

USDC - GREENBELT
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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND

UNITED STATES OF AMERICA

v.

HOAU-YAN WANG,

Defendant.

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CRIMINAL NO. TDC24CR211

(Major Fraud Against the United States, 18 U.S.C. § 1031;
Wire Fraud, 18 U.S.C. § 1343;
False Statements, 18 U.S.C. § 1001;
Principals, 18 U.S.C. § 2;
Forfeiture, 18 U.S.C. § 981(a)(1)(C))

INDICTMENT

The Grand Jury for the District of Maryland charges:

I. GENERAL ALLEGATIONS

At all times relevant to this Indictment:

A. The Defendant

1. Defendant HOAU-YAN WANG resided in Philadelphia, Pennsylvania, and worked as a tenured professor in the School of Medicine at University 1. University 1 was a New York State public university that received state and federal funds. In addition to his teaching duties, WANG ran a laboratory at University 1 that conducted scientific research, including in the area of neuroscience. WANG obtained significant grant funding to pay for certain expenses in his laboratory at University 1, including salaries and laboratory supplies.

B. Company 1

2. Company 1 was a publicly traded biopharmaceutical company based in Austin, Texas. Company 1 focused on the development of Drug A as a potential treatment for Alzheimer's

disease. Company 1 also worked on the development of Test A, a potential diagnostic test used to detect Alzheimer's disease in a biological sample, including blood.

3. Beginning in at least 2005, WANG was a paid advisor and consultant to Company 1. In his role as an advisor and consultant, WANG served as a scientific investigator on various projects and helped Company 1 secure federal grant funding for scientific research. WANG worked on the development of both Drug A and Test A with Company 1.

C. The National Institutes of Health

4. The U.S. National Institutes of Health ("NIH"), part of the U.S. Department of Health and Human Services, was the nation's medical-research agency and the largest public funder of biomedical research in the world. Through the annual appropriations process, Congress provided taxpayer funding to NIH to enable, among other things, grant programs designed to support biomedical research for a variety of projects in order to enhance life and reduce illness and disability. NIH was comprised of different components that each had a specific research agenda, often focused on particular diseases or body systems. One such component, the National Institute on Aging, was established to improve the health and well-being of older adults, including through funding for Alzheimer's disease and related dementias research. NIH was headquartered in Bethesda, Maryland, within the District of Maryland.

5. NIH published grant policies, guidelines, and notices of funding opportunities. Each year, NIH set aside funding specifically to support small-business research and development, including for businesses like Company 1. Each funding-opportunity announcement typically cited to policy which advised applicants that anyone who knowingly made or presented any false, fictitious, or fraudulent statements, representations, or claims in seeking NIH funding could be criminally prosecuted. That policy also required that all records pertinent to the grant be retained

for a period of three years from the date the annual financial report was submitted to NIH following the disbursement of funds.

6. In order to seek NIH funding in response to a specific funding opportunity, an eligible applicant was required to submit a proposal that contained, among other things, a research plan, a description of the site locations, profiles of key personnel, and a detailed budget. As part of the research plan and/or personnel profiles, an applicant could include the results of any relevant laboratory, animal, or human testing of a drug and any relevant publications in scientific journals authored by the grant applicant. Grant applications were submitted to NIH electronically and retrieved through computer servers located within the District of Maryland up until in and around April 2020.

7. NIH's grant-approval process involved multiple steps and rounds of review within NIH, in consultation with an external peer-review panel, and included evaluations of the applications across a number of metrics. Once awarded, each project was funded in different phases that were established under NIH policies, along with funding caps for purposes of any single grant award. However, those caps could be exceeded through separate applications for grants for administrative supplements or grant renewals, which were separately evaluated and approved by NIH.

8. NIH relied upon truthful representations from an applicant in proposals and related documents in making its funding decisions.

D. Western Blot Technique

9. Western blotting was a laboratory technique that was used to detect a specific protein or the charge of a protein in a biological sample, often reflected in visible "bands" that appeared in the experiment. Results for this technique were captured either by developing an

image similar to an x-ray on physical film or an electronic scan. In each image, the thickness and/or darkness of a band corresponded to the relative amount of protein present in a particular sample, which could be quantified using a process called densitometry. The presence or absence of a band, the measurement of how dark or light a band appeared, and the location the band were the primary scientific results of a Western blot experiment and were typically used as points of comparison between tested samples.

