alleged unnamed
5 inventors to add one or more of Patrick Hsu, and Ophir Shalem as inventors to U.S. Patent No.
6 8,993,233 are submitted herewith. Paper 2117, Appx. M.
7 **RESPONSE:** Denied.
8 **36.** U.S. Patent No. 8,999,641 was filed on March 26, 2014, issued on April 7, 2015, and
9 names Feng Zhang, Le Cong, Randall Platt, and Neville Espi Sanjana as inventors. Ex. 3047,
10 face page.
11 **RESPONSE:** Admitted.
12 **37.** CVC alleges that Patrick Hsu, Shuailiang Lin, and Fei Ran should be added as inventors
13 of U.S. Patent No. 8,999,641. Paper 1558, 8
14 **RESPONSE:** Admitted.
15 **38.** The necessary consents of the current inventors, the assignees, and the alleged unnamed
16 inventors to add one or more of Patrick Hsu, and Fei Ran as inventors to U.S. Patent No.
17 8,999,641 are submitted herewith. Paper 2117, Appx. N.
18 **RESPONSE:** Denied.
19 **39.** U.S. Patent No. 9,840,713 was filed on October 24, 2014, issued on December 12, 2017,
20 and names Feng Zhang as an inventor. Ex. 3043, face page.
21 **RESPONSE:** Admitted.

1 **40.** CVC alleges that Le Cong, Matthias Heidenreich, Patrick Hsu, Shuailiang Lin, Randall
2 Platt, Fei Ran, and Lukasz Swiech should be added as inventors of U.S. Patent No. 9,840,713.
3 Paper 1558, 8.
4 **RESPONSE:** Admitted.
5 **41.** The necessary consents of the current inventor, the assignees, and the alleged unnamed
6 inventors to add one or more of Le Cong, Matthias Heidenreich, Patrick Hsu, Randall Platt, Fei
7 Ran, and Lukasz Swiech as inventors to U.S. Patent No. 9,840,713 are submitted herewith. Paper
8 2117, Appx. O.
9 **RESPONSE:** Denied.
10 **42.** Broad attempted in good faith to obtain the consent of alleged unnamed inventor
11 Shuailiang Lin. Ex. 6059
12 **RESPONSE:** Denied.
13 **<u>Application</u>**
14 **43.** U.S. Patent Application No. 14/704,551 was filed on May 5, 2015 and names Feng
15 Zhang, Le Cong, Patrick Hsu, and Fei Ran as inventors. Ex. 3050, 156-159.
16 **RESPONSE:** Admitted.
17 **44.** CVC alleges that Randall Platt and Shuailiang Lin should be added as inventors of U.S.
18 Patent Application No. 14/704,551. Paper 1558, 8.
19 **RESPONSE:** Admitted.
20 **45.** The corrected ADSs to add Randall Platt, to add Shuailiang Lin, or to add both Randall
21 Platt and Shuailiang Lin as inventors to U.S. Patent Application No. 14/704,551 are submitted
22 herewith. Paper 2117, Appx. P.

1 **RESPONSE:** Admitted that Broad submitted with its motion ADSs to add Randall Platt,

2 to add Shuailiang Lin, or to add both Randall Platt and Shuailiang Lin as inventors to U.S. Patent

3 Application No. 14/704,551, but denied that these are "corrected ADSs" because they are

4 improper.

5 **Fees**

6 **46.** Broad authorizes any fees required by 37 C.F.R. § 1.20(b) be charged to Deposit Account

7 No. 121781.

8 **RESPONSE:** Admitted.

9 **47.** Broad authorizes any fees required by 37 C.F.R. §§ 1.17(d) and 1.17(i) be charged to

10 Deposit Account No. 121781.

11 **RESPONSE:** Admitted.

1 **CVC's Material Facts (48-64) with Broad's Responses:**

2 **48.** Shuailiang Lin has not consented to be named as inventor to the involved patents. Paper
3 2117, 6-7.

