IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
ALEXANDRIA DIVISION

La Jolla Pharma, LLC, ***Plaintiff,***	:	
v.	:	**Case No. 1:24-cv-01491**
Katherine K. Vidal, in her official capacity as Under Secretary of Commerce for Intellectual Property and Director of the U.S. Patent and Trademark Office, ***Defendant.***	:	

ORIGINAL COMPLAINT

La Jolla Pharma, LLC ("La Jolla") files this Complaint against the Honorable Katherine K. Vidal, Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office ("USPTO"), in her official capacity, and alleges as follows:

NATURE OF THIS ACTION

1. This civil action is brought pursuant to 35 U.S.C. §145 by La Jolla, the applicant and assignee of U.S. Patent Application No. 17/592,943 ("the '943 Application"), seeking a judgment that La Jolla is entitled to a patent for the invention specified in the currently pending claims 26, 31-33, 35-39 ("the Pending Claims") of the '943 Application. These claims are the subject of a decision by the USPTO Patent Trial and Appeal Board ("PTAB") refusing to issue a patent to La Jolla based on alleged obviousness under 35 U.S.C. §103, and so La Jolla seeks to have this Court adjudge that the Pending Claims are not obvious and that it is entitled to receive a patent for the invention covered by the Pending Claims.

PARTIES

2. La Jolla is a limited liability company organized and existing under the laws of the State of Delaware, having a principal place of business at 930 Winter Street, Suite 1500, Waltham, Massachusetts 02451.

3. La Jolla is the applicant and assignee of the '943 Application, published as US 2022/0160816 on May 26, 2022, a true and correct copy of which is attached as **Exhibit A**. An assignment assigning all right, title, and interest in and to the '943 Application from the inventor James Rolke to La Jolla was executed on January 28, 2019, and was recorded on July 11, 2022 in the Assignment Branch of the PTO (reel/frame 060474/0223).

4. Defendant Katherine K. Vidal is the Under Secretary of Commerce for Intellectual Property and Director of the USPTO, and is named herein as the defendant in her official capacity. As USPTO Director, the defendant is responsible for superintending or performing all duties required by law with respect to the examination, granting, and issuing of patents.

JURISDICTION AND VENUE

5. This Court has jurisdiction pursuant to 28 U.S.C. §§1331, 1338(a), and 1361, as well as 35 U.S.C. §145. Venue is proper in this District under 28 U.S.C. §1391(e) and 35 U.S.C. §§1(b) and 145.

FACTUAL BACKGROUND

A. Relationship to Case No. 1:24-cv-00951-LMB-WBP

6. The '943 Application was filed on February 4, 2022, duly claiming priority to U.S. Provisional Application 62/599,606 filed on December 15, 2017 ("the '606 Priority Application"). *See* **Exhibit A** at p. 1.

7. U.S. Patent Application No. 16/220,901 ("the '901 Application") also claims priority to the '606 Priority Application. The '901 Application is the subject of an action entitled *La Jolla v. Vidal,* Case No. 1:24-cv-00951-LMB-WBP (E.D. Va.), seeking a judgment that La Jolla is entitled to a patent for the invention specified in the claims pending in that application.

B. The '943 Application

8. The Pending Claims recite a method for treating distributive shock in a human patient, comprising diluting a dosage form comprising 0.5 to about 20 mg of angiotensin II ("Ang II") in a pharmaceutically acceptable carrier to provide a diluted solution of angiotensin II, and administering the diluted solution to the patient via continuous intravenous infusion

9. The claims now pending were amended during prosecution. The currently amended claims—which are those subject to the final rejection, the PTAB decision, and those sought to be issued in this Complaint, as discussed herein—are the Pending Claims (a true and correct copy of which are reprinted in the attached Claims Appendix, **Exhibit B).**

10. The PTAB issued a decision, with a Notification Date of June 26, 2024, rejecting the Pending Claims of the '943 Application. A true and correct copy of that PTAB decision is attached as **Exhibit C**.

