ORI Newsletter

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RRI SPEAKER NAMED; GRANT WRITING WORKSHOP SCHEDULED

The president-elect of the Council of Graduate Schools will be the keynote speaker during the Conference on Research on Research Integrity (RRI) that will be held November 18-20, 2000, at the Hyatt Hotel in Bethesda, Maryland.

When Debra W. Stewart, Ph.D., vice chancellor and dean of the graduate school at North Carolina State University (NCSU), gives the keynote address on November 19, she will draw on the major role she played in organizing the NCSU research integrity program and the numerous national leadership positions she has held in graduate education and research.

Dr. Stewart currently serves as vice chair of the Board of Trustees of the Educational Testing Service. She has chaired the Board of Directors of Oak Ridge Associated Universities, a consortium of 89 institutions emphasizing research and doctoral education in science and engineering.

A post-conference workshop will be held on November 20 from noon to 5 p.m. on writing proposals for research on research integrity. ORI plans to issue a program announcement on research on research integrity early next year.

In addition to ORI, conference co-sponsors include the American Association of Medical Colleges, the American Association for the Advancement of Science, the National Institutes of Health and the National Science Foundation.

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NOTE: There were more than 80 abstracts received for the RRI Conference.

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ORI REORGANIZED; REFOCUSING ON EDUCATION, PREVENTION AND OVERSIGHT

A *Federal Register* notice on the role of the Assistant Secretary for Health (ASH) in the adjudication process for research misconduct cases and the redefined mission of ORI was published recently [65 Fed. Reg. 30600-30601 (May 12, 2000)]. For a copy of the entire notice, see the What's New section of the ORI web site at **http://ori.dhhs.gov**.

A policy statement addressing the implementation of the extension of the requirement for training in the responsible conduct of research (RCR) to all persons supported by

PHS research funds is also expected to be announced by October 1, 2000.

Other actions being taken to implement the recommendations of the HHS Review Group on Research Misconduct and Research Integrity (HHS Review Group) include:

- The ASH approved a Notice of Proposed Rule Making (NPRM) on whistleblower protection in May for submission to the Secretary of Health and Human Services for final clearance.

- The Departmental Appeals Board (DAB) is preparing a *Federal Register* notice on the revised procedures for DAB hearings that have been approved by NIH, ORI, and the DAB.

- A bill providing qualified immunity for institutions and staff involved in responding to allegations of research misconduct in PHS-supported research is being drafted in HHS.

- A contract was awarded in February 2000 to R.O.W. Sciences, Inc., to determine the feasibility of developing consortia or other mechanisms to assist institutions, especially small- to middle-sized, to conduct inquiries and/or investigations and further reduce any need for Federal fact-finding in extramural misconduct cases.

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STANDARDS ADOPTED FOR CLINICAL RESEARCH CONDUCTED IN NIH INTRAMURAL PROGRAMS

Standards for conducting clinical research in the intramural research programs at NIH designed to assure patient safety and high research quality were issued by the Medical Executive Committee of the NIH Clinical Center last December following approval by institute directors.

The Director, NIH Clinical Center, and the Deputy Director for Intramural Research, NIH, are developing a process for implementing the standards and reviewing institute compliance. The complete text of the Clinical Research Standards statement is posted at http://www.cc.nih.gov/ccc/clinicalresearch/standards.html.

The six subject areas and the standards adopted to address them follow:

Clinical Informatics, Data Management, and Protocol Tracking

Each institute sponsoring clinical research should develop a central clinical investigations database that maintains all data specified to be collected in the clinical study (either intervention or natural history). Data management infrastructure is required by institutes to maintain their central data registry, to enhance existing

databases, to provide eligibility checklists, to record patient randomization and entry into their protocols, to provide report generation, data warehousing and data entry forms, and to monitor data collection.

Biostatistics Support

All clinical protocols must be reviewed by a qualified biostatistician prior to approval and implementation.

