ORI NEWSLETTER

Volume 1, No. 3, Office of Research Integrity, U.S. Public Health Service, June 1993.

ORI Planning Study Of Consequences of Whistleblowing

The Office of Research Integrity (ORI) is planning to conduct a study of the consequences of whistleblowing for the whistleblower in misconduct in science cases.

The study which is scheduled to begin this calendar year is expected to provide an empirical base for policy discussions on the protection of whistleblowers in misconduct in science cases.

Policy discussions on the protection of whistleblowers in misconduct in science cases have two foundations. First, the PHS Rule on the handling of allegations of scientific misconduct requires institutions to undertake "diligent efforts to protect the positions and reputations of those persons who, in good faith, make allegations." Second, the NIH Revitalization Act signed by the President on June 12 requires the Secretary of Health and Human Services to develop a regulation to protect whistleblowers.

This study intends to systematically collect information from all whistleblowers involved in PHS misconduct in science cases to determine what has happened to them since they made their allegations. It is expected that a population of 100 to 150 individuals can be developed.

The tentative study design calls for a two-stage study. The first stage will gather information through a self-administered questionnaire containing primarily close-ended questions. A pilot test of this questionnaire produced a 78 percent response rate with no follow-up. The second stage will feature semi-structured phone interviews to clarify questionnaire responses and to seek additional information.

The study will attempt to gather data on the consequences whistleblowing have had in the following areas: employment, career, professional activities, and personal life.

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ORI Broadens Publication of Scientific Misconduct Findings

Besides this newsletter, the Office of Research Integrity (ORI) now publishes information about closed cases of confirmed misconduct involving Public Health Service research in the Federal Register and the NIH Guide to Grants and Contracts .

The misconduct findings are being published in these three publications to ensure that officials of institutions receiving

Public Health Service research funds, or applying for such funds, are made aware of them.

Case summaries of confirmed misconduct were published in the January and April issues of this newsletter. Twelve additional cases are presented in this issue. See pages 5-8.

The 14 cases of confirmed misconduct closed since ORI was created in May 1992 were published in the Federal Register on June 21, 1993 and in the NIH Guide to Grants and Contracts on June 25, 1993. Future notices will be published as cases are closed.

Information on closed cases of confirmed misconduct has previously been available through FOIA requests. "Affirmative steps were taken to make these cases known," Lyle Bivens, Acting Director, ORI, said, "Both for public health and educational purposes. These notices also will help to correct the scientific literature and deter scientific misconduct."

"As rare as misconduct may be, it must be vigorously pursued and effectively dealt with when it is proven," Bivens said.

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Research Grant Application Integrity Checklist

Editor's Note: Responding to a PHS Advisory Committee on Research Integrity recommendation, the ORI offers a proposed integrity checklist for use by institutions as part of their internal procedures for clearing grant applications. The checklist is intended to direct the attention of the principal investigator to areas of concern which, if ignored, may cause problems.

Your comments are solicited on (1) the usefulness of such a checklist, and (2) the areas of concern that should be included in the checklist.

[ ] Data and other research products produced under this grant will be maintained in a central location and will be kept in a manner that will allow other qualified scientists to verify the accuracy and integrity of reported results of the research;

[ ] Individuals supported in whole or in part by this grant and who are in a training status will be given explicit training in the responsible conduct of research;

[ ] Any individual who has a substantive scientific role in the proposed research has been provided a copy of the grant application and has had an opportunity to comment on it;

[ ] Criteria for authorship of publications resulting from the proposed research have been discussed and agreed to by the professional staff of the laboratory;

[ ] Scientists who have a substantive scientific role in the proposed research do not have any financial interests that could affect the objectivity of the research;

[ ] Any material in the grant application which is a verbatim reproduction of other person's writings has been identified by quotation marks and properly attributed;

[ ] The principal investigator has reviewed for accuracy and integrity any data presented in the application that has been provided by others.

I certify that I have prepared this application and will carry out the proposed research in compliance with the principles stated above.

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Principal Investigator's Signature

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ARS Adopts Procedures For Handling Misconduct Cases

The Agricultural Research Service (ARS), U. S. Department of Agriculture, has issued a directive outlining its policies and procedures for handling allegations of scientific misconduct in its intramural research programs.

