THE HONORABLE THOMAS S. ZILLY

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

FAN WANG and HANG GAO, Individually and on Behalf of All Others Similarly Situated,

Plaintiffs,

v.

ATHIRA PHARMA, INC.; and LEEN KAWAS,

Defendants.

HARSHDEEP JAWANDHA, Individually and on Behalf of All Others Similarly Situated,

Plaintiff,

v.

ATHIRA PHARMA, INC.; DR. LEEN KAWAS; GLENNA MILESON; TADATAKA YAMADA; JAMES A. JOHNSON; JOSEPH EDELMAN; JOHN M. FLUKE, JR.; GOLDMAN SACHS & CO. LLC; JEFFERIES LLC; STIFEL, NICOLAUS & COMPANY, INCORPORATED; and JMP SECURITIES LLC,

Defendants.

CASE NO.: 2:21-cv-00861-TSZ

(Consolidated with 21-cv-00862-TSZ and 21-cv-00864-TSZ)

CONSOLIDATED AMENDED COMPLAINT FOR VIOLATIONS OF THE FEDERAL SECURITIES LAWS

CLASS ACTION

DEMAND FOR JURY TRIAL

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TIMOTHY SLYNE and TAI SLYNE, Individually and on Behalf of All Others Similarly Situated,

Plaintiffs,

v.

ATHIRA PHARMA, INC.; LEEN KAWAS, Ph.D.; GLENNA MILESON, TADATAKA YAMADA, M.D.; JOHN M FLUKE JR.; JAMES A. JOHNSON; JOSEPH EDELMAN, GOLDMAN SACHS & CO. LLC; JEFFERIES LLC; STIFEL, NICOLAUS & COMPANY, INCORPORATED; and JMP SECURITIES LLC,

Defendants.

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TABLE OF CONTENTS

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ROSSI VUCINOVICH, P C
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Plaintiffs Wies Rafi and Antonio Bachaalani Nacif ("Plaintiffs"), individually and on behalf of all others similarly situated, allege the following based on personal knowledge as to Plaintiffs and Plaintiffs' own acts, and upon information and belief as to all other matters based upon the investigation conducted by and through Plaintiffs' attorneys, which included, among other things, a review of press releases and other public statements issued by Athira Pharma, Inc. ("Athira" or the "Company"), Athira's filings with the U.S. Securities and Exchange Commission ("SEC"), media and analyst reports about the Company, interviews with former Athira employees and other relevant individuals, and consultation with individuals with expertise in advanced biotechnologies and intellectual property. Plaintiffs believe that substantial additional evidentiary support will exist for the allegations set forth hereinafter after a reasonable opportunity for discovery.

I. NATURE OF THE CLAIM

1. Athira touts itself as a late clinical-stage biopharmaceutical company focused on developing drugs to restore neuronal health and stop neurodegeneration. Specifically, Athira was founded to commercialize Dihexa, a drug that potentially improves cognition in patients who have Alzheimer's and other diseases. Dihexa is the active ingredient in Athira's lead product, ATH-1017.

2. Athira's former CEO, Leen Kawas ("Kawas"), performed research and published academic articles related to Dihexa and related compounds which were designed to support the drug's efficacy. Kawas co-authored most of these articles with her former professors at Washington State University ("WSU"). Several of those articles serve as the basis for patents belonging to, or licensed by, Athira.[1]

3. Before, during, and after Athira's IPO, the Company touted both its licensing agreement with WSU, which provides that the Company holds the exclusive license to market and

[1] *See, e.g.*, U.S. Patent Nos. 8,598,118; 9,051,351; 9,066,901; 9,150,613; 9,475,854; 11,021,514.

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sell Dihexa, as well as Kawas's qualifications and research credentials. Unbeknownst to investors, however, Kawas ***falsified*** her research by repeatedly and systematically altering images of research results directly related to the efficacy of Dihexa, thereby creating a false impression of Dihexa's procognitive/antidementia effects and the value of the Company's intellectual property. Investors learned the truth only after independent researchers uncovered what the Underwriter Defendants[2] failed to—that Kawas had falsified her research.

4. Following the independent researchers' revelation, neither Kawas nor the Company denied that Kawas manipulated the results of research studies related to Dihexa. Indeed, months later, both Kawas and the Company ***admitted*** that the independent researchers were correct. Specifically, the Company stated: "The special committee's primary finding was that Dr. Kawas altered images in her 2011 doctoral dissertation and in at least four research papers that she co-authored while a graduate student at WSU, published from 2011 to 2014."

5. Kawas subsequently resigned from Athira, admitting to the intentional manipulation of her research results. In a letter to Athira employees, she stated: "I regret that mistakes I made as a graduate student many years ago caused any distraction to Athira today. At the time, I was navigating an unfamiliar environment and did not fully comprehend the significance of ***my decision*** to enhance the images I used in my research."

6. But far from being a harmless "enhancement" of images, manipulating study results related to Dihexa artificially inflated the value of Athira's research and development pipeline and intellectual property supported by the doctored research and, in turn, the Company's stock price. Significantly, the submission of falsified data to the U.S. Patent and Trademark Office renders the entirety of such a patent, and any related patents, unenforceable.[3] In response to revelations and

[2] Defined *infra*.

[3] *See, e.g.*, Manual of Patent Examining Procedure ("MPEP") 2016 (the submission of fraudulent data to the U.S. Patent and Trademark Office renders the entirety of such a patent, and any related patents, unenforceable and consequently worthless).

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admissions by the Company and Kawas regarding Kawas's falsified research, on June 18, 2021, Athira's stock price plummeted nearly ***40%*** overnight.

7. This Action is brought on behalf of: (a) all persons and entities that purchased or otherwise acquired Athira publicly traded securities during the period from September 17, 2020 through June 17, 2021, inclusive (the "Class Period"), and were damaged thereby, except those who are excluded below, as against the Exchange Act Defendants (as defined *infra*) for violations of the Securities Exchange Act of 1934 (the "Exchange Act") and SEC Rule 10b-5 promulgated thereunder (the "Exchange Act Class"); and (b) all persons and entities that purchased or otherwise acquired Athira publicly traded common stock pursuant, or traceable, or both, to: (i) the registration statement and prospectus (the "IPO Materials") issued in connection with the Company's September 2020 initial public offering (the "IPO"); or (ii) the registration statement and prospectus (the "SPO Materials") issued in connection with the Company's January 2021 secondary public offering (the "SPO"); or (iii) any combination of the IPO or SPO (the "Securities Act Class" and, together with the Exchange Act Class, the "Class"), as against the Securities Act Defendants (as defined *infra*) for violations of Sections 11, 12(a)(2), and 15 of the Securities Act of 1933 (the "Securities Act").[4]

II. JURISDICTION AND VENUE

8. The claims asserted arise under Sections 11, 12, and 15 of the Securities Act of 1933 (the "Securities Act") (15 U.S.C. §§ 77k, 77l, and 77o), and Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 (the "Exchange Act") (15 U.S.C. §§ 78j(b) and 78t(a)) and Rule 10b-5 promulgated thereunder by the SEC (*see* 17 C.F.R. § 240.10b-5).

9. This Court has jurisdiction over the subject matter of this Action pursuant to 28 U.S.C. § 1331, Section 22 of the Securities Act (15 U.S.C. § 77v), and Section 27 of the Exchange Act (15 U.S.C. § 78aa).

[4] Together, the IPO and SPO are collectively referred to herein as the "Offerings."

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10. Venue is proper in this District pursuant to Section 22 of the Securities Act (15 U.S.C. § 77v(c)), Section 27 of the Exchange Act (15 U.S.C. § 78aa), and 28 U.S.C. § 1391(b). Athira's stock trades on the Nasdaq Global Market, a national stock exchange, and the Company was incorporated in the state of Washington, and maintains its global headquarters in Bothell, Washington. Many of the acts charged herein, including the preparation or dissemination of materially false or misleading information, occurred in substantial part in this Judicial District.

11. In connection with the acts alleged in this Complaint, Defendants, directly, or indirectly, used the means and instrumentalities of interstate commerce, including, but not limited to, the mails, interstate telephone communications, interstate email communications, and the facilities of the Nasdaq.

III. PARTIES

A. Plaintiffs

12. Plaintiff Antonio Bachaalani Nacif ("Nacif") is an individual who resides in the United States. As set forth in his PSLRA certification (*see* ECF No. 41-1), Nacif purchased Athira securities during the Class Period and suffered damages as a result of the securities law violations alleged herein.

13. Plaintiff Wies Rafi ("Rafi") is an individual who resides in the United States. As set forth in his PSLRA certification (*see* ECF No. 43-2), Rafi purchased Athira securities during the Class Period and suffered damages as a result of the securities law violations alleged herein.

B. Defendants

1. Exchange Act Defendants

14. Defendant Athira is incorporated under the laws of Delaware with its principal executive offices located in Bothell, Washington. The Company's common stock is listed on Nasdaq Global Select Market under the trading symbol "ATHA."

15. Defendant Kawas was, at all relevant times, the President, Chief Executive Officer ("CEO"), and a director of the Company.

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16. Defendant Glenna Mileson ("Mileson") was, at all relevant times, the Chief Financial Officer of the Company.

17. Defendants Joseph Edelman ("Edelman"), John M. Fluke, Jr. ("Fluke"), and James A. Johnson ("Johnson") were, at all relevant times, directors of the Company.[5]

18. Defendants Kawas, Edelman, Fluke, and Johnson are collectively referred to as the "Director Defendants."

2. Securities Act Defendants

19. Defendant Athira is the named registrant on the registration statements for the Company's IPO and its January 2021 SPO (the "Offerings").

20. Defendants Kawas, Mileson, Edelman, Fluke, and Johnson signed or authorized the signing of the Company's Registration Statement filed with the SEC.[6]

21. Defendants Goldman Sachs & Co. LLC ("Goldman Sachs"); Stifel, Nicolaus & Company, Incorporated ("Stifel"); and JMP Securities LLC ("JMP") served as underwriters for the Company's Offerings.

22. Defendant Jefferies LLC ("Jefferies") served as an underwriter for the Company's IPO.[7]

3. Control Person Allegations

23. Kawas, by virtue of her senior positions at Athira, directly participated in the management of the Company, was directly involved in day-to-day operations of the Company at the highest levels, and was privy to confidential, proprietary information concerning the Company

[5] For the purposes of the Exchange Act claims alleged herein, Defendants Kawas, Mileson, Edelman, Fluke, and Johnson are collectively referred to as the "Individual Defendants."

[6] For the purposes of the Securities Act claims alleged herein, Defendants Kawas, Mileson, Edelman, Fluke, and Johnson, are collectively referred to as the "Securities Act Individual Defendants."

[7] Defendants Goldman Sachs, Jefferies, Stifel, and JMP are collectively referred to as the "Underwriter Defendants." For the purposes of the Securities Act claims alleged herein, Defendants Athira, the Securities Act Individual Defendants, and the Underwriter Defendants are referred to as the "Securities Act Defendants."

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and its business, operations, product development, intellectual property, licensing agreements, financial statements, and public relations, as alleged herein. As set forth below, the distribution of false and misleading information and the failure to convey material information to the public was the result of her actions and inaction.

24. Kawas and the Individual Defendants signed the Company's Registration Statements, and the SOX Certifications accompanying the Company's Class Period filings were signed by Kawas and Mileson.

25. Kawas knew that she and the Company were at least reckless by failing to disclose that Kawas's research regarding the compound underlying the Company's lead product was deliberately altered. As Athira's top executive and co-founder, Kawas had substantial influence and control over the Company's products, licensing, research, and intellectual property. Through her roles at Athira and as a signatory on the Company's SOX Certifications, Kawas is personally responsible for the implementation and operation of effective internal controls related to reporting.

26. Through these and other forms of participation and control, Kawas had substantial influence over Athira, the information it distributed, and the actions in which it engaged.

IV. SUBSTANTIVE ALLEGATIONS—EXCHANGE ACT CLAIMS

A. Athira's Background and Lead Product

27. Athira was founded by Jay Wright ("Wright") and Joseph Harding ("Harding") to commercialize Dihexa.[8] The Company was supported by the WSU Department of Commercialization. Wright is an Emeritus Regents Professor in the Departments of Psychology and Veterinary and Comparative Anatomy, Pharmacology and Physiology, as well as programs in Neuroscience and Biotechnology at WSU. Harding is a Professor in the Department of Integrative Physiology and Neuroscience at WSU. Harding operates and oversees research studies related to

[8] Athira was founded under the name "M3 Biotechnology, Inc" ("M3 Biotechnology") in 2011. The Company changed its name to Athira in 2019. For purposes of clarity, in some instances this Complaint refers to the Company by the name Athira instead of its predecessor M3 Biotechnology when referring to pre-2019 events.

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the impact of small molecules, such as Dihexa, on various body systems in the laboratory bearing his name, "The Harding Lab."

28. Since 2011, the Company, led by Kawas, Harding, and Wright, continued to research, perform studies, and publish the corresponding results of the studies on the impact of Dihexa. During her tenure, Kawas's research was funded by various institutions and non-profit organizations. Due to apparent success with her research studies and the corresponding publications detailing the research successes, Kawas was promoted to CEO and President in 2013. During her tenure as VP, CEO, and President of Athira, while the Company continued to grow and attract investor attention, Kawas continued to publish research studies containing doctored images.

29. This research and development resulted in Athira's lead product, ATH-1017.[9] The active compound that ATH-1017 is used to transmit is Dihexa. In short, ATH-1017 is the vehicle for the active ingredient, Dihexa. Once in the body, ATH-1017 breaks down into Dihexa.

30. Generally, it is believed that Dihexa binds with and activates the hepatocyte growth factor ("HGF") and increases activity at its receptor, c-Met. HGF activity, which is responsible for healthy brain function, is reduced in patients with neurodegenerative diseases such as Alzheimer's. Thus, evidence that Dihexa activates HGF or mimics HGF activity indicates that Dihexa may improve cognitive function in those with neurodegenerative diseases such as Alzheimer's disease or Parkinson's disease.

31. Although Harding, Wright, and WSU hold the patent for Dihexa and analogous compounds,[10] WSU licenses Dihexa to Athira. Specifically, in December 2011, shortly after the Company's founding, Athira entered into a licensing agreement with WSU whereby the Company obtained the exclusive license to develop, commercialize, and sell Dihexa.[11] To this day, the

[9] ATH-1017 was formerly known as "NDX-1017." For purposes of clarity, this Complaint refers to the product as ATH-1017. ATH-1017 is a prodrug. A prodrug is a biologically inactive compound that is used in lieu of the active compound to improve how the active compound is absorbed, distributed, or transmitted throughout the body.

