

5. On information and belief, Berkeley is incorporated under the laws of the State of Delaware, and has a place of business at 5858 Horton St #320, Emeryville, CA 94608.

JURISDICTION AND VENUE

6. This is an action for patent infringement arising under the patent laws of the United States of America, 35 U.S.C. § 1, et. seq., including 35 U.S.C. § 271. This Court has exclusive subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

7. This Court has personal jurisdiction over Berkeley based at least on Berkeley's incorporation in the State of Delaware.

8. Venue is proper in this Court under 28 U.S.C. § 1400(b) because Berkeley is incorporated in, and therefore resides in, the State of Delaware.

FACTUAL BACKGROUND

A. AbCellera's Technology

9. AbCellera is a biotechnology company with a pioneering and proprietary drug discovery platform that searches and analyzes natural immune systems to find antibodies that can be used to prevent and treat disease. AbCellera's technology, which combines high-throughput microfluidics, hyper-scale data science, machine learning, bioinformatics, and genomics, identifies new first-in-class drugs and significantly reduces the time it takes to bring treatments to the clinic.

10. Plaintiffs developed and patented the use of microfluidic devices for high-throughput single-cell secretion assays that can be applied to antibody discovery and cell clone selection. These include assays such as live-cell binding, specificity, cross-reactivity, affinity, receptor blocking and function. Plaintiffs have also developed and patented methods for isolating the sequences of an antibody that reacts with a disease related antigen and to identify an antigen that mediates a disease state. This groundbreaking technology allows for the screening

and analysis of millions of B cells on an individual, cell-by-cell, basis to identify antibodies with rare therapeutic properties. AbCellera recently demonstrated its market leading efforts by discovering the first antibody against COVID-19 that was the first antibody to enter human clinical trials anywhere in the world. AbCellera's technology enabled the discovery and first dose of a therapeutic antibody in less than ninety days.

B. The Patents-in-Suit

11. On October 23, 2018, the United States Patent and Trademark Office ("the USPTO") duly and legally issued U.S. Patent No. 10,107,812 ("the '812 patent"), titled "Methods for assaying cellular binding interactions." The inventors of the '812 patent are Anupam Singhal, Carl L. G. Hansen, John W. Schrader, Charles A. Haynes, and Daniel J. Da Costa. UBC is the assignee of the '812 patent. AbCellera is the exclusive licensee of the '812 patent with the right to sue for past and present infringement and to collect damages. A true and accurate copy of the '812 patent is attached hereto as Exhibit 1.

12. On April 30, 2019, the USPTO duly and legally issued U.S. Patent No. 10,274,494 ("the '494 patent"), titled "Methods for assaying cellular binding interactions." The inventors of the '494 patent are Anupam Singhal, Carl L. G. Hansen, John W. Schrader, Charles A. Haynes, and Daniel J. Da Costa. UBC is the assignee of the '494 patent. AbCellera is the exclusive licensee of the '494 patent with the right to sue for past and present infringement and to collect damages. A true and accurate copy of the '494 patent is attached hereto as Exhibit 2.

13. On November 5, 2019, the USPTO duly and legally issued U.S. Patent No. 10,466,241 ("the '241 patent"), titled "Methods for assaying cellular binding interactions." The inventors of the '241 patent are Anupam Singhal, Carl L. G. Hansen, John W. Schrader, Charles A. Haynes, and Daniel J. Da Costa. UBC is the assignee of the '241 patent. AbCellera is the

exclusive licensee of the '241 patent with the right to sue for past and present infringement and to collect damages. A true and accurate copy of the '241 patent is attached hereto as Exhibit 3.

14. On March 3, 2020, the USPTO duly and legally issued U.S. Patent No. 10,578,618 (“the '618 patent”), titled “Methods for assaying cellular binding interactions.” The inventors of the '618 patent are Anupam Singhal, Carl L. G. Hansen, John W. Schrader, Charles A. Haynes, and Daniel J. Da Costa. UBC is the assignee of the '618 patent. AbCellera is the exclusive licensee of the '618 patent with the right to sue for past and present infringement and to collect damages. A true and accurate copy of the '618 patent is attached hereto as Exhibit 4.

15. On June 30, 2020, the USPTO duly and legally issued U.S. Patent No. 10,697,962 (“the '962 patent”), titled “Methods for assaying cellular binding interactions.” The inventors of the '962 patent are Anupam Singhal, Carl L. G. Hansen, John W. Schrader, Charles A. Haynes, and Daniel J. Da Costa. UBC is the assignee of the '962 patent. AbCellera is the exclusive licensee of the '962 patent with the right to sue for past and present infringement and to collect damages. A true and accurate copy of the '962 patent is attached hereto as Exhibit 5.

16. On October 2, 2018, the USPTO duly and legally issued U.S. Patent No. 10,087,408 (“the '408 patent”), titled “System and method for microfluidic cell culture.” The inventors of the '408 patent are Carl L. G. Hansen, Veronique Lecault, James M. Piret, and Anupam Singhal. UBC is the assignee of the '408 patent. AbCellera is the exclusive licensee of the '408 patent with the right to sue for past and present infringement and to collect damages. A true and accurate copy of the '408 patent is attached hereto as Exhibit 6.

17. On September 24, 2019, the USPTO duly and legally issued U.S. Patent No. 10,421,936 (“the '936 patent”), titled “System and method for microfluidic cell culture.” The inventors of the '936 patent are Carl L. G. Hansen, Veronique Lecault, James M. Piret, and

Anupam Singhal. UBC is the assignee of the '936 patent. AbCellera is the exclusive licensee of the '936 patent with the right to sue for past and present infringement and to collect damages. A true and accurate copy of the '936 patent is attached hereto as Exhibit 7.

18. On July 7, 2020, the USPTO duly and legally issued U.S. Patent No. 10,704,018 (“the '018 patent”), titled “System and method for microfluidic cell culture.” The inventors of the '018 patent are Carl L. G. Hansen, Veronique Lecault, James M. Piret, and Anupam Singhal. UBC is the assignee of the '018 patent. AbCellera is the exclusive licensee of the '018 patent with the right to sue for past and present infringement and to collect damages. A true and accurate copy of the '018 patent is attached hereto as Exhibit 8.

19. The '812 patent, the '494 patent, the '241 patent, the '618 patent, the '962 patent, the '408 patent, the '936 patent, and the '018 patent are collectively referred to as the “Patents-in-Suit.”

C. Berkeley's Accused Products and Services

20. On information and belief, Berkeley sells and manufactures products, and provides services, related to the “[d]iscovery of cellular therapies, biopharmaceuticals, and other cell-based products.” (<https://www.berkeleylights.com/>, a true and correct copy is attached as Exhibit 9.) On its website, Berkeley states that its technology allows for individual cells to be:

isolated, cultured, assayed and exported. Each cell or clone is imaged and monitored in real-time in a NanoPen™ chamber on our OptoSelect™ chips to provide rich visual data early and often. Our full platform and software suite deliver cell processing and deep profiling with more information about cell function than any other technology.

(<https://www.berkeleylights.com/technology/>, a true and correct copy is attached as Exhibit 10.)

21. On information and belief, Berkeley sells the Beacon® Optofluidic System along with associated technology and provides services utilizing the Beacon® Optofluidic System

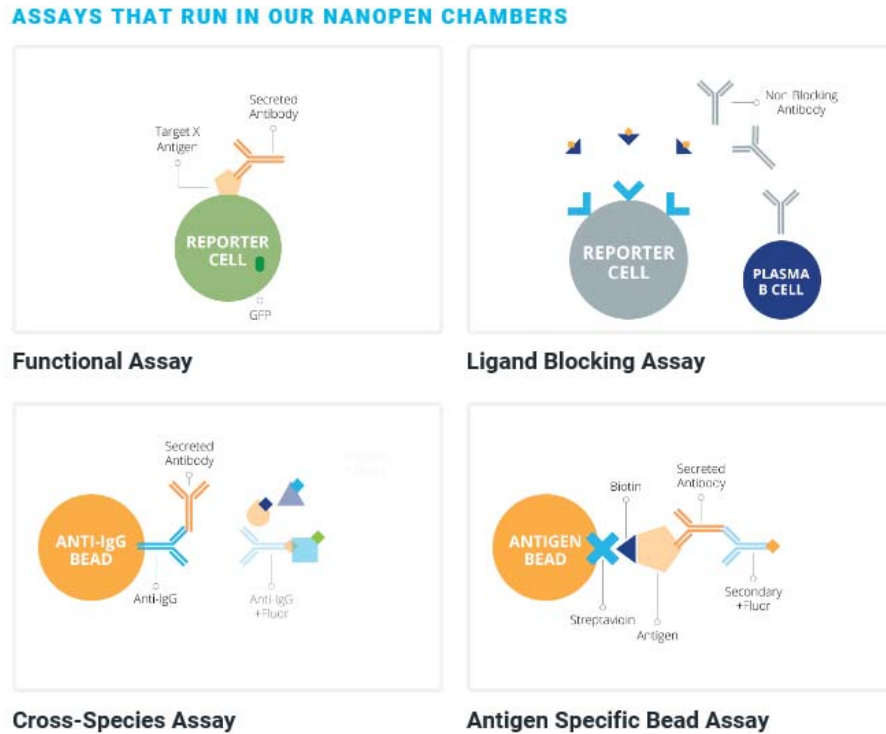
(collectively “the Beacon®”). The Beacon® is an automated system that can be used for antibody discovery, cell line development, synthetic biology, and cell therapy development workflows. (<https://www.berkeleylights.com/systems/beacon/>, a true and correct copy is attached as Exhibit 11.) On information and belief, the image below illustrates the Beacon®.



