



## Responsible Conduct of Research in Funded Student Projects at UNH

### Overview

As a land-grant institution, the University of New Hampshire (UNH) is accountable to New Hampshire residents and to the university community to ensure the ethical and safe conduct of research and scholarly activity. As an institution of higher education that prides itself on extensive research endeavors and the involvement of students in research projects, UNH has an obligation to teach and actively promote integrity in research and scholarship.

All researchers at UNH proposing to conduct research projects involving the following must obtain appropriate institutional approvals and/or permission **BEFORE** starting the research:

- Human subjects
- Vertebrate animals
- Recombinant and synthetic nucleic acid molecules
- Infectious agents (incl. human blood, blood products), and other biological agents
- Class 3B or Class 4 Lasers
- Radioactive materials
- Nuclear Magnetic Resonance/Superconducting Magnets
- X-rays

Students who seek funding for their research projects are subject to UNH's review and approval requirements, as well as research-related policies and procedures.

### Approval/Registration and Training Requirements

#### Human Subjects

The UNH **Institutional Review Board (IRB) for the Protection of Human Subjects in Research** is a standing faculty committee responsible for protecting the rights and welfare of people who are the subjects of UNH research activities. *Before involving human subjects in any research activities, students must get written, unconditional approval from the IRB for the study.*

Applications for studies involving human subjects must be submitted to the UNH IRB for review via Cayuse IRB/Human Ethics. Information about Cayuse IRB/Human Ethics is available at <https://www.unh.edu/research/human-subjects/cayuse-irb>.

Any individual named in an IRB application must complete the UNH web-based training on human subjects protections. The training module is available online at <http://www.unh.edu/research/irb-training>. For IRB purposes, the training expires three years from the date of completion.

Once the training module has been completed, students should create an application in Cayuse IRB/Human Ethics. To access Cayuse IRB/Human Ethics, researchers need an UNH email address. If a student finds that they do not have access to the USNH Cayuse research suite, they should submit a request for user access via [https://unh.azi.qualtrics.com/jfe/form/SV\\_a9v8EHojvJhL5Qy](https://unh.azi.qualtrics.com/jfe/form/SV_a9v8EHojvJhL5Qy). Each student application requires a faculty advisor to attach a letter of support outlining the student's experience with the research protocol and the level of supervision to be provided by the faculty advisor, and to review and to certify the submission in Cayuse IRB/Human Ethics.



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Applications that qualify for Exempt or Expedited review are considered on a rolling basis; all other applications undergo Full Board review at a convened IRB meeting. The full IRB meets twice a month during the academic year and once a month in the summer to review applications. Researchers need to allow during the semester a minimum of two weeks for review of applications qualifying for Exempt or Expedited review, and one month for Full Board review. Visit the [IRB website](#) to view a description of the review levels.

If a faculty advisor wants to add a student to an IRB-approved study, the faculty advisor needs to communicate this to the IRB in writing before the student starts any research activities involving human subjects. Please send all IRB correspondence to Research Integrity Services (RIS) ([research.integrity@unh.edu](mailto:research.integrity@unh.edu)).

For IRB application information, meeting schedules, protocol submission deadlines, guidance, or general inquiries:	Research Integrity Services, Service Building Julie Simpson, (603) 862-2003, <a href="mailto:julie.simpson@unh.edu">julie.simpson@unh.edu</a> Melissa McGee, (603) 862-2005, <a href="mailto:melissa.mcgee@unh.edu">melissa.mcgee@unh.edu</a> Susan Jalbert, (603) 862-3536, <a href="mailto:susan.jalbert@unh.edu">susan.jalbert@unh.edu</a>
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### Vertebrate Animals

The UNH **Institutional Animal Care and Use Committee (IACUC)** is a standing committee of faculty and community members not affiliated with UNH. The IACUC is responsible for ensuring the proper care, use, and humane treatment of vertebrate animals used in research, testing, and instruction at UNH. *Before using vertebrate animals in any research activities, students must get written, unconditional approval from the IACUC for the study.*

The Animal Resources Office (ARO) assists researchers in every phase of animal activity, and promotes a cooperative and open relationship among researchers, administration, and regulatory bodies.

Only eligible UNH faculty and staff may serve as project directors for projects reviewed by the IACUC. Application and occupational health forms are available online at <http://www.unh.edu/research/animal-care-use>. Students involved in the project must be named as study personnel in the IACUC application. Applications for IACUC review should be submitted to RIS. At UNH, applications for animal use in research undergo review by the full IACUC at a convened meeting. The IACUC meets once a month throughout the year. Allow a minimum of one month for review of protocols by the IACUC.