Quality Assurance and Quality Control

Each institute must establish a quality assurance program with infrastructure that ensures that clinical trials are monitored adequately and centrally. The institute should determine the appropriate extent and nature of monitoring based on considerations of the study objectives, purpose, design, complexity, blinding, size and endpoints and should include on-site protocol monitoring during clinical trials and the establishment of an independent data safety and monitoring board for at least a semiannual overview of all randomized blinded studies. Statistically controlled sampling is an acceptable method for selecting the data to be verified. For interventional trials, the institutes should demonstrate a capacity to review a minimum of 10 percent of patient records on selected clinical trials to assure data accuracy, protocol compliance, and adherence to regulatory requirements.

Protocol Review

Each institute must provide or have access to (1) scientific review by a protocol review committee and (2) infrastructure (for example, administrative staff) to support an appropriately constituted Institutional Review Board (IRB).

Human Resources and Physical Plant

Necessary personnel, office space proximal to patient care areas, and accompanying resources are required to support the clinical research infrastructure.

Training and Education

All clinical Principal Investigators are required to take an overview training course, or equivalent, on the roles and responsibilities of clinical investigators. This course will be developed by the Clinical Center. All IRB chairs and IRB members (including lay members) will receive orientation materials and are required to take specialized training modules provided by the Clinical Center.

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E-MAIL ADDRESSES PLEASE

Please submit the e-mail address of your institution's responsible official (if you have not already done so) to ORI by August 31, 2000, so that we may send him/her the procedures for electronically filing the 2000 Annual Report on Possible Research Misconduct. Send the e-mail address to dbrown@osophs.dhhs.gov.

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PHS FUNDING JURISDICTION IN SCIENTIFIC MISCONDUCT CASES EXPLAINED

An important preliminary issue in scientific misconduct cases is whether there is Public Health Service (PHS) funding jurisdiction that would allow ORI to exercise its oversight responsibilities. While there are many possible funding and misconduct scenarios, the general principles discussed below may provide valuable guidance for institutions and individuals alike.

The PHS Act gives ORI oversight responsibility for anyone applying for financial assistance (*i.e*., a grant, contract, or cooperative agreement) from the PHS for any biomedical or behavioral research program. Although in most cases the PHS funding agency is the National Institutes of Health, it may be any of the seven PHS agencies (*e.g*., the Centers for Disease Control and Prevention). Under the PHS scientific misconduct regulations, ORI's authority extends to "allegations of misconduct in science in connection with PHS-sponsored biomedical and behavioral research" as well as to "alleged or apparent misconduct involving research or research training, applications for support of research or research training, or related research activities that are supported with funds made available under the PHS Act." 42 C.F.R. §§ 50.101(a) and 50.103(a)(1).

The following are examples of situations where ORI would have jurisdiction in a misconduct case:

- Research funded by PHS grants, contracts, and cooperative agreements.

- Applications for PHS-funded grants, whether or not the grants are funded.

- Applications for PHS-funded grants that are withdrawn either before or after funding.

- Research data submitted in progress or final reports on funded grants.

- Materials submitted by a respondent during an inquiry or investigation that are falsified or fabricated even if no scientific misconduct is ultimately found in the underlying research.

- Research not conducted with PHS funds if the data from that research are then used in or referenced in PHS-related grant applications or progress or final reports.

- Research data included in publications that cite PHS support.

Another closely related issue is who makes the decision on PHS funding jurisdiction. Initially, the institution has the responsibility to make an independent determination of PHS funding jurisdiction that does not rely solely on the representations of either the respondent or the complainant. While complainants are often in a good position to provide helpful information to the institution regarding the existence of PHS funding, and should always make an effort to assist in the determination, they are not required to prove this issue. However, a respondent who affirmatively claims that the subject matter of the alleged scientific misconduct does not involve any PHS funding should be required to establish this claim.

An institution's decision regarding PHS jurisdiction, however, is not determinative of the issue nor is it binding on ORI. As part of ORI's responsibility for determining whether an institution is complying with its assurance, ORI may request, and the institution is obligated to provide, reasonable evidence that PHS funding jurisdiction is or is not involved in any particular case. ORI is authorized to and does review the institution's conclusion regarding the involvement of PHS support.

Any party or institution with questions about a PHS funding issue may contact ORI's Division of Investigative Oversight for further assistance.

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NOTABLE QUOTE

"An important but inadequately applied principle of collaboration is to set up a plan, best written down at the outset, as to who will do what and how credit will be attributed." Floyd E. Bloom. *Science* 287:589, 2000.

