UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

BIO-RAD LABORATORIES, INC., THE UNIVERSITY OF CHICAGO, LAWRENCE LIVERMORE NATIONAL SECURITY, LLC, and PRESIDENT AND FELLOWS OF HARVARD COLLEGE, Plaintiffs, v. STILLA TECHNOLOGIES, INC., and STILLA TECHNOLOGIES, Defendants.	Civil Action No. 1:19-cv-11587 **DEMAND FOR JURY TRIAL**

FIRST AMENDED COMPLAINT

Plaintiffs Bio-Rad Laboratories, Inc. ("Bio-Rad"), The University of Chicago ("University of Chicago"), Lawrence Livermore National Security, LLC ("Lawrence Livermore"), and President and Fellows of Harvard College ("Harvard University") hereby allege for their First Amended Complaint against defendants Stilla Technologies, Inc. ("Stilla (US)") and Stilla Technologies ("Stilla (FR)") (collectively, "Stilla" or "Defendants"), on personal knowledge as to their own actions and on information and belief as to the actions of others, as follows:

NATURE OF THE ACTION

1. This is an action for patent infringement arising under the United States Patent Act, 35 U.S.C. §§ 1, *et seq.*, including 35 U.S.C. § 271.

2. Plaintiffs Bio-Rad and University of Chicago bring this action to halt Stilla (US) and Stilla (FR)'s infringement of their rights under the Patent Laws of the United States, 35 U.S.C. §§ 1, *et seq.*, which arise under U.S. Patent No. 9,968,933 (the "'933 Patent"). Plaintiffs Bio-Rad and Lawrence Livermore bring this action to halt Stilla (US) and Stilla (FR)'s

infringement of their rights under the Patent Laws of the United States, 35 U.S.C. §§ 1, *et seq.*, which arise under U.S. Patent No. RE41,780 (the "'780 Patent"). Plaintiffs Bio-Rad and Harvard University bring this action to halt Stilla (US) and Stilla (FR)'s infringement of their rights under the Patent Laws of the United States, 35 U.S.C. §§ 1, *et seq.*, which arise under U.S. Patent No. 8,871,444 (the "'444 Patent"). Plaintiff Bio-Rad by itself brings this action to halt Stilla (US) and Stilla (FR)'s infringement of its rights under the Patent Laws of the United States, 35 U.S.C. §§ 1, *et seq.*, which arises under U.S. Patent No. 9,127,310 (the "'310 Patent"). Copies of the '933, '780, '444, and '310 Patents are attached to this First Amended Complaint as Exhibits 1, 2, 3, and 4 respectively.

PARTIES

3. Bio-Rad is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at 1000 Alfred Nobel Drive, Hercules, California 94547. Bio-Rad is the licensee to the '933, '780, and '444 Patents and patent owner for the '310 Patent.

4. The University of Chicago is a research university incorporated as an Illinois not-for-profit institution, with its principal place of business at 5801 S. Ellis Avenue, Chicago, Illinois 60637. The University of Chicago is the patent owner and licensor for the '933 Patent.

5. Lawrence Livermore manages and operates Lawrence Livermore National Laboratory for the U.S. Department of Energy and has its principal place of business at 7000 East Ave., Livermore, California 94550. Lawrence Livermore is the patent owner and licensor for the '780 Patent.

6. Harvard University is a research university incorporated as a Massachusetts

not-for-profit institution, with its principal place of business in Cambridge, Massachusetts 02138. Harvard University is a patent owner and licensor for the '444 Patent.

7. Stilla (US) is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business in Beverly, Massachusetts.

8. Stilla (FR) is a company organized and existing under the laws of France, with its principal place of business at Biopark, 1, Mail du Professeur Georges Mathé, 94800 Villejuif, France.

JURISDICTION AND VENUE

9. This action arises under the United States Patent Act, 35 U.S.C. §§ 1, *et seq*.

10. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a) because this is a civil action arising under the Patent Act.

11. This Court has personal jurisdiction over defendant Stilla (US). Stilla (US) has substantial contacts with the forum as a consequence of conducting business in Massachusetts, and has purposefully availed itself of the benefits and protections of Massachusetts state law, particularly by establishing its principal place of business in Massachusetts.

12. This Court also has personal jurisdiction over defendant Stilla (US) because several of its employees reside and work in Massachusetts, including at least:

- Ruth Szerbries, "General Manager & VP Commercial Operations North America" at Stilla (US), states she resides in Ipswich, Massachusetts, and her place of work is in Beverly, Massachusetts; and
- Kimberly Gutierrez, "Senior Field Application Scientist" at Stilla (US), states she resides in the Greater Boston Area and her place of work is in the Greater Boston Area.