Students must complete the Occupational Health Program for Animal Handlers prior to handling any vertebrate animals and must complete online training (see <http://unh.edu/research/training-animal-care-and-use-personnel>).

If a faculty advisor wants to add a student to an IACUC-approved study, the faculty advisor must communicate this to the IACUC in writing before the student starts any research activities involving vertebrate animals. Please send all IACUC correspondence to RIS.

For IACUC forms, application information, application submission deadlines and general inquiries:	Research Integrity Services, Service Building Julie Simpson, (603) 862-2003, <a href="mailto:julie.simpson@unh.edu">julie.simpson@unh.edu</a> Susan Jalbert, (603) 862-3536, <a href="mailto:susan.jalbert@unh.edu">susan.jalbert@unh.edu</a>
For information on the ARO and its services, and for questions on veterinary care aspects of research protocols:	Dean Elder, D.V.M., Director Animal Resources Office, Rudman Hall (603) 862-4629, <a href="mailto:dean.elder@unh.edu">dean.elder@unh.edu</a>



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### Recombinant and Synthetic Nucleic Acid Molecules and Infectious Agents

As a condition for the National Institutes of Health (NIH) funding of recombinant DNA research, UNH must ensure that research conducted at or sponsored by the University complies with the *NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules*. UNH has established an **Institutional Biosafety Committee (IBC)** which is comprised of specialists in molecular biology, microbiology, plant biology, regulation and safety, as well as community representatives, to ensure compliance with the Guidelines. Research and academic activities that utilize biohazardous materials must be registered with the IBC prior to commencing. The IBC has 2 levels of protocol registrations: level 1 which requires full IBC approval (for all recombinant and synthetic nucleic acid work, high containment infectious agent work and work with biological toxins and Select Agents); and level 2 for all other biohazardous work (infectious agents and human derived materials such as blood, blood products and unfixed tissues) which requires review and approval by the IBC chair and Biological Safety Officer. The IBC meets bimonthly and meeting dates are posted on the IBC web page located at (<https://www.unh.edu/research/institutional-biosafety-committee-ibc>). Protocols should be submitted by the due date listed for the meeting. Contact the Biological Safety Officer at (603) 862-0197 for more information about registering a protocol, risk assessment and training requirements.

### Hazardous Materials

Due to the diversity of activities at UNH and the need to ensure safety in a variety of areas, UNH has specialized faculty safety committees to oversee the use of radioactive materials, biological materials, and chemical materials at the institution. The **Institutional Biosafety, Chemical Safety, Occupational Safety, and Radiation Safety committees** meet quarterly to ensure the safe acquisition, use, and disposal of hazardous materials. The Office of Environmental Health and Safety (OEHS) implements the policies, procedures, and programs addressing these substances. The OEHS web address is <http://www.unh.edu/research/environmental-health-and-safety>

Faculty members should familiarize students who will be working in a laboratory with the **UNH Chemical Hygiene Plan** (<https://unh.app.box.com/s/5jkcspa8v6igv622u9maqxt150j4hh64>) and with any lab-specific procedures.

Students who will work with **hazardous chemicals** in the course of their research activities must participate in online laboratory safety training. Contact Christina Karas at (603) 862-2571 for information.

Students who will work with **substances regulated by the Drug Enforcement Agency (DEA)** in the course of their research activities must participate in DEA safety and security training. Contact Dr. Dean Elder at (603) 862-4629 for information.

Students who will handle, generate, or manage **regulated chemical waste** in the course of their research activities must participate in online hazardous waste management training. Contact David Edwards at 603-862-0683 for information.

Students who work near or with **class 3B or class 4 lasers** will need online training. Laser awareness is available as an online training for those who will work *in the same room as class 3B and class 4 lasers*. Laser Operator training is for those who will *use* these lasers. Contact the Radiation Safety Officer at (603) 862-5038 for information.



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Students who will work in an area where **radioactive materials** are used, stored, or handled must participate in radiation awareness training. This class does not authorize an individual to handle or use sources of radiation. Radioactive material user's training is required for any individual who will directly handle radioactive material. Upon successful completion of the class and written exam, an individual will be listed on a Radioactive Material Permit and may begin using sources of radiation after completing lab-specific training. Contact the Radiation Safety Officer at (603) 862-5038 for information.

Students who will use **nuclear magnetic resonance or superconducting magnets** will need online training as well as a live training on the Standard Operating Procedure. A key will be given out to the University Instrumentation Center upon completion of this training. Contact the Radiation Safety Officer at (603) 862-5038 for information.