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INSTITUTIONS REPORT INCREASE IN RESEARCH MISCONDUCT ACTIVITY

A 3-year decline in research misconduct activity was reversed in 1999 as institutions reported a moderate increase in such activity in their Annual Reports on Possible Research Misconduct.

Seventy-two institutions reported misconduct activity in 1999. Eighty-nine new allegations, which were received by 46 institutions, resulted in the opening of 63 new cases. There were 34 institutions still processing allegations made prior to 1999 and 8 institutions were responding to allegations made prior to and during 1999.

In their submission, institutions report the receipt of an allegation of scientific misconduct, the type of misconduct, and the conduct of an inquiry and/or investigation. Reportable activities are limited to alleged misconduct involving PHS-supported research, research training, or other research-related activities.

The 89 new allegations included 37 of falsification, 21 of fabrication, 13 of plagiarism, and 18 others. Institutions reporting misconduct included 41 in higher education, 4 research organizations, and 1 health organization.

The 63 new cases resulted in 51 inquiries and 9 investigations by the end of 1999. Some cases were closed following a preliminary assessment of the allegations or the allegations were received too late to begin or complete an inquiry or investigation that year.

The 72 institutions reporting misconduct activity in 1999 conducted 82 inquiries and 27 investigations in response to allegations made in 1999 and before. The number of inquiries conducted by an institution ranged from zero to three. The number of investigations conducted by an institution also ranged from zero to three.

Table 1: Frequency of Institutions Reporting Misconduct Activities, Institutions Reporting New Cases, New Allegations and New Cases Opened, 1994-1999.

Annual Report	# of Institutions Reporting Activity	# of Institutions-New Cases	# of New Allegations	# of New .....Cases
1999	72	46	89	63
1998	67	41	69	54
1997	73	48	92	64
1996	88	54	127	70
1995	96	61	104	81
1994	79	50	89	64

Table 2: Frequency of Inquiries and Investigations Conducted in Response to New Allegations, 1994-1999.

Annual Report	Inquiries	Investigations
1999	51	9
1998	38	7
1997	56	19
1996	61	25
1995	70	31
1994	56	20

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NOTABLE QUOTE

"...in all these efforts the criteria for professional scientific integrity were similar; even if the individual was your best friend, you asked to see the data; and if the data was in summary form, you asked to see the raw data. It was common to challenge a colleague's claim that he had carried out some procedure very carefully or precisely." Jonathan King, Professor of Molecular Biology, M.I.T. *Science and Engineering Ethics* 5:215, 1999.

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STUDY ON CAUSES OF MISCONDUCT; IMPACT ON RESEARCH CAREERS

A contract has been awarded to study individuals against whom a finding of scientific misconduct has been made to investigate the causes of scientific misconduct and the short- and long-term consequences of misconduct findings on research careers.

Data will be collected through semi-structured, in-depth phone interviews with individuals against whom a PHS finding of scientific misconduct has been made. In addition, case materials will be reviewed. A pilot study has been completed. Study results will be reported as aggregated, nonidentifiable data.

The study is being conducted by Justice Research and Advocacy, a nonprofit research organization, with ORI support.

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CONFERENCE URGES SCIENTIFIC SOCIETIES TO VIGOROUSLY PROMOTE INTEGRITY

Scientific societies can do more to deter research misconduct by developing better

standards of practice and by publicizing their codes of conduct more effectively, including posting codes of conduct on the World Wide Web, and using annual meetings to educate members about responsible conduct. This was the major conclusion drawn by participants in the conference on "The Role and Activities of Scientific Societies in Promoting Research Integrity," co-sponsored by the American Association for the Advancement of Science (AAAS) and ORI on April 10-11 in Washington.

A conference summary that will include additional actions and an agenda for research on the role of scientific societies in promoting research integrity will be issued by AAAS in July.

Several speakers reviewed the process their own societies used in developing their codes or guidelines. Michael Zigmond of the University of Pittsburgh noted that professional societies can play a unique and critical role in developing, educating and enforcing guidelines, and those guidelines should be a means rather than an end in themselves.