[10] Herein, for the sake of simplicity, these compounds are referred to as "Dihexa."

[11] The Agreement has subsequently been amended but the terms have generally stayed the same.

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Company still pays royalties to WSU based on its development of products related to research performed and compounds discovered at WSU.

32. Since 2011, Athira has leveraged its exclusive licensing agreement to develop a drug that administers Dihexa to patients and to perform research and development on analogous compounds that the public does not have access to and are thus are incapable of independent verification absent the Company's cooperation. After Athira and Kawas performed years of exclusive research and development on Dihexa, the Company proceeded to focus on the commercialization of ATH-1017, a prodrug for the administration of Dihexa.

33. There are no peer-reviewed studies on the effects of administering ATH-1017, nor has the compound, prodrug, or their use in conjunction with each other, obtained FDA approval. ATH-1017 is the only one of Athira's products that has undergone any clinical testing to date. The Company orally reported the results from Phase 1 of clinical studies on ATH-1017 prior to its IPO. Although the Phase 1a and 1b studies showed that the drug was "well-tolerated" by the study participants, the study did not test the efficacy of the drug. Accordingly, at the time of the IPO, ATH-1017 had been administered to fewer than a dozen patients with Alzheimer's disease, and those patients did not undergo any cognitive tests to evaluate the efficacy of the drug. And so, investors relied on the Company's positive statements concerning Kawas's earlier falsified science to evaluate the Company's prospects and the value of its intellectual property.

B. Kawas's Falsified Research

34. Kawas enrolled at WSU in 2008 after she obtained a degree in Pharmacy from the University of Jordan. She studied Molecular Pharmacology & Toxicology at WSU from 2008 until 2011 under Athira's co-founders, Professors Wright and Harding.

35. Kawas obtained a Ph.D. from WSU in Fall 2011. To fulfill the requirements to receive a Ph.D. from Washington State University in the Division of Pharmacology and Toxicology, Kawas performed a research study and published a dissertation detailing its results. Kawas's research purportedly showed that Dihexa and/or its analogs impact the HGF/Met system. i.e.: Dihexa is closely linked with cognitive benefits. Athira has since admitted that Dr. Kawas

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doctored images in her 2011 doctoral dissertation, casting doubt on the central premise underpinning Athira's drug pipeline.

36. During her tenure as VP, CEO, and President of Athira, while the Company continued to grow and attract investor attention, Kawas continued to publish research containing improperly altered images. Those altered images purportedly supported the hypothesis underlying Athira's drug development pipeline and the procognitive/antidementia effects of Dihexa on patient-recipients who suffered from Alzheimer's disease and Parkinson's disease, among other conditions.

37. Kawas altered the images to show early funders, many of whom stood to benefit from the potential treatments, what they wanted to see. When the funder was an Alzheimer's-related foundation or the family member of a person who had Alzheimer's, the results showed Dihexa could treat Alzheimer's. When the funder was a Parkinson's related foundation, the results showed that Dihexa could treat Parkinson's, etc. But, in reality, Kawas was altering images to create the false impression that she was a visionary developing a miracle drug.

38. In sum, altered images and results appear in nearly all of Kawas's published research, leaving no doubt that the systematic manipulation of study data was deliberate. And so, Kawas's doctoral work and subsequent manipulated research laid the biological groundwork that Athira continues to use in its approach to treating Alzheimer's disease and other conditions.

1. December 2011: Altered Images in Dissertation

39. In December 2011, Kawas published her doctoral dissertation titled, "Development of Therapeutics Targeting the Hepatocyte Growth Factor (HGF)/MetET System." The dissertation purported to "describe the development of prototype small molecule therapeutics directed at the HGF/Met system." The research for the dissertation was performed in the Harding Laboratory at WSU; and Professors Harding and Wright, the founders of Athira, are acknowledged as contributors to the research study. Athira has admitted that Kawas altered images in her 2011 doctoral dissertation, casting doubt on the central premise underpinning the Company's drug pipeline.

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40. The dissertation also served as the foundation for many of Kawas's follow-up research studies and the corresponding publications that directly relate to the development of ATH-1017 and the commercialization of Dihexa and its analogs. As described more fully below, Kawas copied images from her doctoral dissertation, which itself contained manipulated images, and pasted them into additional follow-up research studies and the corresponding publications reflecting the results of the studies, thereby falsifying the studies' results.

41. On or about November 2021, after Athira admitted that Kawas's dissertation contained fabricated results, the dissertation was removed from the WSU archive.

2. November 2011: Kawas Publishes Altered Research Results in *The Journal of Pharmacology and Experimental Therapeutics*

42. In November 2011, Kawas published the article titled "Mimics of the Dimerization Domain of Hepatocyte Growth Factor Exhibit Anti-Met and Anticancer Activity" in *The Journal of Pharmacology and Experimental Therapeutics*. Kawas co-authored this article with WSU Professors and Athira co-founders Wright and Harding. The article disclosed that Wright and Harding "are founders and shareholders in M3 Biotechnology, LLC[12], which is developing pharmaceuticals based on this technology."

43. The article summarized the results of the study as follows: "the major implication of this study is that molecules targeting the dimerization domain of HGF may represent novel and viable anticancer therapeutic agents; the development of such molecules should be feasible using Norleual and the hinge peptide as synthetic templates." In other words, the results of the study purported to demonstrate that the compound Norleual—an analog of Dihexa— "may represent novel and viable anti-cancer therapeutics."

44. In May 2021, improper alterations of the figures contained in this article were revealed on the website *PubPeer*.[13] *PubPeer* user "Actinopolyspora biskrensis" commented that,

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[12] *See* n.8, *supra*.

[13] *PubPeer* is a website that allows users to discuss and review scientific research after publication, i.e. post-publication peer review.

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"It appears that some of these figures were part of the December 2011 PhD dissertation of the first author, who seems now to be the CEO of a pharmaceutical company. I will add the email addresses of some of the co-authors in hopes that one of them will address these concerns. I will also alert the institution who may wish to investigate."

45. In June 2021, *PubPeer* user "Elisabeth M Bik" agreed and responded that: "Blue boxes: Two lanes in Figure 2A of this paper appear to look similar to two lanes in Figure 3A in another paper by the same authors. . . . Although the labels suggest[] these samples might have been treated similarly, it seems not quite good practice to include lanes from a different gel run on a different day. As can be seen from the comparison of the two gels, the 'monomer' bands form a single thick band in one gel, but run more like a double band in the second gel, suggesting the gel conditions might have been different. Can the authors please comment on the experimental conditions?"

46. A third *PubPeer* user, "Indigofera tanganyikensis," agreed with the previous comments and identified a third instance in the same article that appears to be manipulated. "The flow cytometry data presented in Figure 6A is also questionable. One of the dot plots show[s] a[n] unus[u]al discontinuity (red arrow). In addition there are data points over the gating line, which is hard to explain since you always put the gating lines after the data is displayed."

47. The following image highlights the intentional nature of the alterations, where Kawas horizontally flipped and/or stretched images from different tests to conceal their alteration in this paper. These manipulated images were foundational to the study's insights on the Met receptor signaling pathway.

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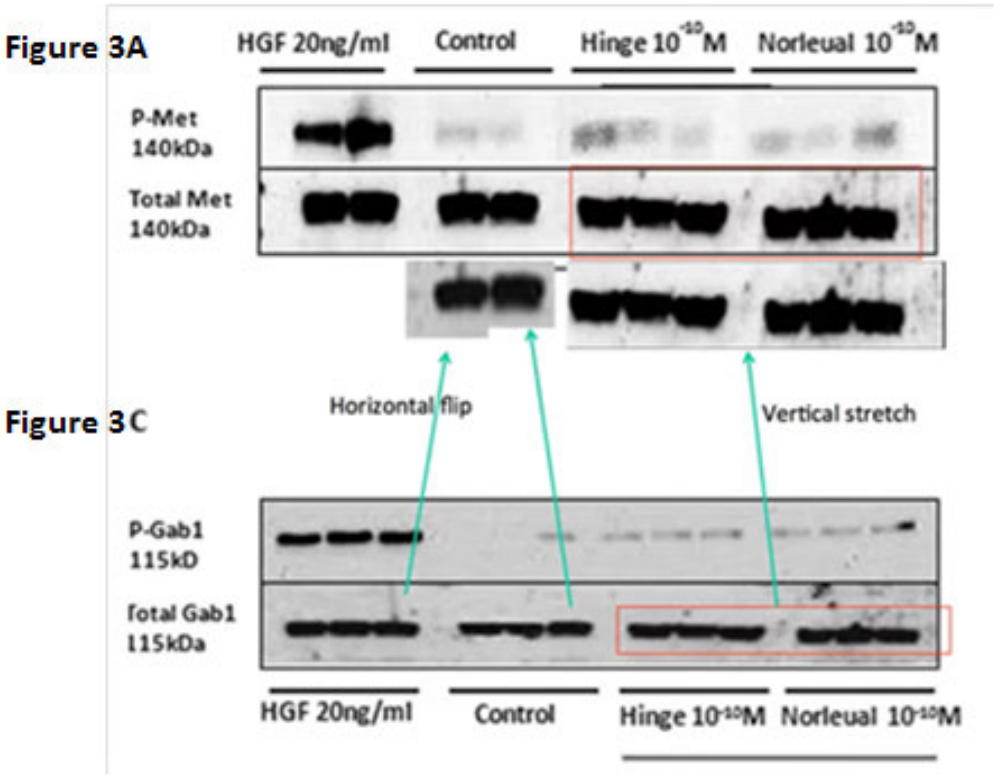

48. Kawas, Harding, and Wright relied on this paper in several of the patents granted to WSU and ultimately licensed to Athira.[14]

49. In September 2021, the editors issued a statement in which they "express[ed] concern . . . of possible image manipulation after reviewing information received from several sources."[15]

3. March 2012: Kawas Publishes Second Article with Altered Images

50. In March 2012 Kawas published the article, "Development of Angiotensin IV Analogs as Hepatocyte Growth Factor/Met Modifiers" in *The Journal of Pharmacology and Experimental Therapeutics*. The article, which was co-authored with Athira co-founders Wright

[14] *See, e.g.* U.S. Patent No. 8,598,118 (filed Dec. 3, 2013).

[15] Notice of Concern: Leen Kawas, et al., *Mimics of the Dimerization Domain of Hepatocyte Growth Factor Exhibit Anti-Met and Anticancer Activity*, Journal of Pharmacology and Experimental Therapeutics, 339: 509-518 (Sept. 2021), https://jpet.aspetjournals.org/content/378/3/312.long.

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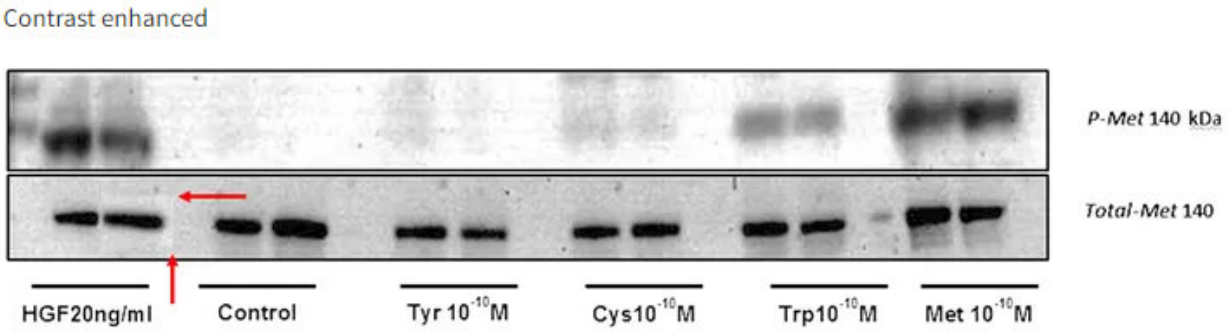
and Harding, noted that the research underlying the article was conducted in the Harding Laboratory at WSU. The article is summarized as follows: "Together, these data indicate that the 6-AH family of Ang IV analogs … offers the potential as therapeutic agents in disorders that are dependent on or possess an overactivation of the HGF/Met system," which the authors describe as "a common characteristic of many human cancers."

51. In May 2021, *PubPeer* user "Actinopolyspora biskrensis" explained that Figure 3.4 of the article is a copy of the image on page 102 of Kawas's dissertation—the same image that was also copied from Kawas's dissertation and included in the November 2011 publication. The intentional nature of the alteration is apparent as the shaded box, the borders of which are identified by the red arrows below, confirms the image was intentionally manipulated.



52. This research was relied on in a patent issued to Kawas and Harding et al., which was subsequently assigned to WSU.[16]

53. In September 2021, the editors issued a statement in which they "express[ed] concern . . . of possible image manipulation after reviewing information received from several sources."[17]

[16] U.S. Patent No. 8,598,118 (filed Dec. 3, 2013).

[17] Notice of Concern: Leen Kawas, et al., *Development of angiotensin IV analogs as hepatocyte growth factor/Met modifiers,* Journal of Pharmacology and Experimental Therapeutics January (Sept. 2021), https://jpet.aspetjournals.org/content/378/3/314.long.

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4. October 2012: Kawas Publishes Third Article with Altered Images

54. In October 2012, Kawas published an article titled, "Evaluation of Metabolically Stabilized Angiotensin IV Analogs as Pro-Cognitive/Anti-Dementia Agents" in *The Journal of Pharmacology and Experimental Therapeutics.*[18] The article summarized the results of the study as follows: "These data suggest that dihexa may have therapeutic potential as a treatment of disorders, such as Alzheimer's disease, where augmented synaptic connectivity may be beneficial."

55. Relying on Kawas's previous research studies that included results she had doctored, the goal of this research study was described as follows:

> Conversely, we (C. C. Benoist, Kawas LH, and Harding, JW, unpublished data) have recently demonstrated that both Nle1 -AngIV and dihexa bind HGF, leading to its activation, and that the procognitive and/or synaptogenic actions of these compounds are blocked by both HGF and c-Met antagonists. ***With this knowledge in hand, a library of N-acyl-Tyr-Ile-(6) amino-hexanoic amide analogs was screened for their capacity to potentiate the biologic activity of HGF***. This screen identified the hexanoic N-terminal substituent as the most active compound. ***The ultimate goal of this project was to produce a clinically useful pharmaceutical for the treatment of dementia, including Alzheimer's disease***.[19]

56. The goal of the research project summarized in this article is exactly the same goal that Athira has pursued since its founding.