22. On information and belief, Berkeley sells the Beacon® for use in its antibody discovery workflow, “The Opto Plasma B Discovery Workflow.” (<https://www.berkeleylights.com/workflows/antibody-discovery/>, a true and correct copy is attached as Exhibit 12.)

23. Berkeley states that using its workflow, “Plasma B cells are screened using binding and functional assays to select only the most qualified antibody lead candidates.” (*Id.*)

24. Berkeley states that “Opto Plasma B Discovery Workflow enables down-selection of lead candidates through multiple assays for antigen specificity and function.” (*Id.*) The assays are illustrated in the image below:

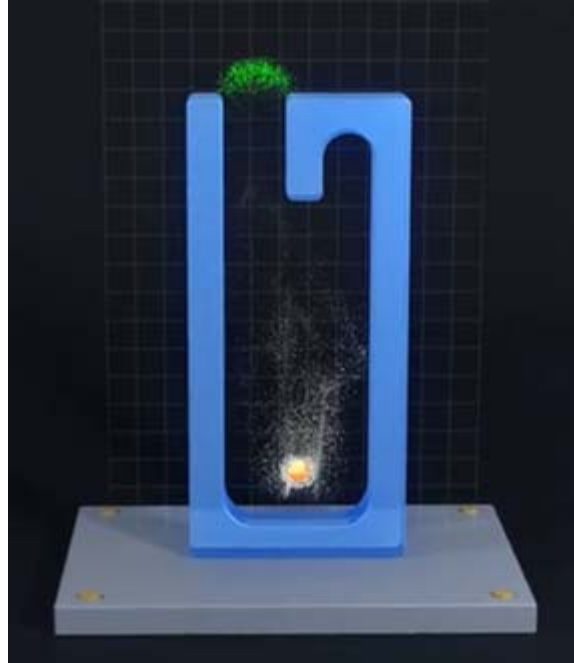


(*Id.*)

25. On information and belief, the assays are run in NanoPen™ chambers that have a volume of 250 picoliters. Berkeley states the size of the NanoPen™ chambers “means a single cell can be isolated and assayed in its own discrete chamber.”

(<https://www.berkeleylights.com/systems/beacon/>, a true and correct copy is attached as Exhibit 11.)

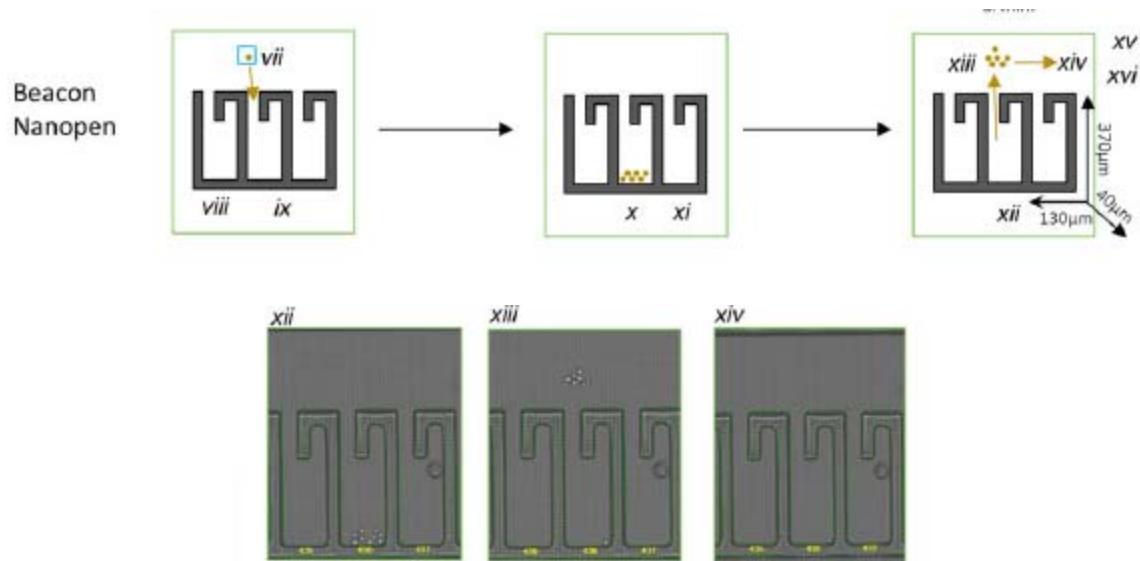
26. Berkeley includes the following visual representation of a NanoPen™ chamber on its website:



27. On information and belief, the NanoPen™ chambers are contained on Berkeley's OptoSelect chips. Berkeley states that "each OptoSelect chip contains thousands of NanoPen chambers." Berkeley states that the NanoPen chambers are "where cells are deposited, where they grow and where they are characterized using a myriad of proprietary Berkeley Lights assay." (*Id.*)

28. On information and belief, Berkeley sells several types of OptoSelect chips, including the OptoSelect 1750 Chip, OptoSelect 3500 Chip, and OptoSelect 11k Chip. (*Id.*). On information and belief, Berkeley also sells reagents and software for use with the Beacon®. (*Id.*).

29. On information and belief, "each nanofluidic chip contains 1758 NanoPen chambers arrayed along four continuous channels. The NanoPens have a narrow opening to the channel for nutrients and cellular waste diffusion." (Exhibit 13 --Amgen White Paper) Representative images of the NanoPens on the nanofluidic chips are presented below:



(*Id.*)

30. On information and belief, the Beacon® provides for “bead and diffusion-based fluorescent assays can be adapted for scoring secreted antibody on chip. Thus, relative protein productivity can be established on the instrument and only clones with acceptable productivity can be selected for export to microtiter plates and scaled-up for further studies. Captured data can then combined to document cell growth measurements, proof of clonal origin, single-cell secretion, and overall population compositions.” (Exhibit 14 – 2019 Biotech. Paper)

31. On information and belief, antibody-secreting cells (“ASCs”) can be microfluidically imported into the chip and sequestered into individual NanoPens for screening via gravity. On information and belief, ASCs that secrete antigen-specific IgG can be detected using a bead-based, two-color fluorescent binding assay that produces a characteristic fluorescent bloom. On information and belief, individual cells of interest can then either be lysed in the NanoPens with nucleic acids being captured for further analysis and sequencing or can be removed from the NanoPens and exported from the chip directly into 96-well plates containing

cell lysis buffer. (Exhibit 15- 2019 Winters et al.) On information and belief, the below is a schematic of the Beacon workflow for antibody-discovery:

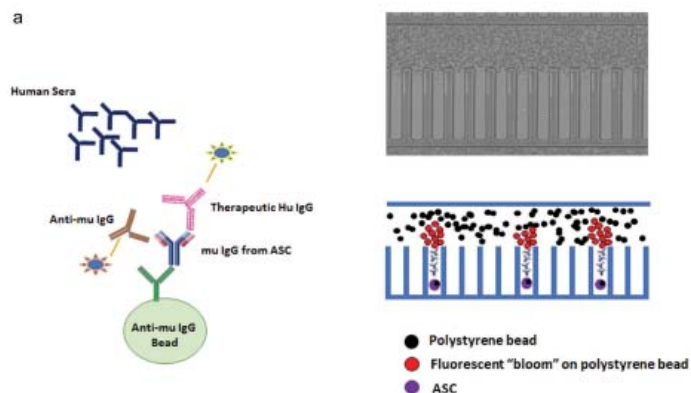


Figure 2. NanOblast on-chip screening. (a). Cartoon schematic and representative brightfield image of the channel and nanopen space depicting the homogenous bead-based assay design for detection of IgG secretion and antigen specificity in the channel of the OS3500 chip. 3.2-micron polystyrene beads precoated with goat anti-murine IgG, Fc-specific polyclonal antibodies were mixed with AF 568-labelled, goat, anti-murine IgG H+L-specific, polyclonal antibodies; biotin-labelled therapeutic human IgG; streptavidin AF 647; and 10% human serum were imported into the channel space of the chip via onboard fluidics. (b). 45-min (final in the assay series) images of all 21 FOV stitched together depicting the blooms generated for the IgG secretion AF 568 signal as captured in the TRED filter cube of the Beacon. Magnification view of 60 individual nanopen on the chip demonstrating fluorescent bloom formation at the mouth of the nanopen. Time course of bloom formation for nanopen 928 (clone 1A3) demonstrating the change in intensity and size over the duration of the screen. (c). 45-min (final in the assay series) images of all 21 FOV stitched together depicting the blooms generated for the antigen-specific secretion AF 647 signal as captured in the Cy5 filter cube of the Beacon. Magnification view of 60 individual nanopen on the chip demonstrating fluorescent "bloom" formation at the mouth of the nanopen. Time course of bloom formation for nanopen 928 (clone 1A3) demonstrating the change in intensity and size over the duration of the screen. (d). 45-min timepoint images for antigen specificity and IgG secretion of the 13 nanopen from recovered mouse IgGs after constraining the panel to only single exported ASCs.

