

EXHIBIT

8

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS**

NEURAL AI, LLC

Plaintiff,

v.

NVIDIA CORPORATION.,

Defendant.

PUBLIC VERSION

Civil Action No. 7:24-cv-00221

JURY TRIAL DEMANDED

DEFENDANT’S AMENDED ANSWER TO PLAINTIFF’S AMENDED COMPLAINT

Defendant NVIDIA Corporation (“NVIDIA”) hereby provides its amended answer to Plaintiff Neural AI, LLC’s (“Plaintiff”) Amended Complaint for Patent Infringement (Dkt. 30) (“Complaint”). The headings and subheadings in Defendant’s Answer are used solely for purposes of convenience and organization to mirror those appearing in the Complaint; to the extent that any headings or other non-numbered statements in the Complaint contain or imply any allegations, Defendant denies each and every allegation therein. Except as expressly admitted, all allegations in the Complaint are denied.

1. Defendant admits that graphics processor units may be used for artificial intelligence, machine learning, or complex numerical simulation applications. Defendant admits that GPU computing powers many of the most advanced and powerful forms of artificial intelligence over the past decade. Defendant denies the remaining allegations of Paragraph 1.

2. Defendant admits that graphics processor units may be used for complex numerical simulation, machine learning, and training complex models. Defendant further admits that graphics processor units typically have more computational processors than central processing units and are capable of parallel processing. Defendant does not have knowledge or information

sufficient to form a belief as to the truth of the remaining allegations contained in Paragraph 2 and on that basis denies them.

3. Defendant denies the allegations in Paragraph 3 of the Complaint.

4. Defendant denies the allegations in Paragraph 4 of the Complaint.

NATURE OF THE CASE

5. Defendant admits that Plaintiff has asserted claims for patent infringement arising under 35 U.S.C. § 1, et seq., but denies all of Plaintiff's allegations of infringement. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 5 of the Complaint.

6. Defendant does not have knowledge or information sufficient to form a belief as to the truth of the allegations contained in Paragraph 6 and on that basis denies them.

7. Defendant does not have knowledge or information sufficient to form a belief as to the truth of the allegations contained in Paragraph 7 and on that basis denies them.

8. Defendant does not have knowledge or information sufficient to form a belief as to the truth of the allegations contained in Paragraph 8 and on that basis denies them.

9. Defendant admits that Defendant is a Delaware corporation with its headquarters in Santa Clara, California. Defendant further admits that it is registered to conduct business in Texas. Defendant further admits that it has an office in Austin, Texas. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 9 of the Complaint.

JURISDICTION & VENUE

10. Defendant admits that Plaintiff purports to assert claims for patent infringement arising under 35 U.S.C. § 1, et seq., but denies all claims of infringement by Defendant. Defendant admits that the Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 10 of the Complaint.

11. Defendant admits that this Court has personal jurisdiction for the purpose of this particular action and that it does business in Texas and in this District. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 11 of the Complaint.

12. Defendant admits that Defendant has conducted business in within this District, but denies all allegations of infringement. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 12 of the Complaint.

13. Defendant admits that this Court has personal jurisdiction for the purpose of this particular action. To the extent the allegations of Paragraph 13 purport to quote from or characterize the contents of written documents, those documents speak for themselves. Defendant denies the remaining allegations in Paragraph 13 of the complaint.

14. Defendant admits that venue is proper for this case but denies that it is a convenient forum for NVIDIA and its witnesses. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 14 of the complaint.

15. Defendant Nvidia Corporation is a registered business in Texas and has regular and established places of business Defendant admits that it is a registered business in Texas and maintains an office located at 11001 Lakeline Blvd, Suite 100 Bldg. 2, Austin, Texas 78717. To the extent the allegations of Paragraph 15 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 15 of the complaint.

16. Defendant admits that it has hundreds of employees in this District. Defendant does not have knowledge or information sufficient to form a belief as to the truth of the remaining allegations contained in Paragraph 16 and on that basis denies them.

17. Defendant admits that it has open job postings for jobs that may be filled in a number of locations, including in this District. Defendant does not have knowledge or information sufficient to form a belief as to the truth of the remaining allegations contained in Paragraph 17 and on that basis denies them.

18. Defendant admits that it engages it engages in business in this District. Defendant admits that it has customer-facing personnel and operations in this District. Defendant admits that it provides technical support to partners and customers for its products in this District. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 18 of the Complaint.

19. Defendant denies the allegations in Paragraph 19 of the Complaint.

20. Defendant admits that it sells products and provides services in the State of Texas, but denies that those products or services infringe the Asserted Patents. To the extent the allegations in Paragraph 20 of the Complaint relate to the knowledge or actions of third parties, Defendant does not have knowledge or information sufficient to form a belief as to the truth of those allegations and on that basis denies them. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 20 of the Complaint.

21. Defendant admits that it sells products and provides services in the State of Texas, but denies that the use of those products or services infringes the Asserted Patents. To the extent the allegations in Paragraph 21 of the Complaint relate to the knowledge or actions of third parties, Defendant does not have knowledge or information sufficient to form a belief as to the truth of

those allegations and on that basis denies them. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 21 of the Complaint.

22. Defendant admits that it partners with resellers and managed service providers for the sale or installation of certain NVIDIA products. To the extent the allegations of Paragraph 22 purport to quote from or characterize the contents of websites, those documents speak for themselves. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 22 of the Complaint.

23. Defendant admits that it partners with data center providers. To the extent the allegations of Paragraph 23 purport to quote from or characterize the contents of written documents, those documents speak for themselves. To the extent the allegations in Paragraph 23 of the Complaint relate to the knowledge or actions of third parties, Defendant does not have knowledge or information sufficient to form a belief as to the truth of those allegations and on that basis denies them. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 23 of the Complaint.

24. Defendant denies the allegations in Paragraph 24 of the Complaint.

25. To the extent the allegations of Paragraph 25 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 25 of the Complaint.

26. To the extent the allegations of Paragraph 26 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 26 of the Complaint.

27. To the extent the allegations of Paragraph 27 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 27 of the Complaint.

28. Defendant denies the allegations in Paragraph 28 of the Complaint.

29. To the extent the allegations of Paragraph 29 purport to quote from or characterize the contents of written documents, those documents speak for themselves. Defendant denies the remaining allegations in Paragraph 29 of the Complaint.

30. Defendant denies the allegations in Paragraph 30 of the Complaint.

PLAINTIFF'S PATENTED INNOVATIONS

31. Defendant does not have knowledge or information sufficient to form a belief as to the truth of the allegations contained in Paragraph 31 and on that basis denies them.