C. Purpose of Invention

11. The claimed invention provides a method of treating distributive shock where a dosage form of about 0.5 to about 20 mg of Ang II is diluted and administered to a patient via continuous intravenous infusion. The hormone Ang II is a peptide that regulates blood pressure through vasoconstriction and sodium reabsorption.

12. Human Ang II has the amino acid sequence DRVYIHPF.

13. Human Ang II is not an amine.

14. Bovine Ang II has a different amino acid sequence than Human Ang II, namely a valine in the 5th position. Bovine Ang II has the sequence DRVY**V**HPF.

15. Ang II is useful to treat distributive shock, a medical condition in which extremely low blood pressure results in inadequate supply of blood to the body's tissues and organs.

16. Distributive shock must be treated very rapidly; 1 to 5 minutes of hypotension are associated with increased severe adverse events.

17. A single patient requires an average daily dose of about 4 mg/day of Ang II. However, Ang II has an extremely short half-life in human circulation, only approximately 30 seconds. In order to dose Ang II in a clinical setting and prevent the recurrence of extreme hypotension, Ang II must be continuously administered.

18. Previously, there was only one commercial supplier of Ang II suitable for human parenteral administration, Bachem, which the supplier sold in vials containing 0.050 mg Ang II.

19. Bachem supplied vials containing 0.050 mg of human Ang II each.

20. Providing 4 mg/day of Ang II from vials of 0.050 mg each requires using 80 of these vials per day (4 ÷ 0.05 = 80). Using that number of vials—which requires opening them, reconstituting them, and adding them to a saline IV bag—is a time-consuming effort that increases the risk of contamination and dosing errors.

21. Inventor James Rolke submitted a declaration during the prosecution of the '943 Application, dated October 6, 2022, a true and correct copy of which is attached as **Exhibit D** ("10/06/2022 Rolke Decl.").

22. In the 10/06/2022 Rolke Decl., Mr. Rolke stated that he was told that providing "angiotensin II, in a dosage form of, *e.g.*, a vial comprising about 0.5 mg/vial to about 20 mg/vial, would be incompatible with good clinical practice. Essentially, I was told that such a quantity of

angiotensin II, if administered to a patient would pose a significant risk of death." 10/06/2022 Rolke Decl. ¶ 5.

23. The claimed invention addresses the problem created by the lack of suppliers of Ang II suitable for parenteral administration by providing method for treating distributive shock by providing a dosage form of about .5 to about 20 mg of AngII administered via continuous intravenous infusion, including some embodiments that provide for continuous uninterrupted infusion for at least 48 hours.

24. The claimed invention also challenged the conventional wisdom of those of ordinary skill in the select art, *i.e.*, that an Ang II vial containing about 0.5 mg to about 20 mg "would be incompatible with good clinical practices." *Id*.

D. Explanation of the subject matter of the Pending Claims

25. The subject matter of independent Claim 26 is directed to a method for treating distributive shock in a human patient, comprising diluting a dosage form comprising about 0.5 to about 20 mg of Ang II in a pharmaceutically acceptable carrier to provide diluted solution of Ang II, and administering the diluted solution of Ang II to the patient via continuous intravenous infusion. This claim is fully supported by the priority provisional application.

E. Proceedings at the USPTO

26. During prosecution of the '943 Application, the Examiner *inter alia* rejected the Pending Claims as obvious under 35 U.S.C. §103(a) utilizing various combinations of references. La Jolla disputed the grounds.

27. During prosecution of the '943 Application, La Jolla submitted the 10/06/2022 Rolke Decl., which provided unrebutted evidence that those of ordinary skill in the art doubted the

claimed invention would be an appropriate dosage form for administering Ang II to treat a human, teaching away from the claimed invention.

28. During prosecution of the '943 Application, La Jolla submitted argument/unrebutted evidence of secondary considerations including that those of ordinary skill in the art doubted the claimed invention and taught away from the claimed invention.

29. During prosecution of the '943 Application, La Jolla submitted argument/unrebutted evidence of secondary considerations including the failure of others to achieve the claimed invention.