(Id.)

32. On information and belief, Berkeley also sells the Culture Station™ System for use with the Beacon®. Berkeley states that:

The Culture Station lets you transfer up to 4 OptoSelect™ chips to a culture module with independent media, fluidics and software, and can be seamlessly integrated into Beacon [] workflows. Run media optimization or free up your Beacon [] system to run other experiments during culture stages of an experiment. Once culture has completed, the OptoSelect chips can be moved back to the Beacon [] instruments for further analysis. This creates a seamless interface between systems and increases throughput when cell culture becomes a constraint. Parallel processing of culture while simultaneously running assays on Beacon [] reduces the product development cycle time and lowers cost, maximizing benefits to the system user. Expand your Culture Station to include capacity for up to 8 chips by linking 2 instruments together on the same computer.

(<https://www.berkeleylights.com/systems/culture-station/>, a true and correct copy is attached as Exhibit 16.)

33. On information and belief, Berkeley provides instruction and support to customers on how to use the Beacon®, and related reagents, software, and Culture Station™ System. (<https://techsupport.berkeleylights.com/>, a true and correct copy is attached as Exhibit 17.)

34. On information and belief, Berkeley advertises and promotes the use of the Beacon® in conjunction with the reagents, software, and Culture Station™ System it also sells. (*Id.*)

35. On information and belief, in addition to selling the Beacon® that embodies the technology claimed in the Patents-in-Suit, and related reagents, software, and culture systems directly to consumers, Berkeley also provides services to customers and partners using the Beacon®.

36. Berkeley makes, uses, offers for sale, sells, and/or imports the Beacon® into the United States. (*See e.g.*, <https://www.berkeleylights.com/systems/beacon/>, a true and correct copy is attached as Exhibit 11).

37. Berkeley's activities outlined above, and identified further below, directly and indirectly infringe the Patents-in-Suit.

D. Correspondence Between AbCellera and Berkeley

38. On October 3, 2019, AbCellera wrote to Berkeley putting it on notice of AbCellera's patent estate concerning microfluidic single cell workflows for antibody discovery and clone selection, including the '812 patent, the '494 patent, the '408 patent, and the '936 patent.

39. On December 30, 2019, Berkeley responded to AbCellera's October 3 letter, but did not dispute that AbCellera's patent estate covered Berkeley's activities or the use of the Beacon®.

40. On January 28, 2020, AbCellera wrote to Berkeley, reiterating the scope of AbCellera's patent estate and pointing out that Berkeley employee Dr. Singhal had publicly discussed the attributes of Berkeley's microfluidic devices, and did not dispute that AbCellera's patent estate covered Berkeley's activities or the use of the Beacon®. AbCellera pointed out that Dr. Singhal is intimately familiar with AbCellera and AbCellera's patent estate as a named inventor on the Patents-in-Suit and former graduate student of AbCellera's CEO, Dr. Carl Hansen. Dr. Singhal has assigned all of his rights in the Patents-in-Suit which are exclusively licensed to AbCellera. Given his prior role in the development of AbCellera's inventions and his roles in developing the Beacon® and as the Product Manager for the Beacon®, his knowledge is attributable to Berkeley. AbCellera further invited Berkeley to discuss the content of its letters.

41. On February 25, 2020, Berkeley responded to AbCellera's January 28 letter stating that it did not see any freedom to operate issues, but failed to provide any substantiating details.

42. On April 28, 2020, AbCellera again put Berkeley on notice of AbCellera's patent estate concerning microfluidic single cell workflows for antibody discovery and clone selection, including the '812 patent, the '494 patent, the '241 patent, the '618 patent, the '408 patent, and the '936 patent. AbCellera also explained that Berkeley's marketed single-cell workflows are covered by AbCellera's patent estate. AbCellera again invited Berkeley to discuss the content of its letters.

43. Berkeley never responded to AbCellera's April 28 letter.

COUNT I
INFRINGEMENT OF THE '812 PATENT

44. The allegations in the preceding paragraphs are incorporated by reference as if fully set forth herein.

45. Berkeley has directly infringed, and continues to directly infringe, at least claim 1 of the '812 patent by making, using, offering for sale, selling, and/or importing the Beacon® into the United States.

46. The use of the Beacon® meets every limitation of at least claim 1 and Berkeley directly infringes at least claim 1 when using the Beacon® in violation of 35 U.S.C. § 271(a).

47. Claim 1 of the '812 patent recites:

1. A method of assaying for a binding interaction between a protein secreted by a cell and a biomolecule, the method comprising:
 - (a) retaining the cell secreting the protein within a chamber having an inlet, an outlet, and a solid wall defining the chamber, wherein the volume of the chamber is from 100 pL to 100 nL;
 - (b) exposing the protein secreted by the cell to a capture substrate, wherein the capture substrate is in fluid communication with the protein secreted by the cell and wherein the capture substrate is operable to bind the protein secreted by the cell to produce a bound protein;
 - (c) flowing a first fluid volume comprising the biomolecule through the inlet into the chamber and out the outlet, wherein the first fluid volume is in fluid communication with the capture substrate and the bound protein; and
 - (d) measuring a binding interaction between the protein secreted by the cell and the biomolecule.

48. On information and belief, the use of Berkeley's Beacon® includes assaying for a binding interaction between a protein secreted by a cell and a biomolecule. (*See e.g.*, ¶¶ 19-36.)

49. On information and belief, the use of Berkeley's Beacon® includes retaining the cell secreting the protein within a chamber having an inlet, an outlet, and a solid wall defining the chamber, wherein the volume of the chamber is from 100 pL to 100 nL, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

50. On information and belief, the use of Berkeley's Beacon® includes exposing the protein secreted by the cell to a capture substrate, wherein the capture substrate is in fluid communication with the protein secreted by the cell and wherein the capture substrate is operable to bind the protein secreted by the cell to produce a bound protein, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

51. On information and belief, the use of Berkeley's Beacon® includes flowing a first fluid volume comprising the biomolecule through the inlet into the chamber and out the outlet, wherein the first fluid volume is in fluid communication with the capture substrate and the bound protein, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

52. On information and belief, the use of Berkeley's Beacon® includes measuring a binding interaction between the protein secreted by the cell and the biomolecule. (*See e.g.*, ¶¶ 19-36.)

53. Berkeley also has indirectly infringed and continues to indirectly infringe the claims of the '812 patent by inducing infringement pursuant to 35 U.S.C. § 271(b) and/or contributing to infringement pursuant to 35 U.S.C. § 271(c).

54. On information and belief, in violation of 35 U.S.C. § 271(b), Berkeley specifically intended to induce infringement of the '812 patent by its customers and users of the Beacon® and had knowledge that its acts would cause infringement or was willfully blind to the possibility that their inducing acts would cause infringement.

55. Berkeley knew of the '812 patent at least as of its date of its issuance by virtue of inventor Singhal. Further, Berkeley knew of the '812 patent since at least as early as October 3, 2019, when it was identified by AbCellera to Berkeley and no later than this Complaint. On information and belief, Berkeley's customers directly infringe the '812 patent.

56. On information and belief, Berkeley specifically intends for customers to infringe the '812 patent. Berkeley encourages infringement by customers at least by offering to sell and selling the Beacon® and providing instructions to users on how to use the Beacon®, which directly infringes the '812 patent.

57. On information and belief, despite Berkeley's knowledge of the '812 patent and knowledge that customers will necessarily infringe the '812 patent when the Beacon® is used as instructed, Berkeley continues to encourage infringement.

58. Berkeley also contributes to infringement of the '812 patent by Berkeley's customers in violation of 35 U.S.C. § 271(c). On information and belief, Berkeley offers to sell and sells the Beacon® within the United States knowing that it constitutes a material part of the claimed inventions, knowing that the Beacon® is especially made or especially adapted for use in infringing the '812 patent, and knowing that the Beacon® is not a staple article or commodity of commerce suitable for substantial non-infringing use.

59. Berkeley has committed and continues to commit all the above acts of infringement without license or authorization.

60. Plaintiffs have complied with the requirements of 35 U.S.C. § 287 by, among other things, giving actual notice to Berkeley by, *inter alia*, AbCellera's letters and this Complaint.