4 **RESPONSE:** Admitted.

5 **49.** In its Contingent Responsive Motion 6, Broad has not set forth any evidence that any
6 unnamed inventors contributed to the conception of the claimed invention.

7 **RESPONSE:** Denied.

8 **50.** In its Contingent Responsive Motion 6, Broad does not identify the names of the
9 individuals it believes should be added as inventors to each of its patents and patent application,
10 other than to say that any individuals the PTAB determines to be an unnamed inventor should be
11 added as an inventor.

12 **RESPONSE:** Denied.

13 **51.** On June 30, 2016, Broad submitted a sworn declaration by its attorney, Thomas J.
14 Kowalski, in opposition proceedings involving its European Patent No. EP 2771468
15 (PCT/US2013/074819). Ex. 4295, ¶¶ 1, 19; Ex. 4313, 2.

16 **RESPONSE:** Admitted.

17 **52.** Mr. Kowalski states in his declaration that he was retained by Broad Institute of MIT and
18 Harvard in 2012 and was asked by Ellen Law, Broad's in-house counsel, in mid-January 2013 to
19 "take over representation of certain CRISPR matters originating from Dr. Feng Zhang's
20 laboratory." *Id.*, ¶ 11.

21 **RESPONSE:** Admitted.

22 **53.** In his declaration, Mr. Kowalski identifies his duty of candor and good faith under 37
23 C.F.R. § 1.56 in making the statements contained in his declaration. *Id.,* ¶ 4.

1 **RESPONSE:** Denied.

2 **54.** Mr. Kowalski explains in his declaration that his assessment of inventorship of Broad's
3 PCT applications reflects the inventorship standards under U.S. law. *Id.,* ¶¶ 5-10, 15.

4 **RESPONSE:** Admitted.

5 **55.** Mr. Kowalski explains in his declaration that his inventorship study included
6 interviewing the relevant individuals to determine his or her contributions to any subject matter
7 or claim features. *Id.,* ¶ 9.

8 **RESPONSE:** Admitted.

9 **56.** Mr. Kowalski states in his declaration that, based on his inventorship study, he concluded
10 that Dr. Le Cong "contributed in a not insubstantial manner to the following inventions" of "co-
11 delivery to the nucleus...and the CRISPR-Cas9 system adapted in for uses in eukaryotic cells
12 [and] Dr. Cong was therefore named as an inventor and applicant on PCT/US2013/074790...and
13 PCT/US2013/074611, respectively." Ex. 4295, ¶ 16.

14 **RESPONSE:** Admitted.

15 **57.** Mr. Kowalski states in his declaration that, based on his inventorship study, he concluded
16 that Dr. Patrick Hsu "contributed in a not insubstantial manner to the following inventions" of
17 "the CRISPR-Cas9 system for certain uses in eukaryotic cells [and] Dr. Hsu was therefore
18 named as an inventor and applicant on...PCT/US2013/074611." *Id.,* ¶ 16.

19 **RESPONSE:** Admitted.

20 **58.** Mr. Kowalski states in his declaration that, based on his inventorship study, he concluded
21 that Dr. Fei Ran "contributed in a not insubstantial manner to the following inventions" of "co-
22 delivery to the nucleus, *in vivo* applications,...ortholog design, and the CRISPR-Cas9 system for
23 certain uses in eukaryotic cells [and] Dr. Ran was therefore named as an inventor and applicant