The GPU-Based Acceleration Patents
U.S. Patent Nos. 8,648,867, RE49,461, and RE48,438

32. Defendant admits that the '461 Patent purports to be a continuation of the '438 Patent, which purports to be an application for reissue of U.S. Patent No. 9,189,828, which purports to be a continuation of the '867 Patent. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 32 of the Complaint.

33. Defendant admits that Exhibit 1 to the Complaint appears to be a copy of the '867 Patent, which is titled "Graphic Processor Based Accelerator System and Method," was filed on September 24, 2007, and was issued on February 11, 2014. Defendant further admits that the '867 Patent purports to claim priority to U.S. Provisional App. No. 60/826,892 but denies that the '867 Patent is entitled to that claim of priority. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 33 of the Complaint.

34. Defendant admits that Exhibit 2 to the Complaint appears to be a copy of the '438 Patent, which is titled "Graphic Processor Based Accelerator System and Method," was filed on November 9, 2017, and was issued on February 16, 2021. Defendant further admits that the '438 Patent purports to claim priority to U.S. Provisional App. No. 60/826,892 but denies that the '438 Patent is entitled to that claim of priority. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 34 of the Complaint.

35. Defendant admits that Exhibit 3 to the Complaint appears to be a copy of the '461 Patent, which is titled "Graphic Processor Based Accelerator System and Method," was filed on December 29, 2020, and was issued on March 14, 2023. Defendant further admits that the '461 Patent purports to claim priority to U.S. Provisional App. No. 60/826,892 but denies that the '461 Patent is entitled to that claim of priority. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 35 of the Complaint.

36. To the extent the allegations of Paragraph 36 purport to quote from or characterize the contents of the '867 Patent, that document speaks for itself. Defendant denies the remaining allegations in Paragraph 36 of the Complaint.

37. To the extent the allegations of Paragraph 37 purport to quote from or characterize the contents of the '867 Patent, that document speaks for itself. Defendant denies the remaining allegations in Paragraph 37 of the Complaint.

38. To the extent the allegations of Paragraph 38 purport to quote from or characterize the contents of the '867 Patent, that document speaks for itself. Defendant denies the remaining allegations in Paragraph 38 of the Complaint.

39. To the extent the allegations of Paragraph 39 purport to quote from or characterize the contents of the '461 and '438 Patents, those documents speak for themselves. Defendant denies the remaining allegations in Paragraph 39 of the Complaint.

40. To the extent the allegations of Paragraph 40 purport to quote from or characterize the contents of the Asserted Patents, those documents speak for themselves. Defendant denies the remaining allegations in Paragraph 40 of the Complaint.

ACCUSED PRODUCTS

41. Defendant admits that it offers GPUs and various hardware and software products, but specifically denies that those products infringe the Asserted Patents. To the extent the allegations of Paragraph 41 purport to quote from or characterize the contents of websites, those documents speak for themselves. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 41 of the Complaint.

42. Defendant admits that “Hopper,” “Ada Lovelace,” “Ampere,” “Turing,” “Volta,” “Pascal,” and “Maxwell” are architectures of Defendant’s GPUs but specifically denies that those products infringe the Asserted Patents. To the extent the allegations of Paragraph 42 purport to quote from or characterize the contents of websites, those documents speak for themselves. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 42 of the Complaint.

43. Defendant admits that its products include the H100 and H200 GPUs, but specifically denies that those products infringe the Asserted Patents. Defendant further admits that it offers the GH200 “Grace Hopper Superchip,” but likewise specifically denies that this product infringes the Asserted Patents. To the extent the allegations of Paragraph 43 purport to quote from

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or characterize the contents of websites, those documents speak for themselves. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 43 of the Complaint.

44. Defendant admits that its products include GPUs with the Ada Lovelace architecture, but specifically denies that those products infringe the Asserted Patents. To the extent the allegations of Paragraph 44 purport to quote from or characterize the contents of websites, those documents speak for themselves. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 44 of the Complaint.

45. Defendant admits that its products include GPUs with the Ampere architecture, but specifically denies that those products infringe the Asserted Patents. To the extent the allegations of Paragraph 45 purport to quote from or characterize the contents of websites, those documents speak for themselves. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 45 of the Complaint.

46. Defendant admits that its products include GPUs with the Turing architecture, but specifically denies that those products infringe the Asserted Patents. To the extent the allegations of Paragraph 46 purport to quote from or characterize the contents of websites, those documents speak for themselves. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 46 of the Complaint.

47. Defendant admits that its products include GPUs with the Volta architecture, but specifically denies that those products infringe the Asserted Patents. To the extent the allegations of Paragraph 47 purport to quote from or characterize the contents of websites, those documents speak for themselves. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 47 of the Complaint.

48. Defendant admits that its products include GPUs with the Pascal architecture, but specifically denies that those products infringe the Asserted Patents. To the extent the allegations of Paragraph 48 purport to quote from or characterize the contents of websites, those documents speak for themselves. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 48 of the Complaint.

49. Defendant admits that its products include GPUs with the Maxwell architecture, but specifically denies that those products infringe the Asserted Patents. To the extent the allegations of Paragraph 49 purport to quote from or characterize the contents of websites, those documents speak for themselves. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 49 of the Complaint.

50. Defendant admits that certain of Defendant's GPU architectures support the CUDA platform. To the extent the allegations of Paragraph 50 purport to quote from or characterize the contents of websites, those documents speak for themselves. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 50 of the Complaint.

51. Defendant admits that it has marketed products under the EGX, HGX, DGX, and OVX product names, but specifically denies that those products infringe the Asserted Patents. To the extent the allegations of Paragraph 51 purport to quote from or characterize the contents of websites, those documents speak for themselves. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 51 of the Complaint.

52. To the extent the allegations of Paragraph 52 purport to quote from or characterize the contents of websites, those documents speak for themselves. Defendant denies the remaining allegations in Paragraph 52 of the Complaint.

53. Paragraph 53 of the Complaint does not contain any allegation which requires a response.

54. To the extent the allegations of Paragraph 54 purport to quote from or characterize the contents of websites, those documents speak for themselves. Defendant denies the remaining allegations in Paragraph 54 of the Complaint.

55. To the extent the allegations of Paragraph 55 purport to quote from or characterize the contents of websites, those documents speak for themselves. Defendant denies the remaining allegations in Paragraph 55 of the Complaint.

56. To the extent the allegations of Paragraph 56 purport to quote from or characterize the contents of websites, those documents speak for themselves. Defendant denies the remaining allegations in Paragraph 56 of the Complaint.

