University of Louisville

OFFICIAL UNIVERSITY ADMINISTRATIVE POLICY

POLICY NAME (R*)

Responsible Conduct of Research (RCR)

POLICY NUMBER (O*)

RES-5.01

INITIAL ADOPTION AND EFFECTIVE DATE (R*)

May 23, 2007

POLICY APPLICABILITY (R*)

This policy applies to faculty, students, trainees, staff, and all other members of UofL's research community, regardless of pay or leave status, hereafter referred to as Researchers. This policy applies to UofL research and related activities, regardless of funding source.

REASON FOR POLICY (O*)

The University of Louisville is committed to the highest standards of Responsible Conduct in Research (RCR). The continued success and positive public image of the University of Louisville depends on the responsible and ethical conduct of all members of the university Research community.

The purpose of this policy is to articulate this commitment. It is the responsibility of the university community to foster and nurture a culture where integrity in the conduct of Research and scholarly activity is the foremost aim. In addition, all members of the university community are responsible for ensuring their behavior and actions are consistent with this commitment, as well as with university policies and procedures, and applicable federal, state, and local laws, and regulations.

POLICY STATEMENT (R*)

Primary assurance of the quality of research arises from the scholarly qualifications of individual researchers. All researchers are ultimately responsible for the scholarly character, accuracy, and reliability of their research and for that conducted under their supervision. Each Researcher is responsible for the integrity and originality of their own research. Researchers are responsible for being familiar with all University policies related to research including, but not limited to, policies on intellectual property, the Policy on Research Misconduct, and this policy.

Acknowledgements: In addition to regulatory resources, this document was modeled and referenced content from Emory University, Georgia Tech, Colorado State University, University of Houston, Northwestern, Virginia Commonwealth University, University of North Carolina – Chapel Hill, University of Minnesota, Boston College, University at Buffalo.

Research projects must be designed with rigor and conducted with honesty and integrity. The design of a research project must include appropriate safeguards against bias. All members of the project team must be in compliance with the ethical principles of the responsible conduct of research.

All Researchers must complete training in the responsible conduct of research as defined in related university administrative procedures and/or in alignment with the requirement of external funding agencies.

In the event of a dispute between the provisions of this policy and any other applicable policies and/or laws/regulations, the most stringent of the applicable policy and/or law/regulation shall govern.

VIOLATIONS OF THIS POLICY

Failure to comply with this or any other research policy of the University of Louisville will result in the application of Administrative Sanctions for Violations of the University of Louisville Research Policies.

RELATED INFORMATION (O*)

America COMPETES Act
NIH NOT-OD-22-055
NIH NOT-OD-10-019
NIH NOT-OD-21-152
NSF PAPPG CH II.C.1.d
NSF PAPPG CH IX.B
RES-1.01 Guidelines on the Ownership of Data University of Louisville

STANDARDS (O*)

Principal Investigators are responsible for ensuring that all members of their research team are made aware of these requirements.

Conflict of Interest. Researchers are expected to avoid conflicts of interests that appear to directly and significantly:

1. compromise objectivity in carrying out University Research responsibilities;
2. affect the University's interests; or
3. otherwise compromise the performance of University responsibilities unless such conflicts are managed, reduced, or eliminated. Researchers must be aware of, understand, and comply with applicable university policies.

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Human Subjects. Federal regulations for human subject research are based on three overarching ethical principles, also known as the Belmont Principles. These are:

1. Respect for Persons – respecting the autonomy of individuals to make their own decisions and protecting individuals with diminished autonomy;
2. Beneficence – protecting research participants from risk of harm while optimizing possible benefits of the research; and
3. Justice – fairly distributing the benefits and burdens of research. All human subjects research conducted under the auspices of the University must follow relevant policies and regulations.

Specialized training is required for University members conducting research involving human subjects.

Animal Subjects. Public and scientific concerns shape the laws that regulate the humane care and use of animals in research, testing, and instruction. These laws are governed by the following ethical mandates, known as "The Three Rs" of animal research:

1. Reduction – required proof that the number of animals is reduced to the smallest number possible (respecting the value of each life)
2. Replacement – required proof that a non-animal model is not available and/or that the species identified is justified (replacing animal use where feasible)
3. Refinement – required proof that all procedures ensure the highest quality of compassionate care and comfort (applying standards developed to ensure quality of life through minimizing risk and discomfort, adequacy of housing, and advanced veterinary medicine).