The directive defines scientific misconduct as "falsification of scientific data, plagiarism, or other practices which seriously deviate from commonly accepted ethical standards adhered to within the scientific community for proposing, conducting, or reporting research." It further defines falsification of data to include "fabrication of findings or fact, deceptive change or alteration of scientific data or fact, and/or selective omission or reporting of conflicting data to mislead or present a preferred result." Scientific misconduct "does not include instances of honest error, differences in interpretation of scientific data, or disagreements involving experimental design."

The procedures call for a two-stage process: an inquiry followed by an investigation when necessary. They also contain provisions for protecting the confidentiality of the proceedings and the rights of the complainant and the respondent.

Administration of the process largely rests with the ARS Committee on Ethics in Science (CEIS) composed of an Associate Deputy Administrator, National Program Staff, Chairperson, one scientific representative from each of the eight ARS Area offices, and the Chief of the Labor and Employee Relations Branch. The Areas Representatives conduct inquiries and make recommendations to the CEIS chairperson regarding the need for investigations. The Chair, CEIS, decides whether an

investigation should be conducted. The CEIS recommends members for the investigation panel to the Administrator, ARS.

The Administrator makes the final administrative decisions regarding findings of scientific misconduct after considering the recommendations of the CEIS and the report of the investigation panel.

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Please Duplicate and Circulate this Newsletter to Offices, Departments, Committees, and Labs. Thank You.

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Readers Invited To Pool Resources Through Newsletter

The Office of Research Integrity would like this newsletter to serve as the mechanism through which all individuals and institutions involved in handling allegations of research misconduct and the promotion of research integrity pool their resources in a communal effort.

To facilitate this mission, we invite readers to submit material related to research misconduct or research integrity in the following categories:

Literature - Citations to books, special journal issues, articles, pamphlets, or brochures.

Conferences/Workshops/Meetings - Titles, sponsors, location, dates, contact, calls for papers.

Curriculum Material - Course outlines, case studies, modules, audio/visuals, exercises, testing procedures, written assignments.

Research - Studies underway, seeking collaborators, information on databases.

Awards - New awards, nominations for awards, award recipient.

Funding Sources - Foundations, state or federal agencies, universities.

Institutional Actions - University, college, department programs promoting research integrity; required research ethics training; mentoring; research integrity guidelines; grant application clearance process that include research integrity checks; responsibilities of principal investigator; laboratory management practices; protecting complainants from retaliation; lessons learned conducting inquiries and investigations; restoring reputation of cleared respondent; rehabilitation of researcher found to have committed misconduct; reporting system for

allegations, informing faculty about administrative process established for handling allegations.

Professional/Scientific Societies - Sessions at annual meetings, conferences/workshops, codes of ethics, research integrity guidelines, publications, awards, investigations of misconduct, sanctions imposed on members found to have committed misconduct.

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ORI Brochure To Be Published

The Office of Research Integrity (ORI) will publish a brochure this summer that provides information on its functions, structure, and staffing.

The functions covered in the brochure are the development of policies, procedures and regulations; administration of the assurance program; review of institutional investigation; conduct of investigation; presentation of misconduct findings during hearings, and the promotion of research integrity.

The ORI structure is presented in a staff listing which locates each member of the professional staff by organizational unit. The staff listing also contains the title, highest degree, discipline, and degree granting institution.

Requests for copies of the brochure should be sent to the Director, Division of Policy and Education, Office of Research Integrity, 5515 Security Lane, Suite 700, Rockville, MD 20852. Phone: (301) 443-5300. Multiple copies of the brochure may be requested for distribution during courses, seminars, meetings, conferences, or workshops.

In addition, the ORI brochure will be available on the OASH Bulletin Board System. See related article below for access information.

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ORI Newsletter Available On OASH Bulletin Board

The ORI Newsletter is available 24 hours a day, seven days a week on the Office of the Assistant Secretary for Health Electronic Bulletin Board System (OASH BBS) for the price of a phone call.

The OASH BBS may be accessed by dialing (202) 690-5423 to connect at 2400/9600 V.32/V.42 or by dialing (202) 690-5425 at 9600/14.4 V.32/V.42 HST & ASL. Technical assistance is available from 7:30 a.m. to 4:30 p.m. Monday through Friday by dialing (202) 690-6248.

