Policy 7.9
Guidelines for Responsible Conduct of Scholarship and Research

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Responsible Official: VP for Research Administration
Administering Division/Department: Research Compliance
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Overview

These guidelines describe a standard of practice for the conduct of scholarship and research at Emory University. The University complies with all applicable laws and regulations (see Appendix). The guidelines are intended as a statement of desirable practices. They are based on three important principles:

I. The University is obligated to protect and foster the academic freedom and intellectual integrity of all members of the University community in their pursuit of knowledge;
II. The University is accountable to outside funding sources that support the research and scholarship of its faculty; and
III. Every scholar has ultimate responsibility for the accuracy and validity of his/her own work and that of junior co-investigators, fellows, and students. Each scholar shared this responsibility with colleagues with whom she/he establishes collaborative relationships.

Applicability

This document applies to research in all areas of intellectual inquiry. A separate section addresses issues specific to scientific research. These guidelines are intended to heighten awareness of potential ethical problems and to instruct individuals regarding appropriate procedures for resolving and documenting ethics-related matters. The focus is on the individual scholar; the purpose is to emphasize that his/her responsibility includes a duty to maintain high scholarly and ethical standards, and a commitment to instill those standards in co-investigators, students and trainees.

Scientific inquiry, scholarly contributions, creativity, and academic accomplishment can take many forms and may vary among disciplines. The issues addressed by these guidelines are essential to all scholarly activity within the University community. Scholarly responsibility, quality of scholarly activity, security of scholarly contributions and their sources, responsible authorship, and provision for training in ethics of each discipline are issues inherent to all areas. The implications of these guidelines apply as fully to the scholar who co-authors a history textbook as to the laboratory scientist who reports a biological discovery, or the clinician who publishes a case report.

The guidelines address the following concerns:

- the scholar's authority and responsibility for research activities;
- the establishment of the quality of research;
- authorship of publications, including multiple publications and requisites for authorship;
- the supervision of students and other trainees;
- the education of trainees in research ethics and integrity;
Policy Details

7.9.01 The Conduct of Research and Scholarship

A. Authority and Responsibility for Research Activities

The head of each division, department or program is responsible for assuring that each fellow or student has a specific faculty research director or dissertation advisor. Usually a dissertation advisor or research director will be a full-time faculty member of a University department. This responsibility should not be construed as carrying rights of authorship, consultation, or approval of manuscripts prior to publication.

B. Establishing the Quality of Research

1. Primary assurance of the quality of research stems from the scholarly qualifications of individual faculty members. All faculty members are ultimately responsible for the scholarly character, accuracy, and reliability of their own research and for that conducted under their supervision. Each scholar is also responsible for the integrity and originality of his/her own research. The most effective single process for ensuring research of high quality is peer review, both formal and informal. Informal review occurs through departmental and interest-group seminars and research discussion groups. Each division, department, or program should encourage such informal review procedures. Formal review will be accomplished by existing review committees (e.g., tenure and promotion committees) that are charged with the task of evaluation of the merit and relevance of research. (An example of an external committee is an NIH study section.)

2. Faculty should establish an intellectual atmosphere that promotes high academic and moral standards and in which issues of social responsibility and professional ethics are addressed.

3. Emory University's formal policy governing investigations of misconduct in research ("Policies and Procedures for Investigation of Misconduct in Research" Emory University, 2 March 1989.) should be followed when allegations of research improprieties have been made. That document, which is incorporated by reference, should be on file in the office of each laboratory head and faculty member and should be distributed to all members of the research team.

C. Authorship of Publications

1. By virtue of the multiplicity of sources of concepts and information upon which any piece of scholarship is based, it is essential that proper attribution be emphasized in the presentation of ideas and the publication of manuscripts.