Specialized training is required for University members conducting research involving animal subjects.

Safe Laboratory Practices. The laboratory manager is responsible for informing each staff person and Researcher of applicable federal, state, and institutional regulations for conduct of studies involving humans, animals, radioactive and other hazardous materials, and recombinant DNA. Laboratory managers are responsible for informing personnel in their laboratories about existing University policies and these guidelines. The laboratory manager 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

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requirements are met. Specialized training is required for University members conducting laboratory research.

Mentor/Mentee Relationships. Mentors are responsible for assuring close supervision of the research of students and trainees, 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.

Safe Research Environments. Researchers are responsible for ensuring all research practices equitable and the environments in which research is conducted are also diverse, inclusive, and accessible. All Researchers have the right to work in a setting free of mistreatment, harassment, and discrimination.

Collaborative Research. In keeping with the principle of fostering reproducibility in science, novel materials and technology used for experiments should be made available, or means for obtaining these should be given to other members of the research community upon request and after the execution of a material transfer agreement (as necessary). The Principal Investigator should have the latitude to make a fair and balanced response to requests for all research materials, including novel compounds and reagents. Additionally, Researchers are expected to comply with any applicable data or material sharing requirements set forth by the university, research sponsors, or applicable laws and regulations.

Peer Review. 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., promotion and tenure committees) that are tasked with evaluating the merit and relevance of research.

Data Gathering, Storage, and Retention: Original data must be recorded, preserved, and made accessible to the University. The University retains ownership of all research data, samples, and materials generated or collected during University research. Any applicable granting agency requirements governing the preservation of data must be followed; however, it may be necessary to preserve data for a longer period. For joint Research involving two or more laboratories, the Principal Investigators involved in the project shall meet and agree upon which

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of them is to maintain the data. The Principal Investigator shall make the data available for a reasonable period.

Research Misconduct. Principal Investigators bear responsibility for the integrity of research performed under their supervision. Administrative unit heads must pursue reasonable monitoring to ensure the integrity of the activities conducted under their oversight. The Research Integrity Officer (RIO) is the individual responsible for receiving and assessing allegations of research misconduct, assuring that there is a timely response to such allegations, ensuring the timely and thorough execution of relevant processes and proceedings, and disseminating communications to those involved in proceedings such as sponsors and agencies.

Authorship and Publication of Research. Each author must make substantial contributions in the conception; design; analysis or interpretation of data; or have drafted the work or substantively revised it; AND have approved the submitted version (and any substantially modified version that involves the author's contribution to the study); AND have agreed to be personally accountable for the author's own contributions and to ensure that questions related to the accuracy or integrity of any part of the work, even ones in which the author was not personally involved, are appropriately investigated, resolved, and the resolution documented in the literature. Authors must not engage in Unacceptable Authorship Practices.

No student, trainee, or non-key personnel may publish research results without the knowledge and approval of the Principal Investigator. If the Principal Investigator is unable to provide approval for personal or professional reasons, the student, trainee, or non-key personnel may seek approval from the cognizant Dean / VP of the Principal Investigator's home unit.

Research Security. UofL recognizes that international academic collaborations are an essential part of the research community and critical to scientific advancement. However, it is important that all personnel engaging in international partnerships are aware of their reporting obligations and the concerns associated with research security, including improper foreign influence. Researchers should be completely transparent about their foreign relationships and activities and fully comply with all reporting requirements established by University policy and sponsors of federally-funded research.

Export Controls. Export control and shipping regulations affect University activities at home and abroad. These regulations apply to physical exports of research materials and samples, travel to certain countries subject to U.S. sanctions, and research projects conducted outside the public domain.

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Social Obligation. Researchers have a social obligation to conduct research and scholarship work responsibly and with integrity, and to work to ensure that their contributions are not misused.

DEFINITIONS (O*)

Laboratory Manager or Supervisor means an individual who supervises personnel and operations in a laboratory environment.