57. This article is cited in the patent for Dihexa and Athira's patent application for ATH-1017.[20]

58. In June 2021, *PubPeer* user "Indigofera tanganyikensis" commented that there was a discrepancy in the images in this article. Specifically, "In Figure 7A, the PSD-95 staining (green) and the corresponding staining in the merged micrograph are different [from the other images]."

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[18] Leen Kawas, et al., *Evaluation of Metabolically Stabilized Angiotensin IV Analogs as Procognitive/Antidementia Agents*, Journal of Pharmacology and Experimental Therapeutics (Jan. 2013), https://jpet.aspetjournals.org/content/344/1/141.

[19] Leen Kawas, et al., *Evaluation of Metabolically Stabilized Angiotensin IV Analogs as Procognitive/Antidementia Agents*, Journal of Pharmacology and Experimental Therapeutics (Jan. 2013), https://jpet.aspetjournals.org/content/jpet/early/2012/10/10/jpet.112.199497.full.pdf.

[20] *See* U.S. Patent No. 11,021,514 (filed June 1, 2021).

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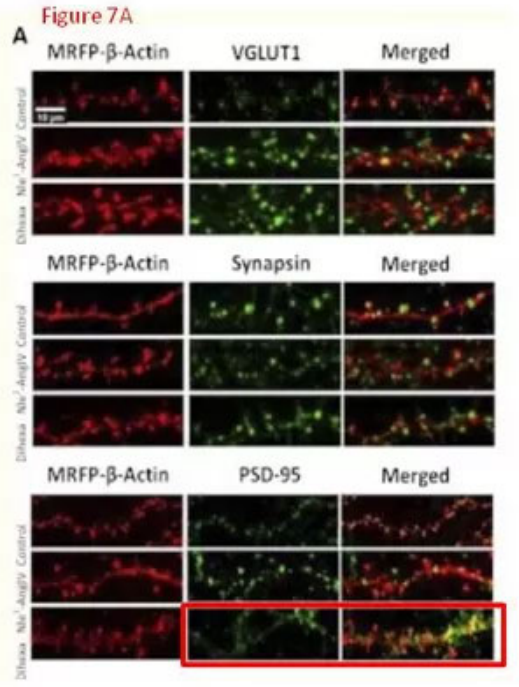
In Figure 7A, the PSD-95 staining (green) and the corresponding staining in the merged micrograph are different.

J Pharmacol Exp Ther. 2013 Jan; 344(1): 141–154.
Published online 2013 Jan. doi: 10.1124/jpet.112.199497
PMCID: PMC3533412
PMID: 23055539

Evaluation of Metabolically Stabilized Angiotensin IV Analogs as Procognitive/Antidementia Agents[S]

Alene T. McCoy, Caroline C. Benoist, John W. Wright, Leen H. Kawas, Jyote M. Bule-Ghogare, Mingyan Zhu, Suzanne M. Appleyard, Gary A. Wayman, and Joseph W. Harding[M]



59. In September 2021, the editors issued a statement in which they "express[ed] concern . . . of possible image manipulation after reviewing information received from several sources."[21]

5. April 2013: Kawas PublishesFourth Article with Altered Images

60. In April 2013, Kawas, Harding, and other co-authors associated with WSU published the article "Nanoscale Mapping of the Met Receptor on Hippocampal Neurons by AFM

[21] Notice of Concern: Leen Kawas, et al., *Evaluation of Metabolically Stabilized Angiotensin IV Analogs as Procognitive/Antidementia Agents*, Journal of Pharmacology and Experimental Therapeutics January (Sept. 2021), https://jpet.aspetjournals.org/content/378/3/313.long.

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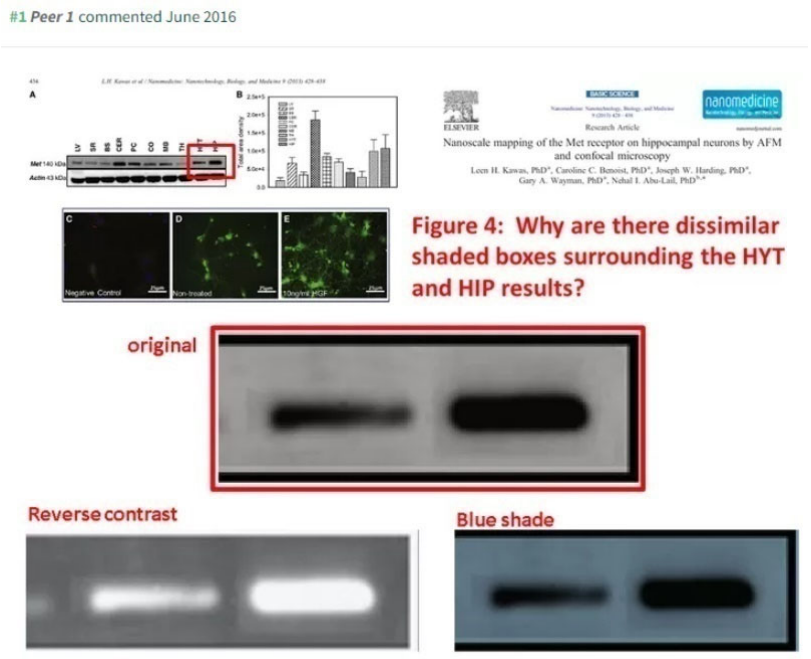
and Confocal Microscopy" in Volume 9, Issue 3 of *Nanomedicine: Nanotechnology, Biology and Medicine*.[22]

61. Building on the earlier improperly altered research results, Kawas, Harding, and the other co-authors, "hypothesized that Met should be associated with post-synaptic elements found on dendritic spines. Thus, the goal of this study was to determine the sub-cellular localization of Met on hippocampal neurons." Using nanotechnology, the authors claimed that the results of this study "demonstrate that multimeric activated Met was found to be concentrated in the dendritic compartment." In other words, the study's finding as to the localization of Met lend further support to the biological foundation of Athira's intellectual property and the ability of Met to facilitate learning and synaptic plasticity.

62. In June 2016, *PubPeer* contributor "Peer 1" explained that there was a discrepancy in the images depicting the results of the study. "Figure 4: Why are there dissimilar shaded boxes surrounding the HYT and HIP results."



[22] Leen H. Kawas, et al., *Nanoscale mapping of the Met receptor on hippocampal neurons by AFM and confocal microscopy*, Nanomedicine: Nanotechnology, Biology and Medicine (Apr. 2013), https://www.sciencedirect.com/science/article/abs/pii/S1549963412005229?via%3Dihub.

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63. The comment highlighting the discrepancy in the images went unnoticed for several years until May 2021, when another *PubPeer* contributor, "Actinopolyspora biskrensis," explained: "These figures seem to be pulled from the PhD dissertation of the [Kawas] (page 127) . . . ." The *PubPeer* contributor further explained, "In addition to the concern [Figure 4], with which I agree, there appears to be a region in Figure 2D that has been cut and pasted. The purpose of such manipulation is unclear, but it calls into question the veracity of the results."

64. In June 2021, another *PubPeer* contributor, "Indigofera Tanganyikensis," explained that more images in this article were manipulated, stating, "Two bands in the Western blot in Figure 4A seem to be duplicated and presented as something else."

65. The *PubPeer* contributors explained that the results of this research study, which purported to use nanotechnology to identify with specificity the HGF/Met interaction, were copied from Kawas's dissertation, which Athira has admitted contained altered images.

6. November 2014: Kawas Publishes Fifth Article with Altered Images

66. In November 2014, Kawas, Harding, Wright, and other co-authors published an article titled "The Procognitive and Synaptogenic Effects of Angiotensin IV–Derived Peptides Are Dependent on Activation of the Hepatocyte Growth Factor/c-Met System" in *The Journal of Pharmacology and Experimental Therapeutics*.[23] This research built on and relied on several of Kawas's earlier improperly altered research results, and much like the previous research studies, purported to summarize the "procognitive" effects of Dihexa or Dihexa analogs on the HGF/Met system.

67. The authors disclosed that various non-profit organizations supported this research study and that the results of the study were directly related to the technology being developed for commercialization at the Company:

---

[23] Leen H. Kawas, et al., *The Procognitive and Synaptogenic Effects of Angiotensin IV–Derived Peptides Are Dependent on Activation of the Hepatocyte Growth Factor/c-Met System*, Journal of Pharmacology and Experimental Therapeutics (Nov. 2014), https://jpet.aspetjournals.org/content/351/2/390.long.

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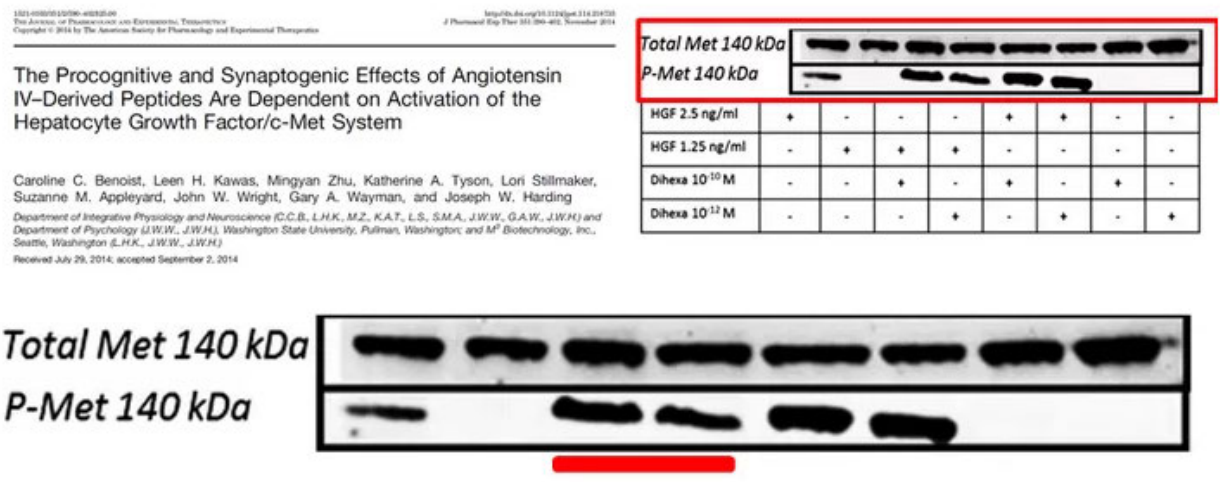
This work was supported by grants from the Michael J. Fox Foundation and M3 Biotechnology, Inc. (to J.W.H.); the National Institutes of Health National Institute of Mental Health [Grant R01-MH086032] (to G.A.W.); a Hope for Depression Research Foundation grant (to G.A.W.); a grant from the Edward E. and Lucille I. Lainge Endowment for Alzheimer's Research (to J.W.W.); and the State of Washington. J.W.H. and J.W.W. are cofounders and major shareholders of M3 Biotechnology, Inc., which is developing hepatocyte growth factor mimetics and antagonists for the treatment of various disorders including dementia. L.H.K. is the CEO of M3 Biotechnology, Inc.

68. In October 2014, an unregistered *PubPeer* contributor explained that there was a "striking similarity," similar to the prior improper alterations, between several images in Figure 2c. The contributor requested that the authors provide original images. But it does not appear that Kawas or any of her co-authors ever did so.

69. Thereafter, in June 2016, another *PubPeer* contributor explained that several of the images were clearly copied from another study because they were upside-down. The contributor explained that Kawas and the other co-authors must have pasted the results from an another "gel" because they are not the "same orientation as the rest of the gel row."

#4 *Peer 3* commented June 2016



The Procognitive and Synaptogenic Effects of Angiotensin IV–Derived Peptides Are Dependent on Activation of the Hepatocyte Growth Factor/c-Met System

Caroline C. Benoist, Leen H. Kawas, Mingyan Zhu, Katherine A. Tyson, Lori Stillmaker, Suzanne M. Appleyard, John W. Wright, Gary A. Wayman, and Joseph W. Harding

Department of Integrative Physiology and Neuroscience (C.C.B., L.H.K., M.Z., K.A.T., L.S., S.M.A., J.W.W., G.A.W., J.W.H.) and Department of Psychology (J.W.W., J.W.H.), Washington State University, Pullman, Washington; and M^3 Biotechnology, Inc., Seattle, Washington (L.H.K., J.W.W., J.W.H.)

Received July 29, 2014; accepted September 2, 2014

Total Met 140 kDa								
P-Met 140 kDa								
HGF 2.5 ng/ml	+	-	-	-	+	+	-	-
HGF 1.25 ng/ml	-	+	+	+	-	-	-	-
Dihexa 10^{-10} M	-	-	+	-	+	-	+	-
Dihexa 10^{-12} M	-	-	-	+	-	+	-	+

Why are lanes 3 and 4 of P-Met, 'upside down'? They should be the same orientation as the rest of the gel row. And they should be similar to the T-Met, unless these are from different gels. If they are from different gels- which seems very likely, then comparison between these results is fundamentally confounded. There are no loading controls that could enable comparison. The methods shed no light either.

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70. The contributor added, "This research has been parlayed into a Biotechnology company called M3 led by one of the first authors of this study, Dr. Kawas. ***In the post-Holmes/Theranos environment, these and other concerns have added urgency***." (emphasis added).

71. Then, in May 2021, *PubPeer* contributor "Actinopolyspora biskrensis" explained that, "I agree that there are concerning markings in Figure 4c. ***I will add additional author emails in hopes that one can provide the original uncropped scans***." Accordingly, Kawas and the other co-authors received an email notification by at least May 2021, putting them on notice that the truth about the improperly altered research results was beginning to be revealed.

72. Additionally, in June 2021, *PubPeer* contributor "Elizabeth M Bik" highlighted another discrepancy in the images: "Yellow, pink, and blue boxes highlight lanes also visible in two older paper[s] by some of the same authors. The lanes do not always appear to correspond to the same experiments, in particular the four lanes marked with the pink box. Could the authors please comment?"

73. In September 2021, the editors issued a statement in which they "express[ed] concern . . . of possible image manipulation after reviewing information received from several sources."[24]

7. January 2015: Kawas Publishes Sixth Article with Altered Images

74. In January 2015, Kawas, Harding, and other co-authors published an article titled, "Hepatocyte Growth Factor Mimetic Protects Lateral Line Hair Cells from Aminoglycoside Exposure" in *Frontiers in Cellular Neuroscience*.[25] This research study built on and relied on several of Kawas's earlier altered research studies, and much like the previous research studies,

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[24] Notice of Concern: Leen H. Kawas, et al., *The Procognitive and Synaptogenic Effects of Angiotensin IV–Derived Peptides Are Dependent on Activation of the Hepatocyte Growth Factor/c-Met System*, Journal of Pharmacology and Experimental Therapeutics (Sept. 2021), https://jpet.aspetjournals.org/content/378/3/311.long.