Joyce Iutcovich said that the American Sociological Association is one of the societies that acts as a grievance body in enforcing their codes of conduct, using mediation as a first step in resolving the dispute. Barbara Mishkin, a lawyer who has represented institutions in misconduct litigation, cautioned that enforcing society standards through disciplinary actions or expulsion from membership in a society could lead to legal disputes.

John A.N. Lee from Virginia Tech advocated including ethics across the curriculum and using alternative teaching and learning strategies such as playing games or using current events to reach today's students.

David Lee Robinson, Deputy Ombudsman for NIH, discussed elements of a good scientific "pre-nuptial agreement." He recommended that societies develop partnering protocols, facilitate training in dispute resolution, encourage creation of an institutional ombudsperson, and establish the contributorship model of authorship.

Several speakers also supported broader research into the causes and circumstances that lead to misconduct in research. A roundtable discussion on designing research and evaluating society activities covered a wide range of research questions that need to be addressed more systematically as well as some strategies that might be used to evaluate the effectiveness of activities designed to foster research integrity.

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TELECONFERENCE BEAMS INFORMATION ON HANDLING MISCONDUCT ALLEGATIONS

Teleconferencing was used for the first time to inform administrators and faculty about "Making the Right Moves in Handling Misconduct Allegations" on March 24 in an interactive broadcast co-sponsored by the National Council of University Research Administrators and ORI.

An estimated 3,000 administrators and faculty in at least 88 institutions participated in the 4½-hour national teleconference, which permitted phone-in questions at various points during the telecast that originated in Washington. Feedback on this endeavor was overwhelmingly positive.

Topics included defining research misconduct, reviewed the process of handling allegations, gathering evidence, conducting a preliminary inquiry, and considered details of the investigation process, as well as living with the results. Good practices and lessons learned wrapped up the day's discussions.

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FEDERAL DEFINITION & PROCEDURES SOON

The Federal definition of, and procedures for responding to, allegations of research misconduct are expected to be published in the *Federal Register* in late spring or early summer. About 250 comments were received by the comment deadline. The definition and procedures will be posted on the ORI web site at **ori.dhhs.gov** after publication in the *Federal Register*.

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SOUTH AFRICAN UNIVERSITY FINDS RESEARCH MISCONDUCT

South Africa joined the growing list of nations that have investigated allegations of scientific misconduct earlier this year when a researcher was accused of falsifying a study of an aggressive treatment for advanced breast cancer involving ultrahigh doses of chemotherapy followed by a bone marrow transplant.

The University of Witwatersrand in Johannesburg fired Professor Werner Bezwoda, chairman, department of oncology and hematology, following a 6-week probe that concluded that he misrepresented his findings and had failed to obtain approval for the trial before proceeding, according to press reports.

The misconduct was discovered when a U.S. delegation of researchers was sent to South Africa to assess Bezwoda's techniques in preparation for replicating his work because he had reported positive results for the high dose treatment while two large U.S. trials found no benefit. The researchers were only able to find records for 50 of the 150 subjects, and those records did not support the reported results, according to press reports.

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ORI ADDS ATTORNEY TO STAFF

The Research Integrity Branch, Office of the General Counsel for ORI, welcomes the addition of Timothy A. Morris to its staff of four attorneys. Mr. Morris is a 1993 graduate of Cornell Law School where he was a Note Editor of the *Cornell Law Review*. Mr. Morris also is a *cum laude* graduate of American University where he received a Master's Degree in International Relations in 1989. His undergraduate degree is from the University of Dayton, *magna cum laude*. After graduation from law school, Mr. Morris worked in private practice and then joined the Department of Agriculture's Trade Practices Division where he gained valuable experience in litigating complex anti-competitive practice issues.

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INSTITUTION REPORTS BAD FAITH ALLEGATION

One of the 46 institutions that reported new misconduct activity on their 1999 Annual Report on Possible Research Misconduct determined that it had received a bad faith allegation. This is the second bad faith allegation reported by an institution since the question concerning such allegations was initially asked in the 1997 Annual Report.