II. THE SCHEME TO DEFRAUD

A. Overview of the Scheme

10. From in and around May 2015 and continuing through at least in and around April 2023, WANG fraudulently caused to be submitted, through Company 1, grant proposals to NIH based upon purported scientific research involving Drug A and Test A, including Western blotting. As a result of the applications containing WANG's false and fraudulent representations, NIH awarded Company 1 approximately \$16 million in funding from approximately 2017 to 2021. NIH's payments were initiated electronically to Company 1 from NIH facilities in the District of Maryland at periodic intervals, and WANG was indirectly paid from these proceeds. WANG used NIH grant funds provided indirectly through University 1 for, among other things, his salary, the salaries of his research assistants, and laboratory supplies and equipment, including to support his continued research for Company 1.

11. WANG's work under these grants was related to the early phases of Company 1's development of Drug A and Test A, typically referred to by the U.S. Food and Drug Administration (FDA) as Phase 1 and Phase 2.

12. WANG further received a stock-option agreement and a bonus plan from Company 1, each of which was tied to Company 1's stock performance.

B. Purpose of the Scheme

13. It was the purpose of the scheme for WANG to fraudulently obtain NIH funding to enrich himself through continued and future compensation by (a) making materially false, fraudulent, and misleading statements to NIH relating to his scientific research underlying Drug A and Test A, and (b) concealing and causing the concealment of the true facts about said research.

C. Manner and Means of the Scheme

14. The manner and means by which WANG sought to accomplish the purpose of the scheme included, among others:

- a. WANG contributed to, reviewed, approved, and caused to be submitted to NIH grant applications and other documents that contained materially false, fraudulent, and misleading statements about his scientific research in order to obtain funding for himself and Company 1.
- b. WANG made, and caused to be made, materially false, fraudulent, and misleading statements to NIH about, among other things: (i) the mechanism by which Drug A was designed to treat Alzheimer's disease; (ii) the improvement of certain indicators associated with advanced Alzheimer's disease neurodegeneration in patients treated with Drug A; (iii) the mechanism by which Test A was designed to detect Alzheimer's disease; and (iv) the nature and scope of his scientific experiments, including the truth and accuracy of the images and information provided as representations of the underlying scientific experiments.
- c. WANG fabricated and falsified the results of his scientific research to NIH, including Western blotting, such that the results were not accurately represented in the research record. He did so by, among other things, manipulating data and images of Western

blots to artificially add bands, subtract bands, and change their relative thickness and/or darkness, and then drawing conclusions about the presence or absence of the bands and their relative thickness and/or darkness that were not based upon truthful scientific testing.

- d. WANG authored, reviewed, approved, and caused to be submitted to various scientific journals articles that contained materially false, fraudulent, and misleading statements about his scientific research and then cited their publication in NIH grant applications to fraudulently enhance the credibility of said research to NIH.
- e. WANG provided materially false, fraudulent, and misleading images and statements to various scientific journals after publication to substantiate the statements about his scientific research made in articles he authored to conceal his involvement in the scheme.
- f. WANG failed to keep original scientific data and failed to provide all the relevant data he possessed to the government, University 1, scientific journals, and others in order to conceal the scheme.

D. Execution of the Scheme

WANG Caused to be Submitted Materially False, Fraudulent, and Misleading Statements to NIH for the Purpose of Obtaining Funding

Grant 1

15. Beginning in and around August 2016 through in and around June 2018, Company 1 submitted multiple applications in response to NIH funding announcements, for which it was awarded approximately \$5,113,068 for the development of Drug A (collectively, “Grant 1”). The awarded projects included the initial project (two phases—the second of which did not require a separate application), a renewal, and two administrative supplements. For each of the awarded

Grant 1 projects, WANG caused Company 1 to submit applications that contained materially false, fraudulent, and misleading statements about his scientific research.