61. Berkeley has had knowledge of the '812 patent and the application from which it issued, including the published application with substantially identical claims.

62. As a result of Berkeley's infringement of the '812 patent, Plaintiffs have suffered damages and will continue to suffer damages.

63. On information and belief, the infringement of the '812 Patent by Berkeley has been and continues to be willful. Berkeley has had knowledge that the Beacon® is covered by the '812 patent. On information and belief, Berkeley, with assistance from inventor Singhal, copied the '812 patent despite knowing that the Beacon® is covered by the '812 patent. Berkeley has thus sold the Beacon® knowing of the risk of infringement and/or in view of a risk of infringement that was sufficiently obvious that it should have been known to Berkeley. Despite this risk, Berkeley has deliberately continued to infringe in a wanton, malicious, and egregious manner, with reckless disregard for Plaintiffs' patent rights. Thus, Berkeley's infringing actions have been and continue to be consciously wrongful, entitling Plaintiffs to increased damages under 35 U.S.C. § 284.

64. Under 35 U.S.C. § 283, Plaintiffs are entitled to a permanent injunction against further infringement. Berkeley's wrongful conduct has caused and will continue to cause Plaintiffs to suffer irreparable harm resulting from the loss of its lawful patent right to exclude others from making, using selling, offering to sell, and/or importing Plaintiffs' patented inventions. On information and belief, Berkeley will continue to infringe the '812 patent unless permanently enjoined by the Court.

COUNT II
INFRINGEMENT OF THE '494 PATENT

65. The allegations in the preceding paragraphs are incorporated by reference as if fully set forth herein.

66. Berkeley has directly infringed, and continues to directly infringe, at least claim 1 of the '494 patent by making, using, offering for sale, selling, and/or importing the Beacon® into the United States.

67. The use of the Beacon® meets every limitation of at least claim 1 and Berkeley directly infringes at least claim 1 when using the Beacon® in violation of 35 U.S.C. § 271(a).

68. Claim 1 of the '494 patent recites:

1. A method of assaying for a binding interaction between an antibody produced by a single antibody producing cell (APC) and a biomolecule, the method comprising:
 - (a) retaining the single APC within a chamber having a volume of from 100 pL to 100 nL, a solid wall, and an aperture that defines an opening of the chamber;
 - (b) exposing the antibody produced by the APC to a capture substrate, wherein the capture substrate is in fluid communication with the antibody produced by the APC and wherein the capture substrate is operable to bind the antibody produced by the APC to produce a bound antibody;
 - (c) flowing a first fluid volume comprising the biomolecule into the chamber via the aperture, wherein the first fluid volume is in fluid communication with the capture substrate and the bound antibody; and
 - (d) measuring a binding interaction between the antibody produced by the APC and the biomolecule.

69. On information and belief, the use of Berkeley's Beacon® includes assaying for a binding interaction between an antibody produced by a single antibody producing cell (APC) and a biomolecule. (*See e.g.*, ¶¶ 19-36.)

70. On information and belief, the use of Berkeley's Beacon® includes retaining the single APC within a chamber having a volume of from 100 pL to 100 nL, a solid wall, and an aperture that defines an opening of the chamber, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

71. On information and belief, the use of Berkeley's Beacon® includes exposing the antibody produced by the APC to a capture substrate, wherein the capture substrate is in fluid communication with the antibody produced by the APC and wherein the capture substrate is operable to bind the antibody produced by the APC to produce a bound antibody, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

72. On information and belief, the use of Berkeley's Beacon® includes flowing a first fluid volume comprising the biomolecule into the chamber via the aperture, wherein the first fluid volume is in fluid communication with the capture substrate and the bound antibody, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

73. On information and belief, the use of Berkeley's Beacon® includes measuring a binding interaction between the antibody produced by the APC and the biomolecule, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

74. Berkeley also has indirectly infringed and continues to indirectly infringe the claims of the '494 patent by inducing infringement pursuant to 35 U.S.C. § 271(b) and/or contributing to infringement pursuant to 35 U.S.C. § 271(c).

75. On information and belief, in violation of 35 U.S.C. § 271(b), Berkeley specifically intended to induce infringement of the '494 patent by its customers and users of the Beacon® and had knowledge that its acts would cause infringement or was willfully blind to the possibility that its acts would cause infringement.

76. Berkeley knew of the '494 patent at least as of its date of its issuance by virtue of inventor Singhal. Berkeley also knew of the '494 patent since at least as early as October 3, 2019, when it was identified by AbCellera to Berkeley and no later than this Complaint. On information and belief, Berkeley's customers directly infringe the '494 patent.

77. On information and belief, Berkeley specifically intends for its customers to infringe the '494 patent. Berkeley encourages infringement by its customers at least by offering to sell and selling the Beacon® and providing instructions to users on how to use the Beacon®, which directly infringes the '494 patent.

78. On information and belief, despite Berkeley's knowledge of the '494 patent and knowledge that its customers will necessarily infringe the '494 patent when the Beacon® is used as instructed, Berkeley continues to encourage infringement.

79. Berkeley also contributes to infringement of the '494 patent by its customers in violation of 35 U.S.C. § 271(c). On information and belief, Berkeley offers to sell and sells the Beacon® within the United States knowing that it constitutes a material part of the claimed inventions, knowing that the Beacon® is especially made or especially adapted for use in infringing the '494 patent, and knowing that the Beacon® is not a staple article or commodity of commerce suitable for substantial non-infringing use.

80. Berkeley has committed and continues to commit all the above acts of infringement without license or authorization.

81. Plaintiffs have complied with the requirements of 35 U.S.C. § 287 by, among other things, giving actual notice to Berkeley by, *inter alia*, AbCellera's letters and this Complaint.

82. Berkeley has had knowledge of the '494 patent and the application from which it issued, including the published application with substantially identical claims.

83. As a result of Berkeley's infringement of the '494 patent, Plaintiffs have suffered damages and will continue to suffer damages.

84. On information and belief, the infringement of the '494 Patent by Berkeley has been and continues to be willful. Berkeley has had knowledge that the Beacon® is covered by the '494 patent. On information and belief, Berkeley, with assistance from inventor Singhal, copied the '494 patent despite knowing that the Beacon® is covered by the '494 patent. Berkeley has thus sold the Beacon® knowing of the risk of infringement and/or in view of a risk

of infringement that was sufficiently obvious that it should have been known to Berkeley. Despite this risk, Berkeley has deliberately continued to infringe in a wanton, malicious, and egregious manner, with reckless disregard for Plaintiffs' patent rights. Thus, Berkeley's infringing actions have been and continue to be consciously wrongful, entitling Plaintiffs to increased damages under 35 U.S.C. § 284.

85. Under 35 U.S.C. § 283, Plaintiffs are entitled to a permanent injunction against further infringement. Berkeley's wrongful conduct has caused and will continue to cause Plaintiffs to suffer irreparable harm resulting from the loss of its lawful patent right to exclude others from making, using selling, offering to sell, and/or importing Plaintiffs' patented inventions. On information and belief, Berkeley will continue to infringe the '494 patent unless permanently enjoined by the Court.

COUNT III
INFRINGEMENT OF THE '241 PATENT

86. The allegations in the preceding paragraphs are incorporated by reference as if fully set forth herein.

87. Berkeley has directly infringed, and continues to directly infringe, at least claim 1 of the '241 patent by making, using, offering for sale, selling, and/or importing the Beacon® into the United States.

88. The use of the Beacon® meets every limitation of at least claim 1 and Berkeley directly infringes at least claim 1 when using the Beacon® in violation of 35 U.S.C. § 271(a).

89. Claim 1 of the '241 patent recites:

1. A method of assaying for a binding interaction between an antibody produced by a single antibody producing cell (APC) and a biomolecule, the method comprising:
retaining the single APC within a chamber having a volume of from 100 pL to 100 nL, a solid wall, and an aperture that defines an opening of the chamber;

exposing the antibody produced by the APC to a capture substrate, wherein the capture substrate is in fluid communication with the antibody produced by the APC and wherein the capture substrate is operable to bind the antibody produced by the APC to produce a bound antibody;

bringing a fluid volume comprising the biomolecule in fluid communication with the capture substrate and the bound antibody; and

measuring a binding interaction between the antibody produced by the APC and the biomolecule.

90. On information and belief, the use of Berkeley's Beacon® includes assaying for a binding interaction between an antibody produced by a single antibody producing cell (APC) and a biomolecule. (*See e.g.*, ¶¶ 19-36.)

