



## Animal Care and Use Program Policy

### Occupational Health Surveillance for Personnel with Animal Exposure and/or Entering Vivarium

<b>Objective:</b>	To outline the components of Occupational Health Surveillance for individuals with animal exposure and/or entering the Vivarium at UNC Charlotte.
<b>Author:</b>	Chandra D. Williams, DVM, DACLAM
<b>Approved:</b>	08/26/2013; Administrative change 04/24/2014; 04/25/2016
<b>Version:</b>	1.1

#### I. Purpose

The purpose of a program of occupational health surveillance for personnel with laboratory animal exposure and/or for personnel entering a laboratory animal housing facility or laboratory where animals might be taken for experimental procedures is to minimize health and safety risks of the program to an acceptable level. The details provided herein serve as the written Policy of the UNC Charlotte Animal Care and Use Program for occupational risk reduction for those using or having direct or indirect exposure to animals in research/teaching or as a result of their specific job duties.

To provide the Occupational Health Surveillance Program for UNC Charlotte's Animal Care and Use Program, the Office of Research Compliance will contract a healthcare provider to administer the Program. UNC Charlotte staff, faculty and students as defined later in Appendix B of this Policy and anyone listed on UNC Charlotte Institutional Animal Care and Use Committee (IACUC)-approved protocols will be subject to this policy for enrollment in the Occupational Health Surveillance Program.

#### II. Scope

Both research and non-research animals have the potential to cause injury, transmit zoonotic diseases, and/or cause allergic reactions to persons coming in contact with or working in close proximity to them, i.e., working directly with animals or working in/passing through an animal housing facility or room.

Persons who have these types of exposures should be provided appropriate awareness training so that they understand routes of disease transmission and the signs and symptoms of disease or allergy. Training should also include information on appropriate personal protective equipment (PPE), safe waste handling, and what to do/who to contact in case of an emergency.

Personnel included are those involved in the direct care of vertebrate animals and their living quarters (e.g., animal care technicians, attending and back-up veterinarians, and animal housing

management staff) as well as individuals who may have indirect contact with animals, but direct contact with viable animal tissues, body fluids or wastes. The scope of this program is intended to address High Risk Levels to Very Low Risk Levels for several groups of people with varying frequency and intensity of exposure.

- **See Appendix A** at the end of this Policy for specific details on Exposure Risks by Species based on species at UNC Charlotte as of the date of this Policy.
- **See Appendix B** at the end of this Policy for specific details of Medical Surveillance Requirements Based on Frequency and Intensity of Exposure to Lab Animals at UNC Charlotte.

### III. Initial Enrollment

All Faculty, laboratory and/or technical staff, students and UNC Charlotte employees with animal exposure as defined in **Appendix B** are subject to this policy for enrollment in the Occupational Health Surveillance Program (OHSP). Initial enrollment is achieved by completing and submitting the Basic Health History Form which is accessible through the Office of Research Compliance website at: <http://research.uncc.edu/compliance-ethics/animal-care-use>.

### IV. Updating Information: Annually and As-Needed

Health history must be updated annually or updated immediately if there is a significant change in health that could pose additional risks for the person enrolled. These forms are accessible through the [Office of Research Compliance](#) website.

If at any time an individual experiences a change in his/her health status or change in his/her level of animal exposure (i.e. allergies, pregnancy, immunocompromised, chronic medical illness, etc.) he/she is required to inform the university occupational health care professional.

### V. Special Enrollment Considerations

Facilities Maintenance (FM), Physical Plant and Housekeeping Staff whose work-related duties may require them to enter any part of the Vivarium may volunteer to be assigned to the facility on a permanent non-rotating basis. The Office of Research Compliance will work with Human Resources and the supervisors of these volunteers on initial training, OHSP enrollment and updates as required by this Policy.

Members of the IACUC not otherwise subject to exposure to research animals as defined in Appendix B, Visitors to the Vivarium, Observers, Campus Police, Vendors/External Contractors and Guests will NOT be required to enroll in the OHSP due to their infrequent access to the animal housing facility and their low exposure (i.e., typically no direct animal contact). Access to the Vivarium will be provided on an As-Needed Basis only. All Visitor requirements apply such as signing the Visitor Log prior to entering the Vivarium. The Visitor Log includes a Risk Exposure Statement for review prior to entering the Vivarium.

### VI. Risk Assessment and Medical Surveillance Requirements

Risk Assessments by an Occupational Health Medical Professional will be performed for each person enrolled in the OHSP. The assessment will be based on the pre-contact Basic Health History Form to evaluate the physical risks, work processes and hazardous materials related to the work and the environment in which the work is being conducted.