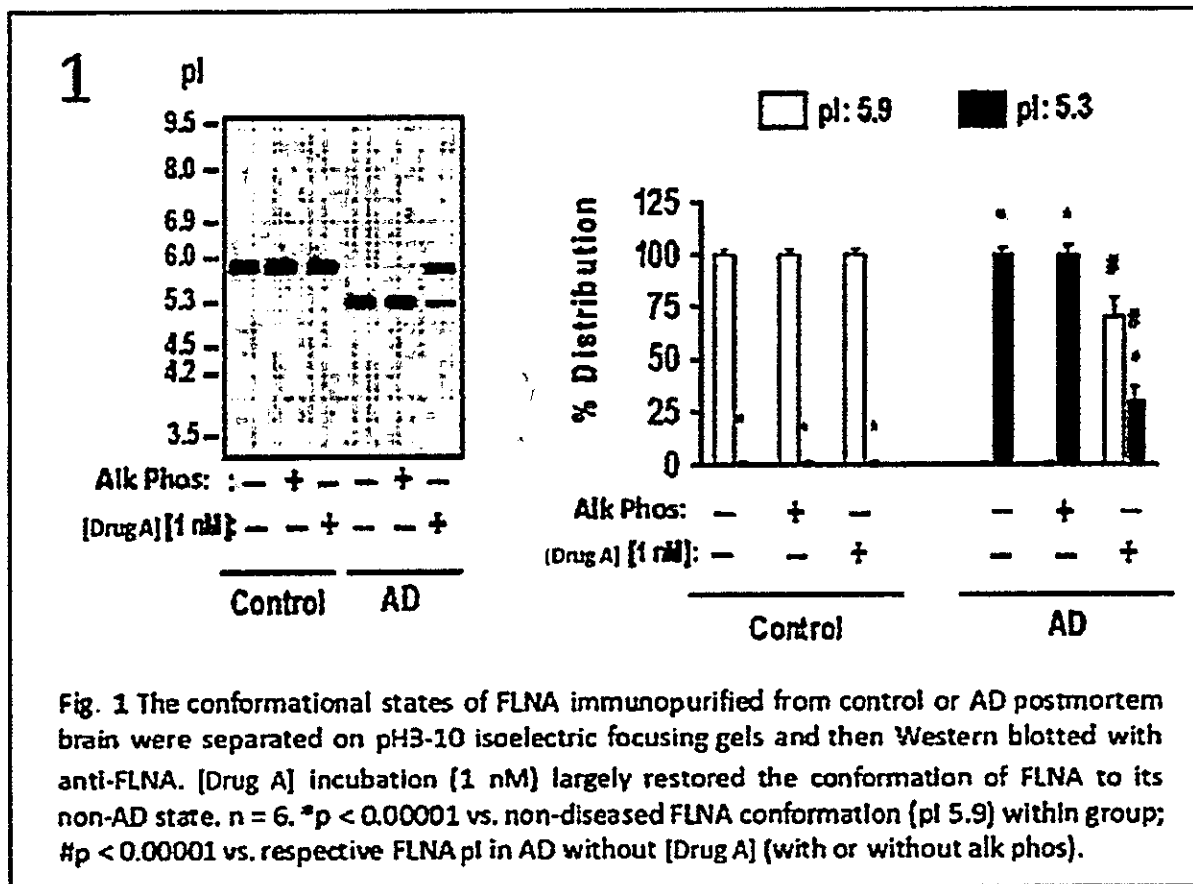
16. These applications also cited to journal articles published by WANG, along with others, including a 2012 article and a 2017 article related to the development of Drug A. Both of these articles contained images of Western blots that WANG fabricated, including images that were submitted as part of Grant 1 and other successful NIH grant applications.

Grant 2

17. From in and around January 2018 through in and around June 2018, Company 1 submitted multiple applications in response to NIH funding announcements, for which it was awarded approximately \$3,906,146 for the development of Drug A (collectively, "Grant 2"). The awarded projects included the initial project (both phases) and two administrative supplements. For each of the awarded Grant 2 projects, WANG caused Company 1 to submit applications that contained materially false, fraudulent, and misleading statements about his scientific research.

18. For example, on or about January 12, 2018, in response to an NIH funding announcement, WANG caused to be submitted to NIH a certain funding proposal ("Proposal 1"). Proposal 1 listed WANG as a co- Investigator and included a budget request for \$118,975 for the total cost of his anticipated work at University 1, including salary and benefits. Proposal 1 contained false statements and material omissions concerning, among other things, a Western blot

purporting to show Drug A's mechanism of action, as depicted in Figure 1 of the submission:



WANG provided Figure 1 and accompanying draft language to Company 1 for the NIH applications. In truth and in fact, WANG fabricated the Western blot on the left side of Figure 1 and the corresponding densitometry data related to it in the bar charts on the right side of Figure 1. Proposal 1 also included citations to the same published articles as described above.

19. In or around November 2020, WANG, along with others, published another article related to the development of Drug A in which WANG presented, among other things, fabricated Western blots that purported to support his scientific research. The article disclosed that the clinical trial and research described in the article were funded by a grant award that was funded by NIH pursuant to Proposal 1.