Mentors means someone who teaches or gives help and advice to a less experienced and often younger person.

Principal Investigator (PI)/ Project Director (PD). means the individual ultimately responsible for the effective and compliant management of all ethical, scientific, fiscal, and programmatic aspects of a sponsored research project.

Research and Development. Research means a systematic study directed toward fuller scientific knowledge or understanding of the subject studied. This definition encompasses basic and applied research, including research training activities not included in formal instruction and all development activities. Development is the systematic use of knowledge and understanding gained from research, directed toward producing useful materials, devices, systems, or methods, including the design and development of prototypes and processes. For purposes of this policy, both research and development apply.

Researcher means an individual who is responsible for the design, proposal, conduct, and/or reporting of research, irrespective of discipline.

Responsible Conduct of Research (RCR) means the processes and actions to perform accurate, efficient, rigorous, and reproducible research. RCR encompasses all aspects of the research enterprise, including, but not limited to the following topics:

1. conflict of interest - personal, professional, and financial - and conflict of commitment, in allocating time, effort, or other research resources;
2. policies regarding human subjects, live vertebrate animal subjects, and safe laboratory practices;
3. mentor/mentee responsibilities and relationships;
4. safe research environments (e.g., those that promote inclusion and are free of sexual, racial, ethnic, disability and other forms of discriminatory harassment);
5. collaborative research including collaborations with industry and Researchers and institutions in other countries;

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6. peer review, including the responsibility for maintaining confidentiality and security in peer review;
7. data acquisition and analysis; laboratory tools (e.g., tools for analyzing data and creating or working with digital images); recordkeeping practices, including methods such as electronic laboratory notebooks;
8. secure and ethical data use; data confidentiality, management, sharing, and ownership;
9. research misconduct and policies for handling misconduct;
10. responsible authorship and publication;
11. research security;
12. export controls; and,
13. the scientist as a responsible member of society, contemporary ethical issues in biomedical research, and the environmental and societal impacts of biomedical and social science research

Research Record means any data or results, in any media or format, which embodies the information resulting from research. A Research Record includes, but is not limited to, grant or contract applications, whether funded or unfunded; grant or contract progress and other reports; laboratory notebooks; notes; correspondence; videos; photographs; X-ray film; slides; biological materials; computer files and printouts; manuscripts and publications; equipment use logs; laboratory procurement records; animal facility records; human and animal subject protocols; medical charts; participant research files; computer code; musical scores; musical composition; and choreography.

Unacceptable Authorship Practices means publication processes that detract from professional and societal advancements. The University considers the following practices are considered by the University to be unethical and unacceptable:

1. Ghost Authorship - Authors who contributed to the work but are not listed, generally to hide a conflict of interest from editors, reviewers, and readers.
2. Guest/gift/honorific authorship - Individuals given authorship credit who have not contributed in any substantive way to the research but are added to the author list by virtue of their stature in the organization.
3. Orphan authorship - Authors who contributed materially to the work but are unfairly omitted from the author list by the drafting team.
4. Forged authorship - Unwitting authors who had no part in the work but whose names are appended to the paper without their knowledge to increase the likelihood of publication.

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5. Coercive authorships - exertion of seniority or supervisory power by a person to be conferred authorship when appropriate authorship criteria are not otherwise met.
6. Self-plagiarism - the re-publication of one's own work or substantial and substantive portions thereof without citation to the original work. The threshold of whether the reuse of one's own work rises to the level of self-plagiarism shall be determined by the relevant journal standard, or if none exists, the relevant standard in the industry/field.
7. Use of papermills or other similar commercial enterprises to purchase manuscripts with the intent of representing them as original work.
8. Use of AI tools or technology to wholly or partially generate published work or work intended for publication that is not clearly justified by the research need and acknowledged in the publication.[1]

PROCEDURES (O*)

Training in the Responsible Conduct of Research
Resolution of Authorship and Publication Disputes in Research and Creative Activity

RESPONSIBILITIES (O*)

Institutional Officials

It is the responsibility of the University and its officials to provide training and maintain records of training in the responsible conduct of research. The training provided shall be of sufficient quality and frequency to allow achievement and maintenance of certification. The University will also provide templates and mechanisms to track completion of the training requirement. Consult with faculty, administrative, and/or research staff for guidance on the content and delivery of the educational materials and other program requirements; publicize the research education program to all faculty, staff, and students; and track and maintain information on participation in RCR education activities and assess the ongoing effectiveness of the research education program.

