

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

10X GENOMICS, INC. and PRESIDENT	)	
AND FELLOWS OF HARVARD COLLEGE,	)	
	)	
Plaintiffs,	)	
	)	C.A. No. _____
v.	)	
	)	DEMAND FOR JURY TRIAL
VIZGEN, INC.,	)	
	)	
Defendant.	)	

**COMPLAINT**

Plaintiffs 10x Genomics, Inc. (“10x”) and President and Fellows of Harvard College (“Harvard”) allege in their Complaint for patent infringement against Defendant Vizgen, Inc. (“Vizgen”) as follows:

**NATURE OF THE ACTION**

1. This is an action for infringement of U.S. Patent Nos. 11,021,737 (“the 737 Patent”), 11,293,051 (“the 051 Patent”), 11,293,052 (“the 052 Patent”), 11,293,054 (“the 054 Patent”), and 11,299,767 (“the 767 Patent”), (collectively, the “Asserted Patents”). This action arises under the patent laws of the United States, Title 35, United States Code, including 35 U.S.C. § 271.

**THE PARTIES**

2. 10x is a Delaware corporation with its principal place of business at 6230 Stoneridge Mall Road, Pleasanton, CA 94588.

3. 10x is a pioneering innovator of genomics and sequencing technologies that are providing life science researchers and clinicians an unprecedented understanding of biology. By elegantly combining its proprietary hardware, chemistry, and software, 10x has developed and brought to market award-winning products that give single cell and spatial views of complex biological systems. 10x’s products have enabled previously infeasible forms of research in the life

sciences in areas of critical importance to human health, including cancer research, neuroscience, immunology, infectious disease, and developmental biology.

4. Harvard is a Massachusetts educational institution with a principal place of business in Cambridge, MA. Harvard is a patent owner and licensor for the Asserted Patents.

5. On information and belief, Vizgen is a Delaware corporation with its principal place of business at 61 Moulton Street, Cambridge, Massachusetts, 02138.

6. Vizgen makes, uses, sells, offers to sell, exports, and/or imports in the United States products, services, and components that have been and are used to infringe one or more claims of the Asserted Patents.

### **JURISDICTION AND VENUE**

7. Plaintiffs incorporate the foregoing paragraphs of the Complaint by reference as if fully set for herein.

8. This civil action for patent infringement arises under the patent laws of the United States, 35 U.S.C § 1 *et seq.*, including in particular under 35 U.S.C. § 271. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

9. This Court has personal jurisdiction over Defendant, and venue is proper in this district pursuant to 28 U.S.C. § 1400(b), because Vizgen is a Delaware corporation and thus resides in this district.

### **BACKGROUND**

#### **A. 10x's Groundbreaking Single Cell and Spatial Technologies**

10. 10x is a life sciences technology company founded in 2012 in Pleasanton, California by Drs. Serge Saxonov and Benjamin Hindson. Since its inception, 10x has focused on building new technologies to enable breakthrough discoveries and accelerate the understanding of biology. To date, 10x has invested hundreds of thousands of hours and approximately \$1 billion

in research and development to invent, design, and develop its proprietary line of products for understanding biology at unprecedented resolution and scale. 10x continues to invest significant time and money to further innovate and bring ground-breaking new products and capabilities to market.

11. 10x is now a worldwide leader in genomics, the comprehensive study of biological systems at a molecular and cellular level. Since 10x's first commercial launch in 2015, 10x's expanding suite of products has fueled a revolution in genomics, winning wide acclaim and commercial success. 10x has achieved an installed base of more than 3,500 instruments around the world, including at all of the top 100 global research institutions and all of the top 20 global biopharmaceutical companies. In 2021, annual sales of 10x products exceeded \$490 million, a 64% increase over 2020.

12. Over 3,300 scientific articles have been published based on data generated from 10x products, including hundreds of articles in top journals such as *Cell*, *Science*, and *Nature*. This scientific work details the use of 10x products to discover, for example: molecular mechanisms that lead to brain, breast and lung cancers; how the immune system reacts to COVID-19 infection; and a new type of lung cell that causes cystic fibrosis. The paradigm-changing nature of 10x's products has led to numerous accolades, including seven 10x products being named to *The Scientist* magazine's Top 10 Innovations list between 2015 and 2021.

13. 10x's Chromium platform has been essential to enabling single cell genomics—the study of biology at a cell-by-cell resolution and at a massive, system-wide scale, ushering in a single-cell revolution hailed by *Science* magazine as the 2018 “Breakthrough of the Year.” Whereas traditional biology relies on “bulk analysis” in which tissue is analyzed as averages across the sample, 10x's breakthrough single cell products enable researchers to analyze samples on a

single cell basis—for millions of cells per experiment—thereby preserving information that is specific to each cell in the sample. 10x’s single cell products do this by putting a different “tag” (a nucleic acid barcode) on each single cell in a sample, which can then be analyzed using sequencers to read the contents. The Chromium X, which launched in July 2021 and enables expansion of single cell studies to million-cell experiments, is the latest addition to 10x’s award-winning platform and was named a Top 10 Innovation in 2021 by *The Scientist* magazine. <https://www.the-scientist.com/features/2021-top-10-innovations-69438>.