Students using **x-rays or x-ray producing machines** will need to take x-ray safety training. Veterinary Technology students will receive badges for monitoring radiation exposure after completion of this training. Contact the Radiation Safety Officer at (603) 862-5038 for information.

If a faculty advisor is adding a student to an existing registration/approval/permit, the faculty advisor should check with the appropriate staff person in OEHS to see what documentation is required.

Biological materials	Dana Buckley, Biological Safety and Security Officer Office of Environmental Health & Safety Perpetuity Hall (603) 862-0197, <a href="mailto:dana.buckley@unh.edu">dana.buckley@unh.edu</a>
Hazardous chemicals	Christina Karas, Laboratory Safety Officer Office of Environmental Health & Safety Perpetuity Hall 862-2571, <a href="mailto:christina.karas@unh.edu">christina.karas@unh.edu</a>  Karrie Myer, Chemical Inventory Coordinator Office of Environmental Health & Safety Perpetuity Hall 862-1510, <a href="mailto:karrie.meyer@unh.edu">karrie.meyer@unh.edu</a>
Hazardous waste	Marty McCrone, Hazardous Waste Manager Office of Environmental Health & Safety Perpetuity Hall 862-3526, <a href="mailto:marty.mccrone@unh.edu">marty.mccrone@unh.edu</a>
Occupational Safety	Brian Cournoyer, Occupational Health & Safety Manager Perpetuity Hall 862-4761, <a href="mailto:brian.cournoyer@unh.edu">brian.cournoyer@unh.edu</a>
Radioactive materials, lasers, NMR, and X-ray	Andy Glode, Radiation Safety Officer Office of Environmental Health & Safety Perpetuity Hall 862-5038, <a href="mailto:andy.glode@unh.edu">andy.glode@unh.edu</a>



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The UNH Research Office webpage contains application forms, meeting schedules, guidelines, regulatory and background information, and links to related websites for the IRB and the IACUC, as well as links to other offices and committees. The URL is <https://www.unh.edu/research/research/compliance-safety>.

### Intellectual Property

UNHInnovation integrates institutional efforts for building research partnerships that result in commercialization and economic development. UNHInnovation:

- Determines the potential market for new intellectual property
- Promotes UNH intellectual property to outside interests
- Establishes collaborative relationships with industry
- Coordinates the flow of information required for patents, trademarks, copyrights and other forms of protection
- Ensures compliance with federal regulations

Information is available online at <http://innovation.unh.edu/>

### Contact:

For information on UNHInnovation and its services:	Jenna Matheny, Director of Technology Transfer UNHInnovation, 21 Madbury Rd, Ste 101 (603) 862-2422, <a href="mailto:jenna.matheny@unh.edu">jenna.matheny@unh.edu</a>
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### Research-Related Policies (visit <http://www.usnh.edu/olpm/UNH/Default.html>)

#### UNH Policy on Openness, Access, and Participation in Research and Scholarly Activities

The UNH Policy on Openness, Access, and Participation in Research and Scholarly Activities is applicable to all members of the University community. The policy states that the University will not enter into any agreement that restricts access to research or scholarship by individuals, or public disclosure of research/scholarly activities findings. Some exceptions, however, exist. For example, the University may agree to a delay for no more than 30 days for a sponsor to determine whether proprietary material may be released. The policy is administered by the Senior Vice Provost for Research, Economic Engagement and Outreach, and is available online at <http://www.usnh.edu/policy/unh/viii-research-policies/openness-access-and-participation-research-and-scholarly-activities>

#### UNH Policy on Misconduct in Scholarly Activity

The UNH Policy on Misconduct in Scholarly Activity is applicable to all members of the University community, regardless of funding source. Scholarly activities include: Lab and field research, educational innovation projects, theoretical investigations, observational studies, experimentation, research and scholarship in the humanities, and other forms of creative expression. Misconduct is defined as: Fabrication, falsification, or plagiarism in proposing, performing, or reviewing scholarly activities, or in reporting results from scholarly activities; and, retaliation against a person who has brought forth an allegation or provided information in its investigation. The UNH Policy on Misconduct in Scholarly Activity policy is administered by the Senior Vice Provost for Research, Economic Engagement and Outreach, and is available online at <http://www.usnh.edu/olpm/UNH/II.Acad/C.htm>



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### UNH Policy on Classified Work