The medical health surveillance will also include provisions for any required immunizations (e.g., Tetanus prophylaxis). Additional occupational exposures to hazardous materials (i.e. carcinogens, highly toxic chemicals) may necessitate additional medical surveillance requirements.

**See Appendix B** at the end of this Policy for specific details of Medical Surveillance Requirements Based on Frequency and Intensity of Exposure to Lab Animals at UNC Charlotte.

#### **VII. Clearance Notification to Vivarium**

Following completion of the Risk Assessment based on review of health history, planned work and exposure and Physical Examination (if deemed medically necessary), a “Fit for Duty” Clearance notice will be sent to the enrollee(s) and their PI/supervisor as well as the Director of the Laboratory Animal Resources, and the Office of Research Compliance. The notification forms will indicate species clearance, immunization recommendations (e.g., Tetanus prophylaxis), additional medical evaluation timelines and any work restrictions (if applicable).

#### **VIII. Training**

UNC Charlotte staff, faculty and students as defined in Appendix B of this Policy and anyone listed on UNC Charlotte Institutional Animal Care and Use Committee (IACUC)-approved protocols and subject to this policy for enrollment in the Occupational Health Surveillance Program must complete IACUC-required Orientation to Animal Research at UNC Charlotte presented by the Director of Laboratory Animal Resources or designee.

Additional training may be required or recommended for specific risk factors or conditions specific to job tasks as deemed necessary by the medical healthcare professional. Other training resources include but are not limited to:

- CITI Training
- Biosafety Training
- Hazardous Waste Training
- General Lab Safety and Chemical Safety Training
- Radiation Safety Training
- Zoonoses Training

#### **IX. Principal Investigator Responsibilities**

Principal Investigators should always assess health and safety risks in their labs or associated with their own research projects and implement appropriate practices, equipment and training to minimize risks. At the beginning of each semester, the Institutional Official sends all faculty and staff involved in the Animal Care and Use Program and enrolled in the Occupational Health Surveillance Program an official Zoonoses Notice about occupational health risks associated with animal research. The Notice is intended to be used by PIs and supervisors to assist them in their discussions with their staff and/or lab personnel about occupational health risks associated with animal research. The Notice consists of 1) the memo from the Institutional Official, 2) a matrix showing exposure risk by species based on the species being worked with at the University (e.g.,

Appendix A of this Policy) and 3) an Acknowledgement page which is to be signed by individuals and kept on file by the PI or supervisor.

**See Appendix C** at the end of this Policy for an example of the Zoonoses Notice.

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**References:**

*Guide for the Care and Use of Laboratory Animals*

*Biosafety in Microbial and Biomedical Laboratories*

*Public Health Service Policy on the Humane Care and Use of Laboratory Animals*

*Occupational Health and Safety in the Care and Use of Research Animals*

*Potential Hazards Associated with Animal Use (University Email, 082012)*



## Animal Care and Use Program Policy

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#### APPENDIX A

<b>EXPOSURE RISKS BY SPECIES</b>			
<b>SPECIES</b>	<b>MOUSE RAT HAMSTER</b>	<b>RABBIT</b>	<b>AMPHIBIAN</b>
<b>Immune</b>	Allergy Hair Dander Feed dust Bedding Urine	Allergy Hair Dander Feed dust Bedding	
<b>Infectious</b>	Rat bite fever Salmonella Campylobacter jejuni E. Coli Shigella	Listeria Pastuerella Salmonella Campylobacter jejuni E. Coli Shigella Ringworm	Salmonella Leptospirosis Cryptosporidosis
<b>Physical</b>	Bites Scratches	Bites Scratches Bruises	Scratches Rashes Skin irritation Envenomation