14. 10x, through its Spatial Transcriptomics and later Visium products, has catalyzed the field of spatial analysis by providing commercial offerings that enable true spatial discovery. Spatial analysis allows the large-scale interrogation of biological analytes with their spatial context. In contrast to traditional techniques in which analytes from a biological tissue are blended and analyzed as an average from various parts of the tissue, spatial analysis preserves information about the positions of the analytes in the tissue. This allows researchers and clinicians to build a comprehensive map—a kind of Google Earth—of where each analyte is, so that function can be tied to location. 10x’s innovative spatial products use a tagging approach, analogous to that used in its single cell products, where the tags indicate the location of the analyte in the tissue rather than the cellular origin of the analyte. In 2020, *Nature Methods* named spatially resolved transcriptomics its “Method of the Year” and featured 10x’s spatial technology on the cover. See <https://www.nature.com/articles/s41592-020-01033-y>. The 10x Visium Spatial Gene Expression product was named among the *Scientist* magazine’s Top 10 Innovations in 2020. The power of Visium was again acknowledged in the February 2022 issue of *Science Translational Medicine*, in which a Visium study was a featured article and provided the cover illustration. See <https://www.science.org/toc/stm/14/632>.

**B. 10x Invests In Developing *In Situ* Technologies**

15. Most current molecular analyses, including single cell and spatial technologies, involve removing molecules from their native environment for analysis. *In situ* analysis, by contrast, aims to measure and analyze a large number of molecules directly in tissue samples and capture the precise location of those molecules at sub-cellular resolution.

16. In 2020, 10x announced its acquisition of ReadCoor, Inc., founded based on George Church's work at Harvard, obtaining intellectual property, key technology advances, and deep talent and expertise in the emerging *in situ* field.

17. 10x Genomics is currently developing Xenium In Situ, 10x's forthcoming platform built from its investments in *in situ* technology. Xenium In Situ will be a complete platform—including the Xenium In Situ Analyzer instrument, Xenium In Situ reagents and panels, Xenium software, and the full support of 10x's team of spatial experts—designed to create spatial maps of gene expression in the original tissue at true cellular and subcellular resolutions.

**C. Vizgen's Infringing MERSCOPE Platform and Lab Services Program**

18. Nearly half a year after 10x's widely observed acquisition, Vizgen announced the launch of MERSCOPE in March 2021. Vizgen started shipping the MERSCOPE Platform—including instruments, reagents, and software—and providing MERSCOPE Platform Lab Services to its customers as early as August 2021. Vizgen asserts in its public literature that the MERSCOPE Platform is based on the MERFISH (Multiplexed error-robust fluorescence *in situ* hybridization) technology. Vizgen, through its MERSCOPE Platform and Lab Services program, attempts to provide multiplexed, single-molecule *in situ* spatial imaging analysis technology to its customers.

19. The MERSCOPE Platform that Vizgen uses on behalf of its Lab Services customers and provides to its end-user customers include a MERSCOPE Instrument (imaging box) and Analysis Computer, Visualizer Software, and reagents and consumables, including slides, gene

panels, gene imaging kits, cell boundary staining kits, sample prep kits, and sample verification kits.

20. Vizgen practices the Asserted Patents by providing its customers with Vizgen Lab Services, through which Vizgen provides customers with in-house sample processing and data analysis using the MERSCOPE Platform and workflow. See <https://vizgen.com/lab-services/> and <https://vizgen.com/resources/merscope-product-bulletin/>.

21. The “Accused Instrumentalities” are all products, components, and services that are made, used, performed, offered to sell, sold, and/or imported into the United States by or on behalf of Vizgen in connection with Vizgen’s MERSCOPE Platform and workflow and/or Vizgen’s Lab Services program. The Accused Instrumentalities include, for example and without limitation, instruments, software, and reagents and consumables used or provided by Vizgen in connection with its MERSCOPE Platform. See <https://vizgen.com/products/>.

**D. The Patents In Suit**

22. Through the development and subsequent making, using, selling, offering for sale, and/or importing of the Accused Instrumentalities, Vizgen has and continues to infringe the “Asserted Patents”:

- (a) U.S. Patent No. 11,021,737, entitled “Compositions and Methods for Analyte Detection” (Exhibit 1);
- (b) U.S. Patent No. 11,293,051, entitled “Compositions and Methods for Analyte Detection” (Exhibit 2);
- (c) U.S. Patent No. 11,293,052, entitled “Compositions and Methods for Analyte Detection” (Exhibit 3);
- (d) U.S. Patent No. 11,293,054, entitled “Compositions and Methods for Analyte Detection” (Exhibit 4); and
- (e) U.S. Patent No. 11,299,767, entitled “Method for Generating a Three-Dimensional Nucleic Acid Containing Matrix” (Exhibit 5)

23. The 737 Patent was duly and legally issued on June 1, 2021, by the United States Patent and Trademark Office. U.S. Application No. 16/941,585, which issued as the 737 Patent, claims the benefit of Application No. PCT/US2012/071398, filed on December 21, 2012, Provisional Application No. 61/777,383, filed on March 12, 2013, and Provisional Application No. 61/579,265, filed on December 22, 2011. George M. Church, Je-Hyuk Lee, Daniel Levner, and Michael Super are the named inventors of the 737 Patent.

