

## University of Mary Washington

### Animal Welfare Assurance for Domestic Institutions

I, Tim O'Donnell as named Institutional Official for animal care and use at University of Mary Washington, provide assurance that this Institution will comply with the Public Health Service (PHS), the PHS, NSF, and/or NASA Policy on Humane Care and Use of Laboratory Animals (Policy).

#### I. Applicability of Assurance

This Assurance applies whenever this Institution conducts the following activities: all research, research training, experimentation, biological testing, and related activities involving live vertebrate animals supported by the PHS, NSF, and/or NASA. This Assurance covers only those facilities and components listed below.

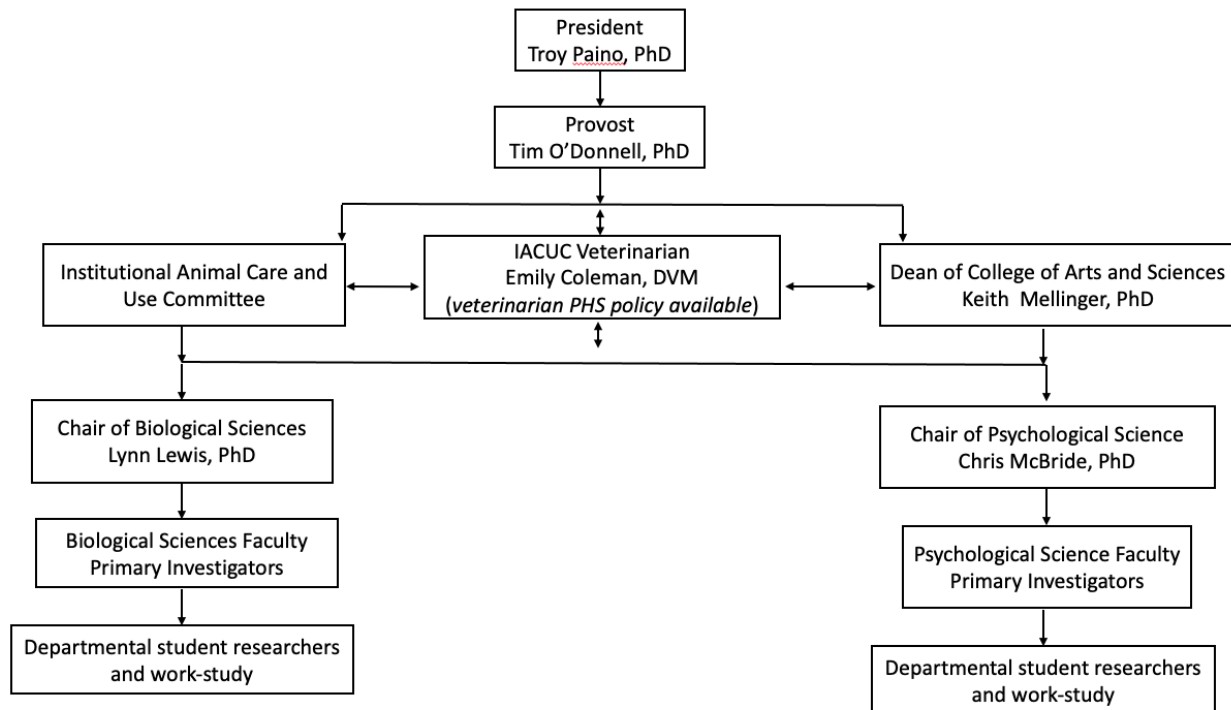
- A. The following are branches and components over which this Institution has legal authority, included are those that operate under a different name:  
University of Mary Washington, Fredericksburg, VA
- B. The following are other institution(s), or branches and components of another institution:

#### II. Institutional Commitment

- A. This Institution will comply with all applicable provisions of the Animal Welfare Act and other Federal statutes and regulations relating to animals.
- B. This Institution is guided by the "U.S. Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research, and Training."
- C. This Institution acknowledges and accepts responsibility for the care and use of animals involved in activities covered by this Assurance. As partial fulfillment of this responsibility, this Institution will ensure that all individuals involved in the care and use of laboratory animals understand their individual and collective responsibilities for compliance with this Assurance, and other applicable laws and regulations pertaining to animal care and use.
- D. This Institution has established and will maintain a program for activities involving animals according to the *Guide for the Care and Use of Laboratory Animals* (Guide).
- E. This Institution agrees to ensure that all performance sites engaged in activities involving live vertebrate animals under consortium (subaward) or subcontract agreements have an Animal Welfare Assurance and that the activities have Institutional Animal Care and Use Committee (IACUC) approval.

