



(Billing Code: 4150-31)

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:

Nitin Aggarwal, Ph.D., Medical College of Wisconsin and University of Wisconsin-Madison:

Based on the reports of the investigations conducted by the Medical College of Wisconsin (MCW) and the University of Wisconsin-Madison (UW) and additional analysis conducted by the ORI in its oversight review, ORI found that Dr. Nitin Aggarwal, former Graduate Student, MCW, and former Assistant Scientist, UW, engaged in research misconduct in research supported by National Heart, Lung, and Blood Institute (NHLBI), National Institutes of Health (NIH), grants R01 HL37981, R01 HL54075, and R01 HL57414.

ORI found that that the Respondent engaged in research misconduct by falsifying and/or fabricating PHS-supported data in six (6) figures that were included in the following two (2) publications, one (1) grant application to the American Heart Association (AHA), one (1) grant application to NIH, and the Respondent's Ph.D. thesis:

- Aggarwal, N.T., Pfister, S.L., & Campbell, W.B. “Hypercholesterolemia Enhances 15-Lipoxygenase Mediated Vasorelaxation and Acetylcholine-Induced Hypotension.” *Arteriosclerosis, Thrombosis, and Vascular Biology* 28:2209-2215, 2008 (hereafter the “ATVB paper”).
- Aggarwal, N.T., Pfister, S.L., Gauthier, K.M., Chawengsub, Y., Baker, J.E., & Campbell, W.B. “Chronic hypoxia enhances 15-lipoxygenase-mediated vasorelaxation in rabbit arteries.” *American Journal of Physiology - Heart Circulation Physiology* 296:H678-H688, 2008 (hereafter the “AJP paper”).
- Aggarwal, N.T., Principal Investigator (P.I.), National Scientist Development grant application to the American Heart Association No. 11SDG7650072, “Sulfonylurea rReceptor-2 splice variant and mitochondrial mechanisms for cardioprotection and arrhythmia” (hereafter the “AHA grant application”).
- K99 HL113518-01, “Mitochondrial ATP-sensitive K-channels and pharmacological approaches for cardioprotection,” Aggarwal, Nitin, Ph.D., P.I.
- Aggarwal, N.T. “Endothelial 15-lipoxygenase regulates vasorelaxation and blood pressure in rabbits in normal and pathological conditions.” A Dissertation Submitted to the Faculty of the Graduate School of Biomedical Science of the Medical College of

Wisconsin in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy, Milwaukee, Wisconsin, 2008 (hereafter the “thesis”).

Specifically, ORI found that Respondent engaged in research misconduct by falsifying Western blot loading control data by inverting, duplicating, and cropping source blot films and/or using films from unrelated experiments to construct five (5) false Western blot figures. In the absence of valid blot images, Respondent falsified and/or fabricated the corresponding quantitative data for summary bar graphs and the data statistics in related text. Respondent admitted to falsely reporting the number of mice reported for an experiment reported in Figure 4 in grant application HL113518-01 to support the hypothesis of the research. The falsified and/or fabricated data are:

- false  $\beta$ -actin data and statistics in Figures 1A and 1B in the *AJP* paper and Figures 41A and 41B in the thesis (p. 131) that purport to represent a time-course of 15-LO-1 protein expression in rabbit aortic endothelial cells (RAECs) following hypoxia
- false  $\beta$ -actin and 15-LO-1 data and statistics in Figures 2A and 2B in the *AJP* paper and Figures 45A and 45B in the thesis (p. 135) that purport to represent 15-LO-1 expression in aortic rings of normoxic and hypoxic rabbits
- false  $\beta$ -actin data and statistics in Figures 3A and 3B in the *AJP* paper and Figures 46A and 46B in the Respondent’s Ph.D. thesis (p. 137) that purport to represent 15-LO-1 expression in different arteries after hypoxia

- false  $\beta$ -actin data and statistics in Figures 1A and 1B in the *ATVB* paper and Figures 26A and 26B in the thesis (p. 105) that purport to demonstrate changes in 15-LO-1 expression in different arteries of cholesterol-animals; the false  $\beta$ -actin data in Figure 1A, *ATVB* was the same image as that used for Figure 1A, *AJP* but flipped vertically
- false GAPDH data and statistics in Figure 7 in the AHA grant application that purport to represent SUR2A-55 expression in murine heart following left ventricular hypertrophy (LVH)
- false reporting in Figure 4A of grant application HL113518-01 for the number of mice used for the physiological data for ATP-induced potassium influx in murine mitochondria as three to four, when only a single mouse was studied.

Dr. Aggarwal has entered into a Voluntary Settlement Agreement and has voluntarily agreed for a period of three (3) years, beginning on September 17, 2013:

- (1) to have his research supervised; Respondent agreed that prior to the submission of an application for U.S. Public Health Service (PHS) support for a research project on which his participation is proposed and prior to his participation in any capacity on PHS-supported research, Respondent shall ensure that a plan for supervision of his duties is submitted to ORI for approval; the supervision plan must be designed to ensure the scientific integrity of his research contribution; he

agreed that he shall not participate in any PHS-supported research until such a supervision plan is submitted to and approved by ORI; Respondent agreed to maintain responsibility for compliance with the agreed upon supervision plan;

- (2) that any institution employing him 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 himself 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 FURTHER INFORMATION CONTACT:

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