24. Harvard is the sole legal owner of the 737 Patent. A true and correct copy of the assignment abstract and record of the 737 Patent are attached as Exhibit 6. The 737 Patent is exclusively licensed to 10x, including *inter alia* the right to sue Vizgen for its acts of infringement and to recover damages therefrom.

25. The 051 Patent was duly and legally issued on April 5, 2022, by the United States Patent and Trademark Office. U.S. Application No. 17/238,642, which issued as the 051 Patent, claims the benefit of claims the benefit of Application No. PCT/US2012/071398, filed on December 21, 2012, Provisional Application No. 61/777,383, filed on March 12, 2013, and Provisional Application No. 61/579,265, filed on December 22, 2011. George M. Church, Je-Hyuk Lee, Daniel Levner, and Michael Super are the named inventors of the 051 Patent.

26. Harvard is the sole legal owner of the 051 Patent. A true and correct copy of the assignment abstract and record of the 051 Patent is attached as Exhibit 7. The 051 Patent is exclusively licensed to 10x, including *inter alia* the right to sue Vizgen for its acts of infringement and to recover damages therefrom.

27. The 052 Patent was duly and legally issued on April 5, 2022, by the United States Patent and Trademark Office. U.S. Application No. 17/238,682, which issued as the 052 Patent, claims the benefit of PCT Application No. PCT/US12/71398, filed December 21, 2012, U.S.

Provisional Application No. 61/579,265, filed December 22, 2011, and Provisional Application No. 61/777,373, filed March 12, 2013. George M. Church, Je-Hyuk Lee, Daniel Levner, and Michael Super are the named inventors of the 052 Patent.

28. Harvard is the sole legal owner of the 052 Patent. A true and correct copy of the assignment abstract and record of the 052 Patent is attached as Exhibit 7. The 052 Patent is exclusively licensed to 10x, including *inter alia* the right to sue Vizgen for its acts of infringement and to recover damages therefrom.

29. The 054 Patent was duly and legally issued on April 5, 2022, by the United States Patent and Trademark Office. U.S. Application No. 16/393,215, which issued as the 054 Patent, claims the benefit of PCT Application No. PCT/US12/71398, filed December 21, 2012, and U.S. Provisional Application No. 61/579,265, filed December 22, 2011. Daniel Levner, Je-Hyuk Lee, George M. Church, and Michael Super are the named inventors of the 054 Patent.

30. Harvard is the sole legal owner of the 054 Patent. A true and correct copy of the assignment abstract and record of the 054 Patent is attached as Exhibit 8. The 054 Patent is exclusively licensed to 10x, including *inter alia* the right to sue Vizgen for its acts of infringement and to recover damages therefrom.

31. The 767 Patent was duly and legally issued on April 12, 2022, by the United States Patent and Trademark Office. U.S. Application No. 17/363,097, which issued as the 767 Patent, claims the benefit of PCT Application No. PCT/US2014/018580, filed February 26, 2014, and U.S. Provisional Application 61/777,383, filed March 12, 2013. George M. Church, Je-Hyuk Lee, Richard C. Terry, and Evan R. Daugharthy are the named inventors of the 767 Patent.

32. Harvard is the sole legal owner of the 767 Patent. A true and correct copy of the assignment abstract and record of the 767 Patent is attached as Exhibit 9. The 767 Patent is



exclusively licensed to 10x, including *inter alia* the right to sue Vizgen for its acts of infringement and to recover damages therefrom.

33. Vizgen has been on notice of its infringement of the Asserted Patents on or around May 2, 2022, when Vizgen received a letter from 10x including the claim charts attached as Attachments A - E to this Complaint and detailing how Vizgen and other users of Vizgen's MERSCOPE Platform infringe the Asserted Patents.

**COUNT I: Infringement of U.S. Patent No. 11,021,737**

34. Plaintiffs incorporate and reallege paragraphs 1 - 33 above as if fully set forth herein.

35. Vizgen has infringed and continues to infringe one or more claims of the 737 Patent, including without limitation claim 1, pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making and/or using, offering to sell, selling, and/or importing into the United States without authority the Accused Instrumentalities and/or components thereof. Attachment A provides an exemplary infringement claim chart for one asserted claim and exemplary and/or representative Accused Instrumentalities. As described below, Vizgen's infringement has been and continues to be willful since at least May 2, 2022.

36. Vizgen, without authority and with knowledge of the 737 Patent, has actively induced, since at least May 2, 2022, and continues to actively induce infringement of one or more claims of the 737 Patent, including without limitation claim 1, under 35 U.S.C. § 271(b) by making and selling the 737 Patent Accused Instrumentalities in the United States and intentionally instructing or otherwise encouraging others, including Vizgen's customers and end users such as scientists working at laboratories that purchase the Accused Instrumentalities, to use the Accused Instrumentalities in the United States in a manner that infringes one or more claims of the 737 Patent including as described in Attachment A. *See, e.g.,* <https://vizgen.com/resources/user-guides/>, <https://vizgen.com/resources/merscope-product-bulletin/>,