13. This Court has personal jurisdiction over defendant Stilla (FR) because it has voluntarily entered into Massachusetts for the purpose of availing itself of Massachusetts consumers and the Massachusetts market to advertise, market, and/or promote the accused infringing Naica System among other things when it appeared and exhibited at the Circulating Biomarkers World Congress in Boston, Massachusetts, from March 28-29, 2018—before the incorporation of Stilla (US) in February 2019.

14. This Court also has personal jurisdiction over Stilla (FR) because Stilla (US) and Stilla (FR) are alter egos and/or agents of each other in connection with performance of the infringing acts below. The following facts, in addition to those contained in the rest of this First Amended Complaint, demonstrate that Stilla (US) and Stilla (FR) share a unified governance, interest, and ownership in connection with the infringing acts identified below such that to the extent the Court exercises jurisdiction over Stilla (US), it may also exercise jurisdiction over Stilla (FR).

15. A third-party hiring and placement agency engaged by Stilla to hire individuals in the U.S. for Stilla has published multiple job postings online stating, *inter alia*:

> • Stilla Technologies, Inc., makes the premier system for Digital-PCR with decided advantages over others. They have sold >100 systems worldwide and are now ready to take on the US market. With their US headquarters in Boston, they are building a North American commercial team.…
>
> • The company is well-funded having just raised $20M in Series A funding with Illumina Ventures as a major investor.
>
> • Why join Stilla?
>
> Become one of the first employees working for Stilla Technologies in the US and develop and expand the market!

16. The posting considers Stilla (FR) and Stilla (US) to be one and the same. More specifically, the first bullet point states Stilla Technologies, Inc. (Stilla (US)) manufactures

and sells the "premier system for Digital-PCR," *i.e.*, Naica System, when it is Stilla Technologies (Stilla (FR)) that has manufactured and sold the Naica System among other things. Indeed, on information and belief, Stilla (US) has never owned or controlled any manufacturing facility.

17. Further confirming Stilla (US) and Stilla (FR) are alter egos and/or agents of one another, the job posting refers to the corporate entity corresponding to Stilla (US) and states it has established a "US headquarters in Boston" and has sold greater than 100 units worldwide. Stilla's willingness to attribute sales of Stilla (FR) to Stilla (US) demonstrates that the two entities are alter egos and/or agents of one another.

18. As to the second bullet point in the job listing, Stilla (FR) and Stilla (US) are again conflated. Just as Stilla attributes the sales of Stilla (FR) to Stilla (US), it attributes the Stilla (FR) venture capital funding to Stilla (US)—even prior to the incorporation of Stilla (US) in February 2019 (as described below).

19. The final bullet point in the job listing touts the possibility of becoming "one of the first employees working for Stilla Technologies," making no distinction between Stilla (FR) and Stilla (US). Moreover, the job posting also include a link to a website with information on Stilla (FR), including a Stilla (FR) company profile, features on various Stilla (FR) team members (including its CEO, an R&D Engineer, and an Application Specialist), descriptions of Stilla (FR)'s technology, and a link to the Stilla (FR) corporate website. Stilla (FR) refers candidates interested in joining Stilla (FR) to this same third-party website, further demonstrating a unity between Stilla (US) and Stilla (FR).

20. Alternatively, this Court has jurisdiction over Stilla (FR) because Bio-Rad, University of Chicago, Lawrence Livermore, and Harvard University's claims arise under federal law, Stilla (FR) is not subject to jurisdiction in any state's courts of general jurisdiction, and this

exercise of jurisdiction comports with due process. With regard to due process, Stilla (FR) has continuous and systematic contacts and minimum contacts with the entire United States that gives rise to its infringement, including broadly targeting the United States as a market for its products as a whole, through at least advertising, selling, providing service and support, and/or disseminating literature on the Naica System among other things on its website, and appearing and exhibiting nationwide at at-least the following:

- 11th Annual Next Generation Dx Summit in Washington, D.C. (Aug. 2019);
- 4th Annual Liquid Biopsy Summit in San Francisco, CA (Jun. 2019);
- American Association for Cancer Research Annual Meeting 2019 in Atlanta, GA (Mar.-Apr. 2019);
- 26th Molecular Med Tri-Con in San Francisco, CA (Mar. 2019);
- Society for Laboratory Automation and Screening International Conference & Exhibition 2019 in Washington, D.C. (Feb. 2019);
- Precision Medicine World Conference 2019 in Santa Clara, CA (Jan. 2019);
- 4th qPCR & dPCR Congress (4BIO Summit) in San Francisco, CA (Sept. 2018);
- 10th Next Generation Dx Summit in Washington, D.C. (Aug. 2018);
- AACE Annual Meeting in Chicago, IL (Apr. 2018);
- Circulating Biomarkers World Congress in Boston, MA (Mar. 2018);
- 25th Molecular Med Tri-Con in San Francisco, CA (Feb. 2018); and
- 9th Next Generation Dx Summit in Washington, D.C. (Aug. 2017).