30. During prosecution of the '943 Application, La Jolla submitted argument/unrebutted evidence of secondary considerations including the long felt need for the claimed invention.

31. During prosecution of the '943 Application, La Jolla submitted argument/unrebutted evidence of secondary considerations including the commercial success of product practicing the claimed invention.

32. During prosecution of the '943 Application, La Jolla submitted argument/unrebutted evidence of secondary considerations including customer satisfaction of product practicing the claimed invention.

33. During prosecution of the '943 Application, La Jolla submitted argument/unrebutted evidence of secondary considerations including copying of product practicing the claimed invention.

34. During prosecution of the '943 Application, La Jolla submitted argument/unrebutted evidence of secondary considerations including industry praise of product practicing the claimed invention.

35. Accordingly, even if the Examiner made out a *prima facie* case that the Pending Claims were obvious, the unrebutted argument and evidence of secondary considerations before the Examiner—including that in the 10/06/2022 Rolke Decl. (quoted at ¶¶21 above) as well as the other argument and evidence of record showing the failure of others, long felt need, commercial success, and customer satisfaction—rebutted that *prima facie* case and established the Pending Claims were not obvious, *i.e.*, they were allowable.

36. The Examiner issued a Final Office Action rejecting the '943 Application's Pending Claims, mailed November 17, 2022, maintaining the position that the Pending Claims are obvious under 35 U.S.C. §103(a) utilizing various combinations of references.

37. La Jolla disputed the grounds of rejection and timely appealed the Examiner's final rejection to the PTAB, under 35 U.S.C. §134(a).

38. Before the PTAB, La Jolla also argued that the Examiner failed to establish a *prima facie* case of obviousness; failed to properly apply the knowledge of a person of ordinary skill in the art in that a person of ordinary skill in the art would not combine the below cited references to arrive at the claimed invention; and to the extent the Examiner established *prima facie* obviousness La Jolla sufficiently rebutted *prima facie* obviousness through evidence of secondary considerations concerning failure of others, long felt need, commercial success, and customer satisfaction.

39. The PTAB June 26, 2024 decision affirmed the §103(a) obviousness rejections over several of the cited references.

40. The references that were the grounds for the PTAB June 26, 2024 decision of obviousness are:

- Sigma-Aldrich, "Angiotensin II human," available at www.sigmaaldrich.com/catalog/product/sigma/a9525?lang=en&region=US, 4 pages (first available 2015) (hereinafter the "**Sigma-Aldrich**"),
- Sigma-Aldrich's "Product Information: Angiotensin II," available at www.sigmaaldrich.com/contentldam/sigmaaldrich/docs/Sigma/Datasheet/6/a9525dat.pdf, 1 page (2012) (hereinafter the "**Production Information**"),
- Chawla US Publication No. 2015/0164980 A1 published June 18, 2015 (hereinafter "**Chawla")**,
- Tidmarsh, WO2016/007589 A1 published January 14, 2016 (hereinafter "**Tidmarsh**"),
- Maselbas, W., "Classification of research and development activities," available at archiwum.ncbr.gov.pl/fileadmin/user_upload/pUBLIKACJE/Ewaluacje/maselbas_net.pdf, 27 pages (2015) (hereinafter "**Maselbas**"),
- Eisai Co., "Flow of R&D (Drug Creation Research)," available at www.eisai.com/company/business/research/research/index.html#:~:text=As%20the%20name%20literally%20suggests,development%20research%20and%20clinical%20research,3 pages (accessed on 3/23/22) (hereinafter the "**Eisai**"),
- Walpole et al., BMC Public Health 12:6 pages (2012) (hereinafter "**Walpole**"),
- Sigma-Aldrich, "Storage and Handling, Synthetic Peptides: Guidelines," available at www.sigmaaldrich.comlcontent/damlsigmaaldrich/docs/Sigma/General_Information/peptide_handling_guide.pdf, 4 pages (2005) ("**Sigma-Aldrich 2**"), and
- "Common Crystalloid Intravenous Fluids", *Univ. Texas Medical Branch*, available at www.utmb.edu/PediEd/CoreV2/Fluids/Fluids6.html#:-:text=Normal%20saline%2Ois%200.9%25%2Osaline,or%209%20G%2Oper%2Oliter.&text=This%2Osolution%2Ohas%20154%20mEq,150%20mEq%200f%20Na%2FL, 2 pages (accessed on 6/30/22) (hereinafter "**the Saline reference"**).