<https://vizgen.com/resources/hca-poster-2021-merscope-reveals-the-transcriptional-organization-of-the-mouse-brain/>. See, e.g., <https://vizgen.com/vizgen-releases-commercial-merscope-platform/> (identifying Vizgen's customers, i.e., direct infringers). On information and belief, Vizgen provides this instruction and encouragement to its actual and prospective customers and end users with the knowledge and intent that doing so results in the infringement of one or more method claims of the 737 Patent by those customers and end users and/or in their performing each step of one or more methods recited in those claims. One or more of Vizgen's customers and end users of the Accused Instrumentalities have directly infringed and continue to directly infringe the 737 Patent by using the Accused Instrumentalities in accordance with Vizgen's instructions and encouragement, an example of which is set forth in the claim chart attached as Attachment A and incorporated herein by reference. As explained below, on information and belief, Vizgen acts knowingly and/or willfully blind as to the existence of the 737 Patent and of its own infringement and the infringement by others as a result of the letter that Vizgen received from 10x, and Vizgen continues to know of its infringement and the infringement of others upon the service of this Complaint.

37. Vizgen has contributed, since at least May 2, 2022, and continues to contribute to the infringement by others of one or more claims of the 737 Patent, including without limitation claim 1, pursuant to 35 U.S.C. § 271(c) by importing, selling, and/or offering for sale in the United States without authority the Accused Instrumentalities and/or components thereof, or has others perform such acts on its behalf, specifically so that the Accused Instrumentalities will be used in an infringing manner by others, including use as described in Attachment A by Vizgen's customers and end users. See, e.g., <https://vizgen.com/vizgen-releases-commercial-merscope-platform/> (identifying Vizgen's customers, i.e., direct infringers). The MERSCOPE Platform components,

including specifically the instruments and reagents, were designed specifically to be used in a manner that infringes the asserted claims of the 737 Patent. Moreover, as shown in Vizgen's instructional materials in which no alternative use of the MERSCOPE Platform is described, there is no other substantial use for the MERSCOPE Platform or its components. Thus, the instruments and reagents are a material part of the claimed inventions of the 737 Patent that result in infringement when used. As a result of Vizgen's selling and/or offering for sale of the MERSCOPE Platform, other entities on information and belief use these products for their intended purposes and according to Vizgen's instructions with the result that such entities, such as Vizgen's customers and users of the Accused Instrumentalities, directly infringe the asserted claims of the 737 Patent, literally or under the doctrine of equivalents, for the reasons stated above and in Attachment A. As explained below, on information and belief, Vizgen acts knowingly and/or willfully blind as to the existence of the 737 Patent claims and as to the fact that at least the MERSCOPE instruments and reagents are especially made and adapted for this use in an infringing manner, are not staple articles of commerce, and do not have substantial non-infringing uses.

38. On information and belief, Vizgen was aware of or acted with willful blindness to the existence of the 737 Patent and the infringement of the 737 Patent as described above by third parties, including without limitation users, customers, affiliates, parents, subsidiaries, third parties, importers, and/or sellers. On information and belief, Vizgen knew, should have known, or was willfully blind to the existence of the 737 Patent on or around May 2, 2022, as a result of the letter that Vizgen received from 10x, and Vizgen continues to know of the existence of the 737 Patent and Vizgen's contributory infringement upon the service of this Complaint.

39. Plaintiffs have suffered and continue to suffer damages as a result of Vizgen's infringement of the 737 Patent.

40. Unless Vizgen is enjoined from infringing the 737 Patent, Vizgen's efforts to design, develop, market, offer to sell, and sell the Accused Instrumentalities will cause Plaintiffs to suffer irreparable injury for which damages are an inadequate remedy.

**COUNT II: Infringement of U.S. Patent No. 11,293,051**

41. Plaintiffs incorporate and reallege paragraphs 1 - 40 above as if fully set forth herein.

42. Vizgen has infringed and continues to infringe one or more claims of the 051 Patent, including without limitation claim 1, pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making and/or using, offering to sell, selling, and/or importing into the United States without authority the Accused Instrumentalities and/or components thereof. Attachment B provides an exemplary infringement claim chart for one asserted claim and exemplary and/or representative Accused Instrumentalities. As described below, Vizgen's infringement has been and continues to be willful since at least May 2, 2022.

43. Vizgen, without authority and with knowledge of the 051 Patent, has actively induced, since at least May 2, 2022, and continues to actively induce infringement of one or more claims of the 051 Patent, including without limitation claim 1, under 35 U.S.C. § 271(b) by making and selling the 051 Patent Accused Instrumentalities in the United States and intentionally instructing or otherwise encouraging others, including Vizgen's customers and end users such as scientists working at laboratories that purchase the Accused Instrumentalities, to use the Accused Instrumentalities in the United States in a manner that infringes one or more claims of the 051 Patent including as described in Attachment B. *See, e.g.,* <https://vizgen.com/resources/user-guides/>, <https://vizgen.com/resources/merscope-product-bulletin/>, <https://vizgen.com/resources/hca-poster-2021-merscope-reveals-the-transcriptional-organization-of-the-mouse-brain/>. *See, e.g.,* <https://vizgen.com/vizgen-releases-commercial-merscope-platform/> (identifying Vizgen's customers, i.e., direct infringers). On information and belief, Vizgen provides this instruction and

encouragement to its actual and prospective customers and end users with the knowledge and intent that doing so results in the infringement of one or more method claims of the 051 Patent by those customers and end users and/or in their performing each step of one or more methods recited in those claims. One or more of Vizgen's customers and end users of the Accused Instrumentalities have directly infringed and continue to directly infringe the 051 Patent by using the Accused Instrumentalities in accordance with Vizgen's instructions and encouragement, an example of which is set forth in the claim chart attached as Attachment B and incorporated herein by reference. As explained below, on information and belief, Vizgen acts knowingly and/or willfully blind as to the existence of the 051 Patent and of its own infringement and the infringement by others as a result of the letter that Vizgen received from 10x, and Vizgen continues to know of its infringement and the infringement of others upon the service of this Complaint.