21. Venue is proper in this District over Stilla (US) under 28 U.S.C. §§ 1391(b)

and 1400(b). Among other things, it maintains and/or is responsible for the use of regular and established physical places of business in this District. Ruth Szerbries, the apparent General Manager of Stilla (US), represents that Stilla (US) is located in Beverly, Massachusetts.

22. Venue is proper in this District over Stilla (FR) under 28 U.S.C. §§ 1391(b) and (c), and 1400(b), because as a foreign defendant it may be sued in any judicial district, including in this District.

BACKGROUND

23. Since its founding, Bio-Rad has led the transformation in disease research by making innovative tools using its proprietary technologies that simplify complex genetic analysis. In particular, as relevant to this proceeding, Bio-Rad has pioneered the introduction of droplet digital PCR ("ddPCR"), a method for performing digital PCR that is based on water-oil emulsion droplet technology. During this process, droplets are formed in a water-oil emulsion to form the partitions that separate the template DNA molecules. The droplets serve essentially the same function as individual test tubes or wells in a plate in which the PCR reaction takes place, albeit in a much smaller format. The massive sample partitioning is a key aspect of the ddPCR technique. The ddPCR technique is capable of partitioning nucleic acid samples into thousands of droplets that may be on the order of nanoliters in volume, and PCR amplification is carried out within each droplet. In addition to offering unparalleled sensitivity, this technique has a smaller sample requirement than other commercially available digital PCR systems, reducing cost and preserving precious samples.

24. Bio-Rad has the premier droplet business in the world—having spent more than $500 million in research and development, acquisitions and/or licensing intellectual property in the field. This investment include its multi-million dollar launch of its Digital Biology Center

to focus on development of innovative new products based on droplet technology. Further, it includes Bio-Rad's acquisition of QuantaLife, Inc. for $162 million in cash plus future milestone payments in October 2011. More recently, in January 2017, Bio-Rad acquired RainDance Technologies, Inc. for approximately $87 million. Bio-Rad's droplet intellectual property portfolio includes its own patents and patents licensed from the University of Chicago, Lawrence Livermore, United Kingdom Research and Innovation, Harvard University, and other world-renowned institutions.

25. Stilla (FR) was incorporated at the Ecole Polytechnique in fall 2013.

26. In or around March 2016, Stilla (FR) launched the Naica System, a digital PCR (dPCR) solution. According to Stilla (FR), the Naica System uses crystal digital PCR for absolute quantification of nucleic acids to integrate the digital PCR process in a single consumable. During this process, a sample is first flowed through a network of microchannels and partitioned into a large 2D array of 30,000 individual droplets, also called a droplet crystal. PCR is then performed on-chip and the crystal is imaged to reveal the droplets that contain amplified targets. The final step consists in counting the number of these positive droplets to precisely extract the absolute quantity of nucleic acids.

27. In or around February 2019, Stilla (FR) incorporated a subsidiary, Stilla (US), to increase its U.S. domestic presence and promote further sales of the Nacia System in the United States.

28. Stilla's Naica System among other things directly infringes the '933 Patent. To demonstrate how Stilla infringes claims 1-20 of the '933 Patent with its Naica System, attached is a preliminary and exemplary claim chart. Exhibit 5. This chart is not intended to limit Bio-Rad and University of Chicago's rights to modify this chart or any other claim chart or allege that other

activities of Stilla infringe the identified claims or any other claims of the ’933 Patent or any other patents. This chart is hereby incorporated by reference in its entirety. Each claim element that is mapped to the Naica System shall be considered an allegation within the meaning of the Federal Rules of Civil Procedure and therefore a response to each allegation is required.

29. Stilla’s Naica System among other things directly infringes the ’780 Patent. To demonstrate how Stilla infringes claims 1-3 of the ’780 Patent with its Naica System, attached is a preliminary and exemplary claim chart. Exhibit 6. This chart is not intended to limit Bio-Rad and Lawrence Livermore’s rights to modify this chart or any other claim chart or allege that other activities of Stilla infringe the identified claims or any other claims of the ’780 Patent or any other patents. This chart is hereby incorporated by reference in its entirety. Each claim element that is mapped to the Naica System shall be considered an allegation within the meaning of the Federal Rules of Civil Procedure and therefore a response to each allegation is required.

30. Stilla’s Naica System among other things directly infringes the ’444 Patent. To demonstrate how Stilla infringes claims 1-5, 8, and 9 of the ’444 Patent with its Naica System, attached is a preliminary and exemplary claim chart. Exhibit 7. This chart is not intended to limit Bio-Rad and Harvard University’s rights to modify this chart or any other claim chart or allege that other activities of Stilla infringe the identified claims or any other claims of the ’444 Patent or any other patents. This chart is hereby incorporated by reference in its entirety. Each claim element that is mapped to the Naica System shall be considered an allegation within the meaning of the Federal Rules of Civil Procedure and therefore a response to each allegation is required.