91. On information and belief, the use of Berkeley's Beacon® includes retaining the single APC within a chamber having a volume of from 100 pL to 100 nL, a solid wall, and an aperture that defines an opening of the chamber, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

92. On information and belief, the use of Berkeley's Beacon® includes exposing the antibody produced by the APC to a capture substrate, wherein the capture substrate is in fluid communication with the antibody produced by the APC and wherein the capture substrate is operable to bind the antibody produced by the APC to produce a bound antibody, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

93. On information and belief, the use of Berkeley's Beacon® includes bringing a fluid volume comprising the biomolecule in fluid communication with the capture substrate and the bound antibody, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

94. On information and belief, the use of Berkeley's Beacon® includes measuring a binding interaction between the antibody produced by the APC and the biomolecule, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

95. Berkeley also has indirectly infringed and continues to indirectly infringe the claims of the '241 patent by inducing infringement pursuant to 35 U.S.C. § 271(b) and/or contributing to infringement pursuant to 35 U.S.C. § 271(c).

96. On information and belief, in violation of 35 U.S.C. § 271(b), Berkeley specifically intended to induce infringement of the '241 patent by its customers and users of the Beacon® and had knowledge that its acts would cause infringement or was willfully blind to the possibility that its acts would cause infringement.

97. Berkeley knew of the '241 patent at least as of its date of its issuance by virtue of inventor Singhal. Berkeley also knew of the '241 patent since at least as early as October 3, 2019, when it was identified by AbCellera to Berkeley and no later than this Complaint. On information and belief, Berkeley's customers directly infringe the '241 patent.

98. On information and belief, Berkeley specifically intends for its customers to infringe the '241 patent. Berkeley encourages infringement by its customers at least by offering to sell and selling the Beacon® and providing instructions to users on how to use the Beacon®, which directly infringes the '241 patent.

99. On information and belief, despite Berkeley's knowledge of the '241 patent and knowledge that its customers will necessarily infringe the '241 patent when the Beacon® is used as instructed, Berkeley continues to encourage infringement.

100. Berkeley also contributes to infringement of the '241 patent by its customers in violation of 35 U.S.C. § 271(c). On information and belief, Berkeley offers to sell and sells the Beacon® within the United States knowing that it constitutes a material part of the claimed inventions, knowing that the Beacon® is especially made or especially adapted for use in

infringing the '241 patent, and knowing that the Beacon® is not a staple article or commodity of commerce suitable for substantial non-infringing use.

101. Berkeley has committed and continues to commit all the above acts of infringement without license or authorization.

102. Plaintiffs have complied with the requirements of 35 U.S.C. § 287 by, among other things, giving actual notice to Berkeley by, *inter alia*, AbCellera's letters and this Complaint.

103. Berkeley has had knowledge of the '241 patent and the application from which it issued, including the published application with substantially identical claims.

104. As a result of Berkeley's infringement of the '241 patent, Plaintiffs have suffered damages and will continue to suffer damages.

105. On information and belief, the infringement of the '241 Patent by Berkeley has been and continues to be willful. Berkeley has had knowledge that the Beacon® is covered by the '241 patent. On information and belief, Berkeley, with assistance from inventor Singhal, copied the '241 patent despite knowing that the Beacon® is covered by the '241 patent. Berkeley has thus sold the Beacon® knowing of the risk of infringement and/or in view of a risk of infringement that was sufficiently obvious that it should have been known to Berkeley. Despite this risk, Berkeley has deliberately continued to infringe in a wanton, malicious, and egregious manner, with reckless disregard for Plaintiffs' patent rights. Thus, Berkeley's infringing actions have been and continue to be consciously wrongful, entitling Plaintiffs to increased damages under 35 U.S.C. § 284.

106. Under 35 U.S.C. § 283, Plaintiffs are entitled to a permanent injunction against further infringement. Berkeley's wrongful conduct has caused and will continue to cause

Plaintiffs to suffer irreparable harm resulting from the loss of its lawful patent right to exclude others from making, using selling, offering to sell, and/or importing Plaintiffs' patented inventions. On information and belief, Berkeley will continue to infringe the '241 patent unless permanently enjoined by the Court.

COUNT IV
INFRINGEMENT OF THE '618 PATENT

107. The allegations in the preceding paragraphs are incorporated by reference as if fully set forth herein.

108. Berkeley has directly infringed, and continues to directly infringe, at least claim 1 of the '618 patent by making, using, offering for sale, selling, and/or importing the Beacon® into the United States.

109. The use of the Beacon® meets every limitation of at least claim 1 and Berkeley directly infringes at least claim 1 when using the Beacon® in violation of 35 U.S.C. § 271(a).

110. Claim 1 of the '618 patent recites:

1. A method of assaying for a binding interaction between an antibody secreted by a single antibody secreting cell (ASC) and an antigen, the method comprising:
 - retaining the single ASC within a chamber having a volume of from 100 pL to 100 nL, a solid wall, and an aperture that defines an opening of the chamber;
 - incubating the single ASC within the chamber to produce a secreted antibody;
 - bringing a first fluid volume comprising the antigen in fluid communication with the secreted antibody;
 - exposing the secreted antibody to a removeable capture substrate, wherein the removeable capture substrate is in fluid communication with the secreted antibody and wherein the removeable capture substrate is operable to bind the secreted antibody;
 - incubating the secreted antibody with the removeable capture substrate to produce a bound antibody; and
 - measuring a binding interaction between the secreted antibody and the antigen.

111. On information and belief, the use of Berkeley's Beacon® includes assaying for a binding interaction between an antibody secreted by a single antibody secreting cell (ASC) and an antigen. (*See e.g.*, ¶¶ 19-36.)

112. On information and belief, the use of Berkeley's Beacon® includes retaining the single ASC within a chamber having a volume of from 100 pL to 100 nL, a solid wall, and an aperture that defines an opening of the chamber, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

113. On information and belief, the use of Berkeley's Beacon® includes incubating the single ASC within the chamber to produce a secreted antibody, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

114. On information and belief, the use of Berkeley's Beacon® includes bringing a first fluid volume comprising the antigen in fluid communication with the secreted antibody, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

115. On information and belief, the use of Berkeley's Beacon® includes exposing the secreted antibody to a removeable capture substrate, wherein the removeable capture substrate is in fluid communication with the secreted antibody and wherein the removeable capture substrate is operable to bind the secreted antibody, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

116. On information and belief, the use of Berkeley's Beacon® includes incubating the secreted antibody with the removeable capture substrate to produce a bound antibody, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

117. On information and belief, the use of Berkeley's Beacon® includes measuring a binding interaction between the secreted antibody and the antigen, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

118. Berkeley also has indirectly infringed and continues to indirectly infringe the claims of the '618 patent by inducing infringement pursuant to 35 U.S.C. § 271(b) and/or contributing to infringement pursuant to 35 U.S.C. § 271(c).

119. On information and belief, in violation of 35 U.S.C. § 271(b), Berkeley specifically intended to induce infringement of the '618 patent by its customers and users of the Beacon® and had knowledge that its acts would cause infringement or was willfully blind to the possibility that its acts would cause infringement.

120. Berkeley knew of the '618 patent at least as of its date of its issuance by virtue of inventor Singhal. Berkeley also knew of the '618 patent since at least as early as April 28, 2020, when it was identified by AbCellera to Berkeley and no later than this Complaint. On information and belief, Berkeley's customers directly infringe the '618 patent.

121. On information and belief, Berkeley specifically intends for its customers to infringe the '618 patent. Berkeley encourages infringement by its customers at least by offering to sell and selling the Beacon® and providing instructions to users on how to use the Beacon®, which directly infringes the '618 patent.

122. On information and belief, despite Berkeley's knowledge of the '618 patent and knowledge that its customers will necessarily infringe the '618 patent when the Beacon® is used as instructed, Berkeley continues to encourage infringement.

123. Berkeley also contributes to infringement of the '618 patent by its customers in violation of 35 U.S.C. § 271(c). On information and belief, Berkeley offers to sell and sells the Beacon® within the United States knowing that it constitutes a material part of the claimed inventions, knowing that the Beacon® is especially made or especially adapted for use in

infringing the '618 patent, and knowing that the Beacon® is not a staple article or commodity of commerce suitable for substantial non-infringing use.

124. Berkeley has committed and continues to commit all the above acts of infringement without license or authorization.

125. Plaintiffs have complied with the requirements of 35 U.S.C. § 287 by, among other things, giving actual notice to Berkeley by, *inter alia*, AbCellera's letters and this Complaint.

126. Berkeley has had knowledge of the '618 patent and the application from which it issued, including the published application with substantially identical claims.

127. As a result of Berkeley's infringement of the '618 patent, Plaintiffs have suffered damages and will continue to suffer damages.

128. On information and belief, the infringement of the '618 Patent by Berkeley has been and continues to be willful. Berkeley has had knowledge that the Beacon® is covered by the '618 patent. On information and belief, Berkeley, with assistance from inventor Singhal, copied the '618 patent despite knowing that the Beacon® is covered by the '618 patent. Berkeley has thus sold the Beacon® knowing of the risk of infringement and/or in view of a risk of infringement that was sufficiently obvious that it should have been known to Berkeley. Despite this risk, Berkeley has deliberately continued to infringe in a wanton, malicious, and egregious manner, with reckless disregard for Plaintiffs' patent rights. Thus, Berkeley's infringing actions have been and continue to be consciously wrongful, entitling Plaintiffs to increased damages under 35 U.S.C. § 284.