Grant 3

20. On or about January 17, 2019, in response to an NIH funding announcement, WANG caused to be submitted to NIH a funding proposal for the development of Drug A. This proposal listed WANG's laboratory at University 1 as one of the locations for scientific testing and included a budget request for his anticipated work. This proposal included citations to the same 2012 and 2017 published articles and the same Figure 1 as described above.

21. On or about May 5, 2020, based upon WANG's fraudulent proposal, NIH awarded Company 1 funding and subsequently disbursed approximately \$2,499,896 ("Grant 3").

Grant 4

22. On or about July 14, 2020, in response to an NIH funding announcement, Company 1 submitted to NIH a funding proposal for the development of Drug A. This proposal included citations to the same published articles and the same Figure 1 as described above, along with a citation to the 2020 published article described above.

23. On or about May 10, 2021, based upon this proposal, NIH awarded Company 1 funding and subsequently disbursed approximately \$2,710,220 ("Grant 4").

Grant 5

24. On or about January 5, 2017, in response to an NIH funding announcement, WANG caused to be submitted to NIH a funding proposal for the development of Test A. This proposal listed WANG as a Principal Investigator, his laboratory at University 1 as one of the locations for scientific testing, and a budget request for \$250,298 for the total cost of his anticipated work, including salary and benefits. This proposal included citations to the same 2012 and 2017 published articles as described above and referenced the results from the same Figure 1 as described above.

25. On or about November 18, 2019, WANG caused to be submitted to NIH an additional funding proposal (“Proposal 2”). Proposal 2 also listed WANG as a co-Principal Investigator and his laboratory at University 1 as one of the locations for scientific testing. Proposal 2 included a citation to one of the published articles referenced above, additional Western blots fabricated by WANG, and other false statements and material omissions.

26. On or about January 23, 2020, based upon WANG’s fraudulent Proposal 2, NIH awarded WANG and Company 1 approximately \$450,142. In total across these Grant 5 awards, WANG and Company 1 received approximately \$1,855,233 (“Grant 5”).

WANG Caused to be Submitted Materially False, Fraudulent, and Misleading Information to Scientific Journals for the Purpose of Enhancing the Credibility of his Scientific Research and Concealing his Involvement in the Scheme

27. WANG published, along with others, scientific journal articles related to the development of Drug A and Test A containing, among other things, Western blots fabricated by WANG that purported to support his scientific research, including in journal articles described above and cited in NIH funding proposals. After a number of these scientific journals communicated concerns raised about certain Western blot images created by WANG that were included in published articles in 2021, journals requested that WANG provide raw, uncropped copies of the Western blot images. In response, Company 1, on WANG’s behalf, sent the journals additional Western blot images fabricated by WANG.

III. THE CHARGES

COUNT 1 **Major Fraud Against the United States** **(18 U.S.C. §§ 1031(a) and 2)**

28. Paragraphs 1 through 27 of this Indictment are realleged and incorporated by reference as though fully set forth herein.

29. From in and around May 2015 and continuing through at least in and around April 2023, in the District of Maryland, and elsewhere, the defendant,

HOAU-YAN WANG,

did knowingly execute, and attempt to execute, a scheme and artifice with the intent to defraud the United States and to obtain money and property by means of materially false and fraudulent pretenses, representations, and promises, knowing that such pretenses, representations, and promises were false and fraudulent when made, in a grant, contract, subcontract, subsidy, guarantee, insurance, and other form of Federal assistance, the value of such grant, contract, subcontract, subsidy, guarantee, insurance, and form of Federal assistance, and any constituent part thereof, being \$1,000,000 or more.

Purpose of the Scheme and Artifice

30. Paragraph 13 of this Indictment is realleged and incorporated by reference as though fully set forth herein.

Description of the Scheme and Artifice

31. Paragraphs 14 through 27 of this Indictment are realleged and incorporated by reference as though fully set forth herein.

Acts in Execution or Attempted Execution of the Scheme and Artifice

32. On or about the date set forth below, in the District of Maryland and elsewhere, the defendant, **HOAU-YAN WANG**, did knowingly execute, and attempt to execute, a scheme and artifice with the intent to defraud the United States and to obtain money and property by means of materially false and fraudulent pretenses, representations, and promises, knowing that the pretenses, representations, and promises were false and fraudulent when made, in a grant, being

\$1,000,000 or more, through the following execution and attempted execution of the scheme and artifice:

COUNT	APPROX. DATE	DESCRIPTION OF FRAUDULENT APPLICATION
1	January 12, 2018	Submission of fraudulent Proposal 1 to NIH

In violation of Title 18, United States Code, Sections 1031(a) and 2.