## Animal Care and Use Program Policy

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#### APPENDIX B

MEDICAL SURVEILLANCE REQUIREMENTS BASED ON FREQUENCY AND INTENSITY OF EXPOSURE TO LAB ANIMALS AT UNC CHARLOTTE				
RISK LEVEL	HIGH	MOD-HIGH	LOW	VERY LOW
PERSONNEL and/or SPECIAL GROUPS	Animal Care Technicians <hr/> Vivarium Staff <hr/> Attending Veterinarian <hr/> Back-up Attending Veterinarian	Principal Investigators <hr/> Project Staff <hr/> Lab Staff <hr/> EH&S <hr/> Facilities Mgmt Zone 1 Personnel*	Physical Plant* <hr/> Housekeeping* <hr/> * For personnel assigned to the Vivarium	IACUC Members** <hr/> Visitors <hr/> Observers <hr/> Campus Police <hr/> Vendors <hr/> Guests
FREQUENCY & INTENSITY OF EXPOSURE	Daily <hr/> Direct Contact	> 8 Hrs per Week <hr/> Direct Contact Anticipated	< 8 Hrs per Week <hr/> No Direct Contact	Infrequent <hr/> No Direct Contact
LEVEL OF VIVARIUM ACCESS	• ACCESS TO ALL AREAS in the Vivarium including Restricted Areas such as Biohazard Rooms, Radiation Areas and Cage Wash Room	• ACCESS TO ALL AREAS in the Vivarium including Restricted Areas such as Biohazard Rooms, Radiation Areas and Cage Wash Room	• ACCESS ON NEED-ONLY BASIS in the Vivarium such as: Animal Rooms, Biohazard & Radiation Rooms, and Cage Wash Room	• ACCESS ON NEED-ONLY BASIS in the Vivarium such as: Animal Rooms, Biohazard & Radiation Rooms, and Cage Wash Room
OCC HEALTH-MEDICAL SURVEILLANCE REQUIREMENTS	• Pre-contact Medical History Assessment AND physical exam (Required Annually) • Risk Disclosure • Current Tetanus vaccine/booster • Annual Health Status Updates Required • Animal handler training	• Pre-contact Medical History Assessment AND physical exam (Based on Medical Assessment) • Risk Disclosure • Current Tetanus vaccine/booster • Annual Health Status Updates Required • Animal handler training	• Pre-contact Medical History Assessment AND physical exam (Based on Medical Assessment) • Risk Disclosure • Current Tetanus vaccine/booster • Annual Health Status Updates Required	• Risk Disclosure No requirement to participate in the Occ Health Program NOTE: All visitor requirements apply, such as Visitor Log Sign-In

\* In addition to the medical healthcare provider's evaluation of medical history and risk assessment, OHSP enrollment for these employees will be based on assigned duties and the increase potential for higher exposure and risk.

\*\* Pertains to members of the IACUC not otherwise subject to exposure to research animals as defined in this matrix (i.e. members who do not conduct animal research or frequently visit the Vivarium).



## Animal Care and Use Program Policy

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#### APPENDIX C

**DATE:** January 2016

**TO:** Faculty and staff who use animals in teaching or research

**FROM:** Robert G. Wilhelm, Ph.D. – Institutional Official

**RE:** **Potential hazards associated with animal use**

Although infrequent, the risk of infection and other hazards between research animals and humans does exist and must be recognized in order to avoid exposure. It is the responsibility of faculty and investigators who use animals in research or teaching to ensure that students are aware of potential hazards associated with using animals.

The purpose of this memo is to remind you to advise your students, in writing, of potential hazards such as:

#### **Zoonotic Disease**

Unless experimentally infected with a zoonotic agent (disease transmissible to man and animal), research animals generally carry a limited number of microorganisms of concern to animal users. This is mainly due to the existence of preventive medicine programs and the frequent use of specific pathogen free animals in research projects.

#### **Bites and Scratches**

The most obvious risk comes from bites and scratches, and students who might be bitten or scratched should know about the risk of tetanus (lockjaw) and should have had a tetanus booster within the last ten (10) years. Such boosters are available through the Student Health Center **at no cost if enrolled in the Occupational Health Program**. Please contact the Office of Research Compliance at (704) 687-1872 or via email at [uncc-iacuc@uncc.edu](mailto:uncc-iacuc@uncc.edu) to obtain referral information and documentation.

#### **Allergens**

There is considerable risk from exposure to allergens, particularly rodent urinary proteins carried on the dander. Reactions to these allergens can be particularly severe. Contact the Office of Research Compliance at (704) 687-1872 to obtain the Occupational Physician's direct phone number OR in emergency situations, go to the nearest urgent care facility for immediate assistance.

#### **Rabies**

If your students are working with unconditioned animals or animals in the wild, they could be at risk from rabies and might want to investigate a pre-exposure rabies vaccination.

#### **Special Risks for Pregnant Women**

Pregnant women can work in animal facilities but certain tasks may present a hazard to the unborn fetus, such as bites or acquired allergies. Women who become pregnant should notify their instructor/supervisor as well as the Occupational Physician, Dr. Lawrence Raymond via a Health Status Change form. As a courtesy, they should also inform the obstetrician or other health professional assisting in managing the pregnancy. Please contact the Office of Research Compliance to obtain this form at (704) 687-1872 or at [uncc-iacuc@uncc.edu](mailto:uncc-iacuc@uncc.edu)

**Working with Reptiles, Amphibians and Birds**

Persons working with reptiles and amphibians should take precautions to avoid contamination by *Salmonella* species. Personal hygiene is especially important when working in this environment, and particular care should be taken to avoid ingestion of *Salmonella* organisms by mouth. Persons handling birds could also be exposed to a number of avian pathogens.