2. Authorship should be granted to, and only to, those persons who have made appropriate contributions to the conceptualization, design, execution, or interpretation of the work reported. Individuals who have made lesser contributions such as providing advice, analyses, subject material, or who may have supported the research in other ways, should be acknowledged. The principal author should determine if such individuals should be listed as authors. In some fields, written permission may be required for acknowledgments. In factual or scientific reports, authors should take care to cite relevant data including that which does not support the hypothesis being presented. It is an author's responsibility to be familiar with and to cite other publications relevant to his/her work. It is unethical, and inimical to the scholarly endeavor, to submit the work of others, in whole or in part, as one's own, to fabricate research results, or to suppress or alter information. (Modified from "Ethical Guidelines for Publication of Research", Endocrine Reviews, 10:1, 1989 and "Authorship and Other Credits", N. Fotion and C.C. Conrad, Annals of Internal Medicine, 100:592, 1984.) Authors who wish to cite information learned personally or from unpublished materials should obtain written permission from the source.

3. It is inappropriate to submit abstracts of research, or reports of the same research to more than one publisher unless the action is authorized by the editors of each publication or multiple submission is the accepted standard of practice in a discipline/field. Preliminary accounts of abstracts of work already published should be referenced in any complete report of that work.

4. Multi-authorship raises issues such as criteria for inclusion as an author, ability or each author to evaluate all aspects of a study, and sequence of listing of authors. Authors should discuss these issues openly before initiating a multi-author project and repeatedly during the course of such work. The submitting or primary author has responsibility for coordinating the completion and submission of the work, and for assuring that the contributions of all collaborators are appropriately recognized. All authors should approve the final version of a manuscript and should be prepared to take public responsibility for the work. ("Ethical Guidelines for Publication of Research" and "Authorship and Other Credits").

5. Every author and co-author is responsible for composing, reviewing, and verifying those portions of a manuscript, publication, or presentation that represent his/her contribution. Each author should sign a standard form or statement of verification attesting to the authenticity of the manuscripts. The signatures should be appended to the final manuscript. All co-authors are entitled to make appropriate copies of a manuscript, including figures and appended documents.

- access to and retention of scientific research protocols and data; and
- the social responsibility of the scholar.
D. Supervision of Student Scholarship

1. The academic institution's responsibility to educate and prepare students to enter society and to practice their disciplines with high ethical standards does not cease with formal course work. The University and its faculty have an obligation to the academic community, the public, and the student to ensure that all students and trainees engage in scholarship and research responsibly, using the highest professional standards.

2. Dissertation advisors, research directors and administrative heads share responsibility for guaranteeing an open and equitable research environment that protects the interests of students, assistants and other vulnerable trainees. They should ensure that students are given due recognition for original work, that demands made upon students are reasonable, and that they are treated in interpersonal relationships with the same professional courtesy granted peer colleagues. Avenues must be available for students who feel their supervision or training is inadequate to bring this to the attention of the advisor, director or, if necessary, to the appropriate administrative head.

3. Dissertation advisors and research directors should meet regularly with students, fellows, and other collaborators to review their work and progress.

4. Dissertation advisors and research directors should serve as role models and maintain the highest standards in performance of research. They should encourage students to be open and to share ideas and information with other members of the scholarly community. They should ensure that the experience of their students serves to prepare them to become independent scholar and researchers.

E. Education of Graduate Students in Research Ethics and Integrity

1. Ethical issues and questions in the conduct of scholarship should be made an integral part of the education of all graduate students. Research directors are responsible for establishing a training environment in which value-related issues are discussed freely. The director should expect and foster at least a minimal level of familiarity with ethics as related to scholarship. The goals should be to teach students and other trainees how to identify ethical issues and how to address the common ethics-related questions that arise in the course of investigation and publication.

2. Heads of departments, divisions, and programs are responsible for fostering the teaching of ethics within their unit. An ethics component of the curriculum should provide students and faculty with the intellectual tools and interactional skills to apply ethical thinking to everyday problems encountered in their research. Ethical issues, concepts and theoretical grounding should be introduced as part of the orientation of all graduate students and trainees.