57. To the extent the allegations of Paragraph 57 purport to quote from or characterize the contents of websites, those documents speak for themselves. Defendant denies the remaining allegations in Paragraph 57 of the Complaint.

58. To the extent the allegations of Paragraph 58 purport to quote from or characterize the contents of websites, those documents speak for themselves. Defendant denies the remaining allegations in Paragraph 58 of the Complaint.

59. To the extent the allegations of Paragraph 59 purport to quote from or characterize the contents of websites, those documents speak for themselves. Defendant denies the remaining allegations in Paragraph 59 of the Complaint.

60. To the extent the allegations of Paragraph 60 purport to quote from or characterize the contents of websites, those documents speak for themselves. Defendant denies the remaining allegations in Paragraph 60 of the Complaint.

FIRST CAUSE OF ACTION
(INFRINGEMENT OF THE '867 PATENT)

61. Defendant restates and incorporates by reference its answers to the preceding paragraphs of the Complaint.

62. Defendant denies the allegations in Paragraph 62 of the Complaint.

63. Paragraph 63 of the Complaint does not contain any allegation which requires a response.

64. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 64 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 64 of the Complaint.

65. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 65 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 65 of the Complaint.

66. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 66 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 66 of the Complaint.

67. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 67 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 67 of the Complaint.

68. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 68 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 68 of the Complaint.

69. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 69 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 69 of the Complaint.

70. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 70 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 70 of the Complaint.

71. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 71 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 71 of the Complaint.

72. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 72 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 72 of the Complaint.

73. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 73 purport to quote from or characterize the contents of

websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 73 of the Complaint.

74. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 74 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 74 of the Complaint.

75. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 75 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 75 of the Complaint.

76. Defendant denies the allegations in Paragraph 76 of the Complaint.

77. Defendant admits that Mr. Sanford Russell was employed by NVIDIA in 2007. Defendant denies that Mr. Russell was, at any point in time, the CTO of NVIDIA. Defendant does not have knowledge or information sufficient to form a belief as to the truth of the allegations regarding the alleged communications between NVIDIA employees and Neurala made in 2007 and on that basis denies them. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 77 of the Complaint.

78. Defendant admits that, in or around 2016, Defendant had discussions with Neurala, Inc. and that at least Mr. Alvin Lin and/or Mr. Jeff Herbst from Defendant were involved. Defendant also admits that, in 2016, Defendant had discussions with at least one of the inventors regarding potential investments in Neurala, Inc. Defendant denies the remaining allegations in Paragraph 78 of the Complaint.

79. Defendant admits that it hosted its GPU Technology Conference in May of 2017. To the extent the allegations of Paragraph 79 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 79 of the Complaint.

80. Defendant denies the allegations in Paragraph 80 of the Complaint.

81. Defendant denies the allegations in Paragraph 81 of the Complaint.

82. Defendant denies the allegations in Paragraph 82 of the Complaint.

83. Defendant denies the allegations in Paragraph 83 of the Complaint.

84. Defendant denies the allegations in Paragraph 84 of the Complaint.

85. Defendant denies the allegations in Paragraph 85 of the Complaint.

86. Defendant denies the allegations in Paragraph 86 of the Complaint.

87. Defendant admits that it sells and has sold its products and provides certain technical support to its customers for those products. To the extent the allegations of Paragraph 87 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 87 of the Complaint.

88. Defendant denies the allegations in Paragraph 88 of the Complaint.

89. Defendant denies the allegations in Paragraph 89 of the Complaint.

90. Defendant denies the allegations in Paragraph 90 of the Complaint.

91. Defendant denies the allegations in Paragraph 91 of the Complaint.

92. Defendant denies the allegations in Paragraph 92 of the Complaint.

93. Defendant denies the allegations in Paragraph 93 of the Complaint.

SECOND CAUSE OF ACTION
(INFRINGEMENT OF THE '438 PATENT)

94. Defendant restates and incorporates by reference its answers to the preceding paragraphs of the Complaint.

95. Defendant denies the allegations in Paragraph 95 of the Complaint.

96. Paragraph 96 of the Complaint does not contain any allegation which requires a response.

97. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 97 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 97 of the Complaint.

98. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 98 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 98 of the Complaint.

99. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 99 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 99 of the Complaint.

100. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 100 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 100 of the Complaint.

101. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 101 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 101 of the Complaint.

102. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 102 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 102 of the Complaint.

103. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 103 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 103 of the Complaint.

104. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 104 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 104 of the Complaint.

105. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 105 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 105 of the Complaint.

106. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 106 purport to quote from or characterize the contents of

websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 106 of the Complaint.

107. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 107 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 107 of the Complaint.

108. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 108 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 108 of the Complaint.

109. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 109 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 109 of the Complaint.

110. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 110 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 110 of the Complaint.

111. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 111 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 111 of the Complaint.

112. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 112 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 112 of the Complaint.

113. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 113 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 113 of the Complaint.

114. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 114 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 114 of the Complaint.

115. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 115 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 115 of the Complaint.

116. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 116 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 116 of the Complaint.

117. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 117 purport to quote from or characterize the contents of

websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 117 of the Complaint.

118. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 118 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 118 of the Complaint.

119. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 119 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 119 of the Complaint.

120. Defendant denies the allegations in Paragraph 120 of the Complaint.

121. Defendant admits that Mr. Sanford Russell was employed by NVIDIA in 2007. Defendant denies that Mr. Russell was, at any point in time, the CTO of NVIDIA. Defendant does not have knowledge or information sufficient to form a belief as to the truth of the allegations regarding the alleged communications between NVIDIA employees and Neurala made in 2007 and on that basis denies them. Defendant admits that it became aware of the '438 Patent since at least the filing of this Complaint. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 121 of the Complaint.

122. Defendant admits that, in or around 2016, Defendant had discussions with Neurala, Inc. and that at least Mr. Alvin Lin and/or Mr. Jeff Herbst from Defendant were involved. Defendant also admits that, in 2016, Defendant had discussions with at least one of the inventors regarding potential investments in Neurala, Inc. Defendant denies the remaining allegations in Paragraph 122 of the Complaint.

123. Defendant admits that it hosted its GPU Technology Conference in May of 2017. To the extent the allegations of Paragraph 123 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 123 of the Complaint.