31. Stilla’s Naica System among other things directly infringes the ’310 Patent. To demonstrate how Stilla infringes claims 1-6, 8-11, and 15 of the ’310 Patent with its Naica System, attached is a preliminary and exemplary claim chart. Exhibit 8. This chart is not intended

to limit Bio-Rad's right to modify this chart or any other claim chart or allege that other activities of Stilla infringe the identified claims or any other claims of the '310 Patent or any other patents. This chart is hereby incorporated by reference in its entirety. Each claim element that is mapped to the Naica System shall be considered an allegation within the meaning of the Federal Rules of Civil Procedure and therefore a response to each allegation is required.

COUNT I

(Infringement of U.S. Patent No. 9,968,933)

32. Plaintiffs Bio-Rad and University of Chicago re-allege and incorporate by reference the allegations contained in paragraphs 1 through 31 above as relevant to this count.

33. On May 15, 2018, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 9,968,933 B2 (the "'933 Patent"), entitled "Device And Method For Pressure-Driven Plug Transport And Reaction." A copy of the '933 Patent is attached to this First Amended Complaint as Exhibit 1.

34. Rustem F. Ismagilov, Joshua David Tice, Helen Song Baca, and Lewis Spencer Roach are the sole and true inventors of the '933 Patent. By operation of law and as a result of written assignment agreements, University of Chicago obtained the entire right, title and interest to and in the '933 Patent.

35. Pursuant to license agreements Bio-Rad entered into with the University of Chicago, Bio-Rad obtained an exclusive license to the '933 Patent.

36. Stilla (FR) has infringed and continues to infringe one or more claims of the '933 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by using in the United States without authority, microfluidic DNA products, devices, systems, and/or components of systems that include the claimed method for droplet formation, including, but not

limited to, the Naica System among other things.

37. Stilla (FR) actively, knowingly, and intentionally has induced, or has threatened to induce, infringement of the ’933 Patent by offering for sale the Naica System among other things with knowledge that its customers will use such products; and with the knowledge and the specific intent to encourage and facilitate those infringing sales and uses of such products through the dissemination of promotional and marketing materials, instructional materials, product manuals, and technical materials, and appearances at trade shows and conferences. Stilla (FR) is liable for its induced infringement of the ’933 Patent pursuant to 35 U.S.C. § 271(b).

38. Stilla (FR) has contributed to, or has threatened to contribute to, the infringement by its customers of the ’933 Patent by offering to sell the Naica System among other things, knowing the products constitute a material part of the inventions of the ’933 Patent, knowing the products to be especially made or adapted to infringe the ’933 Patent, and knowing the products are not staple articles or commodities of commerce suitable for substantial non-infringing use. Stilla (FR) is liable for its contributory infringement of the ’933 Patent pursuant to 35 U.S.C. § 271(c).

39. Stilla (FR) has had knowledge of the ’933 Patent as of on or around May 15, 2018, when the ’933 Patent issued, on information and belief that Stilla (FR) monitors patent applications and publications in the microfluidics field. In addition, Stilla (FR) has had knowledge of and notice of the ’933 Patent and its infringement since at least, and through, the filing and service of the Complaint and despite this knowledge continues to commit the aforementioned infringing acts.

40. Stilla (FR)’s infringement of the ’933 Patent has injured Bio-Rad and University of Chicago in their business and property rights. Bio-Rad and University of Chicago

are entitled to recover monetary damages for such injuries pursuant to 35 U.S.C. § 284 in an amount to be determined at trial.

41. Stilla (FR)'s infringement of the '933 Patent has caused irreparable harm to Bio-Rad and University of Chicago and will continue to cause such harm unless and until Stilla (FR)'s infringing activities are enjoined by this Court.

42. Stilla (US) has infringed and continues to infringe one or more claims of the '933 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by using in the United States without authority, microfluidic DNA products, devices, systems, and/or components of systems that include the claimed method for droplet formation, including, but not limited to, the Naica System among other things.

43. Stilla (US) actively, knowingly, and intentionally has induced, or has threatened to induce, infringement of the '933 Patent by offering for sale the Naica System among other things with knowledge that its customers will use such products; and with the knowledge and the specific intent to encourage and facilitate those infringing sales and uses of such products through the dissemination of promotional and marketing materials, instructional materials, product manuals, and technical materials, and appearances at trade shows and conferences. Stilla (US) is liable for its induced infringement of the '933 Patent pursuant to 35 U.S.C. § 271(b).

44. Stilla (US) has contributed to, or has threatened to contribute to, the infringement by its customers of the '933 Patent by offering to sell the Naica System among other things, knowing the products constitute a material part of the inventions of the '933 Patent, knowing the products to be especially made or adapted to infringe the '933 Patent, and knowing the products are not staple articles or commodities of commerce suitable for substantial non-infringing use. Stilla (US) is liable for its contributory infringement of the '933 Patent pursuant to

35 U.S.C. § 271(c).

45. Stilla (US)'s infringement of the '933 Patent has injured Bio-Rad and University of Chicago in their business and property rights. Bio-Rad and University of Chicago are entitled to recover monetary damages for such injuries pursuant to 35 U.S.C. § 284 in an amount to be determined at trial.