Unit Heads or Designee

Ensure all Researchers complete RCR training requirements appropriate to their career stage and/or as required by sponsors or the University; publicize the RCR training program to faculty, staff, and students in college or unit; and provide advice and guidance for the RCR training program.

Directors and Department Heads

[1] Publications on AI as a focus of the research are not included in this restriction.

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Departments and other administrative units are responsible for providing information regarding accepted standards of professional integrity and quality, including aspects specific to their own disciplines. Notices sent from the Office of Research & Innovation, or designee, through the Deans, Directors, and Department Heads should serve as an effective reminder to all researchers. Ensure all Researchers complete RCR training requirements appropriate to their career stage and/or as required by sponsors or the University; Publicize the RCR training program to all Researchers in their department; and Monitor completion of requirements by Researchers, as needed.

Researchers
Complete RCR training requirements as outlined in university administrative procedures.

RESPONSIBLE AUTHORITY (R*)

Executive Vice President, Research and Innovation

RESPONSIBLE UNIVERSITY DEPARTMENT/DIVISION (R*)

Office of Research Integrity
300 E Market, Suite 300, Louisville, KY 40292
Phone: 1-502-852-2454
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HISTORY (R*)

Revision Date(s): May 23, 2007; June 17, 2016; Sep 2022
Reviewed Date(s): 2016

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R* = Required O* = Optional

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University of Louisville

Official University Administrative Procedure

PROCEDURE NAME (R*)

Resolution of Authorship and Publication Disputes in Research and Creative Activity

PROCEDURE NUMBER (O*)

TBD

INITIAL ADOPTION AND EFFECTIVE DATE (R*)

TBD

PROCEDURE APPLICABILITY (R*)

This procedure applies to faculty, students, other trainees, staff, and all other members of UofL's research community, regardless of pay or leave status, hereafter referred to as Researchers. This policy applies to UofL research and related activities, regardless of funding source.

REASON FOR PROCEDURE (O*)

Standards for Authorship and Publication of Research and Unacceptable Authorship Practices are governed by the University's Responsible Conduct of Research Policy (RES-5.01)

In cases of authorship disputes related to composition and/or order of authors, in which only University of Louisville ("University") authors are part of the dispute, the Executive Vice President for Research and Innovation (EVPRI) encourages parties to engage in direct dialogue to resolve matters. In instances where an agreement was not reached or has not been honored, additional steps may be warranted to resolve the dispute. All processes related to this administrative procedure should be handled fairly and expeditiously.

PROCEDURE STATEMENT (R*)

Resolution of Authorship Disputes

Direct Communication (Preferred Process). This involves the parties to the dispute discussing their perspectives and working to reach an agreeable resolution. Once consensus has been reached, it should be formally documented, signed, and dated by all parties involved and copies of the signed agreement should be distributed to the parties. In cases where the parties span more than one department/unit, copies should also be sent to the cognizant department heads/directors/VPs/Deans.

Acknowledgements: In addition to regulatory resources, this document was modeled and referenced content from International Committee of Medical Journal Editors, Ohio State University, University of Virginia, Emory University, Committee on Publication Ethics.

Mediation. Parties to a conflict may choose to work with the Office of Research Integrity to participate in a confidential mediation process to assist in finding a resolution to authorship disputes. The Office of Research Integrity does not advocate for any particular outcome and remains a neutral third party assisting with the exploration of perspectives, rationales, and options. The parties themselves decide on the terms of any agreement.

Peer Panel. Parties to an authorship dispute can agree to present their perspectives to a panel of three University Researchers with expertise in the respective discipline, no conflict of interest, and, when possible, no affiliation with the department(s) of the involved parties. By entering the voluntary Peer Panel process, the parties involved will agree in writing to accept and abide by the decision of the panel. The parties will further agree that in abiding by the decision, they will not file a dispute at the level of the journal's editors or other public forum. Further description of this proposed process can be found below.