[25] Leen H. Kawas, et al., *Hepatocyte Growth Factor Mimetic Protects Lateral Line Hair Cells from Aminoglycoside Exposure*, Frontiers in Cellular Neuroscience (Jan. 2018), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4309183/.

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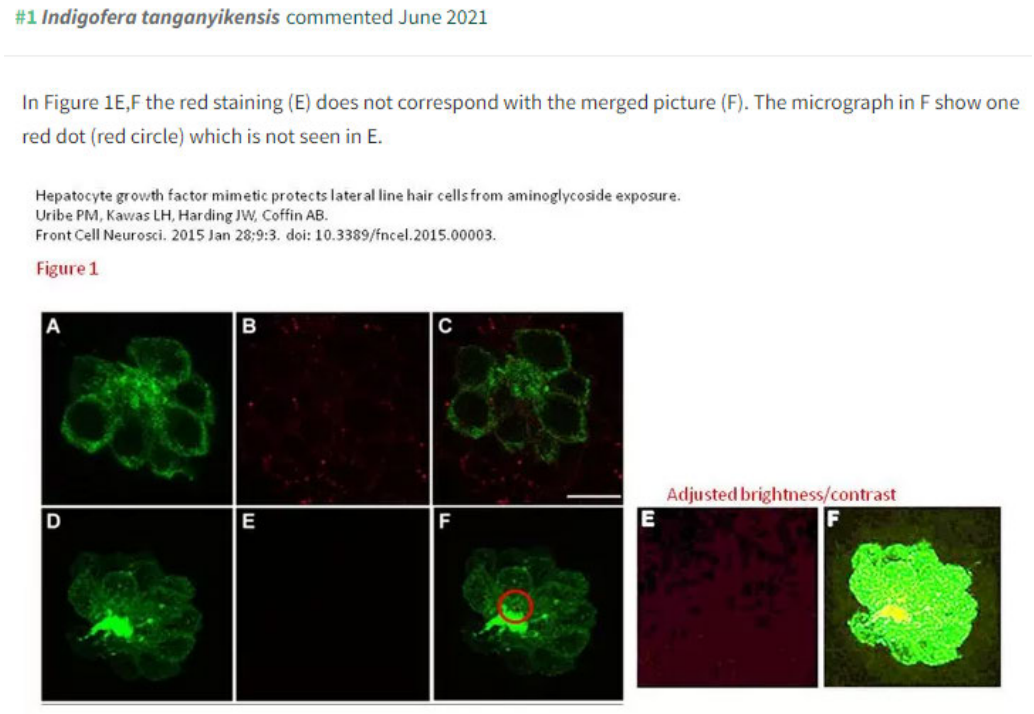
this article purported to summarize the effects of Dihexa or Dihexa analogs on the HGF/Met system.

75. Specifically, relying on Kawas, Harding, and Wright's previous improperly altered research results, this research study concluded that Dihexa has positive effects on those suffering from hearing loss.

76. The article disclosed: "This project was funded by start-up funds from Washington State University, Vancouver to A. Coffin. Additional funding for this project was provided by M3 Biotechnology, Inc." The authors explained that the research described in the article was closely related to the products under development at the Company, stating: "Joseph W. Harding is co-founder and shareholder of M3 Biotechnology, Inc. Leen H. Kawas is the CEO of [Athira] is developing HGF mimetics and antagonists for the treatment of various disorders including dementia."

77. In June 2021, *PubPeer* contributor "Indigofera tanganyikensis" spotted additional alterations: "In Figure 1E,F the red staining (E) does not correspond with the merged picture (F). The micrograph in F show[s] one red dot (red circle) which is not seen in E."



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C. Athira Leveraged Kawas's Altered Research to Obtain Patents and Licensing Agreements

78. In December 2011, Athira entered into an exclusive licensing agreement with WSU to commercialize, develop, and sell Dihexa and the related patents.

79. Thereafter, in December 2013, WSU and Kawas et al. were granted Patent No. 8,598,118[26] for "HEPATOCYTE GROWTH FACTOR MIMICS AS THERAPEUTIC AGENTS." The patent repeatedly references Kawas's manipulated research publications. Specifically, the patent credits Kawas's research studies and references her publications that purportedly support the proposition that HGF antagonists have therapeutic value. For example:

- Col. 7, l. 52: "Recent studies from the Harding lab have confirmed the potential use of HGF antagonists as effective anti-cancer/anti-angiogenic agents. (Yamamoto et al., 2010, Kawas et al., 2011; Kawas et al., 2012)."
- Col. 40, l. 39: "Seeking further substantiation for angiotensin IV ligand and HGF/c-Met mediated interactions, the novel HGF antagonist Hinge (DYIRNC, SEQ ID NO: 3) was utilized (Kawas et al., 2011)."
- Col. 46, l. 16: "Recent studies from our laboratory (Yamamoto et al., 2010) have shown that picomolar concentrations of the AngIV analog, Norleual (Nle-Tyr-Leu-ψ-(CH2—NH2)3-4-His-Pro-Phe), are capable of potently inhibiting the HGF/Met system and bind directly to the hinge region of HGF blocking its dimerization (Kawas et al., 2011)."
- Col. 46, l. 19: "Moreover, a hexapeptide representing the actual hinge region possessed biochemical and pharmacological properties identical to Norleual's (Kawas et al., 2011)."
- Col. 50, l. 9: "The Ki values for the binding of the peptides were determined using the Prism 5. Competition binding curves were performed in triplicate. Preliminary kinetic studies indicated that equilibrium binding was reached by 40 min of incubation at 37° C. 3H—Hinge has recently been shown to bind to HGF with high affinity (Kawas et al., 2011)."
- Col. 50, l. 12 "HGF dimerization was assessed using PAGE followed by silver staining (Kawas et al., 2011). Human HGF at a concentration of 0.08 ng/µl with or without 6-AH analogs was incubated with heparin at a final concentration of 5 µg/ml. Loading buffer was then added to each sample and the mixture separated by native PAGE using gradient Criterion XT precast gels (4-12% Bis-Tris; Biorad

[26] U.S. Patent No. 8,598,118 (filed Dec. 3, 2013).

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Laboratories, Hercules, Calif.). Next the gel was silver stained for the detection of the HGF monomers and dimers. Bands were quantitated from digital images using a UVP phosphoimager (Upland, Calif.)."

- Col. 52, l. 56: "To begin the evaluation of this idea, we used a 3H-Hinge peptide as a probe to assess direct HGF binding of the peptides. The use of 3H-Hinge to probe the interaction was based on the ability of 3H-Hinge to bind specifically and with high affinity to HGF (Kawas et al., 2011)."

- Col. 53, l. 18: "Moreover, the AngIV analog Norleual, which is a potent inhibitor of the HGF/Met system, was shown to bind to HGF and block its dimerization (Kawas et al., 2011)."

- Col. 54, l. 26: "A recent study has demonstrated that Hinge binds to HGF with high affinity blocking its dimerization and acting as a potent inhibitor of HGF-dependent cellular activities including MDCK proliferation (Kawas et al., 2011)."

- Col. 55, l. 53: "Recent studies have validated this general approach demonstrating that molecules designed around angiotensin IV (Yamamoto et al, 2010) or the hinge sequence itself (Kawas et al., 2011) can bind HGF, block its dimerization, and attenuate HGF-dependent cellular actions"

80. Patent No. 9,051,351[27] similarly claims a method for treating Alzheimer's disease. It incorporates the entirety of the '118 Patent application by reference, including its reliance on the fraudulent papers. This patent repeatedly references the fraudulent papers for the proposition that [tritium]-Hinge has recently been shown to bind to HGF with high affinity. For example:

- Col. 43, l. 25: "Seeking further substantiation for angiotensin IV ligand and HGF/c-Met mediated interactions, the novel HGF antagonist Hinge (DYIRNC, SEQ ID NO: 3) was utilized (Kawas et al., 2011)."

- Col. 52, l. 38: "Preliminary kinetic studies indicated that equilibrium binding was reached by 40 min of incubation at 37° C. 3H-Hinge has recently been shown to bind to HGF with high affinity (Kawas et al., 2011)."

- Col. 52, l. 41: "The use of 3H-Hinge to probe the interaction was based on the ability of 3H-Hinge to bind specifically and with high affinity to HGF (Kawas et al., 2011)."

- Col. 55, l. 46: "Moreover, the AngIV analog Norleual, which is a potent inhibitor of the HGF/Met system, was shown to bind to HGF and block its dimerization (Kawas et al., 2011)."

[27] U.S. Patent No. 9,051,351 (filed June 9, 2015).

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81. Thereafter, in June 2016, Athira and Kawas et al. applied for a provisional patent for ATH-1017, which relies extensively on Kawas's altered research. In January 2020, Athira (f/k/a M3) and Kawas filed a patent application for the compound that eventually became ATH-1017. A provisional patent was granted in 2017.

82. In June 2021, Athira was granted Patent No. 11,021,514,[28] "covering the composition of matter for ATH-1017." The patent was "expected to provide protection to at least June 1, 2037, not including possible patent term extension of up to 5 years provided under the Drug Price Competition and Patent Restoration Act. ATH-1017 was discovered and developed in-house at Athira Pharma based on novel data generated within the company." This Patent claims a number of novel compounds. In its specification, it references the fraudulent papers, namely, Kawas's 2013 research publication, "Evaluation of metabolically stabilized angiotensin IV analogs as procognitive/antidementia agents," J*ournal of Pharmacology and Experimental Therapeutics* (Jan. 31, 2013), among prior articles as prior art, an important reference in establishing the compounds' antidementia activity.

83. For all of these patents, Kawas submitted a declaration, under the penalty of perjury, to disclose "all information known to me to be material to patentability."

D. For Years Leading up to the IPO, Athira Touted Kawas as a Qualified Executive

84. Athira led the public to believe its management was reliable. As early as 2012, a *WSU Insider* article praised Kawas and Athira for what is now known to be altered research:

> Five years ago, Harding designed a smaller version of the molecule that he and Wright called Dihexa. Not only is it stable but it can cross the blood-brain barrier. An added bonus is it can move from the gut into the blood, so it can be taken in pill form.
>
> . . .
>
> In bench assays using living nerve cells to monitor new neuronal connections, Harding, Wright and their colleagues found Dihexa to be seven orders of magnitude more powerful than BDNF, which has yet to be effectively developed for

[28] U.S. Patent No. 11,021,514 (filed June 1, 2021).

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> therapeutic use. In other words, it would take 10 million times as much BDNF to get as much new synapse formation as Dihexa.
>
> . . .
>
> We quickly found out that this molecule was absolutely, insanely active,' says Harding. These results further suggest that Dihexa or molecules like it may have applications in other neurodegenerative diseases or brain traumas where neuronal connections are lost.

85. A 2012 *Science Daily* article citing the fraudulent research explained that Harding and Wright found less significant results than Kawas did when she performed studies using Dihexa on rats. When Kawas was involved in the research the results were staggering and "insanely active." These results were presented as if Kawas was instrumental in obtaining positive results in the studies, when in fact, she obtained more favorable results because she was altering the images of the research results.

86. Similarly, in a 2017 *GeekWire* article, Kawas explained that she founded Athira based on the research she performed as a graduate student at WSU. "***The pre-clinical studies suggest we are on the right path***, and we are excited to advance a much-needed brain regenerative therapy to alleviate the suffering of millions afflicted by the disease, and their families, around the world," Kawas said. Based on the interview with Kawas, *GeekWire* further reported, "***M3 Biotechnologies was founded by Kawas six years ago. Its technology is based on research Kawas conducted when she was earning her PhD in molecular pharmacology at Washington State University***."

87. Then, in June 2020, Athira closed an $85 million financing round: "In connection with the financing, Joseph Edelman, Chief Executive Officer and Portfolio Manager of Perceptive Advisors, will join the Company's Board of Directors . . . . NDX-1017 represents a novel mechanism for treating Alzheimer's patients and we are very excited to invest in Athira," said Edelman. He continued, "***Athira has assembled an impressive and seasoned management team with years of CNS drug development experience, and we look forward to supporting an innovative company focused on devastating neurological diseases***."

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88. Athira continued to bolster Kawas while the Company secured private funding. An article published in 2019 in *WSU Innovators* titled "Designing Medicine's Holy Grail" reported:

> ***Harding says that Kawas's research was instrumental in the early development of Dihexa and helped set the foundation for the development of M3 Biotechnology***. Her background informs her appreciation of the interplay between the chemistry and biology that underlies M3's platform. ***That same background also gives her the credibility to lead the company and guide its drugs to clinical trials and, ultimately, the therapeutic marketplace*** . . . . "I always have the patient in mind in the drug development process," Kawas says—which is why developing Dihexa in a cost-effective way is a major priority for both Kawas and Harding and the third member of M3's executive team, Jay Wright. ***That is also one of the reasons M3 Biotechnology has proven so attractive to investors.***

E. Athira's Public Offerings

1. The IPO

89. In September 2020, Athira completed an initial public offering of its common stock. In connection with the IPO, Athira issued and sold 12,000,000 shares of its common stock at a public offering price of $17.00 per share. The Company received net proceeds of approximately $186.4 million from the IPO, after deducting underwriting discounts and commissions of $14.3 million and offering costs of approximately $3.3 million. In October 2020, Athira sold an additional 1,397,712 shares of common stock to the Underwriter Defendants upon partial exercise of the underwriters' option to purchase additional shares at the initial public offering price of $17.00 per share, less underwriting discounts and commissions, and offering costs of approximately $1.7 million resulting in net proceeds to the Company of approximately $22.1 million.

2. The SPO

90. Only a few months after its IPO, Athira filed for a Secondary Public Offering. On January 6, 2021, Athira filed a Registration Statement on Form S-1 with the SEC, which was subsequently amended and declared effective by the SEC on January 21, 2021. On or about January 21, 2021, Athira issued a Prospectus pursuant to Rule 424(b)(4).[29] In the January 2021

[29] These documents are collectively referred to as the "SPO Materials."

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Offering, Athira sold 4,000,000 shares of Company common stock at $22.50 per share for gross proceeds of $90 million (not including the underwriters' option for additional stock sales).