1 on...PCT/US2013/074790, PCT/US2013/074667,... PCT/US2013/074691 and
2 PCT/US2013/074611 respectively." *Id.,* ¶ 16.
3 **RESPONSE:** Admitted.
4 **59.** Mr. Kowalski states in his declaration that, based on his inventorship study, he concluded
5 that Mr. Shuailiang Lin "contributed in a not insubstantial manner to the following inventions"
6 of "certain methods of using CRISPR-Cas9 systems in eukaryotic cells and was therefore named
7 as an inventor and applicant on PCT/US2013/074611." *Id.,* ¶ 16.
8 **RESPONSE:** Denied.
9 **60.** Mr. Kowalski states in his declaration that, based on his inventorship study, he concluded
10 that Dr. Randall Platt "contributed in a not insubstantial manner to the following inventions" of
11 "methods of using CRISPR-Cas9 systems in eukaryotic cells [and] was therefore named as an
12 inventor and applicant on PCT/US2013/074611..." *Id.,* ¶ 16.
13 **RESPONSE:** Admitted.
14 **61.** Mr. Kowalski states in his declaration that, based on his inventorship study, he concluded
15 that Dr. Ophir Shalem "contributed in a not insubstantial manner to the following inventions" of
16 "ortholog design [and] was therefore named as an inventor and applicant on
17 PCT/US2013/074691..." Ex. 4295 at ¶ 16.
18 **RESPONSE:** Denied.
19 **62.** Mr. Kowalski states in his declaration that, based on his inventorship study, he concluded
20 that Dr. Matthias Heidenreich and Dr. Lukasz Swiech "contributed in a not insubstantial manner
21 to the following inventions" of "*in vivo* applications and were therefore both named as inventors
22 and applicants on PCT/US2013/074667." *Id.,* ¶ 16.
23 **RESPONSE:** Admitted.

63. Ellen Law, in-house counsel for Broad, submitted a sworn declaration dated August 4, 2014 in the file of U.S. Application No. 14/324,960 which states that "Broad TWICE conducted an inventorship study" in 2013 regarding the claims of the CRISPR portfolio, including those that claim a lineage back to U.S. provisional application 61/736,527. Ex. 4323 at 335-36.

RESPONSE: Admitted that Ellen Law submitted a sworn declaration dated August 4, 2014 in the file of U.S. Application No. 14/324,960 and that the words in the partial, cropped quote appear in Exhibit 4323; otherwise, denied.

64. Ms. Law, in her August 4, 2014 declaration, further explains: "[a]fter the filing of US Provisional applications 61/736,527 and 61/788,427 [sic, 61/748,427], I had Mr. Kowalski investigate inventorship of the claims of the CRISPR portfolio. I understand that the inventorship investigation included reviewing all documents provided by all individuals involved in any aspect of the CRISPR portfolio, and also Mr. Kowalski interviewing each of these individuals." *Id.*, 335-36.

RESPONSE: Admitted that the words in the partial, cropped quote appear in Exhibit 4323; otherwise, denied.

1 **<u>Broad's Material Facts (65-67):</u>**

2 **65.** Bailey did not perform his own inventorship analysis here. Ex. 6208, Bailey Tr. 50:2-7;

3 54:17-55:5.

4 **66.** Kowalski's declaration set out inventors and applicants in 10 PCT filings, but not for the

5 involved patents and application in this proceeding. Ex. 4295 at ¶17.

6 **67.** U.S. Patent Nos.

7 8,697,359; 8,771,945; 8,795,965; 8,865,406; 8,871,445; 8,889,356; 8,895,308; 8,906,616; 8,932,

8 814; 8,945,839; and 8,993,233 are neither continuations of nor claim priority to any of the PCT

9 Applications identified in Kowalski's declaration. Exs. 3011 at 1; 3015 at 1; 3027 at 1; 3017 at 1;

10 3029 at 1; 3016 at 1; 3013 at 1; 3014 at 1; 3037 at 1; 3022 at 1; 3024 at 1.

CERTIFICATE OF FILING AND SERVICE

I hereby certify that on May 6, 2021 a true and complete copy of the foregoing **BROAD REPLY 6** is being filed by 8:00 pm ET via the Interference Web Portal. (SO ¶ 105.3). Pursuant to agreement of the parties and the Updated Notices of Lead and Backup Counsel, service copies are being sent by email by 11:00 pm ET, to counsel for Junior Party as follows:

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