The institution concluded that six of the seven allegations concerning studies using animals that were reported in a series of papers were made in bad faith because the descriptions of the studies in the papers could be easily verified. The seventh allegation was supported, but it involved an error in typing a number while preparing a manuscript. No action was taken against the whistleblower because the allegations were made anonymously.

The ORI Model Policy for Responding to Allegations of Scientific Misconduct states, "an allegation is not in good faith if it is made with reckless disregard for or willful ignorance of facts that would disprove the allegation."

Data are requested on bad faith allegations because of the concern within the scientific community about such allegations and because many institutional misconduct policies state that such acts are subject to disciplinary action.

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WORKPLACE TO MARKETPLACE CONFERENCE PAPERS PUBLISHED

Five papers from the 1998 conference co-sponsored by ORI and UNC-Chapel Hill that focused on research integrity from the "workplace" to the "marketplace" were published in the Spring 1999 issue of Professional Ethics. Three of the authors were from Federal

agencies, one author was from private industry, and one author had retired from an academic career. This edition also contains an introduction by Robert Lowman, who organized the conference and served as guest editor of the issue.

Chris Pascal's paper provides a basic overview of Federal definitions and approaches to scientific misconduct. Kenneth Ryan's paper on research integrity presents a philosophical analysis of the conduct of research, and a brief history of scientific misconduct. The paper by David Lee Robinson, Kerri Burton-Danner, and Kristin Kiser focuses on how NIH deals with authorship disputes in research within its intramural program. Linda Birnbaum and Brenda Culpepper's paper analyzes the procedures used within the U.S. Environmental Protection Agency to ensure the integrity of research data. Martin Navratil wrote about the incentives, disincentives, and constraints on integrity in the industrial research environment.

The Chapel Hill conference was designed to take advantage of the collaborative environment that exists among universities, companies, governmental agencies and private non-profit organizations located in Research Triangle Park area. The main premise of the conference was that all scientists face similar ethical dilemmas, but that different work settings produce different pressures that might affect a scientist's responses to those dilemmas.

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NEW WEB SITE FOR RCR TRAINING EXPECTED THIS FALL

A new web site designed to assist institutions in creating or revising programs in the responsible conduct of research (RCR) is expected to be on line this fall.

As reported in the September 1999 issue of the *ORI Newsletter* [see "ORI Supports Development of RCR Website" Vol. 7(4), p. 1], the development of this new site is headed by Michael Kalichman, University of California, San Diego. Francis Macrina, Virginia Commonwealth University, is the project co-director, and Jeffrey Kahn, University of Minnesota, is a consultant.

The web site will focus on resources and training in the responsible conduct of research. An initial background section will include an overview of the goals of RCR training, as well as contact information for individuals and institutions relevant to various dimensions of RCR. Recommended resources will include texts useful for courses in RCR, material on ethical decisionmaking, and information relevant to the practical aspects of ethics for research scientists. The training section will include descriptions of formats for training programs in RCR, links to several established courses (including Internet-based templates for RCR training programs), selected cases available for discussion on a variety of topics typically included in RCR courses, and suggestions for program evaluation.

Funding for this 2-year project began in August 1999. The URL will be released to selected institutions and organizations for preliminary review this summer. Based on suggestions and comments, the site will be revised and widely announced by fall 2000, with an active process of ongoing evaluation.

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CONFERENCE PROPOSALS DUE OCTOBER 1

ORI is seeking proposals from institutions, associations, and scientific societies that wish to collaborate with ORI in developing a conference or workshop on promoting research integrity or handling scientific misconduct allegations. Funding generally ranges from $5,000 to $20,000. ORI intends to hold four to six regional conferences or workshops a year around the country. October 1, 2000, is the deadline for applications. Proposal instructions and an application form are available on ORI's home page, **http://ori.dhhs.gov**, or call Dr. Dustira at 301-443-5300.

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ELECTRONIC ANNUAL REPORT TEST

ORI will ask about 25 institutions to participate in a pilot test of the system for electronically transmitting the Annual Report on Possible Research Misconduct to identify any problems in the system before it is implemented for the 2000 Annual Report.

Selected institutions will represent the diverse organizations with assurances on file with ORI and that must file an Annual Report. The pilot test, expected to be completed by September 30, 2000, will be limited to organizations for which ORI has an e-mail address.

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