44. Vizgen has contributed, since at least May 2, 2022, and continues to contribute to the infringement by others of one or more claims of the 051 Patent, including without limitation claim 1, pursuant to 35 U.S.C. § 271(c) by importing, selling, and/or offering for sale in the United States without authority the Accused Instrumentalities and/or components thereof, or has others perform such acts on its behalf, specifically so that the Accused Instrumentalities will be used in an infringing manner by others, including use as described in Attachment B by Vizgen's customers and end users. *See, e.g.*, <https://vizgen.com/vizgen-releases-commercial-merscope-platform/> (identifying Vizgen's customers, i.e., direct infringers). The MERSCOPE Platform components, including specifically the instruments and reagents, were designed specifically to be used in a manner that infringes the asserted claims of the 051 Patent. Moreover, as shown in Vizgen's instructional materials in which no alternative use of the MERSCOPE Platform is described, there is no other substantial use for the MERSCOPE Platform or its components. Thus, the instruments

and reagents are a material part of the claimed inventions of the 051 Patent that result in infringement when used. As a result of Vizgen's selling and/or offering for sale of the MERSCOPE Platform, other entities on information and belief use these products for their intended purposes and according to Vizgen's instructions with the result that such entities, such as Vizgen's customers and users of the Accused Instrumentalities, directly infringe the asserted claims of the 051 Patent, literally or under the doctrine of equivalents, for the reasons stated above and in Attachment B. As explained below, on information and belief, Vizgen acts knowingly and/or willfully blind as to the existence of the 051 Patent claims and as to the fact that at least the MERSCOPE instruments and reagents are especially made and adapted for this use in an infringing manner, are not staple articles of commerce, and do not have substantial non-infringing uses.

45. On information and belief, Vizgen was aware of or acted with willful blindness to the existence of the 051 Patent and the infringement of the 051 Patent as described above by third parties, including without limitation users, customers, affiliates, parents, subsidiaries, third parties, importers, and/or sellers. On information and belief, Vizgen knew, should have known, or was willfully blind to the existence of the 051 Patent on or around May 2, 2022, as a result of the letter that Vizgen received from 10x, and Vizgen continues to know of the existence of the 051 Patent and Vizgen's contributory infringement upon the service of this Complaint.

46. Plaintiffs have suffered and continue to suffer damages as a result of Vizgen's infringement of the 051 Patent.

47. Unless Vizgen is enjoined from infringing the 051 Patent, Vizgen's efforts to design, develop, market, offer to sell, and sell the Accused Instrumentalities will cause Plaintiffs to suffer irreparable injury for which damages are an inadequate remedy.

**COUNT III: Infringement of U.S. Patent No. 11,293,052**

48. Plaintiffs incorporate and reallege paragraphs 1 - 47 above as if fully set forth herein.

49. Vizgen has infringed and continues to infringe one or more claims of the 052 Patent, including without limitation claim 1, pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making and/or using, offering to sell, selling, and/or importing into the United States without authority the Accused Instrumentalities and/or components thereof. Attachment C provides an exemplary infringement claim chart for one asserted claim and exemplary and/or representative Accused Instrumentalities. As described below, Vizgen's infringement has been and continues to be willful since at least May 2, 2022.

50. Vizgen, without authority and with knowledge of the 052 Patent, has actively induced, since at least May 2, 2022, and continues to actively induce infringement of one or more claims of the 052 Patent, including without limitation claim 1, under 35 U.S.C. § 271(b) by making and selling the 052 Patent Accused Instrumentalities in the United States and intentionally instructing or otherwise encouraging others, including Vizgen's customers and end users such as scientists working at laboratories that purchase the Accused Instrumentalities, to use the Accused Instrumentalities in the United States in a manner that infringes one or more claims of the 052 Patent including as described in Attachment C. *See, e.g.*, <https://vizgen.com/resources/user-guides/>, <https://vizgen.com/resources/merscope-product-bulletin/>, <https://vizgen.com/resources/hca-poster-2021-merscope-reveals-the-transcriptional-organization-of-the-mouse-brain/>. *See, e.g.*, <https://vizgen.com/vizgen-releases-commercial-merscope-platform/> (identifying Vizgen's customers, i.e., direct infringers). On information and belief, Vizgen provides this instruction and encouragement to its actual and prospective customers and end users with the knowledge and intent that doing so results in the infringement of one or more method claims of the 052 Patent by those customers and end users and/or in their performing each step of one or more methods recited in those claims. One or more of Vizgen's customers and end users of the Accused Instrumentalities

have directly infringed and continue to directly infringe the 052 Patent by using the Accused Instrumentalities in accordance with Vizgen's instructions and encouragement, an example of which is set forth in the claim chart attached as Attachment C and incorporated herein by reference. As explained below, on information and belief, Vizgen acts knowingly and/or willfully blind as to the existence of the 052 Patent and of its own infringement and the infringement by others as a result of the letter that Vizgen received from 10x, and Vizgen continues to know of its infringement and the infringement of others upon the service of this Complaint.