F. The Social Responsibility of the Scholar

Scholars have an obligation to ensure that scholarship is not misused and that it does not become a tool for abuse. Scholars are more likely than others to know the limits and conditions of current knowledge in their own fields, and the problematic aspects of using this knowledge to make public policy. Scholars have a right and a responsibility to make their voices heard when their scholarship and their contribution to society are being misquoted, misunderstood, or misapplied. (Adapted from S.J. Bird, President's Remarks, "Professional Responsibility", AWIS Magazine, 20:2, 1991.) Scholars are also responsible for being familiar with all University policies related to research including copyright and patent policies, Policies and Procedures for Investigation of Misconduct in Research, and these guidelines.

7.9.02 The Conduct of Scientific Research

The following paragraphs refer specifically to scientific research and serve as an addendum to the broader guidelines described above.

A. Authorship and Responsibility for Scientific Research Activities

The head of each division, department, or program is responsible for assuring that (1) every laboratory or research unit has a designated preceptor (i.e., supervisor, mentor, or director), and (2) that each trainee (e.g., post-doctoral fellow, junior investigator, graduate or undergraduate student) has a specific faculty research preceptor. Usually a research preceptor will be a full-time faculty member of a University department or a laboratory head in an Emory-affiliated research facility or hospital.

B. Establishing the Quality of Scientific Research

1. The research director is responsible for assuring close personal supervision of the research of students including the design of research protocols, approval by appropriate committees, data gathering and recording, statistical analysis, interpretation of results, preparation of manuscripts, submission and revision of manuscripts for publication, and presentations at scholarly meetings.

2. The laboratory head is responsible for informing each new staff person and investigator (faculty, student, or fellow) of applicable federal, state and institutional regulations for conduct of studies involving humans, animals, radioactive and other hazardous materials, and recombinant DNA. Laboratory heads are responsible for informing personnel in their laboratories about existing Emory University policies and these guidelines. The laboratory head is also responsible for explaining and discussing the relevant requirements for the responsible conduct of research with trainees, fellows, and visiting scientists in the laboratory, and to ensure that such requirements are met.
3. The distinction between intellectually-driven inquiry and commercially-targeted research is sometimes vague. Many respected faculty are committed to developing and to studying tools, techniques and processes whose primary purpose is to promote the health or welfare of society in areas having potential commercial value. The preceptor is responsible for assuring that such investigations meet the same standards of quality and reproducibility as investigations of a more basic nature. Furthermore, any faculty member that has financial interests in a company sponsoring his/her research should disclose such financial interests to the chair and dean/director to avoid potential or real conflicts of interest.

4. In keeping with the principle of fostering reproducibility in science, and in the absence of patent or copyright considerations, novel compounds and reagents used for experiments should be made available or appropriately described means for obtaining these should be given to other competent members of the research community upon request and after execution of a material substance transfer agreement. The senior investigator should have the latitude to make a fair and balanced response to requests for all research substances, including novel compounds and reagents.

5. Clinical research requires special attention to issues of informed consent and confidentiality. Because patients have a right to assume that decision about their treatments are made in their best interests, the physician-investigator should disclose all significant alternatives and risks to patient-subjects so that they can make an informed judgment about participation. Signed copies of informed consent must be placed in the patient's clinical records as well as with research records. Clinical research records remain the property of the University; the administrative heads of the department/division of the faculty conducting clinical trials are responsible for maintenance of the records. Faculty members may make copies of the records upon departure from the University, as well as the company which sponsors the clinical trials.

C. Access to and Retention of Scientific Research Protocols and Data

1. Both the research director and the University have responsibilities and, hence, rights concerning access to, use of, and maintenance of original research data. ("Ownership of Research Data", Estelle A. Fishbein, Academic Medicine, 66:129, 1992 and "Workshop Summary", L.J. Rhoades, Data Management in Biomedical Research: Report of a Workshop, USPHS, pp. 2-9, 1990.) Consistent with the precepts of academic freedom and intellectual integrity, the investigator/scholar has the primary authority to make judgments involving the use and dissemination of the data.

