



DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office of the Secretary

Findings of Research Misconduct

AGENCY: Office of the Secretary, HHS.

ACTION: Notice.

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

H. Rosie Xing, Ph.D., University of Chicago: Based on the report of an investigation conducted by the University of Chicago (UC) and additional analysis by ORI in its oversight review, ORI found that Dr. H. Rosie Xing, former Assistant Professor, UC, engaged in research misconduct in research supported by National Cancer Institute (NCI), National Institutes of Health (NIH), grant R01 CA098022.

ORI found that Respondent engaged in research misconduct (42 CFR 93.103-104) by using images that had been among a set of manipulated images produced while at another institution, which had been found to be false by that institution. ORI found that Respondent falsely reported these images in Figures 1D, 2A, and Supplementary Figures 1B and 1C in *Molecular Cancer Therapeutics* 9:2724-36, 2010. The Respondent does not agree with ORI's finding of research misconduct and asserts that there are extenuating circumstances for her actions.

Specifically, ORI found that Respondent:

1. included falsely labeled immunoblots in Figures 1D and 2A as follows:
 - a. Figure 1D (lower panel), representing the total ERK levels in extracts from cells exposed to 15 Gy of gamma radiation for 0-120 minutes, by using results from an unrelated experiment for MAPK levels in extracts from cells exposed to 2, 12, or 20 Gy of gamma irradiation for 1, 5, 20, or 60 minutes
 - b. Figure 2A (KSR1 panel), representing a control Flag-KSR1 immunoblot for extracts of cells transfected with control (TRE), wild-type KSR (KSR-S), or dominant negative inactive KSR (DN-KSR) exposed to no radiation or 5 minutes gamma irradiation, by using results from an unrelated experiment for KSR-transfected cells (KSR-S) irradiated with 0, 2, 5, 20, 15, 20 Gy irradiation
 - c. Figure 2A (ERK panel), representing a control ERK immunoblot for extracts of cells transfected with control (TRE), wild-type KSR (KSR-S), or dominant negative inactive KSR (DN-KSR) exposed to no radiation or 5 minutes gamma irradiation, by using results from an unrelated experiment for KSR-transfected cells (KSR-S) irradiated with 0, 2, 5, 10, 15, 20 Gy irradiation
2. included falsified images in Figures 1D, 2A, and Supplementary Figures 1B and 1C by duplicating bands within the figures as follows:

- a. Figure 1D (top panel) for an immunoblot for p-ERK in A431 cells, by using the same bands to represent cells treated with ionizing radiation for 5 and 10 minutes with the bands for 60 and 90 minutes
- b. Figure 2A (top) for an *in vitro* kinase assay for p-GST-Elk-1, by duplicating lanes 2 and 5 to represent the control plasmid (TRE) at 5 minutes post radiation (lane 2) and the dominant negative inactive KSR (DN-KSR) NT lane (lane 5)
- c. Supplementary Figure 1B (middle panel) for an *in vitro* kinase assay for p-GST-MEK, by using the same bands to represent cells exposed to 5 and 20 Gy ionizing radiation
- d. Supplementary Figure 1C (top panel) for an immunoblot for p-MEK1/2, by using the same bands to represent cells exposed to 2 and 20 Gy ionizing radiation

Dr. Xing has entered into a Voluntary Settlement Agreement (Agreement) and has voluntarily agreed:

- (1) that if within three (3) years from the effective date of the Agreement, Respondent receives or applies for U.S. Public Health Service (PHS) support, Respondent agrees to have her PHS-supported research supervised for a period of three (3) years beginning on the date of her employment in which she receives or applies for PHS support, and to notify her employer(s)/institution(s) of the terms of this supervision; Respondent agrees that prior to the submission of an application for PHS support for a research project on which the Respondent's participation is proposed and prior to Respondent's participation in any capacity on PHS-supported research, Respondent shall ensure that a plan for supervision of her duties is submitted to ORI for approval; the supervision plan must be designed to ensure the scientific integrity of Respondent's research; Respondent agrees that she shall not participate in any PHS-supported research until such a supervision plan is submitted to and approved by ORI; Respondent agrees to maintain responsibility for compliance with the agreed upon supervision plan;

- (2) that if within three (3) years from the effective date of this Agreement, Respondent receives or applies for PHS support, for a period of three (3) years beginning on the date of her employment in which she receives or applies for PHS support, any institution employing her to work on PHS-supported projects shall submit, 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 in the application, report, manuscript, or abstract; and

- (3) to exclude herself voluntarily 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 for a period of three (3) years beginning on November 13, 2014.

FOR FURTHER INFORMATION CONTACT:

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