124. Defendant denies the allegations in Paragraph 124 of the Complaint.

125. Defendant denies the allegations in Paragraph 125 of the Complaint.

126. Defendant denies the allegations in Paragraph 126 of the Complaint.

127. Defendant denies the allegations in Paragraph 127 of the Complaint.

128. Defendant denies the allegations in Paragraph 128 of the Complaint.

129. Defendant denies the allegations in Paragraph 129 of the Complaint.

130. Defendant denies the allegations in Paragraph 130 of the Complaint.

131. Defendant admits that it sells and has sold its products and provides certain technical support to its customers for those products. To the extent the allegations of Paragraph 131 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 131 of the Complaint.

132. Defendant denies the allegations in Paragraph 132 of the Complaint.

133. Defendant denies the allegations in Paragraph 133 of the Complaint.

134. Defendant denies the allegations in Paragraph 134 of the Complaint.

135. Defendant denies the allegations in Paragraph 135 of the Complaint.

136. Defendant denies the allegations in Paragraph 136 of the Complaint.

137. Defendant denies the allegations in Paragraph 137 of the Complaint.

THIRD CAUSE OF ACTION
(INFRINGEMENT OF THE '461 PATENT)

138. Defendant restates and incorporates by reference its answers to the preceding paragraphs of the Complaint.

139. Defendant denies the allegations in Paragraph 139 of the Complaint.

140. Paragraph 140 of the Complaint does not contain any allegation which requires a response.

141. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 141 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 141 of the Complaint.

142. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 142 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 142 of the Complaint.

143. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 143 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 143 of the Complaint.

144. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 144 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 144 of the Complaint.

145. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 145 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 145 of the Complaint.

146. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 146 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 146 of the Complaint.

147. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 147 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 147 of the Complaint.

148. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 148 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 148 of the Complaint.

149. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 149 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 149 of the Complaint.

150. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 150 purport to quote from or characterize the contents of

websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 150 of the Complaint.

151. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 151 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 151 of the Complaint.

152. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 152 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 152 of the Complaint.

153. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 153 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 153 of the Complaint.

154. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 154 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 154 of the Complaint.

155. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 155 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 155 of the Complaint.

156. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 156 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 156 of the Complaint.

157. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 157 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 157 of the Complaint.

158. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 158 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 158 of the Complaint.

159. Defendant specifically denies that it has infringed any of the Asserted Patents. To the extent the allegations of Paragraph 159 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 159 of the Complaint.

160. Defendant denies the allegations in Paragraph 160 of the Complaint.

161. Defendant admits that Mr. Sanford Russell was employed by NVIDIA in 2007. Defendant denies that Mr. Russell was, at any point in time, the CTO of NVIDIA. Defendant does not have knowledge or information sufficient to form a belief as to the truth of the allegations regarding the alleged communications between NVIDIA employees and Neurala made in 2007 and on that basis denies them. Defendant admits that it became aware of the '461 Patent since at

least the filing of this Complaint. Except as expressly admitted, Defendant denies the remaining allegations in Paragraph 161 of the Complaint.

162. Defendant admits that, in or around 2016, Defendant had discussions with Neurala, Inc. and that at least Mr. Alvin Lin and/or Mr. Jeff Herbst from Defendant were involved. Defendant also admits that, in 2016, Defendant had discussions with at least one of the inventors regarding potential investments in Neurala, Inc. Defendant denies the remaining allegations in Paragraph 162 of the Complaint.

163. Defendant admits that it hosted its GPU Technology Conference in May of 2017. To the extent the allegations of Paragraph 161 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 163 of the Complaint.

164. Defendant denies the allegations in Paragraph 164 of the Complaint.

165. Defendant denies the allegations in Paragraph 165 of the Complaint.

166. Defendant denies the allegations in Paragraph 166 of the Complaint.

167. Defendant denies the allegations in Paragraph 167 of the Complaint.

168. Defendant denies the allegations in Paragraph 168 of the Complaint.

169. Defendant denies the allegations in Paragraph 169 of the Complaint.

170. Defendant denies the allegations in Paragraph 170 of the Complaint.

171. Defendant admits that it sells and has sold its products and provides certain technical support to its customers for those products. To the extent the allegations of Paragraph 171 purport to quote from or characterize the contents of websites, those websites speak for themselves. Defendant denies the remaining allegations in Paragraph 171 of the Complaint.

172. Defendant denies the allegations in Paragraph 172 of the Complaint.

173. Defendant denies the allegations in Paragraph 173 of the Complaint.

174. Defendant denies the allegations in Paragraph 174 of the Complaint.

175. Defendant denies the allegations in Paragraph 175 of the Complaint.

176. Defendant denies the allegations in Paragraph 176 of the Complaint.

177. Defendant denies the allegations in Paragraph 177 of the Complaint.

PRAYER FOR RELIEF

Defendant denies any factual assertions contained in Plaintiff's Prayer for Relief. Defendant further denies that Plaintiff is entitled to any relief whatsoever, including but not limited to the relief sought in Paragraphs A-G of the Complaint.

DEMAND FOR JURY TRIAL

A response is not required to Plaintiff's demand for a jury trial.

DEFENSES

Defendant repeats and re-alleges the allegations of the preceding Paragraphs as if fully set forth herein. Defendant asserts the following defenses to Plaintiff's Complaint, without admitting or acknowledging that Defendant bears the burden of proof as to any of them or that any must be pleaded as defenses. Defendant specifically reserves all rights to allege additional defenses that become known through the course of discovery.

FIRST DEFENSE (Non-Infringement)

Defendant has not and does not infringe, either literally or under the doctrine of equivalents, any valid and enforceable claim of any Asserted Patent, whether directly, indirectly, contributorily, by inducement, individually, jointly, willfully, or otherwise. Additionally, with respect to Plaintiff's allegations of indirect, joint, and willful infringement, Defendant lacks the requisite *mens rea*.

SECOND DEFENSE
(Invalidity & Ineligibility)

The Asserted Claims are invalid under at least 35 U.S.C. §§ 101, 102, 103, and/or 112. Defendant incorporates by reference its forthcoming invalidity contentions and all amendments thereto.

THIRD DEFENSE
(No Willfulness, Enhanced Damages, or Attorneys' Fees)

Plaintiff is not entitled to enhanced damages under 35 U.S.C. § 284, at least because Plaintiff has failed to show, and cannot show, that any infringement has been willful and/or knowing. Plaintiff is not entitled to an award of attorney's fees under 35 U.S.C. § 285, at least because Plaintiff has failed to show, and cannot show, that this case is "exceptional" in Plaintiff's favor as would be required by the statute.

FOURTH DEFENSE
(Statutory Limitation on Damages)

Plaintiff's claims for relief are statutorily limited in whole or in part by 35 U.S.C. §§ 286 and/or 287. In addition, to the extent Plaintiff seeks damages for allegedly infringing acts committed more than six years prior to the filing of the Complaint in this action, it is barred from recovery of such damages.