### III. Institutional Program for Animal Care and Use

- A. The lines of authority and responsibility for administering the program and ensuring compliance with the PHS Policy are as follows:



- B. The qualifications, authority, and percent of time contributed by the veterinarian(s) who will participate in the program are as follows:

1) Name: Emily Coleman, DVM

Qualifications

- Degrees: 2009 - DVM Virginia-Maryland Regional College of Veterinary Medicine, Virginia Polytechnic University
- Training or experience in laboratory animal medicine or in the use of the species at the institution: Dr Coleman has over 10 years of experience with small animal medicine, and while her training does not include specific laboratory animal experience, she is in contact with her mentor at NIH who has extensive training with lab animals.

Authority: Dr.Emily Coleman has *direct* program authority and responsibility for the Institution's animal care and use program including access to all animals.

Responsible individual: Parrish Waters, PhD

Time contributed to program:

Dr. Coleman is at UMW campus approximately 2 hours every six months and can be reached for consultation if the need arises.

2) Name: Phoebe Frye, DVM

Qualifications

- Degrees: 2021 - DVM St. George's University, True Blue, St. George
- Training or experience in laboratory animal medicine or in the use of the species at the institution: Dr Frye is a veterinarian practicing at the VCA Emergency Animal Hospital in Williamsburg, VA

Responsibility: If our primary veterinarian, Emily Coleman DVM, is unable to perform her duties, Phoebe Frye DVM will be provided with program responsibility for the Institution's animal care and use program including access to all animals.

Responsible individual: Parrish Waters, PhD

Time contributed to program:

If Dr. Frye's assistance is required, she will be at UMW campus approximately 2 hours every six months and can be reached for consultation if the need arises.

C. The IACUC at this Institution is properly appointed according to PHS Policy IV.A.3.a. and is qualified through the experience and expertise of its members to oversee the Institution's animal care and use program and facilities. The IACUC consists of at least 5 members, and its membership meets the composition requirements of PHS Policy IV.A.3.b. Attached is a list of the chairperson and members of the IACUC and their names, degrees, profession, titles or specialties, and institutional affiliations.

D. The IACUC will:

1) Review at least once every 6 months the Institution's program for humane care and use of animals, using the *Guide* as a basis for evaluation. The IACUC procedures for conducting semiannual program reviews are as follows:

At least once every six months, the UMW IACUC will meet in person at the University of Mary Washington campus in Fredericksburg, VA to review our procedures involving vertebrates; all members of the committee are invited. We will use 'the Guide' and other resources such as the Code of Federal Regulations on Animal Welfare to inform our review. We will use the Checklist provided by the OLAW website to perform this review of UMW's PHS assurance at this meeting.

We will categorize any deficiencies in our program as minor or significant and report the appropriate authority (see Part III.D.7).

2) Inspect at least once every 6 months all of the Institution's animal facilities, including satellite facilities and animal surgical sites, using the *Guide* as a basis for evaluation. The IACUC procedures for conducting semiannual facility inspections are as follows:

At least once every six months, the UMW IACUC will meet in person at the University of Mary Washington campus in Fredericksburg, VA to inspect our facilities; all members of the committee are invited. We will use the Checklist provided at the OLAW website to perform this inspection. All present members tour our three vivariums (306 Jepson Science Center (aquatic), 406 Jepson Science Center (mouse), and 113 Mercer Hall (rats) using a prepared checklist. These include holding areas, animal care areas, and any procedure spaces that involve live animals. We will use the Guide and PHS Policy guidelines to instruct this inspection. We will categorize any deficiencies we observe as minor or significant and report them to the appropriate authority. We will also report the deficiencies to the director of the respective space and instruct them on addressing the issue.

The members of the committee will present evaluations of reports to the IACUC chair (Dr. Parrish Waters), who will draft a semiannual report based on the OLAW semiannual report, to be shared on a secure institutional drive. This drive is available to the IO.