129. Under 35 U.S.C. § 283, Plaintiffs are entitled to a permanent injunction against further infringement. Berkeley's wrongful conduct has caused and will continue to cause

Plaintiffs to suffer irreparable harm resulting from the loss of its lawful patent right to exclude others from making, using selling, offering to sell, and/or importing Plaintiffs' patented inventions. On information and belief, Berkeley will continue to infringe the '618 patent unless permanently enjoined by the Court.

COUNT V
INFRINGEMENT OF THE '962 PATENT

130. The allegations in the preceding paragraphs are incorporated by reference as if fully set forth herein.

131. Berkeley has directly infringed, and continues to directly infringe, at least claim 1 of the '962 patent by making, using, offering for sale, selling, and/or importing the Beacon® into the United States.

132. The use of the Beacon® meets every limitation of at least claim 1 and Berkeley directly infringes at least claim 1 when using the Beacon® in violation of 35 U.S.C. § 271(a).

133. Claim 1 of the '962 patent recites:

1. A method of assaying for a binding interaction between a secreted monoclonal antibody produced by a single antibody producing cell (APC) and an antigen, the method comprising:
 - retaining the single APC within a chamber having a volume of from 100 pL to 100 nL, a solid wall, and an aperture that defines an opening of the chamber;
 - incubating the single APC within the chamber to produce a secreted monoclonal antibody;
 - exposing the secreted monoclonal antibody to a removeable capture substrate, wherein the removeable capture substrate is in fluid communication with the secreted monoclonal antibody and wherein the removeable capture substrate is capable of binding the secreted monoclonal antibody and nucleic acids of the single APC; incubating the secreted monoclonal antibody with the removeable capture substrate to produce a bound antibody;
 - bringing a first fluid volume comprising the antigen in fluid communication with the bound antibody;
 - measuring a binding interaction between the bound antibody and the antigen; and

lysing the single APC and capturing the nucleic acids of the single APC on the removeable capture substrate.

134. On information and belief, the use of Berkeley's Beacon® includes assaying for a binding interaction between a secreted monoclonal antibody produced by a single antibody producing cell (APC) and an antigen. (*See e.g.*, ¶¶ 19-36.)

135. On information and belief, the use of Berkeley's Beacon® includes retaining the single APC within a chamber having a volume of from 100 pL to 100 nL, a solid wall, and an aperture that defines an opening of the chamber, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

136. On information and belief, the use of Berkeley's Beacon® includes incubating the single APC within the chamber to produce a secreted monoclonal antibody, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

137. On information and belief, the use of Berkeley's Beacon® includes exposing the secreted monoclonal antibody to a removeable capture substrate, wherein the removeable capture substrate is in fluid communication with the secreted monoclonal antibody and wherein the removeable capture substrate is capable of binding the secreted monoclonal antibody and nucleic acids of the single APC, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

138. On information and belief, the use of Berkeley's Beacon® includes incubating the secreted monoclonal antibody with the removeable capture substrate to produce a bound antibody, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

139. On information and belief, the use of Berkeley's Beacon® includes bringing a first fluid volume comprising the antigen in fluid communication with the bound antibody, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

140. On information and belief, the use of Berkeley's Beacon® includes measuring a binding interaction between the bound antibody and the antigen, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

141. On information and belief, the use of Berkeley's Beacon® includes lysing the single APC and captures the nucleic acids of the single APC on the removeable capture substrate, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

142. Berkeley also has indirectly infringed and continues to indirectly infringe the claims of the '962 patent by inducing infringement pursuant to 35 U.S.C. § 271(b) and/or contributing to infringement pursuant to 35 U.S.C. § 271(c).

143. On information and belief, in violation of 35 U.S.C. § 271(b), Berkeley specifically intended to induce infringement of the '962 patent by its customers and users of the Beacon® and had knowledge that its acts would cause infringement or was willfully blind to the possibility that its acts would cause infringement.

144. Berkeley knew of the '962 patent at least as of its date of its issuance by virtue of inventor Singhal. Berkeley also knew of the '962 patent since at least as early as April 28, 2020, when it was identified by AbCellera to Berkeley and no later than this Complaint. On information and belief, Berkeley's customers directly infringe the '962 patent.

145. On information and belief, Berkeley specifically intends for its customers to infringe the '962 patent. Berkeley encourages infringement by its customers at least by offering to sell and selling the Beacon® and providing instructions to users on how to use the Beacon®, which directly infringes the '962 patent.

146. On information and belief, despite Berkeley's knowledge of the '962 patent and knowledge that its customers will necessarily infringe the '962 patent when the Beacon® is used as instructed, Berkeley continues to encourage infringement.

147. Berkeley also contributes to infringement of the '962 patent by its customers in violation of 35 U.S.C. § 271(c). On information and belief, Berkeley offers to sell and sells the Beacon® within the United States knowing that it constitutes a material part of the claimed inventions, knowing that the Beacon® is especially made or especially adapted for use in infringing the '962 patent, and knowing that the Beacon® is not a staple article or commodity of commerce suitable for substantial non-infringing use.

148. Berkeley has committed and continues to commit all the above acts of infringement without license or authorization.

149. Plaintiffs have complied with the requirements of 35 U.S.C. § 287 by, among other things, giving actual notice to Berkeley by, *inter alia*, AbCellera's letters and this Complaint.

150. Berkeley has had knowledge of the '962 patent and the application from which it issued, including the published application with substantially identical claims.

151. As a result of Berkeley's infringement of the '962 patent, Plaintiffs have suffered damages and will continue to suffer damages.

152. On information and belief, the infringement of the '962 Patent by Berkeley has been and continues to be willful. Berkeley has had knowledge that the Beacon® is covered by the '962 patent. On information and belief, Berkeley, with assistance from inventor Singhal, copied the '962 patent despite knowing that the Beacon® is covered by the '962 patent. Berkeley has thus sold the Beacon® knowing of the risk of infringement and/or in view of a risk

of infringement that was sufficiently obvious that it should have been known to Berkeley. Despite this risk, Berkeley has deliberately continued to infringe in a wanton, malicious, and egregious manner, with reckless disregard for Plaintiffs' patent rights. Thus, Berkeley's infringing actions have been and continue to be consciously wrongful, entitling Plaintiffs to increased damages under 35 U.S.C. § 284.

153. Under 35 U.S.C. § 283, Plaintiffs are entitled to a permanent injunction against further infringement. Berkeley's wrongful conduct has caused and will continue to cause Plaintiffs to suffer irreparable harm resulting from the loss of its lawful patent right to exclude others from making, using selling, offering to sell, and/or importing Plaintiffs' patented inventions. On information and belief, Berkeley will continue to infringe the '962 patent unless permanently enjoined by the Court.

COUNT VI
INFRINGEMENT OF THE '408 PATENT

154. The allegations in the preceding paragraphs are incorporated by reference as if fully set forth herein.

155. Berkeley has directly infringed, and continues to directly infringe, at least claim 1 of the '408 patent by making, using, offering for sale, selling, and/or importing the Beacon® into the United States.

156. The use of the Beacon® meets every limitation of at least claim 1 of the '408 patent. Accordingly, Berkeley's use of the Beacon® directly infringes the '408 patent in violation of 35 U.S.C. § 271(a).

157. Claim 1 of the '408 patent recites:

1. A method of culturing a cell, the method comprising:
retaining the cell at a retaining position within an individual chamber of a
microfabricated device;

perfusing the cell with a perfusion fluid by flowing the perfusion fluid into the individual chamber through an inlet and out of the chamber through an outlet, wherein the outlet is positioned such that gravitational forces acting on the cell to keep it at or near the retaining position exceed hydrodynamic forces acting on the cell to move it toward the outlet;

culturing the cell within the chamber and monitoring a response in the chamber; and

selectively recovering the cell or a clonal population thereof from the individual chamber based on the response in the monitoring step.

158. On information and belief, the use of Berkeley's Beacon® includes culturing a cell. (*See e.g.*, ¶¶ 19-36.)

159. On information and belief, the use of Berkeley's Beacon® includes retaining the cell at a position within an individual chamber of a microfabricated device, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

160. On information and belief, the use of Berkeley's Beacon® includes perfusing the cell with a perfusion fluid by flowing the perfusion fluid into the chamber through an inlet and out of the chamber through an outlet, wherein the outlet is positioned such that gravitational forces acting on the cell to keep it at or near the retaining position exceed hydrodynamic forces acting on the cell to move it towards the outlet, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

161. On information and belief, the use of Berkeley's Beacon® includes culturing a cell within the chamber and monitoring a response in the chamber, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

162. On information and belief, the use of Berkeley's Beacon® includes selectively recovering the cell or a clonal population thereof from the individual chamber based on the response in the monitoring step, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

163. Berkeley also has indirectly infringed and continues to indirectly infringe the claims of the '408 patent by inducing infringement pursuant to 35 U.S.C. § 271(b) and/or contributing to infringement pursuant to 35 U.S.C. § 271(c).