The OASH BBS is user friendly; it handles all popular file transfer protocols. The system requires the caller's

communication package settings to be: n (no parity), 8 (8 data bits), 1 (1 stop bit) and full duplex. The system contains text files compressed by PKZIP (PKUNZIP is available for downloading for IBM compatibles and Macs).

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Dr. O'Toole Receives Ethics Award

Dr. Margot O'Toole received the 1993 American Institute of Chemists Ethics Award during the AIC national meeting in March "for pursuing relentless integrity and truth in science disregarding the effect of her perseverance on her own personal, professional and financial standing."

An article in The Chemist (January, 1993) reports that Dr. O'Toole is the second person to receive the award which was established by the AIC under the sponsorship of Mr. Joseph B. Hyman in 1990 "to focus wider attention on AIC's commitment to high standards of professional ethics..."

According to the article, Dr. O'Toole discovered a serious flaw in a paper published in Cell while she was a junior scientist at the Massachusetts Institute of Technology. "Even though the senior author of the paper was a Nobel Laureate cell biologist, she did not hesitate to bring the problem to the attention of senior scientists and institutional officers at MIT and Tufts University." the article stated.

The article also reported that Dr. O'Toole subsequently "lost her job at the laboratory" and "had to take leave from science and work as a telephone operator to sustain her family." Eventually, she found professional employment with Genetics Institute in Cambridge, Massachusetts.

After two institutional inquiries. two government investigations, and forensic and statistical analysis, the article reported "the paper was retracted and the senior author issued a pro forma apology to Dr. O'Toole."

The article stated, "Dr. O'Toole suffered in many ways for her determination to stand up for integrity in science. The loss of her job is only one of the many prices she had to pay for her activities. Dr. O'Toole's actions and determination were heroic in many respects. Her fight was the scientific equivalent of the David and Goliath confrontation. Her courageous stand in defense of truth in science which risked her livelihood and career, resulted in a resounding reaffirmation of the vital principle that science must always be conducted honestly and reported truthfully. The scientific community owes a most sincere thanks for her sacrifices."

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Call for Papers

The Centennial Review - A special issue on "Scientific Integrity and the University". Solicits descriptive, historical, critical essays written for a general intellectual audience that reflects the viewpoint of various research disciplines and the sociological, ethical, political and other implications of the problem. Drafts due September 1. Contact: Fred Gifford, Department of Philosophy, 503 S. Kedzie Hall, Michigan State University, East Lansing, MI 48824.

Meetings

September 9-11 - The Second International Congress on Peer Review in Biomedical Publication. Fairmont Hotel, Chicago. Contact: Annette Flanagin, Journal of American Medical Association. Phone: (312) 464-2432.

Publications

Whistleblower Protection: Determining Whether Reprisal Occurred Remains Difficult - A GAO report for the Chairman of the House Subcommittee on Civil Service that reviews the Federal government's processing of whistleblower reprisal allegations. Single copies free; additional $2 each; report number GGD-93-3. Contact: U. S. General Accounting Office, P. O. Box 6015, Gaithersburg, MD 20877. Phone: (202) 275-6241.

The Ethical Dimensions of the Biological Sciences - Edited by Ruth Ellen Bulger, Elizabeth Heitman, and Stanley Joel Reiser. An anthology on responsible conduct in scientific research aimed at students and practicing researchers in the biological sciences. $18.95 paper. Cambridge University Press, 40 West 20th Street, New York, NY 10017. Phone: (212) 924-3900.