51. Vizgen has contributed, since at least May 2, 2022, and continues to contribute to the infringement by others of one or more claims of the 052 Patent, including without limitation claim 1, pursuant to 35 U.S.C. § 271(c) by importing, selling, and/or offering for sale in the United States without authority the Accused Instrumentalities and/or components thereof, or has others perform such acts on its behalf, specifically so that the Accused Instrumentalities will be used in an infringing manner by others, including use as described in Attachment C by Vizgen's customers and end users. *See, e.g.,* <https://vizgen.com/vizgen-releases-commercial-merscope-platform/> (identifying Vizgen's customers, i.e., direct infringers). The MERSCOPE Platform components, including specifically the instruments and reagents, were designed specifically to be used in a manner that infringes the asserted claims of the 052 Patent. Moreover, as shown in Vizgen's instructional materials in which no alternative use of the MERSCOPE Platform is described, there is no other substantial use for the MERSCOPE Platform or its components. Thus, the instruments and reagents are a material part of the claimed inventions of the 052 Patent that result in infringement when used. As a result of Vizgen's selling and/or offering for sale of the MERSCOPE Platform, other entities on information and belief use these products for their intended purposes and according to Vizgen's instructions with the result that such entities, such as Vizgen's



customers and users of the Accused Instrumentalities, directly infringe the asserted claims of the 052 Patent, literally or under the doctrine of equivalents, for the reasons stated above and in Attachment C. As explained below, on information and belief, Vizgen acts knowingly and/or willfully blind as to the existence of the 052 Patent claims and as to the fact that at least the MERSCOPE instruments and reagents are especially made and adapted for this use in an infringing manner, are not staple articles of commerce, and do not have substantial non-infringing uses.

52. On information and belief, Vizgen was aware of or acted with willful blindness to the existence of the 052 Patent and the infringement of the 052 Patent as described above by third parties, including without limitation users, customers, affiliates, parents, subsidiaries, third parties, importers, and/or sellers. On information and belief, Vizgen knew, should have known, or was willfully blind to the existence of the 052 Patent on or around May 2, 2022, as a result of the letter that Vizgen received from 10x, and Vizgen continues to know of the existence of the 052 Patent and Vizgen's contributory infringement upon the service of this Complaint.

53. Plaintiffs have suffered and continue to suffer damages as a result of Vizgen's infringement of the 052 Patent.

54. Unless Vizgen is enjoined from infringing the 052 Patent, Vizgen's efforts to design, develop, market, offer to sell, and sell the Accused Instrumentalities will cause Plaintiffs to suffer irreparable injury for which damages are an inadequate remedy.

**COUNT IV: Infringement of U.S. Patent No. 11,293,054**

55. Plaintiffs incorporate and reallege paragraphs 1 - 54 above as if fully set forth herein.

56. Vizgen has infringed and continues to infringe one or more claims of the 054 Patent, including without limitation claim 1, pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making and/or using, offering to sell, selling, and/or importing into the United States without authority the Accused Instrumentalities and/or components thereof. Attachment D

provides an exemplary infringement claim chart for one asserted claim and exemplary and/or representative Accused Instrumentalities. As described below, Vizgen's infringement has been and continues to be willful since at least May 2, 2022.

57. Vizgen, without authority and with knowledge of the 054 Patent, has actively induced, since at least May 2, 2022, and continues to actively induce infringement of one or more claims of the 054 Patent, including without limitation claim 1, under 35 U.S.C. § 271(b) by making and selling the 054 Patent Accused Instrumentalities in the United States and intentionally instructing or otherwise encouraging others, including Vizgen's customers and end users such as scientists working at laboratories that purchase the Accused Instrumentalities, to use the Accused Instrumentalities in the United States in a manner that infringes one or more claims of the 054 Patent including as described in Attachment D. *See, e.g.,* <https://vizgen.com/resources/user-guides/>, <https://vizgen.com/resources/merscope-product-bulletin/>, <https://vizgen.com/resources/hca-poster-2021-merscope-reveals-the-transcriptional-organization-of-the-mouse-brain/>. *See, e.g.,* <https://vizgen.com/vizgen-releases-commercial-merscope-platform/> (identifying Vizgen's customers, i.e., direct infringers). On information and belief, Vizgen provides this instruction and encouragement to its actual and prospective customers and end users with the knowledge and intent that doing so results in the infringement of one or more method claims of the 054 Patent by those customers and end users and/or in their performing each step of one or more methods recited in those claims. One or more of Vizgen's customers and end users of the Accused Instrumentalities have directly infringed and continue to directly infringe the 054 Patent by using the Accused Instrumentalities in accordance with Vizgen's instructions and encouragement, an example of which is set forth in the claim chart attached as Attachment D and incorporated herein by reference. As explained below, on information and belief, Vizgen acts

knowingly and/or willfully blind as to the existence of the 054 Patent and of its own infringement and the infringement by others as a result of the letter that Vizgen received from 10x, and Vizgen continues to know of its infringement and the infringement of others upon the service of this Complaint.