164. On information and belief, in violation of 35 U.S.C. § 271(b), Berkeley specifically intended to induce infringement of the '408 patent by its customers and users of the Beacon® and had knowledge that its acts would cause infringement or was willfully blind to the possibility that its acts would cause infringement.

165. Berkeley knew of the '408 patent at least as of its date of its issuance by virtue of inventor Singhal. Berkeley also knew of the '408 patent since at least as early as October 3, 2019, when it was identified by AbCellera to Berkeley and no later than this Complaint.

166. On information and belief, Berkeley specifically intends for its customers to infringe the '408 patent. Berkeley encourages infringement by its customers at least by offering to sell and selling the Beacon® and providing instructions on how to use the Beacon®, which directly infringes the '408 patent.

167. On information and belief, despite Berkeley's knowledge of the '408 patent and knowledge that its customers will necessarily infringe the '408 patent when the Beacon® is used as instructed, Berkeley continues to encourage infringement.

168. Berkeley also contributes to infringement of the '408 patent by its customers in violation of 35 U.S.C. § 271(c). On information and belief, Berkeley offers to sell and sells the Beacon® within the United States knowing that it constitutes a material part of the claimed inventions, knowing that the Beacon® is especially made or especially adapted for use in infringing the '408 patent, and knowing that the Beacon® is not a staple article or commodity of commerce suitable for substantial non-infringing use.

169. Berkeley has committed and continues to commit all the above acts of infringement without license or authorization.

170. Plaintiffs have complied with the requirements of 35 U.S.C. § 287 by, among other things, giving actual notice to Berkeley by, *inter alia*, AbCellera's letters as well as this Complaint.

171. Berkeley has had knowledge of the '408 patent and the application from which it issued, including the published application with substantially identical claims.

172. As a result of Berkeley's infringement of the '408 patent, Plaintiffs have suffered damages and will continue to suffer damages.

173. On information and belief, the infringement of the '408 Patent by Berkeley has been and continues to be willful. Berkeley has had knowledge that the use of the Beacon® is covered by the '408 patent. On information and belief, Berkeley, with assistance from inventor Singhal, copied the '408 patent despite knowing that the Beacon® is covered by the '408 patent. Berkeley has thus sold the Beacon® knowing of the risk of infringement and/or in view of a risk of infringement that was sufficiently obvious that it should have been known to Berkeley. Despite this risk, Berkeley has deliberately continued to infringe in a wanton, malicious, and egregious manner, with reckless disregard for Plaintiffs' patent rights. Thus, Berkeley's infringing actions have been and continue to be consciously wrongful, entitling Plaintiffs to increased damages under 35 U.S.C. § 284.

174. Under 35 U.S.C. § 283, Plaintiffs are entitled to a permanent injunction against further infringement. Berkeley's wrongful conduct has caused and will continue to cause Plaintiffs to suffer irreparable harm resulting from the loss of its lawful patent right to exclude others from making, using selling, offering to sell, and/or importing Plaintiffs' patented

inventions. On information and belief, Berkeley will continue to infringe the '408 patent unless permanently enjoined by the Court.

COUNT VII
INFRINGEMENT OF THE '936 PATENT

175. The allegations in the preceding paragraphs are incorporated by reference as if fully set forth herein.

176. Berkeley has directly infringed, and continues to directly infringe, at least claim 1 of the '936 patent by making, using, offering for sale, selling, and/or importing the Beacon® into the United States.

177. The use of the Beacon® meets every limitation of at least claim 1 of the '936 patent. Accordingly, Berkeley's use of the Beacon® directly infringes the '936 patent in violation of 35 U.S.C. § 271(a).

178. Claim 1 of the '936 patent recites:

1. A method for selecting a cell, or a clone thereof, from a population of cells, comprising:
 - introducing the population of cells into 1,600 to 20,000 microfluidic chambers of a microfluidic device via a single introduction port, wherein each microfluidic chamber comprises an inlet, the single introduction port is in fluid communication with a flow channel that is in fluid communication with the inlets of the microfluidic chambers, and wherein individual cells of the population are retained in unique microfluidic chambers of the microfluidic device, and the cells are transported via the introduction port and flow channel into the unique microfluidic chambers;
 - providing a cell culture medium to the plurality of microfluidic chambers via the flow channel and the inlets of the chambers;
 - exchanging the cell culture medium in the individual microfluidic chambers via the flow channel and the inlets of the chambers, to create a plurality of individual clonal cell populations, wherein the individual clonal cell populations are retained in the same microfluidic chamber as their respective parental cells;
 - measuring a cell product secreted by the individual clonal cell populations, or subset thereof, within one or more of the microfluidic chambers; and

selecting one or more individual clonal cell populations from the plurality to provide one or more selected individual clonal cell populations.

179. On information and belief, the use of Berkeley's Beacon® includes selecting a cell or a clone of a cell from a population of cells. (*See e.g.*, ¶¶ 19-36.)

180. On information and belief, the use of Berkeley's Beacon® includes introducing a population of cells into 1,600 to 20,000 microfluidic chambers of a microfluidic device via a single introduction port, wherein each microfluidic chamber comprises an inlet, the single introduction port is in fluid communication with a flow channel that is in fluid communication with the inlets of the microfluidic chambers, and wherein individual cells of the population are retained in unique microfluidic chambers of the microfluidic device, and the cells are transported via the introduction port and flow channel into the unique microfluidic chambers, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

181. On information and belief, the use of Berkeley's Beacon® includes providing a cell culture medium to the plurality of microfluidic chambers via the flow channel and the inlets of the chambers, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

182. On information and belief, the use of Berkeley's Beacon® includes exchanging the cell culture medium in the individual microfluidic chambers via the flow channel and the inlets of the chambers to create a plurality of individual clonal cell populations, wherein the individual clonal cell populations are retained in the same microfluidic chamber as their respective parental cells, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

183. On information and belief, the use of Berkeley's Beacon® includes measuring a cell product secreted by the individual clonal cell populations, or subset of the clonal cell populations, within one or more of the microfluidic chambers, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

184. On information and belief, the use of Berkeley's Beacon® includes selecting one or more individual clonal cell populations from the plurality to provide one or more selected individual clonal cell populations, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

185. Berkeley also has indirectly infringed and continues to indirectly infringe the claims of the '936 patent by inducing infringement pursuant to 35 U.S.C. § 271(b) and/or contributing to infringement pursuant to 35 U.S.C. § 271(c).

186. On information and belief, in violation of 35 U.S.C. § 271(b), Berkeley specifically intended to induce infringement of the '936 patent by its customers and users of the Beacon® and had knowledge that its acts would cause infringement or was willfully blind to the possibility that its acts would cause infringement.

187. Berkeley knew of the '936 patent at least as of its date of its issuance by virtue of inventor Singhal. Berkeley also knew of the '936 patent since at least as early as October 3, 2019, when it was identified by AbCellera to Berkeley and no later than this Complaint.

188. On information and belief, Berkeley specifically intends for its customers to infringe the '936 patent. Berkeley encourages infringement by its customers at least by offering to sell and selling the Beacon® and providing instructions on how to use the Beacon®, which directly infringes the '936 patent.

189. On information and belief, despite Berkeley's knowledge of the '936 patent and knowledge that its customers will necessarily infringe the '936 patent when the Beacon® is used as instructed, Berkeley continues to encourage infringement.

190. Berkeley also contributes to infringement of the '936 patent by its customers in violation of 35 U.S.C. § 271(c). On information and belief, Berkeley offers to sell and sells the Beacon® within the United States knowing that it constitutes a material part of the claimed

inventions, knowing that the Beacon® is especially made or especially adapted for use in infringing the '936 patent, and knowing that the Beacon® is not a staple article or commodity of commerce suitable for substantial non-infringing use.

191. Berkeley has committed and continues to commit all the above acts of infringement without license or authorization.

192. Plaintiffs have complied with the requirements of 35 U.S.C. § 287 by, among other things, giving actual notice to Berkeley by, *inter alia*, AbCellera's letters as well as this Complaint.

193. Berkeley has had knowledge of the '936 patent and the application from which it issued, including the published application with substantially identical claims.

194. As a result of Berkeley's infringement of the '936 patent, Plaintiffs have suffered damages and will continue to suffer damages.

195. On information and belief, the infringement of the '936 Patent by Berkeley has been and continues to be willful. Berkeley has had knowledge that the use of the Beacon® is covered by the '936 patent. On information and belief, Berkeley, with assistance from inventor Singhal, copied the '936 patent despite knowing that the Beacon® is covered by the '936 patent. Berkeley has thus sold the Beacon® knowing of the risk of infringement and/or in view of a risk of infringement that was sufficiently obvious that it should have been known to Berkeley. Despite this risk, Berkeley has deliberately continued to infringe in a wanton, malicious, and egregious manner, with reckless disregard for Plaintiffs' patent rights. Thus, Berkeley's infringing actions have been and continue to be consciously wrongful, entitling Plaintiffs to increased damages under 35 U.S.C. § 284.