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Case Summaries: 12 Cases of Scientific Misconduct Reported

Final findings of scientific misconduct have been made in the following cases:

James H. Freisheim, Ph.D., Medical College of Ohio. An inquiry and an investigation conducted by the University found that Dr. Freisheim had submitted a research grant application to the National Institutes of Health which contained substantial portions plagiarized from another scientist's grant application. Dr. Freisheim had served as an assigned reviewer of the other scientist's application when it was reviewed about two years

earlier by an NIH Study Section. During the inquiry, Dr. Freisheim produced a handwritten draft of the plagiarized material that he claimed he had written before the other scientist had submitted his grant application, and that therefore the other scientist had plagiarized Dr. Freisheim's work. The investigation reviewed the handwritten draft and concluded that it had been written much later than purported by Dr. Freisheim, possibly during the inquiry to establish the basis for his defense. The investigation also concluded that Dr. Freisheim had plagiarized material for two post-doctoral fellowship applications to the NIH. The ORI concurred in the University's findings, and Dr. Freisheim has been debarred from receiving Federal grant or contract funds for a period of three years beginning May 5, 1993. He has also been required, for a ten year period beginning May 5, 1993, to certify that future applications for research support submitted to the PHS are his own work, and he has been prohibited from serving on PHS Advisory Committees or review groups for the same period.

Judy Guffee, University of Miami. An investigation conducted by the University found that Ms. Guffee had fabricated data in a research project that was supported by a grant from the National Institutes of Health. Ms. Guffee admitted to falsifying the labeling of solutions alleged to contain polyclonal antiserum, when in fact she filled the tubes with fetal calf serum. This was done to hide the fact that the animal preparation used to generate the polyclonal antiserum had died before large quantities of antiserum could be produced. Records indicating collection of large quantities of serum from the animal over a two-year period were also fabricated. ORI concurred in the University's finding and has required, for a five year period beginning January 7, 1993, that she and the institution submit a certification with any PHS fellowship or grant application or contract proposal prepared by her attesting to the accuracy of the statements therein.

Raymond J. Ivatt, Ph.D., Cetus Corporation, Emeryville, CA. An investigation conducted by the Corporation found that Dr. Ivatt falsified progress reports in a research project grant supported by the National Institutes of Health. Dr. Ivatt reported progress from an earlier budget period, claiming that the work had been done during the period for which current funds were awarded. The ORI concurred with the Corporation's findings and has required that applications for PHS research support and reports of PHS sponsored research involving Dr. Ivatt be reviewed and certified by the sponsoring institution for the reliability and accuracy of the application, contract proposal, or report. Dr. Ivatt is also prohibited from serving on PHS Advisory Committees, boards, or peer review groups. These actions are effective for 3 years beginning February 28, 1993.

Mark M. Kowalski, M.D., Ph.D., Dana Farber Cancer Institute and Harvard University. An investigation conducted by the Institute found that Dr. Kowalski had plagiarized a complete grant

application and submitted it to the National Institutes of Health. He copied the previously funded grant application of his former mentor and submitted it as his own work. The ORI concurred in the Institute's finding and has required that, for any PHS application, proposal or report prepared by Dr. Kowalski, a signed affirmation be submitted that all material is entirely his own work or accurately attributed to others. In addition, he has been prohibited by the ORI from serving on Public Health Service Advisory Committees, Boards, or review groups. These actions became effective January 6, 1993 for a three year period.

Paul F. Langlois, D.Sc.N., Laboratory of Clinical Investigation, National Institute of Allergy and Infectious Diseases. An inquiry by the NIAID and a subsequent investigation conducted by the former Office of Scientific Integrity at the National Institutes of Health concluded that Dr. Langlois, a former post-doctoral fellow in the laboratory, had falsified and fabricated data in immunological research. Dr. Langlois presented to his supervisor computer printouts and graphs for which primary data did not exist. Dr. Langlois admitted to fabricating the data. Dr. Langlois also admitted to manipulating the reagents used by other laboratory personnel in efforts to replicate his findings, spiking them with radioactive antibody to show positive results. The Public Health Service recommended that Dr. Langlois be debarred from receiving Federal grant or contract funds for a three year period, and that he be prohibited from serving on PHS Advisory Committees, Boards, or peer review groups for three years. Dr. Langlois appealed the term of the proposed debarment to a Research Integrity Adjudications Panel of the HHS Departmental Appeals Board, but the Panel upheld the PHS recommendation. Accordingly, Dr. Langlois has been debarred for three years beginning May 12, 1993, and is prohibited from serving on PHS Advisory Committees, Boards, or peer review groups for the same period. The fabricated and falsified data was never published in the scientific literature.