> **Appointment of Panel**: One or more disputants will notify the Director, Office of Research Integrity of the authorship dispute. The Director will propose a panel of three (3) Researchers with sufficient expertise in the relevant discipline and no conflict of interest with any of the disputants. Whenever possible, the proposed panelists will have no affiliation with the department(s) involved. The Director may consult with additional University Officials when proposing panel members. Each disputant will have the opportunity to review the list to confirm their acceptance of the panel members, or to challenge proposed panelists based upon perceived conflict of interest. The Director will make the final determination on panel composition.
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> **Presentation to the Panel**: The Panel decision is limited in scope to the composition and order of authors. No other authorship matters will be considered by the Panel, unless otherwise requested by the Executive Vice President for Research and Innovation. The panelists will select one person to serve as the Panel Facilitator. The Panel Facilitator will convene the Panel to allow the disputants to share information regarding the dispute. The panel will meet with each disputant separately and, at the discretion of the panel, will interview other parties relevant to resolving the authorship dispute. Disputants will submit the manuscript and may provide other relevant materials regarding the authorship dispute to the panelists in advance. Panelists will review the materials at their discretion. The Panel may contact disputants to gather additional information, if necessary.
>
> **Decision of the Panel**: Panelists will agree not to disclose the deliberations of the panel or how any of the panelists voted on the matter, except as

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required by law. Following deliberations, the Panel will take a vote to reach a final, binding decision and prepare a written report detailing the decision and rationale. If the vote is not unanimous, the report will reflect both sides, but the majority vote will be decisive. The Panel Facilitator will inform the Director, Office of Research Integrity, of its decision and provide the written report. The Director will subsequently provide the disputants with the final report. The Director, Office of Research Integrity, will also inform all other authors of the paper regarding the binding decision and rationale.

Binding EVPRI Decision. If the parties do not resolve the dispute through direct communication or mediation, and choose not to work with a Peer Panel, then the EVPRI will render a binding decision, and may consult with expert(s) prior to making the decision. If the manuscript is already submitted for publication, the EVPRI will notify the journal that the University has approved the publication of the manuscript using the approved authorship composition and order. If the manuscript in question is already published, the EVPRI will notify the journal to communicate any modifications to author composition or order.

Correction or Retraction of Publication

In instances where the Conflict Review Board, Institutional Animal Care and Use Committee, Institutional Biosafety Committee, or Institutional Review Board has made a finding of non-compliance and determined that the data upon which a publication is based was not collected with proper University or regulatory approval, the manuscript in question will be subject to correction or retraction (as determined by the governing journal). The Office of Research Integrity will coordinate with the corresponding author of the publication to ensure any required corrective action is addressed.

RELATED INFORMATION (O*)

NIH NOT-OD-18-011

Authorship and Publication Resources

Researchers should review the reputation of the journals/publishers to which they submit and are encouraged to avoid publishing in predatory journals[1]. These journals employ unethical business practices including plagiarism and publication of fabricated results.

RESPONSIBILITIES (O*)

[1] Please refer to https://scientific-publishing.webshop.elsevier.com/research-process/what-predatory-journal-checklist/ for information on predatory journals.

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First Author. Responsible for the conduction of the experiments that are central to the manuscript.

Lead Author. This individual takes the primary responsibility for the accuracy of the publication.

Co-Author. Individuals contributing to the manuscript and meeting all authorship criteria for the publication. Individuals within this grouping review and approve the final submission should be qualified to take public responsibility for the manuscript, complete any disclosure forms required of the publisher, and be able to describe the contributions of all members of the authorship team.

Corresponding Author. Appropriate roles for the corresponding author(s) are as follows: ensuring that all listed authors have approved the manuscript before submission and that all authors receive the submission and all substantive correspondence with editors, as well as the full reviews, verifying that all data, materials (including reagents), and code, even those developed or provided by other authors, comply with the transparency and reproducibility standards of both the field and journal.