196. Under 35 U.S.C. § 283, Plaintiffs are entitled to a permanent injunction against further infringement. Berkeley's wrongful conduct has caused and will continue to cause Plaintiffs to suffer irreparable harm resulting from the loss of its lawful patent right to exclude others from making, using selling, offering to sell, and/or importing Plaintiffs' patented inventions. On information and belief, Berkeley will continue to infringe the '408 patent unless permanently enjoined by the Court.

COUNT VIII
INFRINGEMENT OF THE '018 PATENT

197. The allegations in the preceding paragraphs are incorporated by reference as if fully set forth herein.

198. Berkeley has directly infringed, and continues to directly infringe, at least claim 1 of the '018 patent by making, using, offering for sale, selling, and/or importing the Beacon® into the United States.

199. The use of the Beacon® meets every limitation of at least claim 1 of the '018 patent. Accordingly, Berkeley's use of the Beacon® directly infringes the '018 patent in violation of 35 U.S.C. § 271(a).

200. Claim 1 of the '018 patent recites:

1. A method for culturing single cells, comprising:
introducing a population of cells via a single introduction port into a microfluidic device comprising a plurality of microfluidic chambers, wherein each microfluidic chamber of the plurality comprises an inlet, the single introduction port is in fluid communication with a flow channel that is in fluid communication with the inlets of the plurality of microfluidic chambers, wherein single cells of the population are retained individually in different microfluidic chambers of the plurality, and wherein the cells are transported via the introduction port and flow channel into the different microfluidic chambers,
providing a cell culture medium to the plurality of microfluidic chambers via the flow channel and the inlets of the microfluidic chambers,

exchanging the cell culture medium in the microfluidic chambers via the flow channel and the inlets of the microfluidic chambers, to create a plurality of individual clonal cell populations, wherein the individual clonal cell populations are retained in the same microfluidic chamber as their respective parental cell, thereby culturing the single cells.

201. On information and belief, the use of Berkeley's Beacon® includes culturing single cells. (*See e.g.*, ¶¶ 19-36.)

202. On information and belief, the use of Berkeley's Beacon® includes introducing a population of cells via a single introduction port into a microfluidic device comprising a plurality of microfluidic chambers, wherein each microfluidic chamber of the plurality comprises an inlet, the single introduction port is in fluid communication with a flow channel that is in fluid communication with the inlets of the plurality of microfluidic chambers, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

203. On information and belief, the use of Berkeley's Beacon® includes single cells of the population retained individually in different microfluidic chambers of the plurality, and wherein the cells are transported via the introduction port and flow channel into the different microfluidic chambers, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

204. On information and belief, the use of Berkeley's Beacon® includes providing a cell culture medium to the plurality of microfluidic chambers via the flow channel and the inlets of the microfluidic chambers, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

205. On information and belief, the use of Berkeley's Beacon® includes exchanging the cell culture medium in the microfluidic chambers via the flow channel and the inlets of the microfluidic chambers, to create a plurality of individual clonal cell populations, wherein the individual clonal cell populations are retained in the same microfluidic chamber as their respective parental cell, thereby culturing the single cells, or an equivalent thereof. (*See e.g.*, ¶¶ 19-36.)

206. Berkeley also has indirectly infringed and continues to indirectly infringe the claims of the '018 patent by inducing infringement pursuant to 35 U.S.C. § 271(b) and/or contributing to infringement pursuant to 35 U.S.C. § 271(c).

207. On information and belief, in violation of 35 U.S.C. § 271(b), Berkeley specifically intended to induce infringement of the '018 patent by its customers and users of the Beacon® and had knowledge that its acts would cause infringement or was willfully blind to the possibility that its acts would cause infringement.

208. Berkeley knew of the '018 patent at least as of its date of its issuance by virtue of inventor Singhal. Berkeley also knew of the '018 patent since no later than this Complaint.

209. On information and belief, Berkeley specifically intends for customers to infringe the '018 patent. Berkeley encourages infringement by customers at least by offering to sell and selling the Beacon® and providing instructions on how to use the Beacon®, which directly infringes the '018 patent.

210. On information and belief, despite Berkeley's knowledge of the '018 patent and knowledge that its customers will necessarily infringe the '018 patent when the Beacon® is used as instructed, Berkeley continues to encourage infringement.

211. Berkeley also contributes to infringement of the '018 patent by its customers in violation of 35 U.S.C. § 271(c). On information and belief, Berkeley offers to sell and sells the Beacon® within the United States knowing that it constitutes a material part of the claimed inventions, knowing that the Beacon® is especially made or especially adapted for use in infringing the '018 patent, and knowing that the Beacon® is not a staple article or commodity of commerce suitable for substantial non-infringing use.

212. Berkeley has committed and continues to commit all the above acts of infringement without license or authorization.

213. Plaintiffs have complied with the requirements of 35 U.S.C. § 287 by, among other things, giving actual notice to Berkeley by this Complaint.

214. Berkeley has knowledge of the '018 patent and the application from which it issued, including the published application with substantially identical claims.

215. As a result of Berkeley's infringement of the '018 patent, Plaintiffs have suffered damages and will continue to suffer damages.

216. On information and belief, the infringement of the '018 Patent by Berkeley is willful. Berkeley has had knowledge that the use of the Beacon® is covered by the '018 patent. On information and belief, Berkeley, with assistance from inventor Singhal, copied the '018 patent despite knowing that the Beacon® is covered by the '018 patent. Berkeley has thus sold the Beacon® knowing of the risk of infringement and/or in view of a risk of infringement that was sufficiently obvious that it should have been known to Berkeley. Despite this risk, Berkeley has deliberately continued to infringe in a wanton, malicious, and egregious manner, with reckless disregard for Plaintiffs' patent rights. Thus, Berkeley's infringing actions have been and continue to be consciously wrongful, entitling Plaintiffs to increased damages under 35 U.S.C. § 284.

217. Under 35 U.S.C. § 283, Plaintiffs are entitled to a permanent injunction against further infringement. Berkeley's wrongful conduct has caused and will continue to cause Plaintiffs to suffer irreparable harm resulting from the loss of its lawful patent right to exclude others from making, using selling, offering to sell, and/or importing Plaintiffs' patented

inventions. On information and belief, Berkeley will continue to infringe the '018 patent unless permanently enjoined by the Court.

JURY DEMAND

218. Pursuant to Federal Rule of Civil Procedure 38(b), Plaintiffs respectfully demand a trial by jury of all issues so triable.

PRAYERS FOR RELIEF

WHEREFORE, Plaintiffs request that judgment be entered in favor of Plaintiffs and against Berkeley as follows:

- a. A judgment that the '812, '494, '241, '618, '962, '408, '936, and '018 patents are directly and indirectly infringed by Berkeley's manufacture, offers to sell, sales, or uses of the Beacon® within the United States, or importation into the United States, including without limitation, that practice one more of the inventions claimed in the '812, '494, '241, '618, '962, '408, '936, and '018 patents;
- b. An order permanently enjoining Berkeley, its affiliates and subsidiaries, and each of its officers, agents, servants, and employees and those acting in privity or concert with them, from making, using, offering to sell, selling, or importing products or processes claimed in any of the claims of the '812, '494, '241, '618, '962, '408, '936, and '018 patents, and from causing or encouraging others to use, sell, offer for sale, or import products or processes that infringe any claim of the '812, '494, '241, '618, '962, '408, '936, and '018 patents, until after the expiration dates of the '812, '494, '241, '618, '962, '408, '936, and '018 patents, including any extensions and/or additional periods of exclusivity to which Plaintiffs are or may become entitled;

- c. An order awarding damages under 35 U.S.C. § 284 in an amount sufficient to compensate Plaintiffs for their damages arising from infringement by Berkeley, including, but not limited to, lost profits and/or a reasonable royalty (including under 35 U.S.C. § 154(d)), together with pre-judgment and post-judgment interest, and costs;
- d. An order awarding treble damages for willful infringement by Berkeley, pursuant to 35 U.S.C. § 284;
- e. An accounting and/or supplemental damages for all damages occurring after any discovery cutoff and through the Court's decision regarding the imposition of a permanent injunction;
- f. A judgment declaring that this case is exceptional and awarding Plaintiffs their reasonable costs and attorneys' fees pursuant to 35 U.S.C. § 285; and
- g. Such other relief as this Court or a jury may deem proper and just under the circumstances.

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CERTIFICATE OF SERVICE

I hereby certify that on September 1, 2020, I caused the foregoing to be electronically filed with the Clerk of the Court using CM/ECF, which will send notification of such filing to all registered participants.

I further certify that I caused copies of the foregoing document to be served on September 1, 2020, upon the following in the manner indicated:

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