Tian-Shing Lee, M.D., Joslin Diabetes Center, Harvard Medical School. An investigation conducted by Harvard found that Dr. Lee, a former post-doctoral fellow at the Joslin Diabetes Center, fabricated and falsified data in research on diabetes supported by the National Eye Institute. Primary data was missing for almost half of the figures and tables in a series of published papers and manuscripts prepared by Dr. Lee. Many instances of data fabrication and falsification were found, including presenting data for cell counts that were never performed, indicating that multiple data points were determined when in fact only a single data point was obtained, eliminating the highest or lowest values in sets of experimental readings, alteration or transposition of data to achieve a desired experimental result, and misrepresentation of the time intervals at which data was collected. The Office of Research Integrity concurred in the University's findings. Dr. Lee has been debarred from receiving Federal grants or contracts and is prohibited from serving on

Public Health Service Advisory Committees, Boards, or peer review groups for a five year period beginning April 18, 1993. Harvard University notified the four scientific journals which had published papers containing data fabricated or falsified by Dr. Lee that the papers should be retracted. These papers are: "Differential regulation of protein kinase C and (Na,K)-adenosine triphosphatase activities by elevated glucose level in retinal capillary endothelial cell" Journal of Clinical Investigation, 83: 90-94, 1989; "Endothelin stimulates a sustained 1,2-diacylglycerol increase and protein kinase C activation in bovine aortic smooth muscle cells" Biochemical and Biophysical Research Communications, 162: 381-386, 1989: "Activation of protein kinase C by elevation of glucose concentration: Proposal for a mechanism in the development of diabetic vascular complications" Proceedings of the National Academy of Sciences, 86: 5141-5145, 1989; and "Characterization of endothelin receptors and effects of endothelin on diacylglycerol and protein kinase C in retinal capillary pericytes" Diabetes, 38: 1642-1646, 1989.

Anthony A. Paparo, Ph.D., Southern Illinois University. An investigation conducted by the University found that Dr. Paparo had falsified data in publications citing support by a grant from the National Institutes of Health. He used the same micrograph in two papers, while stating that the micrographs had been obtained from two different biological species of mussel. Multiple instances were found of other such falsification of micrographs and radioisotope data in published scientific articles which were not supported by the PHS. The ORI concurred in the University's finding and has prohibited Dr. Paparo from serving on Public Health Service Advisory Committees, Boards, or review groups for a three year period. He has also been debarred from receiving Federal grants or contracts for three years, effective April 5, 1993. The two published papers which cited PHS support are: "The effect of STH and 6-OH-DOPA on the SEM of the branchial nerve and visceral ganglion of the bivalve Elliptio Companata as it relates to ciliary activity" Comparative Biochemistry and Physiology, 51: 169-173, 1975; "The effect of STH on the SEM and frequency response of the branchial nerve in Mytilus Edulis as it relates to ciliary activity" Comparative Biochemistry and Physiology, 51: 165-168, 1975. The University has notified the editor of this journal, and the editors of other journals in which Dr. Paparo published, about the problems identified in the investigation.

Leo A. Paquette, Ph.D., Ohio State University. An investigation conducted by the University found that Dr. Paquette had submitted a grant application to the National Institutes of Health in which sections of the research design were plagiarized from an unfunded grant application written by another scientist. Dr. Paquette had received the other scientist's application in confidence as a peer reviewer for the NIH. Dr. Paquette claimed that inclusion of the other scientist's text was inadvertent; he said that he had given the other scientist's application to a postdoctoral fellow, whom Dr. Paquette refused to name, for an educational

exercise, and that text had somehow been inadvertently used in his own application. The ORI concurred in the University's finding of misconduct. Dr. Paquette stated that he was accepting full responsibility for this occurrence. The ORI has required institutional certification of proper attribution in any future grant proposals to the PHS from Dr. Paquette and has prohibited him from serving on Public Health Service Advisory Committees, Boards, or review groups. These actions are effective for a ten year period beginning December 31, 1992.