F. Defendants Reveal the Truth About Kawas

91. On June 17, 2021, after the market closed, Athira issued a press release entitled, "Athira Pharma Chief Operating Officer, Mark Litton, Assumes Day-to-Day Leadership Responsibilities of Company[:] *Leen Kawas Placed on Temporary Leave Pending Board Review of Actions Stemming from Doctoral Research While at Washington State University*." Therein, the Company stated in relevant part:

> Athira Pharma, Inc. (NASDAQ: ATHA) ("Athira"), a late clinical-stage biopharmaceutical company focused on developing small molecules to restore neuronal health and stop neurodegeneration, today announced that Mark Litton, PhD, MBA, in his capacity as Chief Operating Officer, has assumed day-to-day leadership responsibilities for the Company, effective immediately.
>
> This follows the Board's determination to place Leen Kawas, PhD, President and Chief Executive Officer of Athira, on temporary leave pending a review of actions stemming from doctoral research Dr. Kawas conducted while at Washington State University. Dr. Kawas will remain on the Board. The Board has formed an independent special committee to undertake this review. The Company does not intend to comment further on this matter until the review is concluded.

92. Although Athira's press release provided only the vaguest of explanations for placing Kawas on leave, investigative journalist Olivia Goldhill published an article titled "Athira Pharma CEO placed on leave amid allegations of altered images in her research papers." The article, published in *STAT News* on June 17, 2021, revealed the underlying allegations and the serious implications for Athira:

> The chief executive officer of Athira Pharma, a biotech developing treatments for Alzheimer's and other neurodegenerative diseases, has been placed on temporary leave as her university investigates claims she published several papers containing altered images while she was a graduate student.
>
> The Seattle-based company did not disclose the reasons for the investigation of Leen Kawas, but STAT has learned that it involves allegations of altered images in four separate papers on which Kawas is the lead author. Images of Western blots, used to determine the presence of specific proteins in biological samples, look as though they've been altered from their original state, according to two image experts who spoke with STAT.

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> Washington State University is investigating the claims after several of the images were flagged on PubPeer, a forum dedicated to discussing scientific research after publication, in recent weeks.

93. The *STAT News* article explained the significance of the allegations and the potential impact on Athira, despite the fact that the alleged misconduct occurred years ago:

> Although the papers are up to a decade old, dating back to when Kawas was a doctoral student, the papers are foundational to Athira's efforts to treat Alzheimer's and are cited in a patent licensed by Athira. Kawas, who co-founded Athira, is described as a co-inventor in the patent.
>
> Athira is working to regrow neurons and strengthen synapses in the brain, based on a theory that doing so will alleviate the symptoms of the disease. The drugs under investigation by the company aim to achieve this by targeting hepatocyte growth factor (HGF), a protein present in the brain that stimulates the growth of cells, along with its receptor MET. Kawas' papers established that a particular molecule affects the activity of HGF.
>
> Although the company . . . has since moved on to a different molecule than the one Kawas was working on, it still aims to target HGF. And so Kawas' doctoral work laid the biological groundwork that Athira continues to use in their approach to treating Alzheimer's, neuroscientist George Perry of the University of Texas at San Antonio, told STAT: "They are the foundational basic science."

94. The *STAT News* article further expounded on the specifics of the allegations and referenced multiple experts who dismissed the possibility that the doctored images might have resulted from error or carelessness:

> In all four papers led by Kawas, Western blots are surrounded by faint lines. "These lines suggest that some parts of the photo might have been derived from elsewhere, and that this was not the blot as it was originally obtained," said Elisabeth Bik, a microbiologist and science consultant who focuses on image authenticity.
>
> In eight different images in four different papers, the same Western blot bands seemingly appear repeatedly. "That's highly unlikely that came about accidentally," said Paul Brookes, professor at the University of Rochester Medical Center, who has also worked on exposing scientific errors. . . .
>
> In two instances, the same image seems to be used to show the results of two different experiments published in different papers. . . .
>
> And in a 2011 paper in the Journal of Pharmacology and Experimental Therapeutics, the same series of Western blot bands is seemingly used twice to represent two different proteins, and is stretched out for one of the proteins. "That's

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> even more potentially problematic," said Bik. Such an inaccuracy is potentially reason to retract the paper, she said. "That's very misleading."
>
> * * *
>
> Washington State University, where Kawas conducted her research, said it had begun an inquiry into the images. "Washington State University takes claims of research misconduct very seriously," spokesperson Phil Weiler said in an email.
>
> * * *
>
> The allegedly altered images call into question the validity of the entire studies, said several Alzheimer's experts. If the Western blots are inaccurate, then the whole study must be redone, said Perry. The images are an important method of determining how the compound interacts with HGF. "If there is a question about key data, all must be questioned," he said.
>
> * * *
>
> Regardless of the reason, though, the results are inherently misleading, said Samuel Gandy, Mount Sinai Professor of Alzheimer's Disease Research at the Icahn School of Medicine. "It is not acceptable to mischaracterize a piece of data even if the purpose is merely aesthetics and if the bottom line is still correct." Without a full review of the data behind the research, it's impossible to determine . . . .

95. Paul Matteis, a securities analyst at Stifel, wrote in a note: "We don't really know how to process this development." Matteis underscored the fact that "[t]he scientific hypothesis behind Athira came out of the work [that] Dr. Kawas did in graduate school so there is risk here that whatever comes out of this investigation could have clear negative implications for how we/investors view the asset, and/or management credibility."

96. On this news, the price of Athira shares fell $7.09 per share, or nearly 40%, to close at $11.15 per share on June 18, 2021, on unusually heavy trading volume.

G. Post-Class Period Developments: The Special Committee's Findings Are Demonstrably False

97. After the Company placed Kawas on leave, the Company appointed a Special Committee of the Board of Directors to conduct an investigation into Kawas's conduct. On October 21, 2021 the Company released the results of the investigation. The Company stated:

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> ***The special committee's primary finding was that Dr. Kawas altered images in her 2011 doctoral dissertation and in at least four research papers that she co-authored while a graduate student at WSU, published from 2011 to 2014.***
>
> The Company's lead development candidate, ***ATH-1017 is a novel small molecule in late-stage clinical development and not the subject of Dr. Kawas's doctoral research. Athira was issued a patent in the U.S. covering ATH-1017 in June 2021, and the special committee found that neither this patent nor the underlying patent application cites any of the papers the special committee found contained images altered by Dr. Kawas***.

98. On this news, Kawas announced her resignation from the Company. In a letter to Athira employees, Kawas admitted to altering images in her publications.

> I regret that mistakes I made as a graduate student many years ago caused any distraction to Athira today. At the time, I was navigating an unfamiliar environment and did not fully comprehend the significance of ***my decision to enhance the images I used in my research.***

99. The Special Committee and Athira attempted to distance the Company's assets from Kawas's falsified research by issuing statements assuring the market that, "the Company's lead development candidate, does not cite any paper which the committee found to contain an image altered by Dr. Kawas."

100. This statement is demonstrably false. A cursory review of the patent applications reveals several instances where Athira's patent filings reference the fraudulent papers. Indeed, multiple patents listing Kawas as an inventor cite and make significant use of the fraudulent papers.

101. Patent 8,598,118 generally covers HGF mimics as therapeutic agents. Its specification repeatedly references the fraudulent papers, namely, both Kawas et al., 2011 and Kawas et al., 2012, for the proposition that HGF antagonists have therapeutic value, including the interruption of c-MET dimerization.

102. Patent 9,066,901 claims a method for treating angiogenesis utilizing putatively novel compounds. Its specification incorporates by reference the entirety of the '118 Patent's application, including its reliance on the fraudulent papers. The '901 Patent references the fraudulent papers, namely, Kawas et al., 2011, and Kawas et al., 2012, as prior art.

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103. Patent 9,150,613 claims a method for treating melanoma utilizing putatively novel compounds. Its specification repeatedly references the fraudulent papers, namely, Kawas et al., 2011, for the proposition that [tritium]-Hinge has recently been shown to bind to HGF with high affinity.

104. Patent 9,475,854 claims a method for treating hearing loss utilizing putatively novel compounds. Its specification references the fraudulent papers, namely, McCoy et al., 2013, for the proposition that Dihexa is useful in neurodegenerative conditions.

105. Patent 11,021,514 claims a number of novel compounds. Its specification references the fraudulent papers, namely, McCoy et al., 2013, as prior art, an important reference in establishing the compounds' antidimentia activity.

106. Athira's references to Kawas's improperly altered research in its patents is significant because it renders each of those patents unenforceable.[30]

107. Kawas and Athira therefore knew, or were reckless with respect to the fact, that their patents were unenforceable and effectively worthless at the time they made false and misleading statements and omissions about their patents during the Class Period, and yet they failed to disclose this material fact.

H. Additional Scienter Allegations

108. It is indisputable that Kawas intentionally and systematically doctored the results of research studies, and that she fraudulently published these falsified results to obtain funding for Athira. Athira has reaped funding from investors such as WSU, private venture capital funds, large investment banks, the National Institute of Health, the Michael J. Fox Foundation, the Adler Foundation, the State of Washington and, most recently, retail investors, to support the research and development of its "groundbreaking" product. Kawas and Athira engaged in a cycle of raising money to perform research and development, publishing demonstrably falsified results of that

[30] *See, e.g.*, Manual of Patent Examining Procedure ("MPEP") 2016 (the submission of fraudulent data to the U.S. Patent and Trademark Office renders the entirety of such a patent, and any related patents, unenforceable and consequently worthless).

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research and development, and leveraging those results to obtain subsequent rounds of funding. This house of cards is the core operations of the Company.

I. Defendants' Materially False and Misleading Statements and Omissions During the Class Period

109. The Class Period for the Exchange Act claims begins on September 17, 2020, and runs through June 17, 2021, inclusive. The portions of the statements alleged to be false and misleading are bolded and italicized.

1. The IPO Materials

110. The IPO Materials stated in relevant part that Athira had a "world-class" leadership team, specifically referring to the qualifications of its CEO, Kawas, the Company stated:

> Our leadership team includes experienced neuroscience biotech executives who have both developed and commercialized CNS drugs and founded successful companies. ***Dr. Leen Kawas***, our founder and chief executive officer, ***has been essential in creating our innovative translational development strategy***.

111. The Company touted Kawas's qualifications throughout the IPO Materials. Specifically, the Company further stated that:

> ***Dr. Kawas earned a Ph.D. in molecular pharmacology from Washington State University in 2011*** and a pharmacy degree from the University of Jordan in 2008. ***We believe Dr. Kawas's scientific and professional training, her instrumental role in building Athira Pharma, Inc.***, and her extensive understanding of our business, operations and strategy ***qualify her to serve on our board of directors***.

112. Defendants' statements in the IPO Materials concerning Kawas's qualifications were materially false or misleading when made because they failed to disclose that Kawas's research publications regarding the compound underlying the company's lead product contained altered images and that the dissertation Kawas published in connection with obtaining her Ph.D., was obtained with falsified research.

113. With respect to the Company's intellectual property and licensing agreements, the IPO Materials stated in relevant part that:

> In December 2011, we entered into an exclusive license agreement with Washington State University Research Fund, or WSURF, which, after the dissolution of WSURF in 2013, was superseded by an amended and restated exclusive license agreement with Washington State University, or WSU, in

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> September of 2015. Under this agreement, WSU granted us an exclusive license to make, use, sell, and offer for sale licensed products and licensed processes that embody the licensed patents (including WSU's rights to a patent jointly owned with Pacific Northwest Biotechnology, Inc.) and that form the underlying technology of the drug therapies we are developing.

114. Defendants' statements in the IPO Materials regarding their intellectual property and licensing agreements were materially false or misleading when made because they failed to disclose that at least four studies with images that were doctored by Kawas laid the biological groundwork for Athira's patents and the Company's approach to treating Alzheimer's disease and other conditions.

115. Importantly, the submission of fraudulent data to the U.S. Patent and Trademark Office renders the entirety of such a patent, and any related patents, unenforceable and consequently worthless. Thus, the failure to disclose that the patents were based on doctored images, and the attendant risk of invalidation of the patents, was false and misleading.

2. November 2020 10-Q

116. On November 12, 2020, Athira filed its Form 10-Q, announcing its earnings for the third quarter of 2020.

117. Therein, the Company disclosed that:

> In December 2011, the Company entered into an exclusive license agreement with sublicensing terms with Washington State University Research Fund ("WSURF"), which, after the dissolution of WSURF in 2013, was superseded by an amended and restated exclusive license agreement with sublicensing terms between the Company and Washington State University ("WSU") in 2015. Under this agreement, the Company has an exclusive license to make, use, sell, and offer for sale a chemical compound that forms the underlying technology of the drug therapies being developed by the Company.

118. Defendants' statements regarding their intellectual property and licensing agreements were materially false or misleading when made because they failed to disclose that at least four studies with images that were doctored by Kawas laid the biological groundwork for Athira's patents and the Company's approach to treating Alzheimer's disease and other conditions.

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3. The SPO Materials

119. On January 6, 2021, Athira filed a Registration Statement on Form S-1 with the SEC which was subsequently amended and declared effective by the SEC on January 21, 2021. On or about January 19, 2021, Athira issued a Prospectus pursuant to Rule 424(b)(4).[31] In the January 2021 Offering, Athira sold 4,000,000 shares of Company common stock at $22.50 per share for gross proceeds of $90 million (not including the underwriters' option for additional stock sales).

120. The SPO Materials repeated verbatim the statements made in the IPO Materials and were materially false and/or misleading by omission for the reasons stated in ¶¶112, 114.

121. Defendants' statements in the SPO Materials concerning Kawas's qualifications and the Company's intellectual property and licensing agreements were materially false or misleading when made because they failed to disclose that Kawas's dissertation and at least four studies with images that were doctored by Kawas laid the biological groundwork for Athira's patents and the Company's approach to treating Alzheimer's disease and other conditions.

4. The 2020 10-K

122. On March 25, 2021, Athira filed its Form 10-K, announcing its earnings for the year 2020 (the "2020 10-K").

123. Therein, the Company stated:

> Leen Kawas, Ph.D., has served as our chief executive officer and as a member of our board of directors since January 2014. Previously, Dr. Kawas served as our vice president. Dr. Kawas serves on multiple boards, including the Washington Governor's Life Science Advisory Board, Scientific Review Board for the Alzheimer's Drug Discovery Foundation, and Alzheimer's Association – Washington Chapter Board. She also served as the co-chair of the International Alzheimer's Association Business Consortium. Dr. Kawas earned a Ph.D. in molecular pharmacology from Washington State University in 2011 and a pharmacy degree from the University of Jordan in 2008. ***We believe Dr. Kawas's scientific and professional training, her instrumental role in building Athira Pharma, Inc., and her extensive understanding of our business, operations and strategy qualify her to serve on our board of directors.***

[31] These documents are collectively referred to as the "SPO Materials."