Additionally, to the extent Plaintiff or any licensee of the Asserted Patent failed to properly mark any of their relevant products as required by 35 U.S.C. § 287 or otherwise failed to give proper notice that Defendant's actions allegedly infringed any Asserted Claim, Defendant is not liable to Plaintiff for the acts alleged to have been performed before Defendant received actual notice of infringement.

FIFTH DEFENSE
(License, Exhaustion, Waiver, and Estoppel)

Plaintiff's claims are barred, in whole or in part, by license, exhaustion, and/or the

doctrines of waiver and/or equitable estoppel.

**SIXTH DEFENSE
(Inexcusable Delay)**

Plaintiff is barred from enforcing the Asserted Patents due to inexcusable delay in reviving the '867 patent after it was abandoned.

**SEVENTH DEFENSE
(Intervening Rights)**

Plaintiff's claims are barred by the doctrine of absolute intervening rights and the doctrine of equitable intervening rights with respect to any Accused Product or technology that predates the date of the revival of the '867 patent and/or the date of the reissue of the '461 and '438 patents. 35 U.S.C. § 252.

**EIGHTH DEFENSE
(Improper Reissue)**

The claims of the '438 and '461 patents are invalid pursuant to 35 U.S.C. § 251 because they enlarge the scope of the claims of the original patent and/or because they improperly recapture subject matter that the patentee intentionally surrendered to obtain a valid patent.

**NINTH DEFENSE
(28 U.S.C. § 1498)**

On information and belief, Plaintiff's claims against NVIDIA for patent infringement are barred, in whole or in part, by 28 U.S.C. § 1498.

**TENTH DEFENSE
(Ensnarement)**

Plaintiff is barred by the doctrine of ensnarement from contending that any Asserted Claim covers any product, service, or method practiced, manufactured, used, sold, or offered for sale by Defendant in any manner that would ensnare the prior art.

ELEVENTH DEFENSE
(Territoriality)

Plaintiff is not entitled to damages arising from any purported indirect infringement by Defendant that is premised on direct infringement by end-users occurring outside of the United States under 35 U.S.C. § 271.

TWELFTH DEFENSE
(No Standing)

Plaintiff's claims are barred because Plaintiff lacks standing to bring this suit. Specifically, Plaintiff cannot prove that it is the rightful owner of the Asserted Patents.

THIRTEENTH DEFENSE
(Failure to State a Claim)

The Complaint fails to state a claim upon which relief may be granted.

FOURTEENTH DEFENSE
(Inconvenient Venue)

For the convenience of parties and witnesses, venue for this action is not convenient in this district and would be more appropriate in another district. 28 U.S.C. § 1404.

FIFTEENTH DEFENSE
(Reservation of Defenses)

Defendant reserves all affirmative defenses under Rule 8(c) of the Federal Rules of Civil Procedure, as well as any other defenses at law or in equity that may exist now or that may be available in the future.

SIXTEENTH DEFENSE
(Unenforceability Due to Inequitable Conduct)

1. Each of the claims of the Asserted Patents is unenforceable due to inequitable conduct committed by prior assignee Neurala, one or more of the named inventors (Anatoli Gorchetchnikov, Heather Marie Ames, Massimiliano Versace, and Fabrizio Santini), and/or

prosecution counsel for prior assignee Neurala or current assignee NAI (including, but not limited to, Christopher Max Colice).

2. This case arises from a pattern of concealment and misrepresentation surrounding a purported improvement to general-purpose computing on graphics processing units (“GPGPU”). Long before Neurala’s initial patent application that led to the Asserted patents was filed, NVIDIA had pioneered GPGPU computing, developing both the hardware and software foundations for executing general-purpose numerical computations on GPUs. NVIDIA’s engineers—through technologies such as BrookGPU and well-known books such as GPU Gems 2—publicly disclosed the very concepts later claimed by Neurala. These were not obscure academic papers; they were well-known, widely cited works intended to teach the industry how to harness GPUs for scientific computing. Neurala and the named inventors were well aware of not only NVIDIA’s role in GPGPU development, but of NVIDIA’s specific teachings in GPU Gems 2 and other technologies.

3. Against this backdrop, the Asserted Patents claim a narrow and incremental purported improvement to GPGPU—such as merely offloading certain setup and control functions from the host CPU to an “accelerator controller.” This supposed improvement did not create a new GPGPU paradigm; it merely repeated well understood ideas from NVIDIA’s prior work and contributions to the field. Yet Neurala’s inventors and attorneys withheld NVIDIA’s key patents and publications—including GPU Gems 2—from the Patent Office while advancing their own application.

4. There are two independent bases for an inequitable conduct finding, either of which, standing alone, renders the Asserted Patents unenforceable. Together, they demonstrate a coordinated pattern of misleading conduct intended to misdirect the Patent Office about the true

state of the art, the inventors' knowledge of it, and Neurala's desperate attempt to get patents on technology it did not invent.

5. ***Withholding of Material Prior Art.*** The claims of the Asserted Patents are unenforceable due to Neurala's and/or one or more of the named inventors' intentional withholding of material prior art references during prosecution of the Asserted Patents with an intent to deceive the Patent Office.

6. ***False Declaration Regarding Abandonment.*** The claims of the Asserted Patents are also unenforceable due to Neurala's filing of a false declaration regarding abandonment of the application that issued as the '867 patent. Without that false declaration, none of the Asserted Patents would have issued.

7. Collectively, these acts form a coherent pattern of inequitable conduct—a deliberate effort to obscure NVIDIA's pioneering role in GPGPU computing and to mislead the Patent Office into granting patents on technology NVIDIA and others had already disclosed to the world.

Withholding Material Prior Art

8. Neurala, each of the named inventors, and their counsel involved in the prosecution of the Asserted Patents had a duty of candor and good faith in dealing with the Patent Office, as required by 37 C.F.R. § 1.56. Their individual and collective failure to disclose known material prior art was done with specific intent to mislead or deceive the Patent Office into issuing each of the Asserted Patents. As a result, all of the Asserted Patents are unenforceable due to inequitable conduct.

Knowledge and Materiality of GPU Gems 2

9. Neurala, one or more of the named inventors, and/or Neurala's prosecution counsel intentionally withheld GPU Gems 2: Programming Techniques for High-Performance Graphics and General-Purpose Computation ("GPU Gems 2") (March 2005) from the Patent Office.