Sheela Ramasubban, University of Houston. An investigation conducted by the University found that Ms. Ramasubban, a former Master's degree student in the Department of Biochemical and Biophysical Sciences, falsified and fabricated data in research on the biochemical basis of rhythmic behaviors, supported by a grant from the National Institute of Mental Health. Ms. Ramasubban admitted to the investigation committee that she had altered the data in her notebooks and fabricated data in a number of instances. A hearing conducted by the University upheld the investigative findings of scientific misconduct. The ORI concurred in the University's findings, and Ms. Ramasubban has been debarred from eligibility for and involvement in Federal grants and contracts for a three-year period beginning May 18, 1993. Ms. Ramasubban has also been required to provide special certification for the accuracy and reliability of any PHS research fellowship application or contract proposal for a three-year period beginning December 1, 1992. The falsified and fabricated data did not appear in any scientific publications.

Mitchell H. Rosner, National Cancer Institute. An inquiry conducted by the National Cancer Institute (NCI) and a subsequent investigation conducted by the Office of Research Integrity (ORI) found that Mr. Rosner, a Howard Hughes Medical Institute-NIH Scholar in residence at the NCI, falsified research on embryonic development in mice. Mr. Rosner diluted control samples that were injected into mouse germ cells so that the control material would have a different effect on embryonic development from the experimental samples. The results of these experiments were published in the journal Cell, demonstrating that a certain regulatory protein was essential for normal embryonic development. In later efforts by Mr. Rosner's collaborators and supervisors to replicate the original findings, Mr. Rosner again diluted control samples before their injection into mouse germ cells, in order to obtain the previous results. Mr. Rosner admitted to these acts of falsification, and has signed an agreement with the Office of Research Integrity that he will exclude himself for a five year period beginning April 1, 1992 from any Federal grants or contracts, and from serving on any Public Health Service advisory committees. The publication containing the falsified results (Cell, 64: 1103-1110, 1991) has been retracted by a notice in Cell, 69: 724, 1992.

Michael A. Sherer, M.D., Addiction Research Center (ARC), National Institute on Drug Abuse. An investigation conducted by the former Office of Scientific Integrity found that Dr. Sherer had falsified the nature, quality and methodology for data collection and behavioral ratings as well as the behavioral descriptions in two publications arising from research at the ARC in 1989. The ORI has required institutional certification of the reliability of the proposed research and the underlying data for any future PHS grant applications and publications submitted by Dr. Sherer, and notification of the advisory council of the funding agency reviewing such applications about the finding of scientific misconduct. Dr. Sherer has also been prohibited from serving on Public Health Service Advisory Committees, Boards, or review groups. These actions are effective for a three year period, beginning November 9, 1992. Dr. Sherer has also been required to submit a letter of retraction for the article "Suspiciousness induced by four-hour intravenous infusions of cocaine", Archives of General Psychiatry, 45: 673-677, 1988, and a letter of correction for the article "Intravenous cocaine: Psychiatric effects", Biological Psychiatry, 24: 865-885, 1988.

Raphael B. Stricker, M.D., University of California at San Francisco. An investigation conducted by the University found that Dr. Stricker falsified data for a manuscript and a PHS-supported publication reporting research on AIDS. In the manuscript, Dr. Stricker selectively suppressed data that did not support his hypothesis, and reported consistently positive data whereas only one of four experiments had produced positive results. In the publication, Dr. Stricker reported that an antibody was found in 29 of 30 homosexuals, but not found in non-homosexuals. However, Dr. Stricker's control data, which he suppressed, showed the antibody in 33 of 65 non-homosexuals. The falsified data was used as the basis for a grant application to the National Institutes of Health. The ORI concurred in the University's finding. Dr. Stricker executed a Voluntary Exclusion and Settlement Agreement in which he has agreed not to apply for Federal grant or contract funds and will not serve on PHS advisory committees, boards or peer review groups for a three year period beginning April 1, 1993. The publication "Target platelet antigen in homosexual men with immune thrombocytopenia" in the New England Journal of Medicine, 313: 1315-1380, 1985 has been retracted (New England Journal of Medicine, 325: 1487,1991).

Prospectus

The ORI Newsletter is published quarterly by the Office of Research Integrity, U.S. Public Health Service, and distributed to applicant or awardee institutions to facilitate pursuit of a common interest in handling allegations of misconduct and promoting integrity in PHS-supported research.

Communications should be addressed to ORI Newsletter, Office of Research Integrity, U.S. Public Health Service, 5515 Security Lane, Suite 700, Rockville, MD 20852. Phone: (301) 443-5300.

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