The UNH Policy on Classified Work is applicable to all members of the University community. The policy states that the University does not conduct classified work on campus, nor permits use of University facilities for classified work. The policy is administered by the President, and is available online at <http://www.usnh.edu/olpm/UNH/VIII.Res/B.htm>

### UNH Policy on Ownership, Management, and Sharing of Research Data

The UNH Policy on Ownership, Management, and Sharing of Research Data is applicable to all members of the University community, regardless of funding source. The policy articulates University community members' rights to and responsibilities for research data including ownership and custody, issues in recording, selecting, and reporting research data, and requirements for access to, and sharing, storage, and retention of, research data. The policy emphasizes the need for written agreements among research personnel delineating who has access to research data and when and specifying disposition of data when study personnel cease involvement in the research activities. The Senior Vice Provost for Research, Economic Engagement and Outreach administers the policy, which is online at <http://www.usnh.edu/olpm/UNH/VIII.Res/C.htm>

### UNH Policies on Financial Conflict of Interest in Research

Regulations (e.g., Public Health Service [PHS], National Science Foundation) exist governing financial conflicts of interest of researchers who apply for external funds to conduct research. UNH has two policies on financial conflict of interest in research to protect the integrity of externally sponsored research and to comply with federal regulations. The purpose of these policies is to identify and eliminate or manage any possible threat to research objectivity at UNH and, where conflicts could affect the rights and welfare of human subjects in research, to identify and eliminate or manage the conflicts that could lead to the unethical treatment of research subjects.

The first UNH policy on financial conflict of interest in research applies to all research funded, or proposed for funding, by any external source except for the PHS and organizations that require compliance with the PHS financial conflict of interest in research regulations (see <http://www.unh.edu/research/conflicts-interest-commitment> for policies, forms, and instructions). Effective August 24, 2012, UNH has a second financial conflict of interest policy that applies specifically to research funded, or proposed for funding, by the PHS and other organizations that require compliance with the PHS financial conflict of interest in research regulations (see <http://unh.edu/research/financial-conflicts-interest-research-projects-funded-public-health-service-phs> for more information).

The UNH policies apply to individuals who are responsible for the design, conduct, or reporting of research activities (investigators) funded or proposed for funding by external sources. The UNH policies require that investigators disclose any significant financial interests prior to UNH submitting an application for external funds to support research. The UNH policies are administered by the Office of the Senior Vice Provost for Research, Economic Engagement and Outreach.



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### Resources

UNH has a web-based program of instruction consisting of interactive, self-contained training modules on topic areas related to the responsible conduct of research and scholarly activity (RCR) including:

Use of Human Subjects	Misconduct in Scholarly Activity
Use of Animal Subjects	Data Management
Peer Review	Conflicts of Interest & Commitment
Safe Research Environments	Authorship & Publication
Collaborative Research	Mentoring
Intellectual Property	Export Controls

The modules are available at <https://rit.sr.unh.edu/training/rcr.shtml>. Modules may be completed according to the individual's own timeframe. Allow approximately 30 minutes for each module.

UNH has created a Library Guide on Responsible Conduct of Research & Scholarly Activity. It is available at <http://libraryguides.unh.edu/RCR/intro>. This guide provides access to a host of resources on RCR topics listed in the menu on the left-hand side of the page.

### Research Scenarios

1. *Working on another researcher's project: Student seeks funding to assist a UNH researcher on a project for which that researcher already holds the appropriate approval(s).*

If the student will serve as a member of the affiliated project staff, and the approved researcher is not changing the scope of his/her research by adding the student, the approved researcher should notify the appropriate committee or office of the staff addition (the student), and the committee or office will forward notice of approval to the appropriate funding organization. \*Note: Students may be required to complete training on the use of certain materials or animals before approval will be issued.

2. *Working on another researcher's project requiring modification: Student seeks funding to assist a UNH researcher on a project for which that researcher already holds approval, but that requires modification of its scope to accommodate the student's body of research.*

If the student will serve as a member of the affiliated project staff, and the approved researcher is changing the scope of his/her research protocol by adding the student, the approved researcher should notify the appropriate committee or office of the staff addition (the student) and make a formal request for protocol modification to the committee or office prior to implementation. The committee or office will review the modification, and forward notice of approval (or other disposition) to the appropriate funding organization.

3. *Working on a project that is uniquely one's own: Student seeks funding to complete an independent research project, with a UNH researcher as "advisor" or "mentor."*

The student or faculty advisor must complete the appropriate committee application(s)/registration(s). The committee will then review the proposed research protocol, and forward notice of approval (or other disposition) to the appropriate funding organization.