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124. Defendants' statement regarding Kawas's qualifications failed to disclose that Kawas's qualifications were obtained by falsifying research study results related to the compound underlying the Company's lead product.

125. The 2020 10-K further stated that:

> Under this agreement, WSU granted us an exclusive license to make, use, sell, and offer for sale licensed products and licensed processes that embody the licensed patents (including WSU's rights to a patent jointly owned with Pacific Northwest Biotechnology, Inc.) and that form the underlying technology of the drug therapies we are developing. The term of the license begins on the effective date and continues until the earlier of the date in which no valid claim remains enforceable and the payment of royalties ceases for more than four consecutive quarters after such royalty payments begin.
>
> ***
>
> "Under this agreement, the Company has an exclusive license to make, use, sell, and offer for sale a chemical compound that forms the underlying technology of the drug therapies being developed by the Company."
>
> ***
>
> "To keep in good standing, the agreement requires the Company to meet certain development milestones and pay an annual maintenance fee. All contractual requirements have been met as of December 31, 2020. During the year ended December 31, 2020, the Phase 2 clinical trial milestone had been reached and a payment of $50,000 to WSU was recorded.

126. Defendants' statements regarding their intellectual property and licensing agreements were materially false or misleading when made because they failed to disclose that at least four studies with images that were doctored by Kawas laid the biological groundwork for Athira's patents and the Company's approach to treating Alzheimer's disease and other conditions.

5. April 2021 Schedule 14A

127. In April 2021, Athira held a proxy vote regarding board member elections. The Company recommended that shareholders elect Kawas to the Board of Directors.

128. The Company filed a Schedule 14A with the SEC in which it touted Kawas's qualifications and recommended that shareholders elect her to the Board of Directors:

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> Nominees for Director Leen Kawas, Ph.D., has served as our chief executive officer and as a member of our board of directors since January 2014. Previously, Dr. Kawas served as our vice president. Dr. Kawas serves on multiple boards, including the Washington Governor's Life Science Advisory Board, Scientific Review Board for the Alzheimer's Drug Discovery Foundation, and Alzheimer's Association – Washington Chapter Board. She also served as the co-chair of the International Alzheimer's Association Business Consortium. Dr. Kawas earned a Ph.D. in molecular pharmacology from Washington State University in 2011 and a pharmacy degree from the University of Jordan in 2008. ***We believe Dr. Kawas's scientific and professional training, her instrumental role in building Athira Pharma, Inc., and her extensive understanding of our business, operations and strategy qualify her to serve on our board of directors***.

129. In addition to touting Kawas, the Company provided a detailed description of the Board of Directors and why Kawas should be elected thereto. The Company added that:

> Considerations in Evaluating Director Nominees Our nominating and corporate governance committee uses a variety of methods for identifying and evaluating potential director nominees. In its evaluation of director candidates, including the current directors eligible for re-election, our nominating and corporate governance committee will consider the current size and composition of our board of directors and the needs of our board of directors and the respective committees of our board of directors and other director qualifications. While our board has not established minimum qualifications for board members, ***some of the factors that our nominating and corporate governance committee considers in assessing director nominee qualifications include, without limitation, issues of character, professional ethics and integrity, judgment, business acumen, proven achievement and competence in one's field, the ability to exercise sound business judgment,*** tenure on the board of directors and skills that are complementary to the board of directors, an understanding of our business, an understanding of the responsibilities that are required of a member of the board of directors, other time commitments, diversity with respect to professional background, education, race, ethnicity, gender, age and geography, as well as other individual qualities and attributes that contribute to the total mix of viewpoints and experience represented on our board.

130. These statements were false and misleading when made because the Company failed to disclose that Kawas's research publications regarding the compound underlying the Company's lead product contained altered images and that the dissertation Kawas published in connection with obtaining her Ph.D., was obtained with falsified research.

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6. May 2021 10-Q

131. On May 13, 2021, Athira filed its Form 10-Q, announcing its earnings for the first quarter of the year 2021 (the "May 2021 10-Q").

132. Therein, the Company made false and misleading statements and omissions regarding the potential benefits of the ATH platform:

> Our approach is designed to augment neuronal growth factor signaling through the hepatocyte growth factor/MET, or HGF/MET, a naturally occurring regenerative system. ***We believe enhancing HGF/MET signaling has the potential to protect existing neurons from damage, reduce inflammation, promote regeneration, and positively modulate brain activity. We anticipate that all of these characteristics may improve neuronal health and translate into clinical benefits***. Our pipeline is built from our proprietary drug discovery platform, or ATH platform, and consists of a series of small molecules that are designed to target either (1) the central nervous system, or CNS, by crossing the blood brain barrier, or BBB, or (2) the peripheral nervous system.

133. Defendants' statements regarding the potential benefits of the ATH platform were materially false or misleading when made because they failed to disclose that at least four studies with images that were doctored by Kawas laid the biological groundwork for Athira's approach to treating Alzheimer's disease and other conditions.

134. The May 2021 10-Q further stated that:

> In December 2011, the Company entered into an exclusive license agreement with sublicensing terms with Washington State University Research Fund ("WSURF"), which, after the dissolution of WSURF in 2013, was superseded by an amended and restated exclusive license agreement with sublicensing terms between the Company and Washington State University ("WSU") in 2015. Under this agreement, the Company has an exclusive license to make, use, sell, and offer for sale a chemical compound that forms the underlying technology of the drug therapies being developed by the Company. To keep in good standing, the agreement requires the Company to meet certain development milestones and pay an annual maintenance fee. All contractual requirements have been met as of March 31, 2021. During the year ended December 31, 2020, the Phase 2 clinical trial milestone had been reached and a payment of $50,000 to WSU was recorded.

135. Defendants' statements regarding their intellectual property and licensing agreements were materially false or misleading when made because they failed to disclose that at least four studies with images that were doctored by Kawas laid the biological groundwork for

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Athira's patents and the Company's approach to treating Alzheimer's disease and other conditions.

V. LOSS CAUSATION

136. During the Class Period, as detailed herein, Defendants engaged in a knowingly or deliberately reckless course of conduct that artificially inflated the price of Athira's securities and operated as a fraud or deceit on Class Period purchasers of Athira's securities by failing to reveal and misrepresenting the adverse facts detailed herein. Later, when Defendants' prior misrepresentations and fraudulently reckless course of conduct were revealed to the market, the price of Athira's securities declined significantly as the prior artificial inflation was released from the Company's share price.

137. As a result of their purchases of Athira's securities during the Class Period, Plaintiffs and the other Class members suffered economic loss, *i.e.*, damages, under the federal securities laws. Defendants' false and misleading statements had the intended effect and caused Athira's common stock to trade at artificially inflated levels throughout the Class Period.

138. By concealing from investors the adverse facts detailed herein, Defendants presented a misleading picture of Athira's business and the qualifications of its CEO. As these adverse facts were revealed to the market, the price of Athira's securities fell dramatically. From the day of the partial revelation of the truth, on June 17, 2021, to the close of trading the following day, Athira's stock cratered from a closing price of $18.24 to $11.15, or nearly 40 percent. This decline removed the artificial inflation from the price of Athira's stock, causing economic loss to investors who had purchased or otherwise acquired Athira's securities during the Class Period.

139. The decline in the price of Athira's securities following these revelations was a direct result of the nature and extent of Defendants' fraudulent misrepresentations being revealed to investors and the market. The timing and magnitude of the price declines in Athira's securities and market reactions to the news negate any inference that the loss suffered by Plaintiffs and the other Class members was caused by changed market conditions, macroeconomic or industry factors, or Company-specific facts unrelated to Defendants' fraudulent conduct.

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140. The economic loss, *i.e.*, damages, suffered by Plaintiffs and the other Class members was a direct result of Defendants' fraudulent scheme and course of conduct to artificially inflate the price of Athira's securities and the subsequent material decline in the value of Athira's securities when Defendants' prior misrepresentations and omissions and other fraudulent conduct were revealed.

VI. APPLICATION OF PRESUMPTION OF RELIANCE

141. To the extent that reliance is an element of their claims, Plaintiffs and the Class members are entitled to a presumption of reliance under *Affiliated Ute Citizens of Utah* v. *United States*, 406 U.S. 128 (1972), because the claims asserted herein against Defendants are predicated upon omissions of material fact where there was a duty to reveal material information.

142. To the extent that reliance is an element of their claims, Plaintiffs and the Class members are also entitled to a presumption of reliance on Defendants' material misrepresentations and omissions pursuant to the fraud-on-the-market theory:

(a) Athira common stock was actively traded on the NASDAQ, an informationally efficient market, throughout the Class Period;

(b) Athira stock traded at high volumes during the Class Period;

(c) Athira filed an annual report and quarterly financial reports with the SEC;

(d) Athira communicated with public investors by means of established market communication mechanisms, including through regular dissemination of press releases on the major news wire services and through other wide-ranging public revelations, such as communications with the financial press, securities analysts, and other similar reporting services;

(e) The market reacted promptly to public information disseminated by Athira, for example, the market price of Athira stock decreased by ~40% on June 18, 2021 when the research falsification was revealed;

(f) Athira stock was covered by numerous securities analysts employed by major brokerage firms who wrote reports that were publicly available and entered the public marketplace;

(g) The material misrepresentations and omissions alleged herein would tend to induce a reasonable investor to misjudge the value of Athira securities;

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(h) Without knowledge of the misrepresented or omitted material facts alleged herein, Plaintiffs and other Class members purchased or otherwise acquired Athira's securities between the time Defendants misrepresented or failed to reveal material facts and the time the true facts began to be revealed; and

(i) Options in Athira's stock were actively traded in an informationally efficient market based on the value of Athira's and the price of its common stock, which traded on the NASDAQ, an informationally efficient market, throughout the Class Period.

VII. NO SAFE HARBOR

143. The statutory safe harbor provided by the PSLRA for forward-looking statements under certain circumstances does not apply to any of the materially false and misleading statements and omissions alleged herein.

144. ***First***, Defendants' statements and omissions alleged to be false and misleading relate to historical facts or existing conditions, and omissions are not protected by the statutory safe harbor. Defendants' false and misleading statements and omissions alleged herein are not forward-looking because such statements: (1) relate to historical or current fact; (2) implicate existing conditions; and (3) do not contain projections of future performance or future objective. To the extent that any of the alleged false and misleading statements and omissions might be construed to touch on future intent, they are mixed statements of present facts and future intent and are not entitled to safe harbor protection with respect to the part of the statement that refers to the present.

145. ***Second***, any purported forward-looking statements were not accompanied by meaningful cautionary language because any risks that Defendants warned of had already come to pass, and any cautionary language did not mention important factors of similar significance to those actually realized. Additionally, to the extent Defendants included any cautionary language, such language was not meaningful because any potential risks identified by Defendants had already manifested. To the extent Defendants included any cautionary language, it was not precise and did not relate directly to any forward-looking statements at issue. Defendants' cautionary

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language was boilerplate and did not change during the Class Period, despite the fact that conditions had materially changed.

146. ***Third***, to the extent that there were any forward-looking statements that were identified as such, Defendants are liable because, at the time each of those forward-looking statements was made, the speaker knew the statement was false when made.

COUNT I

Against All Defendants
for Violations of Section 10(b) of the Exchange Act and Rule 10b-5 Promulgated Thereunder

147. Plaintiffs repeat and reallege each and every allegation contained above as if fully set forth herein.

148. This Count is asserted against all Defendants and is based upon Section 10(b) of the Exchange Act, 15 U.S.C. § 78j(b), and Rule 10b-5 promulgated thereunder by the SEC.

149. During the Class Period, Defendants engaged in a plan, scheme, conspiracy and course of conduct, pursuant to which they knowingly or deliberately recklessly engaged in acts, transactions, practices, and courses of business that operated as a fraud and deceit upon Plaintiffs and the other Class members; made various untrue statements of material facts and omitted to state material facts necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading; and employed devices, schemes, and artifices to defraud in connection with the purchase and sale of securities. Such scheme was intended to, and, throughout the Class Period, did: (i) deceive the investing public, including Plaintiffs and other Class members, as alleged herein; (ii) artificially inflate and maintain the market price of Athira securities; and (iii) cause Plaintiffs and other Class members to purchase or otherwise acquire Athira securities at artificially inflated prices. In furtherance of this unlawful scheme, plan and course of conduct, Defendants, and each of them, took the actions set forth herein.

150. Pursuant to the above plan, scheme, conspiracy and course of conduct, each of the Defendants participated directly or indirectly in the preparation and/or issuance of the quarterly

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and annual reports, SEC filings, press releases, and other statements and documents described above, including statements made to securities analysts and the media that were designed to influence the market for Athira securities. Such reports, filings, releases, and statements were materially false and misleading in that they failed to reveal material adverse information and misrepresented the truth about Athira.

151. By virtue of their positions at Athira, the Individual Defendants had actual knowledge of the materially false and misleading statements and material omissions alleged herein and intended thereby to deceive Plaintiffs and the other Class members, or, in the alternative, the Individual Defendants acted with deliberately reckless disregard for the truth in that they failed or refused to ascertain and reveal such facts as would reveal the materially false and misleading nature of the statements made, although such facts were readily available to the Individual Defendants. Said acts and omissions of the Defendants were committed willfully or with reckless disregard for the truth. In addition, each Individual Defendant knew or recklessly disregarded that material facts were being misrepresented or omitted as described above. Athira has the scienter of its CEO.

152. Additional information showing that Defendants acted knowingly or with deliberately reckless disregard for the truth is peculiarly within Defendants' knowledge and control. As the senior managers and/or directors of Athira, the Individual Defendants had knowledge of the details of Athira's internal affairs.

153. The Individual Defendants are liable both directly and indirectly for the wrongs complained of herein. Because of their positions of control and authority, the Individual Defendants were able to and did, directly or indirectly, control the content of the statements of Athira. As officers and/or directors of a publicly-held company, the Individual Defendants had a duty to disseminate timely, accurate, and truthful information with respect to Athira's businesses, operations, future financial condition, and future prospects. As a result of the dissemination of the aforementioned false and misleading reports, releases, and public statements, the market price of Athira securities was artificially inflated throughout the Class Period. In ignorance of the adverse facts concerning Athira that were concealed by Defendants, Plaintiffs and the other Class members

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purchased or otherwise acquired Athira securities at artificially inflated prices and relied upon the price of the securities, the integrity of the market for the securities and/or upon statements disseminated by Defendants, and were damaged thereby.