10. NVIDIA published a series of books that provided practical guidance and techniques for using GPUs in general-purpose applications, helping developers harness the parallel processing power of GPUs for a wide range of fields. One of those books was GPU Gems 2, which NVIDIA published on the Internet in March 2005 and made it available for download for free to anyone that wanted to download it. *See* Ex. 1 (April 1, 2025 Invalidity Contentions Ex. A11), Ex. 2 (August 29, 2025 Supplemental Invalidity Contentions Supp. Ex. A11), Ex. 3 (April 1, 2025 Invalidity Contentions App'x B), Ex. 4 (April 1, 2025 Invalidity Contentions Ex. C11). At least one of the named inventors [REDACTED]

[REDACTED]. Despite extensive knowledge of GPU Gems 2 and its direct relevance for teaching techniques for using GPUs in general-purpose applications, that inventor and Neurala withheld GPU Gems 2 from the Patent Office for all seven years that the '867 patent was pending and every year since.

11. [REDACTED] not only was intimately familiar with GPU Gems 2 prior to the filing of the provisional patent application from which the Asserted Patents claim priority but also

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

12. [REDACTED] and one or more of the other named inventors met regularly to discuss the implementation of the project and the filing of the provisional patent application from which the Asserted Patents claim priority. *See, e.g.,* [REDACTED]. On information and belief, the other named inventors and/or prosecution counsel were also aware of GPU Gems 2 due to the close nature of their working relationship with [REDACTED].

13. As NVIDIA detailed in its Invalidity Contentions served April 1, 2025, August 29, 2025, and October 30, 2025, GPU Gems 2 is a prior art reference that is material to each of the '867, '461, and '438 patents. GPU Gems 2 anticipates the '867 and '438 patents and discloses key elements of the '461 patent claims. When combined with other unconsidered prior art, including NVIDIA's own patents, GPU Gems 2 renders obvious all of the Asserted Claims of the Asserted Patents. *See* Exs. 1, 2, 3, 4; *see also* Ex. 14 (April 1, 2025, Preliminary Invalidity Contentions Cover Pleading), Ex. 15 (August 29, 2025 Supplemental Invalidity Contentions Cover Pleading), Ex. 16 (October 30, 2025 Second Supplemental Invalidity Contentions Cover Pleading). The Patent Office would not have allowed the '867, '461, or '438 patents to issue but for the withholding of GPU Gems 2. *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1290–91 (Fed. Cir. 2011). For example, as NVIDIA details in its Invalidity Contentions with respect to claim 16 of the '867 patent, GPU Gems 2 teaches “an accelerator controller, operably coupled to the accelerator memory and the central processing unit.” *See* Ex. 1 at 15–44; Ex. 2; Ex. 17 ('867 patent file history) at 43. GPU Gems 2 teaches that the accelerator controller that “transfer[s] the

at least the portion of the input data into the accelerator memory before the first computational cycle.” *See* Ex. 1 at 27–44; Ex. 2; Ex. 17 at 43. GPU Gems 2 teaches that the accelerator controller that “transfer[s] the first output data from the accelerator memory to the main memory during the second computational cycle” and “direct[s] the second output data into the second partition during the second computational cycle.” *See* Ex. 1 at 54–69; Ex. 2; Ex. 17 at 43. GPU Gems 2 teaches that the accelerator controller “swap[s] the first pointer and the second pointer at the conclusion of the second computational cycle such that the second output data becomes an input for a third computational cycle of the plurality of computational cycles.” *See* Ex. 1 at 69–78; Ex. 2; Ex. 17 at 43.

Knowledge and Materiality of SANNDRA/KInNeSS

14. Mr. Gorchetchnikov and Mr. Massimiliano Versace—named inventors of the Asserted Patents—developed Synchronous Artificial Neuronal Networks Distributed Runtime Algorithm (SANNDRA) and its implementation on KDE Integrated NeuroSimulation Software (KInNeSS) (“SANNDRA/KInNeSS”) (March 2005). SANNDRA version 1.1.x and KInNeSS 0.3.3 (on which SANNDRA was implemented) were publicly available and in use by March 2005 based at least on the following information: KInNeSS: A new software environment for simulations of neuronal activity; 9th International conference on Cognitive and Neural Systems (Boston, MA, 2004); <https://web.archive.org/web/20051030032020/http://www.kinness.net/> (KInNeSS documentation); <https://web.archive.org/web/20080828055305fw/http://symphony.bu.edu/Docs/SANNDRA/html/index.html> (SANNDRA API documentation); *see also* Ex. 5 (April 1, 2025 Invalidity Contentions Ex. A7), Ex. 6 (April 1, 2025 Invalidity Contentions Ex. B7), Ex. 7 (April 1, 2025 Invalidity Contentions Ex. C7).

15. Furthermore, the specification of the Asserted Patents acknowledges that SANNDRA “was developed to accelerate and optimize processing of numerical integration of large non-homogenous systems of differential equations.” ’867 patent at 9:25–35. And although the Asserted Patents reference version 2.x.x of SANNDRA as “an example practical software implementation of the method and architecture described above and pictorially represented in FIG. 3,” the applicant failed to identify previous, publicly available versions of SANNDRA or KInNeSS as relevant prior art to the Patent Office. *Id.*; [REDACTED]

[REDACTED] Neurala, the named inventors, and their prosecution counsel further failed to fully disclose the relevance and materiality of their own software to the Patent Office, despite being the ones in the best position to do so. NVIDIA expects further discovery, including complete production of the documents that NVIDIA requested from Neurala on July 30, 2025, to shed further light on Mr. Gorchetchnikov’s and Mr. Versace’s concealment of earlier versions of SANNDRA/KInNeSS.

16. SANNDRA 1.1.x and earlier versions, as implemented on KInNeSS, together with other undisclosed references (such as Nickolls and Kirk, among others) renders obvious all of the Asserted Claims of the Asserted Patents as shown by Exs. 5, 6, 7, and 16. The Patent Office would not have allowed the ’867, ’461, or ’438 patents to issue but for the withholding of SANNDRA/KInNeSS. *Therasense*, 649 F.3d at 1290–91.

Knowledge and Materiality of Cg

17. The C for Graphics (Cg) language (2003) is a high-level shading language created by NVIDIA in collaboration with Microsoft to program graphics shaders on GPUs. Cg was made available as an open-source release and in public use by 2003 based at least on the following

information: The Cg Tutorial: The Definitive Guide to Programmable Real-Time Graphics (2003); https://web.archive.org/web/20041205090713/http://developer.nvidia.com:80/object/cg_toolkit.html (“Cg Toolkit”); *see also* Ex. 8 (April 1, 2025 Invalidity Contentions Ex. A4), Ex. 9 (April 1, 2025 Invalidity Contentions Ex. B4), Ex. 10 (April 1, 2025 Invalidity Contentions Ex. C4).

