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.

IRB application materials are available at http://www.unh.edu/research/human-subjects. Note: Any individual who submits an application for IRB approval must first complete the UNH Web-based training on human subjects protections. The email documentation confirming completion of this training must then be submitted with the IRB application. The UNH IRB will not review applications missing this documentation. The training module is available online at http://www.unh.edu/research/irb-training

Once the training module has been completed, students should submit application materials for IRB review to the Director, Research Integrity Services (RIS). Protocols that qualify for Exempt or Expedited review are considered on a rolling basis; all other protocols 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 protocols. Allow during the semester a minimum of two weeks for review of protocols qualifying for Exempt or Expedited review, and one month for protocols requiring Full Board review. Visit the IRB website to view a description of the review levels.
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All IRB applications for student research projects MUST be:

- Signed by the faculty advisor, and
- Accompanied by a letter of support from the faculty advisor outlining the student’s experience with the research protocol and the level of supervision to be provided by the faculty advisor.

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 RIS.

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) provides assistance to 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 form. Applications for IACUC review should be submitted to RIS. At UNH, all animal-use applications 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. Note: Students must complete the Occupational Health Program for Animal Handlers prior to handling any vertebrate animals and must attend a training session that is offered twice each semester. For more information about 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 vertebrates. Please send all IACUC correspondence to RIS.
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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 a number 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 quarterly and meeting dates are posted on the IBC web page (http://www.unh.edu/research/institutional-biosafety-committee-ibc). Protocols should be submitted at least 2 weeks in advance of an IBC meeting. Contact the Biological Safety Officer at 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 for the first time with the UNH Chemical Hygiene Plan available at http://www.unh.edu/research/sites/www.unh.edu.research/files/docs/EHS/Chem-safety/2015-unh-chemical_hygiene-plan.pdf – 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 Andy Glode, 862-5038 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 Dean Elder, 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 Marty McCrone, 862-3526 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 Michele Arista, 862-3607 for information.
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 Michele Arista, 862-3607 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 Michele Arista, 862-3607 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 Michele Arista, 862-3607 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  
862-0197, dana.buckley@unh.edu |
|----------------------|-----------------------------------------------------------------|
| Chemical materials   | Andy Glode, Laboratory Safety Officer  
Office of Environmental Health & Safety  
Perpetuity Hall  
862-5038, andy.glode@unh.edu  
Karrie Myer, Chemical Inventory Coordinator  
Office of Environmental Health & Safety  
Perpetuity Hall  
862-1510, karrie.meyer@unh.edu |
| Hazardous waste      | Marty McCrone, Hazardous Waste Manager  
Office of Environmental Health & Safety  
Perpetuity Hall  
862-3526, marty.mccrone@unh.edu |
| Occupational Safety  | Brian Cournoyer, Occupational Health & Safety Manager  
Perpetuity Hall  
862-4761, brian.cournoyer@unh.edu |
| Radioactive materials, lasers, NMR, and X-ray | Michele Arista, Radiation Safety Officer  
Office of Environmental Health & Safety  
Perpetuity Hall  
862-3607, michele.arista@unh.edu |
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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 http://unh.edu/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: | Maria Emanuel, Associate Director UNHInnovation, 21 Madbury Rd, Ste 101 603/862-4377, maria.emanuel@unh.edu |

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, 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, 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 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.
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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 including:

- Use of Human Subjects
- Use of Animal Subjects
- Peer Review
- Hazardous Materials
- Collaborative Research
- Intellectual Property
- Misconduct in Scholarly Activity
- Data Management
- Conflicts of Interest & Commitment
- Authorship & Publication
- Mentoring

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.

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.