



DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office of the Secretary

Findings of Research Misconduct

AGENCY: Office of the Secretary, Health and Human Services (HHS).

ACTION: Notice.

SUMMARY: Findings of research misconduct have been made against Liping Zhang, Ph.D (Respondent), former Assistant Professor in the Department of Medicine, Section of Nephrology, Baylor College of Medicine. Respondent engaged in research misconduct in research supported by U.S. Public Health Service (PHS) funds, specifically National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), National Institutes of Health (NIH), grants R37 DK037175 and P30 DK079638 and National Cancer Institute (NCI), NIH, grant P30 CA016672. Administrative actions, including debarment for a period of two (2) years, were implemented and are detailed below.

FOR FURTHER INFORMATION CONTACT: Sheila R. Garrity, JD, MPH, MBA, Director, Office of Research Integrity, 1101 Wootton Parkway, Suite 240, Rockville, MD 20852, (240) 453-8200

SUPPLEMENTARY INFORMATION: Notice is hereby given that the Office of Research Integrity (ORI) and the Suspension and Debarment Official (SDO) have taken final action in the following case:

Liping Zhang, Ph.D, Baylor College of Medicine (BCM): Based on evidence from an investigation conducted by BCM, ORI's oversight review of BCM's investigation, and additional evidence obtained and analysis conducted by ORI during its oversight review, ORI found that Dr. Liping Zhang, former Assistant Professor in the Department of Medicine, Section of Nephrology, BCM, engaged in research misconduct under 42 CFR part 93 in research supported by PHS funds, specifically NIDDK, NIH, grants R37 DK037175 and P30 DK079638

and NCI, NIH, grant P30 CA016672.

ORI found by a preponderance of the evidence that Respondent intentionally and knowingly falsified and/or fabricated western blot images and microscopy images by manipulating the images, using unrelated images, or reusing and relabeling the same images to represent falsely different experimental results in three (3) PHS-supported unpublished manuscripts submitted for publication and four (4) grant applications submitted for PHS funds. ORI found that these acts constitute a significant departure from accepted practices of the relevant research community.

The affected manuscripts and grant applications are:

- Nucleolar protein 66 functions as a novel negative regulator of satellite cells. Original manuscript submitted to *EMBO Reports* in October 2017 (hereafter referred to as “*EMBO Rep. First Submission*”).
- Nucleolar protein 66 functions as a novel negative regulator of satellite cells. Second submission to *EMBO Reports* in April 2018 (hereafter referred to as “*EMBO Rep. Second Submission*”).
- NO66, an endogenous mediator of muscle growth, suppresses myogenic genes by forming repressive complex with RBBP4 and HDAC2. Original manuscript submitted to *Cell Reports* in July 2015 (hereafter referred to as “*Cell Rep. Submission*”).
- R01 DK037175-32, “Protein nutrition in experimental uremia,” submitted to NIDDK, NIH, on March 3, 2017, awarded from May 2, 2018-March 31, 2022.
- R01 AR070845-01A1, “A new pathway to muscle atrophy in chronic kidney disease,” submitted to National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS), NIH, on November 3, 2016, administratively withdrawn by NIAMS on March 1, 2019.
- R01 AR069533-01A1, “Epigenetic control of skeletal muscle development and aging-related muscle regeneration,” submitted to NIAMS, NIH, on March 1, 2016, administratively withdrawn by NIAMS on November 1, 2018.

- R01 DK116886-01, “A demethylase-dependent mechanism regulates whitening of brown adipocytes and obesity,” submitted to NIDDK, NIH, on June 2, 2017, administratively withdrawn by NIAMS on November 2, 2019

Specifically, ORI found by a preponderance of the evidence that Respondent engaged in research misconduct by intentionally and knowingly falsifying and/or fabricating:

- a western blot image in Figure 1G of *EMBO Rep.* Second Submission by manipulating a part of the source image to falsely represent an increase in myosin heavy chain expression in differentiation medium
- immunofluorescent microscopy images in Figure 2A of *EMBO Rep.* First Submission and Figure 4A of NIH grant application R01 AR070845-01A1 by manipulating parts of the source images to falsely represent the absence of NO66 and Pax7 co-expression in Pax7+ cells
- western blot images in Figure 5A of *EMBO Rep.* First Submission, Figure Expanded View (EV) 5C of *EMBO Rep.* Second Submission, Figure 8A of NIH grant application R01 DK037175-32, Figure 7A of NIH grant application R01 DK116886-01, and Figure 11A of NIH grant application R01 AR070845-01A1 by manipulating parts of the source images to falsely represent: (1) a lack of expression of retinoblastoma binding protein 4 in the IgG sample, and (2) a positive expression of histone deacetylase 2 in the sample treated with anti-HA antibody
- Figure 2G of *EMBO Rep.* First Submission, Figures 2H, 6E, and 7C of *EMBO Rep.* Second Submission, Figure 3G of *Cell Rep.* Submission, Figure 3D of NIH grant application R01 AR069533-01A1, and Figure 8C of NIH grant application R01 AR070845-01A1 by reusing and relabeling western blot images to falsely represent both myogenin and GAPDH expression as follows:
 - An image of bands representing GAPDH expression was reused and relabeled in: Figure 2G (second row) of *EMBO Rep.* First Submission, Figure 2H (second row) of *EMBO Rep.*