18. [REDACTED]

19. The Cg language, together with other references (such as Nickolls and Kirk, among others) renders obvious all of the Asserted Claims of the Asserted Patents as shown by Exs. 8, 9, 10, and 16. The Patent Office would not have allowed the ’867, ’461, or ’438 patents to issue but for the withholding of Cg. *Therasense*, 649 F.3d at 1290–91.

Knowledge and Materiality of BrookGPU

20. The BrookGPU programming language (2004) is an early system developed at Stanford University to enable general-purpose computing on graphics processing units (GPGPU). BrookGPU was publicly available and in use by 2004 based at least on the following information: Buck et al., Brook for GPUs: Stream Computing on Graphics Hardware, ACM, 2004 (“Brook for GPU 2004”); <https://web.archive.org/web/20041205061111/http://graphics.stanford.edu/projects/brookgpu/start.html> (BrookGPU documentation); *see also* Ex. 11 (April 1, 2025 Invalidity Contentions Ex. A5), Ex. 12 (April 1, 2025 Invalidity Contentions Ex. B5), Ex. 13 (April 1, 2025 Invalidity Contentions Ex. C5).

21. [REDACTED]

22. The BrookGPU language, together with other references (such as Nickolls and Kirk, among others) renders obvious all of the Asserted Claims of the Asserted Patents, as shown by Exs.

11, 12, 13, and 16. The Patent Office would not have allowed the '867, '461, or '438 patents to issue but for the withholding of BrookGPU. *Therasense*, 649 F.3d at 1290–91.

Withholding of Material References

23. Despite their awareness of numerous references relevant to the technology of the Asserted Patents, the named inventors did not provide any prior art to the Patent Office during prosecution of the '867 patent. Only four references are disclosed on the face of the '867 patent as having been considered during prosecution, and all four were identified by the examiner in a Notice of References Cited. Although each of the four references cited by the examiner relates to graphics rendering, none of the references provide the practical guidance and techniques for using GPUs in general-purpose applications that GPU Gems 2 does, or the relevant applied examples and implementations that system art, such as SANNDRA/KInNeSS, Cg, or BrookGPU provides. For each of the two reissue patents, the applicant took the opposite approach and submitted *hundreds* of references, none of which was GPU Gems 2, SANNDRA/KInNeSS, Cg, or BrookGPU, and none of which provide the relevant applied examples and implementations that GPU Gems 2 does.

24. None of GPU Gems 2, SANNDRA/KInNeSS, Cg, or BrookGPU is cumulative of the information already on record. Unlike the four graphics-rendering references cited by the examiner, these materials disclose practical architectures, applied examples, and implementation-level guidance applicable to GPGPU—the very subject matter of the Asserted Patents. But for their withholding, the Patent Office would not have allowed any of the '867, '461, or '438 patents to issue. The deliberate withholding of these NVIDIA and other GPGPU-related references deprived the examiner of the most relevant prior art and materially misled the Patent Office about the true state of the art.

Intent to Deceive

25. [REDACTED]—and by extension, Neurala—knew of these material prior art references. On information and belief, the other named inventors and their counsel involved in prosecution were similarly aware of these references and knew of their materiality to the Asserted Patents. [REDACTED] and others were aware of GPU Gems 2, SANNDRA/KInNeSS, Cg, or BrookGPU and made the conscious decision to withhold it from the Patent Office.

26. The inventors did not file their provisional application until September 25, 2006, over a year after [REDACTED] first reviewed GPU Gems 2. And the inventors did not disclose GPU Gems 2 to the Patent Office at any time during nearly seven years of prosecution of the application that led to the '867 patent. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Each of these references was material and not cumulative of the bare record before the examiner during prosecution of the '867 patent. It is simply not credible that the named inventors did not think that any prior art was material to prosecution. These facts demonstrate an intent to deceive the Patent Office by not providing any prior art for its consideration. Thus, for the '867 patent, by withholding all known references, the inventors may have aimed to create a misleading impression of the uniqueness and inventiveness of their claims. For the two reissue patents, the applicant attempted to flood the Patent Office with references to distract from the key prior art that was omitted: GPU Gems 2, SANNDRA/KInNeSS, Cg, and BrookGPU. These facts, and those yet to be ascertained through discovery demonstrate that the most reasonable inference to draw is that the named inventors intended to deceive the Patent Office by withholding references during prosecution.

27. On information and belief, Neurala and the named inventors also intentionally chose not to disclose GPU Gems 2 to its attorneys responsible for prosecution of the patent applications at the Patent Office, knowing that such attorneys also owed a duty of candor to the Patent Office, and would disclose the reference to the Patent Office and the examiner if the attorneys were to become aware of it. In either case, Neurala and the named inventors violated the duty of candor that each of them owed to the Patent Office.

28. A pattern of deceiving the Patent Office continues. For example, current assignee Neural AI recently paid the 11-year maintenance fee for the '867 patent and did so with a representation that it was entitled to small entity status, even though it knew it was no longer entitled to small entity status due to [REDACTED]

29. These facts, when taken together with the evidence of intent presented for the other basis of inequitable conduct, demonstrate a pattern of conduct that shows a continuing intent to deceive the Patent Office.

Filing a False Declaration Regarding Abandonment of an Application

30. In addition to failing to disclose material prior art references during the prosecution of the '867 patent that, if cited, would have precluded the claims in that patent from issuing, Neurala and its prosecution counsel also affirmatively misled the Patent Office when it revived the abandoned application that issued as the '867 patent. But for its misrepresentation, none of the Asserted Patents would have issued because the patent application from which all of those patents stem would have remained abandoned. This affirmative misrepresentation is part of Neurala's continued pattern of inequitable conduct in front of the Patent Office to obtain the Asserted Patents.

31. Specifically, Neurala and its prosecution counsel allowed the application that issued as the '867 patent (U.S. Patent Appl. No. 11/860,254) ("the '254 application") to become

abandoned for more than two years before belatedly filing a false, generic declaration alleging that the '254 application had been unintentionally abandoned in an attempt to revive it. The claims of each of the Asserted Patents are therefore also unenforceable due to a false declaration regarding abandonment of the application that issued as the '867 patent.