58. Vizgen has contributed, since at least May 2, 2022, and continues to contribute to the infringement by others of one or more claims of the 054 Patent, including without limitation claim 1, pursuant to 35 U.S.C. § 271(c) by importing, selling, and/or offering for sale in the United States without authority the Accused Instrumentalities and/or components thereof, or has others perform such acts on its behalf, specifically so that the Accused Instrumentalities will be used in an infringing manner by others, including use as described in Attachment D by Vizgen's customers and end users. *See, e.g.,* <https://vizgen.com/vizgen-releases-commercial-merscope-platform/> (identifying Vizgen's customers, i.e., direct infringers). The MERSCOPE Platform components, including specifically the instruments and reagents, were designed specifically to be used in a manner that infringes the asserted claims of the 054 Patent. Moreover, as shown in Vizgen's instructional materials in which no alternative use of the MERSCOPE Platform is described, there is no other substantial use for the MERSCOPE Platform or its components. Thus, the instruments and reagents are a material part of the claimed inventions of the 054 Patent that result in infringement when used. As a result of Vizgen's selling and/or offering for sale of the MERSCOPE Platform, other entities on information and belief use these products for their intended purposes and according to Vizgen's instructions with the result that such entities, such as Vizgen's customers and users of the Accused Instrumentalities, directly infringe the asserted claims of the 054 Patent, literally or under the doctrine of equivalents, for the reasons stated above and in Attachment D. As explained below, on information and belief, Vizgen acts knowingly and/or

willfully blind as to the existence of the 054 Patent claims and as to the fact that at least the MERSCOPE instruments and reagents are especially made and adapted for this use in an infringing manner, are not staple articles of commerce, and do not have substantial non-infringing uses.

59. On information and belief, Vizgen was aware of or acted with willful blindness to the existence of the 054 Patent and the infringement of the 054 Patent as described above by third parties, including without limitation users, customers, affiliates, parents, subsidiaries, third parties, importers, and/or sellers. On information and belief, Vizgen knew, should have known, or was willfully blind to the existence of the 054 Patent on or around May 2, 2022, as a result of the letter that Vizgen received from 10x, and Vizgen continues to know of the existence of the 054 Patent and Vizgen's contributory infringement upon the service of this Complaint.

60. Plaintiffs have suffered and continue to suffer damages as a result of Vizgen's infringement of the 054 Patent.

61. Unless Vizgen is enjoined from infringing the 054 Patent, Vizgen's efforts to design, develop, market, offer to sell, and sell the Accused Instrumentalities will cause Plaintiffs to suffer irreparable injury for which damages are an inadequate remedy.

**COUNT V: Infringement of U.S. Patent No. 11,299,767**

62. Plaintiffs incorporate and reallege paragraphs 1 - 61 above as if fully set forth herein.

63. Vizgen has infringed and continues to infringe one or more claims of the 767 Patent, including without limitation claim 1, pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making and/or using, offering to sell, selling, and/or importing into the United States without authority the Accused Instrumentalities and/or components thereof. Attachment E provides an exemplary infringement claim chart for one asserted claim and exemplary and/or representative Accused Instrumentalities. As described below, Vizgen's infringement has been and continues to be willful since at least May 2, 2022.

64. Vizgen, without authority and with knowledge of the 767 Patent, has actively induced, since at least May 2, 2022, and continues to actively induce infringement of one or more claims of the 767 Patent, including without limitation claim 1, under 35 U.S.C. § 271(b) by making and selling the 767 Patent Accused Instrumentalities in the United States and intentionally instructing or otherwise encouraging others, including Vizgen's customers and end users such as scientists working at laboratories that purchase the Accused Instrumentalities, to use the Accused Instrumentalities in the United States in a manner that infringes one or more claims of the 767 Patent including as described in Attachment E. *See, e.g.,* <https://vizgen.com/resources/user-guides/>, <https://vizgen.com/resources/merscope-product-bulletin/>, <https://vizgen.com/resources/hca-poster-2021-merscope-reveals-the-transcriptional-organization-of-the-mouse-brain/>. *See, e.g.,* <https://vizgen.com/vizgen-releases-commercial-merscope-platform/> (identifying Vizgen's customers, i.e., direct infringers). On information and belief, Vizgen provides this instruction and encouragement to its actual and prospective customers and end users with the knowledge and intent that doing so results in the infringement of one or more method claims of the 767 Patent by those customers and end users and/or in their performing each step of one or more methods recited in those claims. One or more of Vizgen's customers and end users of the Accused Instrumentalities have directly infringed and continue to directly infringe the 767 Patent by using the Accused Instrumentalities in accordance with Vizgen's instructions and encouragement, an example of which is set forth in the claim chart attached as Attachment E and incorporated herein by reference. As explained below, on information and belief, Vizgen acts knowingly and/or willfully blind as to the existence of the 767 Patent and of its own infringement and the infringement by others as a result of the letter that Vizgen received from 10x, and Vizgen continues to know of its infringement and the infringement of others upon the service of this Complaint.

