Billing Code

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office of the Secretary

Findings of Research Misconduct

AGENCY: Office of the Secretary, HHS.

ACTION: Notice.

SUMMARY: Findings of research misconduct have been made against Lara S. Hwa, Ph.D. (Respondent), who is an Assistant Professor, Department of Psychology and Neuroscience, Baylor University (BU), and formerly was a Postdoctoral Fellow, School of Medicine, University of North Carolina at Chapel Hill (UNC-CH). Respondent engaged in research misconduct in research supported by U.S. Public Health Service (PHS) funds, specifically National Institute on Alcohol Abuse and Alcoholism (NIAAA), National Institutes of Health (NIH), grants K99/R00 AA027576, T32 AA007573, F31 AA027129, F32 AA026485, R01 AA019454, U01 AA020911, R01 AA025582, and P60 AA011605 and included in two grant applications submitted for PHS funds, specifically K99 AA027576 submitted to NIAAA, NIH, and R01 DK136486 submitted to the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), NIH. The administrative actions, including supervision for a period of four (4) years, were implemented beginning on August 24, 2023, and are detailed below.

FOR FURTHER INFORMATION CONTACT:

Sheila Garrity, JD, MPH, MBA
Director
Office of Research Integrity
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Rockville, MD 20852
(240) 453-8200

SUPPLEMENTARY INFORMATION: Notice is hereby given that the Office of Research Integrity (ORI) has taken final action in the following case:

Lara S. Hwa, Ph.D., Baylor University and University of North Carolina at Chapel Hill: Based on the report of an investigation conducted by BU and UNC-CH and additional analysis conducted by

ORI in its oversight review, ORI found that Lara S. Hwa, Ph.D., who is an Assistant Professor, Department of Psychology and Neuroscience, BU, and formerly was a Postdoctoral Fellow, School of Medicine, UNC-CH, engaged in research misconduct in research supported by PHS funds, specifically NIAAA, NIH, grants K99/R00 AA027576, T32 AA007573, F31 AA027129, F32 AA026485, R01 AA019454, U01 AA020911, R01 AA025582, and P60 AA011605 and included in two grant applications submitted for PHS funds, specifically K99 AA027576 submitted to NIAAA, NIH, and R01 DK136486 submitted to NIDDK, NIH.

ORI found that Respondent engaged in research misconduct by knowingly or recklessly falsifying and/or fabricating data, methods, results, and conclusions in animal models of alcohol use disorders. Specifically, Respondent falsified and/or fabricated experimental timelines, group conditions, sex of animal subjects, mouse strains, and behavioral response data in the following two (2) published papers and two (2) PHS grant applications:

- Alcohol Drinking Alters Stress Response to Predator Odor via BNST Kappa Opioid Receptor Signaling in Male Mice. *Elife*. 2020 Jul 21;9:e59709. doi: 10.7554/eLife.59709 (hereafter referred to as "*Elife* 2020"). Retraction in: *Elife*. 2021 Nov 2;10:e74986. doi: 10.7554/eLife.74986.

- Predator Odor Increases Avoidance and Glutamatergic Synaptic Transmission in the Prelimbic Cortex via Corticotropin-releasing Factor Receptor 1 Signaling. *Neuropyschopharmacology*. 2019 Mar;44(4):766-775. doi: 10.1038/s41386-018-0279-2 (hereafter referred to as "*Neuropyschopharmacology* 2019").

- K99/R00 AA027576, "Long-term Alcohol Drinking Alters Stress Engagement of BNST Circuit Elements," submitted to NIAAA, NIH, Funding Period: September 20, 2019-August 31, 2024.

- R01 DK136486, "Neuropeptide Characterization of Limited Access Sugar Drinking in Mice," submitted to NIDDK, NIH, administratively withdrawn on December 9, 2022.