This report will describe our semiannual review, and the institution's adherence to the Guide and PHS policies. The report will state any deficiencies noticed during our inspection, the nature and reasons for these departures, as well as plans for correcting any deficiencies. If there are no departures the report will say so. The IACUC chair will also report any deficiencies to the director of each facility and follow up with this individual to ensure corrections are made in a timely manner.

3) Prepare reports of the IACUC evaluations according to PHS Policy IV.B.3. and submit the reports to the Institutional Official. The IACUC procedures for developing reports and submitting them to the Institutional Official are as follows:

The members of the committee will present evaluations of reports to the IACUC chair (Dr. Parrish Waters), who will draft a semiannual report based on the OLAW semiannual report, to be shared on a secure institutional drive. This drive is available to the IO. This report will describe our semiannual review, and the institution's adherence to the Guide and PHS policies.

The report will state any deficiencies noted during our inspection, distinguishing minor from major instances using guidelines in PHS Policy on Humane Care and Use of Laboratory Animals. The report also includes and identifies any facilities that are accredited by AAALAC or other accrediting body recognized by the PHS. The report will also include an achievable plan and timetable for deficiency correction and be signed by a majority of the IACUC members.

The IACUC chair will also report any deficiencies to the director of each facility and follow up with this individual to ensure corrections are made in keeping with the original plan and timetable.

All protocols will be reviewed by all members of the committee and approved or returned for review to the authors with comments. All committee members will be directed to the policies of PHS and the Guide for guidance. Any departures from PHS policy will be included in this report as well as an explanation of the reason for the departure.

Finally, the committee will include all opinions of members of the committee should minority opinions remain after final decisions. The report will be signed by a majority of the IACUC members

- 4) Review concerns involving the care and use of animals at the Institution. The IACUC procedures for reviewing concerns are as follows:

Responsibility for review and investigation of animal welfare concerns will rest with the IO and the IACUC. Responses to such reports are documented and include communication of findings to the concerned parties (when the identity is known) and any corrective actions taken. The mechanisms for reporting concerns are posted on the outermost (publicly accessible) door of each animal facility and on the institution's website. Consistent with general college policies, the reporting process includes a mechanism for anonymity, compliance with whistleblower policies, nondiscrimination against the reporting party, and protection from reprisals. Individuals can anonymously report concerns using a QR code posted in plain view on the entrance to each animal facility that links to a form using Qualtrics. This information is conveyed directly to the IO and the IACUC chair. Current members of the IACUC committee are published on the UMW Provost's public website. Reported concerns or observations (anonymous or otherwise) are shared with the full IACUC committee. All reported concerns are discussed, investigated, and resolved as necessary. Reports to OLAW are prepared in writing by the IO.

- 5) Make written recommendations to the Institutional Official regarding any aspect of the Institution's animal program, facilities, or personnel training. The procedures for making recommendations to the Institutional Official are as follows:

The IACUC will develop and discuss recommendations to the IO as necessary. These recommendations will be included in the meeting minutes.

- 6) Review and approve, require modifications in (to secure approval), or withhold approval of PHS-supported activities related to the care and use of animals according to PHS Policy IV.C.1-3. The IACUC procedures for protocol review are as follows:

Protocols for work overseen by IACUC are submitted to the IACUC chair electronically and are shared with all IACUC members. Full Committee Review (FCR) occurs at a convened

meeting of a quorum with a majority vote needed to: approve, require modifications to secure approval, or withhold approval (meetings will comply with NIH Notice NOT-OD-06-052). All submission will be reviewed only at FCR meetings with a quorum of members present. After discussion of all members, the IACUC chair will prepare a report to be approved only by the full IACUC, and upon approval, contact applicants who require modification or are denied, in writing explaining the reasons for its decision and give the investigator an opportunity to respond. Modified proposals are circulated to the entire committee, reviewed only by FCR, and require a majority vote to be approved.

No committee member may participate in the IACUC review or approval of a research project in which the member has a conflicting interest. Rather, members in conflict will be required to leave the FCR meeting during the discussion and vote on their protocol and during any subsequent considerations of it. If the loss of a committee member due to a conflicting of interest compromises a quorum, the meeting will be postponed until such time as a quorum can be achieved without the conflicted member

The IACUC will conduct annual reviews of continuing protocols, and a complete review at three-year intervals in accordance with IV.C.1.-4. If the quorum of IACUC members determines that an approved protocol deviates from the proposed activity, it may suspend the approval, following a suspension vote of a majority of the quorum. In this case, the IO and IACUC will review the reasons for suspension and take appropriate corrective action. These actions will be reported to OLAW.