**Exposure Risks and Occupational Health Medical Surveillance**

Depending on the species being handled and the intensity/frequency of exposure, you and your laboratory staff and students may also be subject to enrollment in the Occupational Health Program as stipulated in the Animal Care and Use Program’s Occupational Health Medical Surveillance Policy at: ([http://research.uncc.edu/sites/research.uncc.edu/files/media/Occupational Health Medical Surveillance Policy approved 08.26.2013.pdf](http://research.uncc.edu/sites/research.uncc.edu/files/media/Occupational%20Health%20Medical%20Surveillance%20Policy%20approved%2008.26.2013.pdf)). Use the species exposure risk matrix below to help determine whether Occupational Health Program enrollment is warranted for you and/or your laboratory personnel/students.

You should carefully review any potential risks associated with your use of animals in the laboratory or classroom and advise your students of these risks at the beginning of each semester. The attached form may be helpful to you in doing so. In classroom work, you might want to distribute such advice as part of your syllabus.

If you have questions or concerns about these or other risks, I encourage you to discuss the matter with the University’s Attending Veterinarian, Dr. Chandra Williams (704-687-5017 or 336-301-0431 or via email at [cwill297@uncc.edu](mailto:cwill297@uncc.edu)). You can also contact the Office of Research Compliance at (704) 687-1872 to obtain the Occupational Physician’s direct phone number or seek other medical advice.

Best wishes for a productive year.

Robert G. Wilhelm, Ph. D.  
Vice Chancellor for Research and Economic Development  
Executive Director, Charlotte Research Institute  
Professor of Mechanical Engineering and Engineering Science

**EXPOSURE RISKS BY SPECIES**



SPECIES	MOUSE RAT HAMSTER	RABBIT	AMPHIBIAN
<b>Immune</b>	Allergy Hair Dander Feed dust Bedding Urine	Allergy Hair Dander Feed dust Bedding	
<b>Infectious</b>	Rat bite fever Salmonella Campylobacter jejuni E. Coli Shigella	Listeria Pastuerella Salmonella Campylobacter jejuni E. Coli Shigella Ringworm	Salmonella Leptospirosis Cryptosporidosis
<b>Physical</b>	Bites Scratches	Bites Scratches Bruises	Scratches Rashes Skin irritation Envenomation

FOR REPRODUCTION AS NEEDED



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## Risks Associated with the Handling and Use of Animals In Research and Learning Environments

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There are several risks associated with the handling and use of animals in research and learning environments:

### **Bites and Scratches**

The most obvious risk comes from bites and scratches, and student who might be bitten or scratched should know about the risk of tetanus (lockjaw) and should have had a tetanus booster within the last ten (10) years. Tetanus boosters are available through the Student Health Center at no cost for enrollees in the Occupational Health Program. To obtain tetanus vaccination, please contact the Office of Research Compliance at [uncc-iacuc@uncc.edu](mailto:uncc-iacuc@uncc.edu) or at (704) 687-1872 for referral information and documentation.

### **Allergens**

There is considerable risk from exposure to allergens, particularly rodent urinary proteins carried on the dander. Reactions to these allergens can be particularly severe.

### **Rabies**

If your students are working with unconditioned animals or animals in the wild, they could be at risk from rabies and might want to investigate a pre-exposure rabies vaccination.

### **Special Risks for Pregnant Women**

Pregnant women can work in animal facilities but certain tasks may present a hazard to the unborn fetus. Women who become pregnant should notify their instructor/supervisor as well as the Occupational Health Physician, Dr. Lawrence Raymond via a Health Status Change form. Please contact the Office of Research Compliance to obtain this form at (704) 687-1872 or at [uncc-iacuc@uncc.edu](mailto:uncc-iacuc@uncc.edu)

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Persons working with reptiles and amphibians should take precautions to avoid contamination by *Salmonella* species. Personal hygiene is especially important when working in this environment, and particular care should be taken to avoid ingestion of *Salmonella* organisms by mouth. Persons handling birds could also be exposed to a number of avian pathogens.

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I have read and understand the foregoing information about risks associated with handling animals and any questions I have had have been answered to my satisfaction.

\_\_\_\_\_  
STUDENT'S NAME (PLEASE PRINT)

\_\_\_\_\_  
STUDENT'S SIGNATURE

\_\_\_\_\_  
DATE

~TO BE RETURNED TO, AND RETAINED BY, FACULTY MEMBER~

NOTE TO FACULTY MEMBER – KEEP COPIES OF SIGNED FORMS IN OFFICE OR LAB FOR REVIEW BY THE IACUC