46. Stilla (US)'s infringement of the '933 Patent has caused irreparable harm to Bio-Rad and University of Chicago and will continue to cause such harm unless and until Stilla (US)'s infringing activities are enjoined by this Court.

COUNT II

(Infringement of U.S. Patent No. RE 41,780)

47. Plaintiffs Bio-Rad and Lawrence Livermore re-allege and incorporate by reference the allegations contained in paragraphs 1 through 46 above as relevant to this count.

48. On September 28, 2010, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. RE41,780 E (the "'780 Patent"), entitled "Chemical Amplification Based On Fluid Partitioning In An Immiscible Liquid." A copy of the '780 Patent is attached to this First Amended Complaint as Exhibit 2.

49. Brian L. Anderson, Bill W. Colston, and Christopher J. Elkin, are the sole and true inventors of the '780 Patent. By operation of law and as a result of written assignment agreements, Lawrence Livermore National Security, LLC ("Lawrence Livermore") obtained the entire right, title and interest to and in the '780 Patent.

50. Pursuant to license agreements Bio-Rad entered into with Lawrence Livermore, Bio-Rad obtained an exclusive license to the '780 Patent.

51. Stilla (FR) has infringed and continues to infringe one or more claims of the

’780 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by using in the United States without authority, microfluidic DNA products, devices, systems, and/or components of systems that include the claimed apparatus for nucleic acid amplification, including, but not limited to the Naica System among other things and/or that include the claimed method for nucleic acid amplification, including, but not limited to, the Naica System among other things.

52. Stilla (FR) actively, knowingly, and intentionally has induced, or has threatened to induce, infringement of the ’780 Patent by offering for sale the Naica System among other things with knowledge that its customers will use such products; and with the knowledge and the specific intent to encourage and facilitate those infringing sales and uses of such products through the dissemination of promotional and marketing materials, instructional materials, product manuals, and technical materials, and appearances at trade shows and conferences. Stilla (FR) is liable for its induced infringement of the ’780 Patent pursuant to 35 U.S.C. § 271(b).

53. Stilla (FR) has contributed to, or has threatened to contribute to, the infringement by its customers of the ’780 Patent by offering to sell the Naica System among other things, knowing the products constitute a material part of the inventions of the ’780 Patent, knowing the products to be especially made or adapted to infringe the ’780 Patent, and knowing the products are not staple articles or commodities of commerce suitable for substantial non-infringing use. Stilla (FR) is liable for its contributory infringement of the ’780 Patent pursuant to 35 U.S.C. § 271(c).

54. Stilla (FR) has had knowledge of the ’780 Patent as of on or around September 28, 2010, when the ’780 Patent issued, on information and belief that Stilla (FR) monitors patent applications and publications in the microfluidics field. In addition, Stilla (FR)

has had knowledge of and notice of the '780 Patent and its infringement since at least, and through, the filing and service of the First Amended Complaint and despite this knowledge continues to commit the aforementioned infringing acts.

55. Stilla (FR)'s infringement of the '780 Patent has injured Bio-Rad and Lawrence Livermore in their business and property rights. Bio-Rad and Lawrence Livermore are entitled to recover monetary damages for such injuries pursuant to 35 U.S.C. § 284 in an amount to be determined at trial.

56. Stilla (FR)'s infringement of the '780 Patent has caused irreparable harm to Bio-Rad and Lawrence Livermore and will continue to cause such harm unless and until Stilla (FR)'s infringing activities are enjoined by this Court.

57. Stilla (US) has infringed and continues to infringe one or more claims of the '780 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by using in the United States without authority, microfluidic DNA products, devices, systems, and/or components of systems that include the claimed apparatus for nucleic acid amplification, including, but not limited to, the Naica System among other things and/or that include the claimed method for nucleic acid amplification, including, but not limited to, the Naica System among other things.

58. Stilla (US) actively, knowingly, and intentionally has induced, or has threatened to induce, infringement of the '780 Patent by offering for sale the Naica System among other things with knowledge that its customers will use such products; and with the knowledge and the specific intent to encourage and facilitate those infringing sales and uses of such products through the dissemination of promotional and marketing materials, instructional materials, product manuals, and technical materials, and appearances at trade shows and conferences. Stilla (US) is

liable for its induced infringement of the ’780 Patent pursuant to 35 U.S.C. § 271(b).

59. Stilla (US) has contributed to, or has threatened to contribute to, the infringement by its customers of the ’780 Patent by offering to sell the Naica System among other things, knowing the products constitute a material part of the inventions of the ’780 Patent, knowing the products to be especially made or adapted to infringe the ’780 Patent, and knowing the products are not staple articles or commodities of commerce suitable for substantial non-infringing use. Stilla (US) is liable for its contributory infringement of the ’780 Patent pursuant to 35 U.S.C. § 271(c).