154. During the Class Period, Athira securities were traded on an active and efficient market. Plaintiffs and the other Class members, relying on the materially false and misleading statements described herein, which the Defendants made, issued, or caused to be disseminated, or relying upon the integrity of the market, purchased or otherwise acquired Athira securities at prices artificially inflated by Defendants' wrongful conduct. Had Plaintiffs and the other Class members known the truth, they would not have purchased or otherwise acquired said securities, or would not have purchased or otherwise acquired them at the inflated prices that were paid. At the time of the purchases and/or acquisitions by Plaintiffs and the Class, the true value of Athira securities was substantially lower than the prices paid by Plaintiffs and the other Class members. The market price of Athira securities declined sharply upon public revelation of the facts alleged herein to the injury of Plaintiffs and Class members.

155. By reason of the conduct alleged herein, Defendants knowingly or deliberately recklessly, directly or indirectly, violated Section 10(b) of the Exchange Act and Rule 10b-5 promulgated thereunder.

156. As a direct and proximate result of Defendants' wrongful conduct, Plaintiffs and the other Class members suffered damages in connection with their respective purchases, acquisitions, and sales of Athira securities during the Class Period, upon the revelation that Athira had been disseminating misrepresented financial statements to the investing public.

COUNT II

Against the Individual Defendants for Violations of Section 20(a) of the Exchange Act

157. Plaintiffs repeat and reallege each and every allegation contained in the foregoing paragraphs as if fully set forth herein.

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158. During the Class Period, the Individual Defendants participated in the operation and management of Athira, and conducted and participated, directly and indirectly, in the conduct of Athira's business affairs. The Individual Defendants knew the adverse non-public information about Athira's misstatements because of their senior positions at the Company.

159. As officers and/or directors of a publicly owned company, the Individual Defendants had a duty to disseminate accurate and truthful information, and to correct promptly any public statements issued by Athira that had become materially false or misleading.

160. Because of their positions of control and authority as senior officers, the Individual Defendants were able to, and did, control the contents of the various reports, press releases, and public filings that Athira disseminated in the marketplace during the Class Period concerning the misrepresentations. Throughout the Class Period, the Individual Defendants exercised their power and authority to cause Athira to engage in the wrongful acts complained of herein. The Individual Defendants, therefore, were "controlling persons" of Athira within the meaning of Section 20(a) of the Exchange Act. In this capacity, they participated in the unlawful conduct alleged that artificially inflated the market price of Athira securities.

161. Each of the Individual Defendants, therefore, acted as a controlling person of Athira. By reason of their senior management positions and/or being directors of Athira, each of the Individual Defendants had the power to direct the actions of, and exercised the same to cause, Athira to engage in the unlawful acts and conduct complained of herein. Each of the Individual Defendants exercised control over the general operations of Athira and possessed the power to control the specific activities that comprise the primary violations about which Plaintiffs and the other Class members complain.

162. By reason of the above conduct, the Individual Defendants are liable pursuant to Section 20(a) of the Exchange Act for the violations committed by the Company.

VIII. SECURITIES ACT CLAIMS

163. The claims set forth herein pursuant to Sections 11, 12(a)(2), and 15 of the Securities Act are brought on behalf of persons or entities who purchased or otherwise acquired

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Athira common stock pursuant or traceable to the Offering Materials. The Securities Act claims are based solely on strict liability and negligence and are not based on any knowing or reckless conduct by or on behalf of any Defendant—i.e., these claims do not allege, and do not sound in, fraud—and Plaintiffs specifically disclaim any allegations of fraud, scienter, or recklessness in these non-fraud claims.

164. The Securities Act claims are asserted against the Company, Kawas, the Individual Defendants, and the Underwriter Defendants. Each of these Defendants is statutorily liable under Section 11 of the Securities Act for the materially inaccurate statements and omissions contained in the registration statements and accompanying prospectuses. Additionally, Section 12(a)(2) claims are asserted against the Underwriter Defendants who sold shares in the Offerings on behalf of Class members who purchased common stock in the Offerings.

165. The Securities Act claims are based on the fact that the IPO and SPO Registration Statements contained untrue statements of material fact and omitted material facts about the Company's business and operations, including misrepresentations and omissions about Kawas's falsified research regarding the compound underlying the Company's lead, as detailed *supra* in ¶¶27-108.

166. The Securities Act claims against the Underwriter Defendants and the Director Defendants are premised upon their negligent failure to conduct a reasonable due-diligence investigation into the accuracy and completeness of the representations contained in the IPO and SPO Registration Statements. Had the Underwriter Defendants and the Director Defendants not acted negligently, and had they conducted reasonable due-diligence investigations before the Offerings, they would have uncovered that the IPO and SPO Registration Statements contained untrue statements of fact and omitted material facts.

167. The Securities Act claims are not based on any knowing or reckless misconduct on the part of these Defendants. Thus, for purposes of the liability of these Defendants, Plaintiffs' claims do not sound in fraud, and Plaintiffs expressly disclaim any allegations of fraud or intentional misconduct in connection with these non-fraud claims.

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168. As underwriters of Athira's IPO, each of the Underwriter Defendants had a duty to conduct a reasonable due-diligence investigation to ensure that the offering documents did not contain any false or misleading statements or fail to disclose any material information needed to make the information provided in the offering documents not misleading. However, in their rush to bring Athira to market and collect their hefty fees, the Underwriter Defendants failed to conduct a reasonable due-diligence investigation into the accuracy of the IPO and SPO Registration Statements. Had they done so, the Underwriter Defendants would have uncovered red flags that called into question the accuracy of the IPO and SPO Registration Statements.

169. The Underwriter Defendants participated directly in drafting the IPO and SPO Registration Statements, as demonstrated by the fact that the IPO and SPO Registration Statements prominently displayed the names of each of the Underwriter Defendants on the first page of the prospectuses. Moreover, the Underwriter Defendants were responsible for setting the offering price of common stock sold in the Offerings. The Underwriter Defendants were also required to deliver a copy of the IPO or SPO prospectuses to buyers who purchased in each offering, and a copy of the IPO and SPO prospectuses were made available on websites maintained by one or more of the Underwriter Defendants. Accordingly, the Underwriter Defendants were required to exercise due diligence before offering Athira common stock to investors. However, the Underwriter Defendants negligently failed to conduct a reasonable investigation into the accuracy and completeness of the representations contained in the IPO and SPO Registration Statements.

170. The Underwriter Defendants overlooked that the founder and CEO altered images in her doctoral dissertation and other research papers that directly relate to the Company's lead product.

171. Had the Underwriter Defendants vetted management qualifications or the science underlying the lead product, they would have discovered this.

172. Independent internet contributors were able to uncover Kawas's fraudulent research based on the analysis of publicly available information, yet the Underwriter Defendants failed to conduct sufficient due diligence to determine the presence of this risk factor.

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173. The foregoing should have caused the Underwriter Defendants to conduct additional due diligence before drafting and disseminating the IPO and SPO Registration Statements. By overlooking these red flags, the Underwriter Defendants negligently failed to conduct reasonable due diligence into the accuracy and completeness of the representations contained in the IPO and SPO Registration Statements, and therefore they are liable for the misstatements and omissions contained therein.

A. False and Misleading Statements in the IPO Materials

174. On September 9, 2020, Athira filed a Registration Statement on Form S-1 with the SEC, which was subsequently amended several times and declared effective by the SEC on September 17, 2020. On or about September 17, 2020, Athira issued a Prospectus pursuant to Rule 424(b)(4). These documents are collectively the "IPO Materials." In the IPO, Athira sold 12,000,000 shares of the Company's common stock at $17.00 per share for gross proceeds of $204 million. The IPO Materials contained false and misleading statements about (i) Kawas's qualifications, and (ii) Athira's licensing agreement with WSU. The portions of the statements alleged to be false and misleading are bolded and italicized.

1. Statements About Kawas's Qualifications

175. The IPO Materials stated in relevant part that one of the Company's "strengths" was related to its leadership team, specifically the qualifications of its CEO, Kawas:

> Our leadership team includes experienced neuroscience biotech executives who have both developed and commercialized CNS drugs and founded successful companies. ***Dr. Leen Kawas***, our founder and chief executive officer, ***has been essential in creating our innovative translational development strategy***.

176. The Company touted Kawas's qualifications throughout the IPO Materials. Specifically, the Company stated that:

> ***Dr. Kawas earned a Ph.D. in molecular pharmacology from Washington State University in 2011*** and a pharmacy degree from the University of Jordan in 2008. ***We believe Dr. Kawas's scientific and professional training, her instrumental role in building Athira Pharma, Inc.***, and her extensive understanding of our business, operations and strategy ***qualify her to serve on our board of directors***.

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177. The IPO Materials were materially false and misleading in that they negligently failed to adequately disclose that Kawas's research publications regarding the compound underlying the Company's lead product contained altered images and that the dissertation Kawas published in connection with obtaining her Ph.D., was obtained with falsified research. These were likely to have, and were having, an adverse effect on the Company's business and operations. The IPO Materials were negligently prepared and, as a result, contained untrue statements of material facts or omitted to state other facts necessary to make the statements made not misleading, and were not prepared in accordance with the rules and regulations governing their preparation.

2. Statement Regarding Licensing Agreement and Intellectual Property

178. The IPO Materials stated in relevant part that:

> In December 2011, we entered into an exclusive license agreement with Washington State University Research Fund, or WSURF, which, after the dissolution of WSURF in 2013, was superseded by an amended and restated exclusive license agreement with Washington State University, or WSU, in September of 2015. Under this agreement, WSU granted us an exclusive license to make, use, sell, and offer for sale licensed products and licensed processes that embody the licensed patents (including WSU's rights to a patent jointly owned with Pacific Northwest Biotechnology, Inc.) and that form the underlying technology of the drug therapies we are developing.

179. These statements were false and misleading when made because the Company failed to disclose that Kawas's research publications regarding the compound underlying the Company's lead product contained altered images and that the dissertation Kawas published in connection with obtaining her Ph.D., was obtained with falsified research. This was likely to have an adverse effect on the Company's business because the Company is licensing the compound that is the subject of the CEO's fraudulent research studies and related publications. The IPO Materials were negligently prepared and, as a result, contained untrue statements of material facts or omitted to state other facts necessary to make the statements made not misleading, and were not prepared in accordance with the rules and regulations governing their preparation.

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B. False and Misleading Statements in the SPO Materials

180. On January 6, 2021, Athira filed a Registration Statement on Form S-1 with the SEC, which was subsequently amended and declared effective by the SEC on January 21, 2021. On or about January 19, 2021, Athira issued a Prospectus pursuant to Rule 424(b)(4). These documents are collectively referred to as the "SPO Materials." In the January 2021 Offering, Athira sold 4,000,000 shares of Company common stock at $22.50 per share for gross proceeds of $90 million (not including the underwriters' option for additional stock sales).

181. The SPO Materials repeated verbatim the statements made in the IPO Materials.

182. These statements were false and misleading when made because the Company failed to disclose that Kawas's research publications regarding the compound underlying the Company's lead product contained altered images and that the dissertation Kawas published in connection with obtaining her Ph.D., was obtained with falsified research. This was likely to have an adverse effect on the Company's business because the Company is licensing the compound that is the subject of the CEO's fraudulent research studies and related publications. The IPO Materials were negligently prepared and, as a result, contained untrue statements of material facts or omitted to state other facts necessary to make the statements made not misleading, and were not prepared in accordance with the rules and regulations governing their preparation.

C. The IPO and SPO Materials Violated SEC Regulation S-K

183. Regulation S-K, 17 C.F.R. § 229.303(b)(2) ("Item 303"), requires public companies to "describe any unusual or infrequent events or transactions or any significant economic changes that materially affected the amount of reported income from continuing operations and, in each case, indicate the extent to which income was so affected." Item 303 also requires public companies to disclose "trends or uncertainties" that the registrant reasonably expects will "have a material favorable or unfavorable impact on net sales or revenues or income from continuing operations." These disclosures must be made in the management's discussion and analysis of financial condition and results of operations ("MD&A") section of a registration statement. A company's failure to disclose information required by Item 303 in its annual and quarterly reports

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filed with the SEC is actionable under the federal securities laws, including under Section 10(b) of the Exchange Act.

184. The purpose of MD&A disclosures, according to the SEC, is to provide investors with information "necessary to an understanding of [a company's] financial condition, changes in financial condition and results of operations." C.F.R. § 229.303(b). In particular, there are three principal objectives of the MD&A: (i) to provide an explanation of a company's financial statements that enables investors to see the company through management's eyes; (ii) to enhance the overall financial disclosure and provide the context within which financial information should be analyzed; and (iii) to provide information about the quality and potential variability of a company's earnings and cash flow, so that investors can judge the extent to which past performance predicts future performance.

185. For the past thirty years, the SEC has emphasized that public companies have a duty to disclose significant trends, risks, and uncertainties that could affect their performance in the future. First, on May 18, 1989, the SEC issued an interpretive release concerning registrants' MD&A disclosure obligations, including those arising under Item 303 (SEC Release No. 33-6835 (May 18, 1989) ("1989 Release")). The 1989 Release affirms that the MD&A sections of public company SEC filings "are intended to provide, in one section of a filing, material historical and prospective textual disclosure enabling investors and other users to assess the financial condition and results of operations of the registrant, with particular emphasis on the registrant's prospects for the future." 1989 Release, at *3.

186. Citing Securities Act Release Nos. 6711 and 6349, the 1989 Release also states:

> MD&A is intended to give the investor an opportunity to look at the company through the eyes of management by providing both a short and long-term analysis of the business of the company. . . . It is the responsibility of management to identify and address those key variables and other qualitative and quantitative factors which are peculiar to and necessary for an understanding and evaluation of the individual company.

187. Moreover, quoting the Instructions to Item 303, the 1989 Release states that the MD&A "shall focus specifically on material events and uncertainties known to management that

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would cause reported financial information not to be necessarily indicative of future operating results or of future financial condition." 1989 Release, at *3.

188. On April 7, 2003, the SEC issued a final rule addressing registrants' disclosure obligations under Item 303 (Release Nos. 33-8182; 34-47264, ("2003 Rule")). It emphasizes that MD&A disclosures are "of paramount importance in increasing the transparency of a company's financial performance and providing investors with the disclosure necessary to evaluate a company and to make informed investment decisions." *Id.* at 2. The 2003 Rule further states that the MD&A provides "a unique opportunity for management to provide investors with an understanding of its view of the financial performance and condition of the company, an appreciation of what the financial statements show and do not show, as well as important trends and risks that have shaped the past or are reasonably likely to shape the future." *Id*.