32. The application that issued as the '867 patent (U.S. Patent Appl. No. 11/860,254) ("the '254 application") was filed on September 24, 2007. The Patent Office issued a non-final Office Action on September 16, 2010, with a three month non-statutory time period for reply. A response to the Office Action was due on December 16, 2010 without payment of extension fees, but the applicant neither filed a response nor requested an extension of time under the provisions of 37 C.F.R. § 1.136(a), and the '254 application became abandoned on December 17, 2010, the day after the expiration of the shortened non-statutory deadline established in the non-final Office Action.

33. On April 12, 2011, the Patent Office mailed a notice of abandonment to the applicant. It was not until July 31, 2013—more than two years later—that the applicant filed a petition to revive the '254 application. The petition was signed by Christopher Max Colice of Foley & Lardner LLP and included the statement that "[t]he entire delay in filing the required reply from the due date for the required reply until the filing of a grantable petition under 37 CFR 1.137(b) was unintentional." Ex. 17 at 64–88. At the time, no power of attorney had been filed listing Mr. Colice as Neurala's attorney of record. There is no indication in the statement what investigation Mr. Colice undertook or how he determined that abandonment was "unintentional." Furthermore, the attorney advisor reviewing the petition noted that it was "not apparent whether the person signing the statement of unintentional delay was in a position to have firsthand or direct knowledge

of the facts and circumstances of the delay at issue,” and that there was “no indication that the petition [wa]s signed by a registered patent attorney or patent agent of record. *Id.* at 62.

34. Materiality. The material prong is met “[w]hen the patentee has engaged in affirmative acts of egregious misconduct, such as the filing of an unmistakably false affidavit.” *Therasense*, 649 F.3d at 1292; *see also Rohm & Haas Co. v. Crystal Chem. Co.*, 722 F.3d 1556, 1571 (Fed. Cir. 1983) (“there is no room to argue that submission of false affidavits is not material”); *Intellect Wireless, Inc. v. HTC Corp.*, 732 F.3d 1339, 1342 (Fed. Cir. 2013); *Apotex, Inc. v. UCB, Inc.*, 763 F.3d 1354 (Fed. Cir. 2014). An affirmative act of egregious misconduct is inherently material. *Therasense*, 649 F.3d at 1292. The filing of a false revival petition under 37 CFR § 1.137(a) is an affirmative act of egregious misconduct. *In re Rembrandt Techs. LP Patent Litig.*, 899 F.3d 1254, 1272–74 (Fed. Cir. 2018). Because the ’867 patent (which issued from the ’254 application) was the first patent in the family, but for the false statement in the Petition for Revival, all Asserted Patents would not have issued and thus would no longer be in force. The false statement to the Patent Office is therefore material to patentability. *See, e.g., 3D Med. Imaging Sys. LLC v. Visage Imaging Inc.*, 228 F. Supp. 3d 1331, 1338–39 (N.D. Ga. 2017).

35. Intent. The intent of Mr. Colice and/or the named inventors to deceive the Patent Office is evidenced at least by the length of time that elapsed between the dates of the Office Action (September 16, 2010), when the application became abandoned (December 18, 2010), the Notice of Abandonment (April 12, 2011), and the applicant’s Petition for Revival (July 31, 2013). For example, there is no explanation why it took almost three full years from when the Office Action was issued for the applicant to respond to the Office Action. Even after Neurala LLC was notified of the abandonment, it took more than two years to file a Petition for Revival, accompanied by only a generic statement that the entire delay was unintentional. The most reasonable inference

to draw is that there was an intent to allow the application to become abandoned, and that Mr. Colice and/or the named inventors intended to deceive the Patent Office by submitting a false declaration stating that the abandonment of the '254 application was unintentional.

36. The '254 application was the first application in the chain of applications for the Asserted Patents (it issued as the asserted '867 patent). If the '254 application had been deemed abandoned and no false declaration had been filed, no patents in the asserted patent family would have issued. Therefore, all Asserted Patents should be rendered unenforceable due to the filing of a false declaration in the prosecution of the '867 patent.

37. These facts, when taken together with the evidence of intent presented for the other basis of inequitable conduct, demonstrate a pattern of conduct that shows a continuing intent to deceive the Patent Office.

Infectious Unenforceability

38. The '254 application—from which the '867 patent issued—was the first application in the chain of applications for the Asserted Patents. Each of the '461 and the '438 patents is a child of the '867 patent, and the pattern of blatantly inequitable conduct that pervades the prosecution of this patent family renders the claims of each of the Asserted Patents unenforceable.

39. Here, but for the false declaration filed in support of the revival of the '254 application, no patents in the asserted patent family would have ever issued. *Lumenyte Intern. Corp. v. Cable Lite Corp.*, 96-1011, 1996 U.S. App. LEXIS 16400 (Fed. Cir. July 9, 1996) (a false affidavit filed to revive an abandoned patent results in the unenforceability of later-filed, related patents).

40. Additionally, but for the withholding of material prior art—including GPU Gems 2, Cg, SANNDRA/KInNeSS, and BrookGPU, the Patent Office would not have allowed any of

the Asserted Patents to issue. All of the Asserted Patents were procured through a pattern of inequitable conduct as discussed herein.

41. From withholding material prior art to falsely claiming unintentional abandonment to obtain a patent, Neurala, the named inventors, and prosecution counsel have exhibited a pattern of intentional deception of the Patent Office. The remedy for the repeated and egregious instances of inequitable conduct is to render each of the Asserted Patents unenforceable.

PRAYER FOR RELIEF

Wherefore, Defendant respectfully requests judgment in its favor with the following relief:

- a) The Complaint be dismissed with prejudice.
- b) Judgment that Defendant has not infringed and is not infringing, either directly or indirectly, any of the claims the '867 Patent, the '461 Patent, and the '438 Patent, in violation of 35 U.S.C. § 271.
- c) Judgment that the claims of the '867 Patent, the '461 Patent, and the '438 Patent are invalid.
- d) Judgment that the '867 Patent, the '461 Patent and the '438 Patent, including all of their claims, are unenforceable due to inequitable conduct.
- e) Judgment and determination that this case is exceptional under 35 U.S.C. § 285 and that Defendant is entitled to its attorneys' fees, costs, and expenses in defending this action.
- f) Such other relief, including other monetary and equitable relief, as this Court deems just and proper.

DEMAND FOR JURY TRIAL

Defendant demands a jury trial on all issues so triable.

Dated: November 18, 2025

/s/ L. Kieran Kieckhefer

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CERTIFICATE OF SERVICE

I hereby certify that all counsel of record are being served with a copy of the foregoing

documents via electronic mail on November 18, 2025.

/s/ L. Kieran Kieckhefer

L. Kieran Kieckhefer