COUNTS 2-3
Wire Fraud
(18 U.S.C. §§ 1343 and 2)

33. Paragraphs 1 through 27 of this Indictment are hereby realleged and incorporated by reference herein as though fully set forth herein.

34. From in and around May 2015 through and continuing through in and around April 2023, within the District of Maryland and elsewhere, the defendant,

HOAU-YAN WANG,

did knowingly and with the intent to defraud, having devised and intending to devise a scheme and artifice to defraud, and to obtain money and property by means of materially false and fraudulent pretenses, representations, and promises, knowing such pretenses, representations, and promises were false and fraudulent when made, transmit and cause to be transmitted, by means of wire communications in interstate and foreign commerce, writings, signals, pictures, and sounds, for the purpose of executing such scheme and artifice.

Purpose of the Scheme and Artifice

35. Paragraph 13 of this Indictment is realleged and incorporated by reference as though fully set forth herein.

Description of the Scheme and Artifice

36. Paragraphs 14 through 27 of this Indictment are realleged and incorporated by reference as though fully set forth herein.

Use of Wires

37. On or about the dates set forth below, each such date constituting a separate count of this Indictment, in the District of Maryland and elsewhere, the defendant, **HOAU-YAN WANG**, for the purpose of executing and attempting to execute the scheme and artifice to defraud,

did knowingly transmit and cause to be transmitted in interstate commerce by means of a wire communication, certain signals, signs and sounds, as set forth below:

COUNT	APPROX. DATE	DESCRIPTION OF WIRE
2	March 22, 2019	NIH's electronic ACH instructions submission to the Federal Reserve Board to initiate payments in connection with fraudulent Proposal 1, in the approximate amount of \$32,815
3	June 18, 2021	NIH's electronic ACH instructions submission to the Federal Reserve Board to initiate payments in connection with fraudulent Proposal 2, in the approximate amount of \$125,026

Each in violation of Title 18, United States Code, Sections 1343 and 2.

COUNT 4
False Statements
(18 U.S.C. §§ 1001 and 2)

38. Paragraphs 1 through 27 of this Indictment are hereby realleged and incorporated by reference herein as though fully set forth herein.

39. On or about November 18, 2019, in the District of Maryland and elsewhere, in a matter within the jurisdiction of the executive branch of the Government of the United States, the defendant,

HOAU-YAN WANG,

did knowingly and willfully make materially false, fictitious, and fraudulent statements and representations, to wit: in a filed submission to NIH in connection with fraudulent Proposal 2, WANG fabricated the Western blots depicted in multiple figures and made false representations about the results of the experiments depicted.

In violation of Title 18, United States Code, Sections 1001(a)(2) and 2.

FORFEITURE ALLEGATION

The Grand Jury for the District of Maryland further finds that:

1. Pursuant to Federal Rule of Criminal Procedure 32.2, notice is hereby given to the defendant that the United States will seek forfeiture as part of any sentence in accordance with 18 U.S.C. § 981(a)(1)(C), 21 U.S.C. § 853(p), and 28 U.S.C. § 2461(c) in the event of the defendant's conviction on any of the offenses charged in Counts Two and Three of this Indictment.

2. Upon conviction of any of the offenses set forth in Counts Two and Three of this Indictment, the defendant,

HOAU-YAN WANG,

shall forfeit to the United States, pursuant to 18 U.S.C. § 981(a)(1)(C) and 28 U.S.C. § 2461(c), any property, real or personal, which constitutes or is derived from proceeds traceable to the offense(s) of conviction, including a money judgment in the amount of proceeds he obtained.

Substitute Assets


3. If any of the property subject to forfeiture, as a result of any act or omission of the defendant:

- a. cannot be located upon the exercise of due diligence;
- b. has been transferred or sold to, or deposited with, a third party;
- c. has been placed beyond the jurisdiction of the court;
- d. has been substantially diminished in value; or
- e. has been commingled with other property which cannot be divided without difficulty

the United States shall be entitled to forfeiture of substitute property pursuant to 21 U.S.C. § 853(p), as incorporated by 28 U.S.C. § 2461(c).

All pursuant to Title 18, United States Code, Section 981(a)(1)(C), Title 21, United States Code, Section 853, and Title 28, United States Code, Section 2461(c).

DATED: June 27, 2024, at Greenbelt, Maryland.



GLENN S. LEON
Chief
Fraud Section, Criminal Division
United States Department of Justice

A TRUE BILL:

6-27-24
Date

SIGNATURE REDACTED

Foreperson