Non-Author (Acknowledged) Contributor. This category is reserved for individuals who do not meet the four criteria for authorship but have contributed to the underlying work in a manner that warrants acknowledgment. Whether named individually or as part of a larger group, these individuals should provide permission for the acknowledgement on the manuscript. When the research being published utilized a core facility consideration should be given to include an acknowledgement (minimum) or potentially co-authorship (when core facility personnel fulfill requirements for authorship).[2]

RESPONSIBLE AUTHORITY (R*)

Executive Vice President for Research and Innovation

RESPONSIBLE UNIVERSITY DEPARTMENT/DIVISION (R*)

[2] "The most straightforward way to recognize a core facility's contribution to research is an acknowledgement in all publications and other forms of dissemination that use data originating from the core facility. Acknowledgement for the use of this data is akin to the rights of co-authorship and arguably an ethical obligation." Kivinen K, van Luenen HGAM, Alcalay M, Bock C, Dodzian J, Hoskova K, Hoyle D, Hradil O, Christensen SK, Korn B, Kosteas T, Morales M, Skowronek K, Theodorou V, Van Minnebruggen G, Salamero J, Premvardhan L. Acknowledging and citing core facilities: Key contributions to data lifecycle should be recognised in the scientific literature: Key contributions to data lifecycle should be recognised in the scientific literature. EMBO Rep. 2022 Sep 5;23(9):e55734. doi: 10.15252/embr.202255734. Epub 2022 Aug 23. PMID: 35997112; PMCID: PMC9442286.

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HISTORY (R*)

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University of Louisville

Official University Administrative Procedure

PROCEDURE NAME (R*)

Training in the Responsible Conduct of Research

PROCEDURE NUMBER (O*)

TBD

INITIAL ADOPTION AND EFFECTIVE DATE (R*)

TBD

PROCEDURE APPLICABILITY (R*)

This procedure applies to all Researchers at UofL, defined as individuals who are responsible for the design, proposal, conduct, and/or reporting of research, irrespective of discipline ("Researcher"). This definition includes but is not limited to the following:

- Faculty, trainees (including postdocs and visiting scientists), and staff who design, propose, and conduct and/or report research.
- Graduate students who are enrolled in a master's or Ph.D. program with a mentored research component or thesis/dissertation.
- Undergraduate students and professional students involved in a mentored research project or conducting student-initiated research under a faculty mentor.
- Any individual supported in part or entirely through sponsored research funding (grants or contracts).

PROCEDURE STATEMENT (R*)

All Researchers at UofL must complete training in the Responsible Conduct of Research (RCR) in accordance with this administrative procedure.

This administrative procedure includes two separate and distinct RCR training requirements: 1) Baseline RCR training for all Researchers and 2) Federal Funding RCR training for all Researchers participating in Research supported by designated federal funding agencies.

1. Baseline RCR Training

Two complimentary baseline RCR training components are required for all Researchers: A) an online RCR basics course in CITI and B) an in-person RCR training requirement that will be fulfilled as outlined below.

A. Online RCR Basics Course in CITI

The first baseline RCR training component requires the completion of a basic online CITI course with selected modules based on the career level of the Researcher.

- Undergraduate students and professional students will complete the 'RCR Basic Course for Undergraduate/Professional Students' consisting of at least the following modules:
  - Introduction to RCR
  - Research Misconduct
  - Authorship
  - Plagiarism
  - Mentorship

- All other Researchers will complete the 'RCR Basic Course for Faculty, Trainees, Graduate Students, and Staff' consisting of at least the following modules:
  - Authorship
  - Collaborative Research
  - Data Management
  - Mentorship
  - Peer Review
  - Plagiarism
  - Reproducibility of Research Results
  - Research Misconduct

B. In-Person RCR Requirement[1]

The second baseline RCR training component requires participation in at least one in-person RCR training event/discussion (one hour minimum). In-person training may be completed through participation in, or presentation of, on campus RCR sessions (e.g., events sponsored by the Office of Research Integrity), research ethics/methods coursework (e.g., BIOC630), and departmental events and research team meetings involving discussion of RCR topics aligned with certification parameters with prior written approval provided by the Office of Research Integrity. On campus opportunities for in person RCR training will be posted on the Office of Research Integrity website.