189. Kawas's failure to disclose the impact of years of falsifying and publishing research related to the compound that forms the underlying technology of Athira's lead product at the time of the Company's IPO and SPO violated Item 303 and Section 10(b) of the Exchange Act. Without this information, investors did not have the ability to view Athira "through the eyes of management" or to know "material events and uncertainties known to management that would cause reported financial information not to be necessarily indicative of future operating results or of future financial condition" and "important trends and risks that have shaped the past or are reasonably likely to shape the future."

190. SEC Regulation S-K, 17 C.F.R. § 229.503(c) ("Item 503"), requires public companies to disclose in a registration statement, among other things, a "discussion of the most significant factors that make the offering speculative or risky." Item 503 also requires public companies to "[e]xplain how the risk affects the issuer or the securities being offered." A company's failure to disclose information required by Item 503 in its registration statement is actionable under the federal securities laws, including under Section 10(b) of the Exchange Act. Athira's IPO and SPO Materials failed to disclose information regarding material risks as required by Item 503, including risks related to Athira's undisclosed exposure to commodity prices for up

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to 90 days after being awarded a contract. The disclosures in the IPO and SPO Registration Statements therefore failed to adequately alert investors to the actual risks associated with an investment in Athira.

COUNT III

Against the Securities Act Defendants
for Violations of Section 11 of the Securities Act

191. As previously stated, the claim set forth herein pursuant to Section 11 of the Securities Act is based solely on strict liability and negligence, and is not based on any knowing or reckless conduct by or on behalf of any Defendant—i.e., it does not allege, and does not sound in, fraud—and Plaintiffs specifically disclaim any allegations of fraud, scienter, or recklessness in this non-fraud claim. This claim does not sound in fraud.

192. Plaintiffs repeat and incorporate each and every allegation contained in ¶¶27-108, 163-187, as if fully set forth herein, excluding any allegation of fraud, recklessness, or intentional misconduct.

193. This Count is brought pursuant to Section 11 of the Securities Act, 15 U.S.C. § 77k, on behalf of the Class, against Defendant Athira, each of the Securities Act Individual Defendants, and each of the Underwriter Defendants.

194. The Offering Materials were inaccurate and misleading, contained untrue statements of material facts, omitted to state other facts necessary to make the statements made not misleading, and omitted to state material facts required to be stated therein.

195. Athira is the registrant and issuer of the common stock sold pursuant to the Offering Materials. As such, Athira is strictly liable for the materially inaccurate statements contained in them and their failure to be complete and accurate. By virtue of the Offering Materials containing material misrepresentations and omissions of material fact necessary to make the statements therein not false and misleading, Athira is liable under Section 11 of the Securities Act to Plaintiffs and the Class.

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196. None of the Defendants named herein made a reasonable investigation or possessed reasonable grounds for the belief that the statements contained in the Offering Materials were true and without omissions of any material facts and were not misleading.

197. The Securities Act Individual Defendants each had a duty to make a reasonable and diligent investigation of the truthfulness and accuracy of the statements contained in the Offering Materials. They each had a duty to ensure that such statements were true and accurate and that there were no omissions of material fact that would make the statements misleading. By virtue of each of the Securities Act Individual Defendants' failure to exercise reasonable care, the Offering Materials contained material misrepresentations of material fact and omissions of material fact necessary to make the statements therein not misleading. As such, each of the Securities Act Individual Defendants is liable under Section 11 of the Securities Act to Plaintiffs and the Class.

198. Each of the Underwriter Defendants served as an underwriter for at least one of the Offerings and qualifies as such according to the definition contained in Section 2(a)(11) of the Securities Act, 15 U.S.C. § 77b(a)(11). As such, they participated in the solicitation, offering, and sale of the securities to the investing public pursuant to the Offering Materials. Each of the Underwriter Defendants, as an underwriter of the securities offered in at least one of the Offerings, had a duty to make a reasonable and diligent investigation of the truthfulness and accuracy of the statements contained in the relevant Offering Materials. They each had a duty to ensure that such statements were true and accurate and that there were no omissions of material fact that would make the statements misleading. By virtue of each of the Underwriter Defendants' failure to exercise reasonable care, the Offering Materials contained misrepresentations of material fact and omissions of material fact necessary to make the statements therein not misleading. As such, each of the Underwriter Defendants is liable under Section 11 of the Securities Act to Plaintiffs and the Class.

199. None of the untrue statements or omissions of material fact in the Offering Materials alleged herein was a forward-looking statement. Rather, each such statement concerned existing facts. Moreover, the Offering Materials did not properly identify any of the untrue

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statements as forward-looking statements and did not disclose information that undermined the putative validity of those statements.

200. Each of the Securities Act Defendants named in this Count issued, caused to be issued, and participated in the issuance of materially untrue and misleading written statements to the investing public that were contained in the registration statement, which misrepresented and failed to disclose, *inter alia*, the facts set forth above. By reasons of the conduct herein alleged, each of the Securities Act Defendants violated Section 11 of the Securities Act.

201. Plaintiffs and the Class have sustained damages. The value of Athira common stock has declined substantially subsequent to and due to violations by the Securities Act Defendants named in this Count.

202. At the time of their purchases of Athira common stock, Plaintiffs and other members of the Class were without knowledge of the facts concerning the conduct alleged herein and could not have reasonably discovered those facts prior to the disclosures alleged herein. Less than one year has elapsed from the time that Plaintiffs discovered, or reasonably could have discovered, the facts upon which this Complaint is based to the time that Plaintiffs filed this Action. Less than three years have elapsed between the time that the securities upon which this count is brought were offered to the public and the time Plaintiffs filed this Action.

COUNT IV

Against the Securities Act Defendants for Violations of Section 12(a)(2) of the Securities Act

203. As previously stated, the claim set forth herein pursuant to Section 12(a)(2) of the Securities Act is based solely on strict liability and negligence, and is not based on any knowing or reckless conduct by or on behalf of any Defendant—i.e., it does not allege, and does not sound in, fraud—and Plaintiffs specifically disclaim any allegations of fraud, scienter, or recklessness in this non-fraud claim. This claim does not sound in fraud.

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204. Plaintiffs repeat and incorporate each and every allegation contained in ¶¶27-108, 163-187, as if fully set forth herein, excluding any allegation of fraud, recklessness, or intentional misconduct.

205. This Cause of Action is brought pursuant to Section 12(a)(2) of the Securities Act, 15 U.S.C. § 77l(a)(2), on behalf of the Class, against the Securities Act Defendants.

206. Each of the Securities Act Defendants was a seller, offeror, or solicitor of purchases of the Company's common stock pursuant to the defective prospectuses that respectively formed in relevant part the Offering Materials. The actions of solicitation by the Securities Act Defendants include participating in the preparation of the false and misleading prospectuses and marketing the common stock to investors, such as Plaintiffs and other members of the Class.

207. The prospectuses contained untrue statements of material fact, omitted to state other facts necessary to make statements made therein not misleading, and omitted to state material facts required to be stated therein.

208. Each of the Securities Act Defendants owed Plaintiffs and other members of the Class who purchased or otherwise acquired Athira common stock pursuant to the prospectuses issued in connection with the Offering Materials a duty to make a reasonable and diligent investigation of the statements contained in the prospectuses to ensure that such statements were true and that there was no omission to state a material fact required to be stated in order to make the statements contained therein not misleading. By virtue of each of the Securities Act Defendants' failure to exercise reasonable care, the prospectuses contained misrepresentations of material fact and omissions of material fact necessary to make the statements therein not misleading.

209. Plaintiffs and the members of the Class did not know, nor in the exercise of reasonable diligence could have known, of the untruths and omissions contained in the prospectuses issued in connection with the prospectuses at the time they purchased or otherwise acquired Athira common stock.

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210. By reason of the conduct alleged herein, the Securities Act Defendants violated Section 12(a)(2) of the Securities Act. As a direct and proximate result of such violations, Plaintiffs and the other members of the Class who purchased or otherwise acquired Athira common stock pursuant to the prospectuses issued in connection with the Offering Materials sustained substantial damages in connection therewith. Accordingly, Plaintiffs and the other members of the Class who hold the common stock issued pursuant to the prospectuses issued in connection with the Offering Materials have the right to rescind and recover the consideration paid for their shares with interest thereon or damages as allowed by law or in equity. Class members who have sold their Athira common stock seek damages to the extent permitted by law.

211. Less than one year has elapsed from the time that Plaintiffs discovered, or reasonably could have discovered, the facts upon which this Complaint is based to the time that Plaintiffs filed this Action. Less than three years has elapsed between the time that the securities upon which this count is brought were offered to the public and the time Plaintiffs filed this Action.

COUNT V

Against the Securities Act Individual Defendants and Director Defendants for Violations of Section 15 of the Securities Act

212. As previously stated, the claim set forth herein pursuant to Section 15 of the Securities Act is based solely on strict liability and negligence, and is not based on any knowing or reckless conduct by or on behalf of any Defendant—i.e., it does not allege, and does not sound in, fraud—and Plaintiffs specifically disclaim any allegations of fraud, scienter, or recklessness in this non-fraud claim. This claim does not sound in fraud. Plaintiffs repeat and incorporate each and every allegation contained in ¶¶27-108, 163-187 as if fully set forth herein, except any allegation of fraud, recklessness, or intentional misconduct.

213. This Cause of Action is brought pursuant to Section 15 of the Securities Act, 15 U.S.C. § 77o, on behalf of the Class, against the Securities Act Individual Defendants and Director Defendants.

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214. By reason of the conduct alleged herein, these Defendants violated Section 15 of the Securities Act and Plaintiffs and the members of the Class have suffered harm as a result.

IX. CLASS ACTION ALLEGATIONS

215. Plaintiffs bring this Action pursuant to Rule 23 of the Federal Rules of Civil Procedure on behalf of themselves and all persons and entities that (a) purchased Athira publicly traded securities during the period from September 17, 2020 through June 17, 2021, inclusive, and were damaged thereby (the "Class Period"); and/or (b) purchased or otherwise acquired Athira publicly traded common stock pursuant and/or traceable to Athira's September 2020 IPO or January 2021 SPO during the Class Period, and were damaged thereby.

216. Excluded from the Class are: (i) Defendants; (ii) members of the immediate family of any Individual Defendant; (iii) any person who was an officer or director of Athira during the Class Period; (iv) any firm, trust, corporation, or other entity in which any Defendant, has or had a controlling interest; and (v) the legal representatives, affiliates, heirs, successor-in-interest, or assignees of any such excluded person, including Athira's employee retirement and/or benefit plan(s) and their participants or beneficiaries, to the extent they made purchases through such plan(s).

217. The Class members are so numerous that joinder of all members is impracticable. During the Class Period, Athira had more than 30 million common shares outstanding, which shares were actively traded on the NASDAQ.

218. While the exact number of Class members is unknown to Plaintiffs at this time, and can be ascertained only through appropriate discovery, it is likely that the proposed Class numbers in the thousands and is geographically widely dispersed. Record owners and other Class members may be identified from records maintained by Athira and may be notified of the pendency of this Action by mail, using a form of notice similar to that customarily used in securities class actions.

219. Plaintiffs' claims are typical of the claims of the Class members. All the Class members were similarly affected by Defendants' conduct in violation of the Exchange Act as alleged herein.

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220. Plaintiffs will fairly and adequately protect the interests of the Class members. Plaintiffs have retained counsel competent and experienced in class and securities litigation.

221. There is a well-defined community of interest in the questions of law and fact involved in this case. Common questions of law and fact exist as to all Class members, and predominate over any questions solely affecting individual Class members. The questions of law and fact common to the Class include, without limit:

(a) whether the federal securities laws were violated by Defendants' acts and omissions as alleged herein;

(b) whether statements made by Defendants to the investing public during the Class Period contained material misrepresentations;

(c) whether the Defendants' statements omitted material facts that Defendants had a duty to reveal;

(d) whether Defendants' statements omitted material facts necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading;

(e) whether Defendants acted knowingly or deliberately recklessly in issuing false and misleading financial statements;

(f) whether the price of Athira securities during the Class Period was artificially inflated because of Defendants' conduct complained of herein;

(g) whether reliance may be presumed pursuant to the fraud-on-the-market doctrine and/or the presumption of reliance afforded by *Affiliated Ute Citizens of Utah* v. *United States*, 406 U.S. 128 (1972);

(h) whether the individuals were controlling persons of Athira; and

(i) whether and to what extent the Class members suffered losses due to Defendants' fraudulent conduct.

222. A class action is superior to all other available methods for the fair and efficient adjudication of this controversy because, among other things, joinder of all Class members is

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impracticable. Furthermore, because the damages suffered by the individual Class members may be relatively small, the expense and burden of individual litigation make it impossible for members of the Class to individually redress the wrongs done to them. There will be no difficulty in the management of this action as a class action.

X. PRAYER FOR RELIEF

WHEREFORE, Plaintiffs respectfully pray as follows:

A. Declaring that this action is a proper class action maintained under Rule 23 of the Federal Rules of Civil Procedure, certifying Plaintiffs as Class representatives, and appointing Labaton Sucharow, LLP and Glancy Prongay & Murray LLP as Class Counsel pursuant to Rule 23(g);

B. Determining and declaring that Defendants violated the Securities Act and Exchange Act by reason of the acts and omissions alleged herein;

C. Awarding Plaintiffs and the Class compensatory damages against all Defendants, jointly and severally, in an amount to be proven at trial together with interest thereon;

D. Awarding equitable, injunctive, or other relief as the Court may deem just and proper; and

E. Granting such other and further relief as this Court may deem just and proper.

XI. DEMAND FOR TRIAL BY JURY

Plaintiffs demand a trial by jury.

DATED this 7th day of January, 2022

ROSSI VUCINOVICH, P.C.

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Co-Lead Counsel for the Class

PROOF OF SERVICE BY ELECTRONIC POSTING

I, the undersigned, say:

I am not a party to the above case, and am over eighteen years old. On January 7, 2022, I served true and correct copies of the foregoing document, by posting the document electronically to the ECF website of the United States District Court for the Western District of Washington, for receipt electronically by the parties listed on the Court's Service List.

I affirm under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Executed on January 7, 2022, at Seattle, Washington.

/s/ Benjamin T. G. Nivison
Benjamin T. G. Nivison

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Notes

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