41. The PTAB June 26, 2024 decision ends with a chart summarizing the PTAB's holding as to obviousness:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
26, 31–33, 35–39	103	Sigma-Aldrich, Product Information, Chawla, Tidmarsh, Sigma-Aldrich 2, Maselbas, Eisai, Walpole, Saline	26, 31–33, 35–39	

Exhibit C at p. 17.

42. This Complaint is timely filed within sixty-three days of the PTAB's June 26, 2024 decision, the deadline for filing this action.

43. No appeal of the PTAB's June 26, 2024 decision has been taken to the United States Court of Appeals for the Federal Circuit.

COUNT I
(35 U.S.C. §145)

44. Paragraphs 1-41 are incorporated herein by reference, as if fully set forth herein.

45. Plaintiff La Jolla disputes and is dissatisfied with the PTAB's holdings of obviousness under §103.

46. The Pending Claims of the '943 Application are patentable, nonobvious, and satisfy all applicable statutory and regulatory requirements.

47. The PTAB's affirmance of the Examiner's §103(a) rejections against the Pending Claims was in error, contrary to law, arbitrary, and an abuse of discretion. The Examiner's rejections upheld by the PTAB fail to properly apply the legal standard, fail to establish a *prima facie* case of obviousness, fail to give proper weight to evidence of secondary considerations, and are unsupported and legally erroneous.

48. Further, the rejections fail to properly consider what a person of ordinary skill in the art would have known and understood. Instead, the rejections apply improper hindsight by picking and choosing among references. Properly assessed, the pending claim would not have been obvious at the time of invention. The PTAB erred in affirming such grounds of the rejections.

49. La Jolla is entitled to offer additional evidence and argument in support of the patentability of the Pending Claims and is not strictly limited to the record before the USPTO.

50. La Jolla is entitled to prompt issuance of a patent containing the Pending Claims pursuant to 35 U.S.C. §145.

PRAYER FOR RELIEF

Wherefore, La Jolla respectfully requests that this Court enter judgment against the Director of the USPTO as follows:

a) setting aside and reversing the PTAB's conclusion, and any actions and findings underlying the conclusion, that the Pending Claims of the '943 Application are unpatentable;

b) declaring that La Jolla is entitled to issuance of a patent with the Pending Claims of the '943 Application;

c) authorizing the Director of the USPTO to issue such patent in compliance with the requirements of the law, including 35 U.S.C. §145;

d) a decree pursuant to 35 U.S.C. §145 directing the USPTO Director to issue a Notice of Allowance confirming the patentability of the Pending Claims of the '943 Application and promptly to issue such a patent; and

e) any other and further relief the Court deems necessary, just, or proper.

Dated: August 26, 2024

By

/s/ Benjamin L. Hatch

Benjamin L. Hatch (VSB No. 70116)
McGuireWoods LLP
World Trade Center; Suite 9000
101 West Main Street
Norfolk VA 23510-1655
(757) 640-3727
bhatch@mcguirewoods.com

Jeffrey I. D. Lewis (*pro hac vice* forthcoming)
Lucas Watkins (*pro hac vice* forthcoming)
Cecilia Copperman (*pro hac vice* forthcoming)
Foley Hoag LLP
1301 Avenue of the Americas; 25th Floor
New York, NY 10019
212-813-0400
jidlewis@foleyhoag.com
lwatkins@foleyhoag.com
ccopperman@foleyhoag.com

Of Counsel:
Katherine Dorris

Attorneys for La Jolla Pharma, LLC

List of Attached Exhibits

Exhibit A	Published Application
Exhibit B	Pending Claims
Exhibit C	PTAB Decision (June 26, 2024)
Exhibit D	10/06/2022 Rolke Decl.