Second Submission, Figure 3G (third row) of *Cell Rep.* Submission, Figure 3D (second row) of R01 AR069533-01A1, and Figure 8C (second row) of R01 AR070845-01A1 to represent myogenin expression

- An image of bands representing IGF1R expression was reused and relabeled in: Figure 6E (second row) and Figure 7C (second row) of *EMBO Rep.* Second Submission to represent GAPDH expression
- Figure 4A of *EMBO Rep.* First Submission, Figure 6A of *EMBO Rep.* Second Submission, Figure 5A of *Cell Rep.* Submission, Figure 7A of NIH grant application R01 AR069533-01A1, Figure 10A of NIH grant application R01 AR070845-01A1, and Figure 7A of NIH grant application R01 DK037175-32 by reusing and relabeling one western blot image to falsely represent the results of two replicated experiments
- Figures 4B and 5B of *EMBO Rep.* First Submission, Figure 6B of *EMBO Rep.* Second Submission, Figure 5C of *Cell Rep.* Submission, Figure 7B of NIH grant application R01 DK116886-01, Figures 7B and 8B of NIH grant application R01 DK037175-32, Figures 10B and 11B of NIH grant application R01 AR070845-01A1, and Figure 7B of NIH grant application R01 AR069533-01A1 by reusing and relabeling three sets of bands from the same source western blot images to falsely represent the expression of different proteins as follows:
 - An image of a band was reused and relabeled in:
 - Figure 5B (second band in first row) of *EMBO Rep.* First Submission, Figure 7B (second band in first row) of R01 DK116886-01, Figure 8B (second band in first row) of R01 DK037175-32, and Figure 11B (second band in first row) of R01 AR070845-01A1 to represent GAL4
 - Figure 4B (third band in first row) of *EMBO Rep.* First Submission, Figure 5C (third band in first row) of *Cell Rep.* Submission, Figure 6B (third band in first row) of *EMBO Rep.* Second Submission, Figure 7B (third band in first row) of R01

- DK037175-32, Figure 10B (third band in first row) of R01 AR070845-01A1, and Figure 7B (third band in first row) of R01 AR069533-01A1 to represent MHC
- An image of another band was reused and relabeled in:
 - Figure 5B (second band in second row) of *EMBO Rep.* First Submission, Figure 7B (second band in second row) of R01 DK116886-01, Figure 8B (second band in second row) of R01 DK037175-32, and Figure 11B (second band in second row) of R01 AR070845-01A1 to represent NO66
 - Figure 4B (third band in third row) of *EMBO Rep.* First Submission, Figure 5C (third band in third row) of *Cell Rep.* Submission, Figure 6B (third band in third row) of *EMBO Rep.* Second Submission, Figure 7B (third band in third row) of R01 DK037175-32, Figure 10B (third band in third row) of R01 AR070845-01A1, and Figure 7B (third band in second row) of R01 AR069533-01A1 to represent myogenin
 - An image of two other bands was reused and relabeled in:
 - Figure 5B (first and second bands in bottom row) of *EMBO Rep.* First Submission, Figure 7B (first and second bands in bottom row) of R01 DK116886-01, Figure 8B (first and second bands in bottom row) of R01 DK037175-32, and Figure 11B (first and second bands in bottom row) of R01 AR070845-01A1 to represent H3
 - Figure 4B (first and second bands in bottom row) of *EMBO Rep.* First Submission, Figure 5C (first and second bands in bottom row) of *Cell Rep.* Submission, Figure 6B (first and second bands in bottom row) of *EMBO Rep.* Second Submission, Figure 7B (first and second bands in bottom row) of R01 DK037175-32, Figure 10B (first and second bands in bottom row) of R01 AR070845-01A1 to represent GAPDH, and Figure 7B (first and second bands in bottom row) of R01 AR069533-01A1 to represent GAPDH

On December 6, 2024, based on the information in the administrative record, the HHS SDO proposed a two-year period of debarment under 2 CFR 180.800(d) – “Any other cause that is so

serious or compelling in nature that it affects your present responsibility” to protect the Federal Government’s interest. HHS provided Respondent the opportunity to contest the proposed debarment under 42 CFR part 93 by requesting a hearing before an administrative law judge with the HHS Departmental Appeals Board or alternatively, in lieu of requesting a hearing, to contest under 2 CFR part 180. Respondent did not contest within the prescribed 30-day notice period. Accordingly, the following administrative actions have been implemented:

- (1) For a period of two (2) years, beginning on January 16, 2025, Respondent is debarred from participating in “covered transactions” as defined in 42 CFR 180.200 and procurement transactions covered under the Federal Acquisition Regulation (48 CFR chapter 1).
- (2) For a period of two (2) years, beginning on January 7, 2025, Respondent is prohibited from serving in any advisory capacity to PHS including, but not limited to, service on any PHS advisory committee, board, and/or peer review committee, or as a consultant.

Dated: March 13, 2025.

Sheila R. Garrity,

Director, Office of Research Integrity,

Office of the Assistant Secretary for Health.

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