2. Each faculty member/preceptor is ultimately responsible for the maintenance and proper retention of research records. These records should include sufficient detail to permit examination for the purposes of replicating the research, responding to questions that may result from unintentional error or misinterpretation, establishing their authenticity, and confirming the validity of the conclusions.

3. Each preceptor should maintain a laboratory manual that describes all major procedures. Correspondence with institutional review committees and records of the use of controlled substances and radioactive materials should be maintained as part of the research record in accordance with governmental, regulatory, and University policies.

4. A standardized system of data organization should be adopted and should be communicated to all members of a research group and to the appropriate administrative person. The appropriate administrative person should be determined by the sub-unit.

5. Where feasible, all original primary data are to be retained by the faculty member or by his or her designee. Accepted practices for retaining data vary among disciplines and depends on the perishability nature and logistics of retaining each type of data. Each investigator should treat data properly to ensure authenticity, reproducibility and validity and to meet the requirements of relevant grants and other agreements concerning the retention of data. Primary data should be reserved for a reasonable duration to ensure that any questions raised by the researcher, colleagues, or readers of any published results can be answered. It is recommended that, where feasible, data be retained for seven years; in circumstances where there are no federal or other requirements such as those referred to in the Appendix, sub-units of the University may wish to establish uniform standards and procedures for retention and destruction of data. Data should not be destroyed without proper notification of and approval by an appropriate administrative person. In unusual cases (e.g., data used for a patent application filed by the University), it may be necessary for original data to be kept at the University. Potentially patentable data should be signed and dated by the preceptor at the time they are entered into notebooks or maintained by other methods of retention in the event the results are questioned.

6. In the event the scholar leaves the University, an Agreement of Disposition of Research Data may be negotiated by the scholar and the department chair or dean to allow the scholar’s data, notebooks, and other data retention materials (other than clinical research records) to be transferred to the new institution. Consistent with the same precepts, and to fulfill its obligations to funding sources and others, the University will ensure in such agreements access to the transferred data for purposes of review. In unusual cases (e.g., data used for a patent application filed by the University) it may be necessary for original data to be kept at the University. In such cases an individual written agreement shall be signed which preserves the scholar’s right to access and copy (where practical) such data. In cases of multi- institutional studies, the institution of the primary study director is ultimately responsible for guaranteeing appropriate access to, use of, and retention of original data.

7.9.03 References


7.9.04 Appendix

**Record Retention:** Grants and Other Types of Agreements

**General Regulation:**

OMB (Office of Management and Budget) Circular A-110 (Uniform Administrative Requirements for Grants and Agreements of Higher Education, Hospitals and Other Non-Profit Organizations). This regulation applies to all federally funded grants and other types of agreements.

Records must be retained for at least three (3) years from the date of the submission of the final expenditure report.

**Specific Agencies (for example):**

- Health and Human Services: 45 CFR (Code of Federal Regulations) 74(D): Records must be retained for at least three (3) years from submission of last expenditure report.
- US Department of Education: 34 CFR 74(A): Records must be retained for at least three (3) years from submission of last expenditure report.

**Records and Reports:** Clinical Trial Agreements

- Food and Drug Administration: 21 CFR 312.62: In general, records must be retained for at least two (2) years following the date a marketing application is approved for the drug for the indication for which it is being investigated; or, until two (2) years after the investigation is discontinued and FDA is notified.
- Food and Drug Administration: 21 CFR 56.115: Regarding IRB records: Records required by this regulation shall be retained for at least three (3) years after completion of the research.

**Related Links**

- Current Version of This Policy: [http://policies.emory.edu/7.9](http://policies.emory.edu/7.9)

**Contact Information**

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**Revision History**

*Emory University policies are subject to change at any time. If you are reading this policy in paper or PDF format, you are strongly encouraged to visit policies.emory.edu to ensure that you are relying on the current version.*