60. Stilla (US)’s infringement of the ’780 Patent has injured Bio-Rad and Lawrence Livermore in their business and property rights. Bio-Rad and Lawrence Livermore are entitled to recover monetary damages for such injuries pursuant to 35 U.S.C. § 284 in an amount to be determined at trial.

61. Stilla (US)’s infringement of the ’780 Patent has caused irreparable harm to Bio-Rad and Lawrence Livermore and will continue to cause such harm unless and until Stilla (US)’s infringing activities are enjoined by this Court.

COUNT III

(Infringement of U.S. Patent No. 8,871,444)

62. Plaintiffs Bio-Rad and Harvard University re-allege and incorporate by reference the allegations contained in paragraphs 1 through 61 above as relevant to this count.

63. On October 28, 2014, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 8,871,444 B2 (the “’444 Patent”), entitled “In Vitro Evolution In Microfluidic Systems.” A copy of the ’444 Patent is attached to this First Amended Complaint as Exhibit 3.

64. Andrew David Griffiths, David A. Weitz, Darren R. Link, Keunho Ahn, and Jerome Bibette are the sole and true inventors of the ’444 Patent. By operation of law and as a result of written assignment agreements, United Kingdom Research and Innovation (“UKRI”) and Harvard University obtained the entire right, title and interest to and in the ’444 Patent.

65. Pursuant to license agreements Bio-Rad entered into with UKRI and Harvard University, Bio-Rad obtained an exclusive license to the ’444 Patent.

66. Stilla (FR) has infringed and continues to infringe one or more claims of the ’444 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by using in the United States without authority, microfluidic DNA products, devices, systems, and/or components of systems that include the claimed method for droplet formation and detection, including, but not limited to, the Naica System among other things.

67. Stilla (FR) actively, knowingly, and intentionally has induced, or has threatened to induce, infringement of the ’444 Patent by offering for sale the Naica System among other things with knowledge that its customers will use such products; and with the knowledge and the specific intent to encourage and facilitate those infringing sales and uses of such products through the dissemination of promotional and marketing materials, instructional materials, product manuals, and technical materials, and appearances at trade shows and conferences. Stilla (FR) is liable for its induced infringement of the ’444 Patent pursuant to 35 U.S.C. § 271(b).

68. Stilla (FR) has contributed to, or has threatened to contribute to, the infringement by its customers of the ’444 Patent by offering to sell the Naica System among other things, knowing the products constitute a material part of the inventions of the ’444 Patent, knowing the products to be especially made or adapted to infringe the ’444 Patent, and knowing the products are not staple articles or commodities of commerce suitable for substantial non-

infringing use. Stilla (FR) is liable for its contributory infringement of the ’444 Patent pursuant to 35 U.S.C. § 271(c).

69. Stilla (FR) has had knowledge of the ’444 Patent as of on or around October 28, 2014, when the ’444 Patent issued, on information and belief that Stilla (FR) monitors patent applications and publications in the microfluidics field. In addition, Stilla (FR) has had knowledge of and notice of the ’444 Patent and its infringement since at least, and through, the filing and service of the First Amended Complaint and despite this knowledge continues to commit the aforementioned infringing acts.

70. Stilla (FR)’s infringement of the ’444 Patent has injured Bio-Rad and Harvard University in their business and property rights. Bio-Rad and Harvard University are entitled to recover monetary damages for such injuries pursuant to 35 U.S.C. § 284 in an amount to be determined at trial.

71. Stilla (FR)’s infringement of the ’444 Patent has caused irreparable harm to Bio-Rad and Harvard University and will continue to cause such harm unless and until Stilla (FR)’s infringing activities are enjoined by this Court.

72. Stilla (US) has infringed and continues to infringe one or more claims of the ’444 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by using in the United States without authority, microfluidic DNA products, devices, systems, and/or components of systems that include the claimed method for droplet formation and detection, including, but not limited to, the Naica System among other things.

73. Stilla (US) actively, knowingly, and intentionally has induced, or has threatened to induce, infringement of the ’444 Patent by offering for sale the Naica System among other things with knowledge that its customers will use such products; and with the knowledge

and the specific intent to encourage and facilitate those infringing sales and uses of such products through the dissemination of promotional and marketing materials, instructional materials, product manuals, and technical materials, and appearances at trade shows and conferences. Stilla (US) is liable for its induced infringement of the '444 Patent pursuant to 35 U.S.C. § 271(b).

74. Stilla (US) has contributed to, or has threatened to contribute to, the infringement by its customers of the '444 Patent by offering to sell the Naica System among other things, knowing the products constitute a material part of the inventions of the '444 Patent, knowing the products to be especially made or adapted to infringe the '444 Patent, and knowing the products are not staple articles or commodities of commerce suitable for substantial non-infringing use. Stilla (US) is liable for its contributory infringement of the '444 Patent pursuant to 35 U.S.C. § 271(c).