65. Vizgen has contributed, since at least May 2, 2022, and continues to contribute to the infringement by others of one or more claims of the 767 Patent, including without limitation claim 1, pursuant to 35 U.S.C. § 271(c) by importing, selling, and/or offering for sale in the United States without authority the Accused Instrumentalities and/or components thereof, or has others perform such acts on its behalf, specifically so that the Accused Instrumentalities will be used in an infringing manner by others, including use as described in Attachment E by Vizgen's customers and end users. *See, e.g.*, <https://vizgen.com/vizgen-releases-commercial-merscope-platform/> (identifying Vizgen's customers, i.e., direct infringers). The MERSCOPE Platform components, including specifically the instruments and reagents, were designed specifically to be used in a manner that infringes the asserted claims of the 767 Patent. Moreover, as shown in Vizgen's instructional materials in which no alternative use of the MERSCOPE Platform is described, there is no other substantial use for the MERSCOPE Platform or its components. Thus, the instruments and reagents are a material part of the claimed inventions of the 767 Patent that result in infringement when used. As a result of Vizgen's selling and/or offering for sale of the MERSCOPE Platform, other entities on information and belief use these products for their intended purposes and according to Vizgen's instructions with the result that such entities, such as Vizgen's customers and users of the Accused Instrumentalities, directly infringe the asserted claims of the 767 Patent, literally or under the doctrine of equivalents, for the reasons stated above and in Attachment E. As explained below, on information and belief, Vizgen acts knowingly and/or willfully blind as to the existence of the 767 Patent claims and as to the fact that at least the MERSCOPE instruments and reagents are especially made and adapted for this use in an infringing manner, are not staple articles of commerce, and do not have substantial non-infringing uses.

66. On information and belief, Vizgen was aware of or acted with willful blindness to the existence of the 767 Patent and the infringement of the 767 Patent as described above by third parties, including without limitation users, customers, affiliates, parents, subsidiaries, third parties, importers, and/or sellers. On information and belief, Vizgen knew, should have known, or was willfully blind to the existence of the 767 Patent on or around May 2, 2022, as a result of the letter that Vizgen received from 10x, and Vizgen continues to know of the existence of the 767 Patent and Vizgen's contributory infringement upon the service of this Complaint.

67. Plaintiffs have suffered and continue to suffer damages as a result of Vizgen's infringement of the 767 Patent.

68. Unless Vizgen is enjoined from infringing the 767 Patent, Vizgen's efforts to design, develop, market, offer to sell, and sell the Accused Instrumentalities will cause Plaintiffs to suffer irreparable injury for which damages are an inadequate remedy.

#### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiffs respectfully request that the Court enter the following relief in its favor and against Vizgen:

- A. For entry of judgment that the Asserted Patents have been and continue to be infringed by Vizgen, either literally or under the doctrine of equivalents;
- B. For a declaration that each of the Asserted Patents is valid and enforceable;
- C. For permanent injunctions enjoining the aforesaid acts of infringement by Vizgen, its officers, agents, servants, employees, attorneys, parent and subsidiary entities, assigns and successors in interest, and those persons acting in concert with them, including related individuals and entities, customers, representatives, distributors, and dealers. In the alternative, if the Court finds that an injunction is not warranted,

Plaintiffs request an award of post-judgment royalty to compensate for future infringement;

- D. An award of all monetary relief adequate to compensate for damages resulting from Vizgen's infringement, including lost profits but in no event less than a reasonable royalty under 35 U.S.C. § 284 for Vizgen's infringement, including all pre-judgment and post-judgment interest at the maximum rate allowed by law;
- E. A judgment that Vizgen has willfully infringed one or more claims of the Asserted Patents;
- F. A declaration that the case is an exceptional case and that Vizgen be required to pay Plaintiffs' attorneys' fees pursuant to 35 U.S.C. § 285; and
- G. A judgment awarding Plaintiffs such other and further relief as the Court may deem just, reasonable, and proper.

**DEMAND FOR JURY TRIAL**

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Plaintiffs hereby demand a jury trial on all issues so triable.



OF COUNSEL:

Matthew Powers  
Paul Ehrlich  
Stefani Smith  
Robert Gerrity  
Li Shen  
TENSEGRITY LAW GROUP LLP  
555 Twin Dolphin Drive  
Suite 650  
Redwood Shores, CA 94065  
(650) 802-6000

Samantha Jameson  
Kiley White  
TENSEGRITY LAW GROUP LLP  
8260 Greensboro Dr.  
Suite 260  
McLean, VA 22102-3848  
(650) 802-6000

May 3, 2022

MORRIS, NICHOLS, ARSHT & TUNNELL LLP

*/s/ Karen Jacobs*

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Karen Jacobs (#2881)  
Cameron P. Clark (#6647)  
1201 North Market Street  
P.O. Box 1347  
Wilmington, DE 19899  
(302) 658-9200  
kjacobs@morrisnichols.com  
cclark@morrisnichols.com

*Attorneys for Plaintiffs 10x Genomics, Inc. and  
President and Fellows of Harvard College*