Specifically, ORI finds that Respondent knowingly or recklessly:

- Falsified blood ethanol (alcohol) concentration results by using female dynorphin mice from an unrelated study to represent ethanol concentrations in male wildtype mice in Figure 1D of *Elife* 2020

- Falsified ethanol drinking ranges by including mice that drank outside of the range reported in Figures 2C, 4, and 6 of *Elife* 2020 and Figure 4 of K99 AA027576

- Falsified ethanol withdrawal times by including mice undergoing a broad range of withdrawal durations but reporting different withdrawal parameters in Figures 2C, 4, 6, and Figure 6–figure supplement 1 of *Elife* 2020 and Figure 4 of K99 AA027576

- Falsified and/or fabricated mouse behavioral data by selectively switching, omitting, or altering raw data by:

  – Switching mouse location data from tracking software for water and ethanol treatment groups in Figures 1F, 1G, and 1H of *Elife* 2020

  – Reporting unrelated heatmap images of mouse spatial location from a separate previous study to falsely demonstrate representative heatmap images for experimental conditions reported in Figure 1F of *Elife* 2020

- Falsifying or fabricating mouse location data for 2,4,5, trimethyl-3-thiazoline (TMT) (i.e., predator odorant) contact values in Figures 1G, 3E, and 5I of *Elife* 2020

- Falsified immunolabeling results for *c-Fos* positive nuclei values by selectively switching or omitting raw data reported in mouse prelimbic and infralimbic subregions in mice previously exposed to H2O (control), vanilla (novel odorant), or TMT in Figures 2b, 2c, and 2d of *Neuropsychopharmacology* 2019

- Falsified sample size by duplicating four (4) data points to falsely report spontaneous excitatory post-synaptic current (sEPSC) frequency datapoints of electrophysiological recordings of eight (8) animal subjects in the water and NBI27914 treatment group in Figure 5f of *Neuropyschopharmacology* 2019 and Figure 6 of R01 DK136486

Respondent entered into a Voluntary Settlement Agreement (Agreement) and voluntarily agreed to the following:

(1) Respondent will have her research supervised for a period of four (4) years beginning on August 24, 2023 (the "Supervision Period"). Prior to the submission of an application for PHS support for a research project on which Respondent's participation is proposed and prior to Respondent's participation in any capacity in PHS-supported research, Respondent will submit a plan for supervision of Respondent's duties to ORI for approval. The supervision plan must be designed to ensure the integrity of Respondent's research. Respondent will not participate in any PHS-supported research until such a supervision plan is approved by ORI. Respondent will comply with the agreed-upon supervision plan.

(2) The requirements for Respondent's supervision plan are as follows:

i. A committee of 2-3 senior faculty members at the institution who are familiar with Respondent's field of research, but not including Respondent's supervisor or collaborators, will provide oversight and guidance for a period of four (4) years from the effective date of the Agreement. The committee will review primary data from Respondent's laboratory on a quarterly basis and submit a report to ORI at six (6) month intervals setting forth the committee meeting dates and Respondent's compliance with appropriate research standards and confirming the integrity of Respondent's research.

ii. The committee will conduct an advance review of each application for PHS funds, or report, manuscript, or abstract involving PHS-supported research in which Respondent is involved. The review will include a discussion with Respondent of the primary data represented in those documents and will include a certification to ORI that the data presented in the proposed application, report, manuscript, or abstract are supported by the research record.

(3) During the Supervision Period, Respondent will ensure that any institution employing her submits, in conjunction with each application for PHS funds, or report, manuscript, or abstract involving PHS-supported research in which Respondent is involved, a certification to ORI that the data provided by Respondent are based on actual experiments or are otherwise legitimately derived and that the data, procedures, and methodology are accurately reported and not plagiarized in the application, report, manuscript, or abstract.

(4) If no supervision plan is provided to ORI, Respondent will provide certification to ORI at the conclusion of the Supervision Period that her participation was not proposed on a research project for which an application for PHS support was submitted and that she has not participated in any capacity in PHS-supported research.

(5) During the Supervision Period, Respondent will exclude herself voluntarily from serving in any advisory or consultant capacity to PHS including, but not limited to, service on any PHS advisory committee, board, and/or peer review committee.

(6) Respondent will request that the following paper be corrected or retracted:

- *Neuropyschopharmacology*. 2019 Mar;44(4):766-775. doi: 10.1038/s41386-018-0279-2.

Respondent will copy ORI and the Research Integrity Officer at UNC-CH on the correspondence with the journal.

Dated: October 19, 2023.

Sheila Garrity,

Director, Office of Research Integrity,

Office of the Assistant Secretary for Health.

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