75. Stilla (US)'s infringement of the '444 Patent has injured Bio-Rad and Harvard University in their business and property rights. Bio-Rad and Lawrence Livermore are entitled to recover monetary damages for such injuries pursuant to 35 U.S.C. § 284 in an amount to be determined at trial.

76. Stilla (US)'s infringement of the '444 Patent has caused irreparable harm to Bio-Rad and Harvard University and will continue to cause such harm unless and until Stilla (US)'s infringing activities are enjoined by this Court.

COUNT IV

(Infringement of U.S. Patent No. 9,127,310)

77. Plaintiff Bio-Rad re-alleges and incorporates by reference the allegations contained in paragraphs 1 through 76 above as relevant to this count.

78. On September 8, 2015, the United States Patent and Trademark Office duly

and legally issued U.S. Patent No. 9,127,310 B2 (the "'310 Patent"), entitled "Digital Analyte Analysis." A copy of the '310 Patent is attached to this First Amended Complaint as Exhibit 4.

79. Jonathan William Larson, Qun Zhong, and Darren R. Link, are the sole and true inventors of the '310 Patent. By operation of law and as a result of written assignment agreements, Bio-Rad Laboratories, Inc. ("Bio-Rad") obtained the entire right, title and interest to and in the '310 Patent.

80. On information and belief, Stilla (FR) has infringed and continues to infringe one or more claims of the '310 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by using in the United States without authority, microfluidic DNA products, devices, systems, and/or components of systems that include the claimed method for droplet formation and detection, including, but not limited to, the Naica System.

81. On information and belief, Stilla (FR) actively, knowingly, and intentionally has induced, or has threatened to induce, infringement of the '310 Patent by offering for sale the Naica System with knowledge that its customers will use such products; and with the knowledge and the specific intent to encourage and facilitate those infringing sales and uses of such products through the dissemination of promotional and marketing materials, instructional materials, product manuals, and technical materials, and appearances at trade shows and conferences. Stilla (FR) is liable for its induced infringement of the '310 Patent pursuant to 35 U.S.C. § 271(b).

82. On information and belief, Stilla (FR) has contributed to, or has threatened to contribute to, the infringement by its customers of the '310 Patent by offering to sell the Naica System, knowing the products constitute a material part of the inventions of the '310 Patent, knowing the products to be especially made or adapted to infringe the '310 Patent, and knowing

the products are not staple articles or commodities of commerce suitable for substantial non-infringing use. Stilla (FR) is liable for its contributory infringement of the ’310 Patent pursuant to 35 U.S.C. § 271(c).

83. Stilla (FR) has had knowledge of the ’310 Patent as of on or around September 8, 2015 when the ’310 Patent issued, on information and belief that Stilla (FR) monitors patent applications and publications in the microfluidics field. In addition, Stilla (FR) has had knowledge of and notice of the ’310 Patent and its infringement since at least, and through, the filing and service of the Complaint and despite this knowledge continues to commit the aforementioned infringing acts.

84. Stilla (FR)’s infringement of the ’310 Patent has injured Bio-Rad in its business and property rights. Bio-Rad is entitled to recover monetary damages for such injuries pursuant to 35 U.S.C. § 284 in an amount to be determined at trial.

85. Stilla (FR)’s infringement of the ’310 Patent has caused irreparable harm to Bio-Rad and will continue to cause such harm unless and until Stilla (FR)’s infringing activities are enjoined by this Court.

86. On information and belief, Stilla (US) has infringed and continues to infringe one or more claims of the ’310 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by using in the United States without authority, microfluidic DNA products, devices, systems, and/or components of systems that include the claimed method for droplet formation and detection, including, but not limited to, the Naica System.

87. On information and belief, Stilla (US) actively, knowingly, and intentionally has induced, or has threatened to induce, infringement of the ’310 Patent by offering for sale the Naica System with knowledge that its customers will use such products; and with the

knowledge and the specific intent to encourage and facilitate those infringing sales and uses of such products through the dissemination of promotional and marketing materials, instructional materials, product manuals, and technical materials, and appearances at trade shows and conferences. Stilla (US) is liable for its induced infringement of the ’310 Patent pursuant to 35 U.S.C. § 271(b).

88. On information and belief, Stilla (US) has contributed to, or has threatened to contribute to, the infringement by its customers of the ’310 Patent by offering to sell the Naica System, knowing the products constitute a material part of the inventions of the ’310 Patent, knowing the products to be especially made or adapted to infringe the ’310 Patent, and knowing the products are not staple articles or commodities of commerce suitable for substantial non-infringing use. Stilla (US) is liable for its contributory infringement of the ’310 Patent pursuant to 35 U.S.C. § 271(c).