[1] Video conferencing shall not be an acceptable means for meeting the in-person RCR requirement (in alignment with NIH policy).

Additional in-person training opportunities (e.g., external conference RCR events) may fulfill this requirement with the prior written approval of the Office of Research Integrity.[2] Waiver of the baseline in-person RCR requirement requires written approval from the Office of Research Integrity.

C. Timeline for Completion of Baseline RCR Training

All university personnel who meet the definition of Researcher and who are employed by the university, enrolled in coursework, or otherwise involved in UofL Research prior to January 1, 2024, must:

- Complete the online RCR Basics Course appropriate to the career stage by July 1, 2024.
- Complete the in-person RCR requirement by January 1, 2025.
- If supported in part or entirely through sponsored research funding, complete baseline RCR training within the timeframes established by the sponsor if the timeframe is sooner than outlined above (contact the Office of Research Integrity with questions regarding applicability).

All university personnel who meet the definition of Researcher and who are for the first time employed by the university, enrolled in coursework, or otherwise involved in UofL Research after January 1, 2024, must:

- Complete the online RCR Basics Course appropriate to the career stage within 90 days of employment start date (for faculty, staff, and trainees), enrollment date (for graduate students), or the date of involvement in a UofL research project (for undergraduate and professional students).
- Complete the in-person RCR requirement within 12 months of employment start date (for faculty, staff, and trainees), enrollment date (for graduate students), or the date of involvement in a UofL research project (for undergraduate and professional students).
- If supported in part or entirely through sponsored research funding, complete baseline RCR training within the timeframes established by the sponsor if the timeframe is sooner than outlined above (contact the Office of Research Integrity with questions regarding applicability).
- If RCR training has been completed at a previous institution, contact the Office of Research Integrity to discuss the transferability of credit.

D. Completion of Refresher RCR Training

[2] Units/departments hosting approved in person sessions are encouraged to submit details to the Office of Research Integrity so the sessions can be advertised broadly.

Refresher online training via the CITI platform is required at least every four (4) years and requires the completion of at least two refresher modules (selected at the discretion of the Researcher from an approved menu) included in a 'RCR Refresher Course for UofL Researchers.'[3]

Refresher baseline in-person training is required at least every four (4) years (i.e., at least one RCR event/discussion (one hour minimum) every four (4) years).

Undergraduate students, graduate students, and postdoctoral trainees engaged in Research, must complete baseline RCR training during each career stage and no less often than every four (4) years.

2. Federal Funding RCR Training

Researchers participating in Research supported by designated federal funding agencies are required to complete additional RCR training as a condition of receiving such funding or participating in such project(s). Federal RCR training components are designed to meet designated federal funding agency requirements, which may change occasionally.

Federal Funding RCR Training, when required by designated federal funding agencies, includes: A) an online 'RCR Federal Course' (exclusively including federally required content not previously covered in baseline RCR training)[4] and B) in-person federal RCR training.[5]

A. Online 'RCR Federal Course'[3]

B. In-Person Federal RCR Requirement[4]

[3] 'RCR Refresher Course for UofL Researchers' shall include new modules in addition to those covered in the RCR Basics Courses.

[4] RESERVED: NO CURRENT FEDERAL REQUIREMENT. Subject to implementation of National Security Presidential Memorandum 33 and/or CHIPS & Science Act. This administrative procedure will be updated when requirement is established by federal agencies and the Office of Research Integrity will communicate requirement to campus at that time.

[5] Currently only required for certain National Institutes of Health (NIH) grant programs as covered by NOT-OD-10-019. A total of at least eight in-person contact hours are required by this policy.

In-person federal RCR training requires at least eight (8) in-person contact hours of instruction. In-person training may be completed through participation in, or presentation of, on campus RCR sessions (e.g., events sponsored by the Office of Research Integrity), research ethics/methods coursework (e.g., BIOC630), and departmental events and research team meetings involving discussion of RCR topics aligned with certification parameters and prior written approval provided by the Office of Research Integrity. Additional in-person training opportunities (e.g., external conference RCR events) may fulfill this requirement (in part or in whole) with the prior written approval of the Office of Research Integrity.