89. Stilla (US) has had knowledge of the ’310 Patent as of on or around at least winter 2019 when Stilla (US) was incorporated on information and belief that Stilla (US) monitors patent applications and publications in the microfluidics field. In addition, Stilla (US) has had knowledge of and notice of the ’310 Patent and its infringement since at least, and through, the filing and service of the Complaint and despite this knowledge continues to commit the aforementioned infringing acts.

90. Stilla (US)’s infringement of the ’310 Patent has injured Bio-Rad in its business and property rights. Bio-Rad is entitled to recover monetary damages for such injuries pursuant to 35 U.S.C. § 284 in an amount to be determined at trial.

91. Stilla (US)’s infringement of the ’310 Patent has caused irreparable harm to Bio-Rad and will continue to cause such harm unless and until Stilla (US)’s infringing activities

are enjoined by this Court.

PRAYER FOR RELIEF

WHEREFORE, Bio-Rad and University of Chicago pray for relief with respect to the ’933 Patent as follows:

A. Judgment that Stilla (FR) has infringed one or more claims of the’933 Patent;

B. Judgment that Stilla (US) has infringed one or more claims of the ’933 Patent;

C. An order permanently enjoining Stilla (FR) from further infringement of the’933 Patent;

D. An order permanently enjoining Stilla (US) from further infringement of the ’933 Patents

E. An award of damages pursuant to 35 U.S.C. § 284;

F. An award to Bio-Rad and University of Chicago of their costs and reasonable expenses to the fullest extent permitted by law;

G. A declaration that this case is exceptional pursuant to 35 U.S.C. § 285, and an award of attorney’s fees and costs; and

H. An award of such other and further relief as the Court may deem just and proper.

WHEREFORE, Bio-Rad and Lawrence Livermore pray for relief with respect to the ’780 Patent as follows:

A. Judgment that Stilla (FR) has infringed one or more claims of the ’780 Patent;

B. Judgment that Stilla (US) has infringed one or more claims of the ’780 Patent;

C. An order permanently enjoining Stilla (FR) from further infringement of the ’780 Patent;

D. An order permanently enjoining Stilla (US) from further infringement of the ’780

Patent;

E. An award of damages pursuant to 35 U.S.C. § 284;

F. An award to Bio-Rad and Lawrence Livermore of their costs and reasonable expenses to the fullest extent permitted by law;

G. A declaration that this case is exceptional pursuant to 35 U.S.C. § 285, and an award of attorney's fees and costs; and

H. An award of such other and further relief as the Court may deem just and proper.

WHEREFORE, Bio-Rad and Harvard University pray for relief with respect to the '444 Patent as follows:

A. Judgment that Stilla (FR) has infringed one or more claims of the '444 Patent;

B. Judgment that Stilla (US) has infringed one or more claims of the '444 Patent;

C. An order permanently enjoining Stilla (FR) from further infringement of the '444 Patent;

D. An order permanently enjoining Stilla (US) from further infringement of the '444 Patent;

E. An award of damages pursuant to 35 U.S.C. § 284;

F. An award to Bio-Rad and Harvard University of their costs and reasonable expenses to the fullest extent permitted by law;

G. A declaration that this case is exceptional pursuant to 35 U.S.C. § 285, and an award of attorney's fees and costs; and

H. An award of such other and further relief as the Court may deem just and proper.

WHEREFORE, Bio-Rad prays for relief with respect to the '310 Patent as follows:

A. Judgment that Stilla (FR) has infringed one or more claims of the '310 Patent;

B. Judgment that Stilla (US) has infringed one or more claims of the ’310 Patent;

C. An order permanently enjoining Stilla (FR) from further infringement of the ’310 Patent;

D. An order permanently enjoining Stilla (US) from further infringement of the ’310 Patent;

E. An award of damages pursuant to 35 U.S.C. § 284;

F. An award to Bio-Rad of its costs and reasonable expenses to the fullest extent permitted by law;

G. A declaration that this case is exceptional pursuant to 35 U.S.C. § 285, and an award of attorney’s fees and costs; and

H. An award of such other and further relief as the Court may deem just and proper.

DEMAND FOR JURY TRIAL

Pursuant to Federal Rule of Civil Procedure 38(b), Bio-Rad, University of Chicago, Lawrence Livermore and Harvard University collectively hereby demand a trial by jury on all issues so triable.

Dated: October 10, 2019

Respectfully submitted,

WEIL, GOTSHAL & MANGES LLP

/s/ Patrick J. O'Toole, Jr.

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CERTIFICATE OF SERVICE

I, Patrick J. O'Toole, hereby certify that on the 11th day of October, 2019, I electronically filed the foregoing with the Clerk of the Court by using the CM/ECF system, which will send a notice of electronic filing to counsel of record receiving electronic notification and that I served the foregoing by mail upon any counsel of record not receiving electronic notification:

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