C. Timeline for Completion of Federal Funding RCR Training

All university personnel participating in Research supported by designated federal funding agencies must complete Federal Funding RCR Training within the timeframes established by the federal sponsor.

D. Completion of Refresher Federal Funding RCR Training

Refresher federal RCR training will be required at least every four (4) years or more frequently if required by a federal funding agency.

Tracking RCR Training Status

Online RCR Training - Records for RCR training completed in CITI will be automatically downloaded to UofL systems, which will serve as the institutional record of this component of the requirement. Completion records will be available on established institutional reporting systems.

In-Person RCR Training - Records for approved RCR training completed in person will be added to UofL systems by the Office of Research Integrity and will serve as the institutional record of this component of the requirement. Completion records will be available on established institutional reporting systems.

Administrative Sanctions

Researchers who have not completed RCR training as outlined in this administrative procedure may incur administrative sanctions. Sanctions will be handled on a case-by-case basis and may include, but are not limited to:

- Suspension of rights to submit sponsored proposals/applications and/or protocols for regulatory approval (e.g., IACUC, IBC, or IRB submissions).
- Removal from the research team under sponsored programs and/or regulatory protocols.
- Delay in establishing or suspending access to research funds (e.g., sponsored funds, start-up funds, research infrastructure funds, internal grant funds).
- Transfer of compensation expenditures from sponsored projects for non-compliant Researchers.

DEFINITIONS (O*)

Research and Development. Research means a systematic study directed toward fuller scientific knowledge or understanding of the subject studied. This definition encompasses basic and applied research, including research training activities not included in formal instruction and all development activities. Development is the systematic use of knowledge and understanding gained from research, directed toward the production of useful materials, devices, systems, or methods, including the design and development of prototypes and processes. For purposes of this policy, both Research and Development apply.

Research Mentor means the individual who is directly responsible for the professional development (both scientific and professional development) of a student or research trainee. In this administrative procedure, this term encompasses, but is not limited to, a Principal Investigator responsible for overseeing personnel participating in sponsored projects/awards.

Researcher means an individual who is responsible for the design, proposal, conduct, and/or reporting of research, irrespective of discipline. This definition includes but is not limited to the following:

- Faculty, trainees (including postdocs and visiting scientists), and staff who design, propose, and conduct and/or report research.
- Graduate students who are enrolled in a master's or Ph.D. program with a mentored research component or thesis/dissertation.
- Undergraduate students and professional students involved in a mentored research project or conducting student-initiated research under a faculty or research staff mentor.
- Any individual supported in part or entirely through sponsored research funding (grants or contracts).

RESPONSIBILITIES (O*)

Research Mentor

- All Research Mentors are expected to engage in Responsible Conduct of Research training as an essential component of promoting research excellence.
- Be knowledgeable of RCR training requirements and available training opportunities for Researchers working under their mentorship.
- Ensure Researchers under their supervision complete RCR training requirements appropriate for their career stage by the established deadlines and as required by sponsors.
- Determining if a sponsor has requirements for RCR training and ensuring the implementation of an RCR plan that meets those specific requirements (when applicable).
- Reporting as required under the terms of a specific funding program (when applicable).
- Maintaining sufficient records to demonstrate that all Researchers under their supervision have received the required RCR training.

Researchers

- All Researchers are expected to engage in Responsible Conduct of Research training as an essential component of promoting research excellence.
- Be knowledgeable of RCR requirements applicable to their career stage and as required by sponsors.
- Complete RCR requirements applicable to their career stage by the established deadlines and as required by sponsors and this administrative procedure.

Institutional Responsibilities

- Provide approved RCR training resources.
- Monitor/track completion of RCR training requirements under this administrative procedure.
- Maintain assurances with federal agencies regarding compliance with the RCR training requirements.

FORMS/ONLINE PROCESSES (O*)

Include links to related forms or online processes.

RESPONSIBLE AUTHORITY (R*)

Executive Vice President, Research and Innovation

RESPONSIBLE UNIVERSITY DEPARTMENT/DIVISION (R*)

Office of Research Integrity
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HISTORY (R*)

Revision Date(s): TBD
Reviewed Date(s): TBD

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R* = Required O* = Optional