- 7) Review and approve, require modifications in (to secure approval), or withhold approval of proposed significant changes regarding the use of animals in ongoing activities according to PHS Policy IV.C. The IACUC procedures for reviewing proposed significant changes in ongoing research projects are as follows:

Review of significant changes will proceed as with new protocols (Paragraph III.D.6).

Significant changes are defined as changes:

- a. from nonsurvival to survival surgery;
- b. resulting in greater pain, distress, or degree of invasiveness;
- c. in housing and or use of animals in a location that is not part of the animal program overseen by the IACUC;
- d. in species;
- e. in study objectives;
- f. in Principal Investigator (PI);
- g. that impact personnel safety;
- h. changes in number of subject;
- i. anesthesia, analgesia, sedation, or experimental substances

Specific significant changes will be handled administratively according to IACUC-reviewed and -approved policies in consultation with the veterinarian authorized by the IACUC. Veterinary Verification Consultation can only be used to verify proposed significant changes to previously approved proposals that are listed in our IACUC approved policies list. These include changes in:

- a. euthanasia to any method approved in the AVMA Guidelines for the Euthanasia of Animals; and
- b. duration, frequency, type, or number of procedures performed on an animal.

The policies that are approved for VVC are listed on our VVC document that has been approved by our IACUC committee and are available to any member of IACUC. This document will be reviewed at least every three years. The VVC document also indicates that any veterinarian member of the IACUC can approve changes to these parameters through VVC. Any changes approved by VVC will be documented in the amended animal use protocol. The veterinarian may also refer any request to the IACUC for FCR for any

reason and will refer any request that does not meet the parameters of the IACUC-reviewed and -approved policies.

- 8) Notify investigators and the Institution in writing of its decision to approve or withhold approval of those activities related to the care and use of animals, or of modifications required to secure IACUC approval according to PHS Policy IV.C.4. The IACUC procedures to notify investigators and the Institution of its decisions regarding protocol review are as follows:

Investigators are notified of the committee's decision by an e-mail from the IACUC chair, that will include the decision and a description of the modifications required to secure approval (if appropriate). If approval is withheld, the correspondence will include a statement outlining the reasons for its decision. The investigator will have the opportunity to respond in person or in writing. The Institutional Official is notified by receiving a copy of this email.

- 9) Conduct continuing review of each previously approved, ongoing activity covered by PHS Policy at appropriate intervals as determined by the IACUC, including a complete review at least once every 3 years according to PHS Policy IV.C.1.-5. The IACUC procedures for conducting continuing reviews are as follows:

Investigators and their trained research students are charged with daily monitoring of animals to ensure proper care and compliance with IACUC approval. Additional ongoing monitoring includes daily observation of animals by trained animal care personnel and communication to the veterinarian of any irregularities. Facility monitoring occurs through maintenance personnel. Postoperative care is the responsibility of investigators and their trained personnel. All members of this multilayered team will be encouraged to report any concerns involving animal care or occupational health and safety to any IACUC member.

IACUC members review protocols and inspect facilities semiannually and discuss as a quorum. Any project that extends beyond 3 years will be rereviewed by the full IACUC committee as outlined in Paragraph III.D.6. The three year complete review is conducted prior to the expiration date of each protocol by the full committee.

- 10) Be authorized to suspend an activity involving animals according to PHS Policy IV.C.6. The IACUC procedures for suspending an ongoing activity are as follows:

Deviations from policies of OLAW, AWA, PHS, or as outlined in the Guide will result in suspension of activity. The IACUC will suspend an activity only after review of the matter at a convened meeting of a quorum of its members and with the suspension vote of a majority of the quorum present. The IO in consultation with the IACUC shall review the reason for suspension, take appropriate corrective action, and report that action with a full explanation to OLAW in accordance with NOT-OD-05-034.

- E. The risk-based occupational health and safety program for personnel working in laboratory animal facilities and personnel who have frequent contact with animals is as follows:

All personnel who experience frequent or substantial contact with animals will require a health check to ensure that they are free from allergies, illnesses, disabilities, or other health conditions that may interfere with their duties or otherwise result in harm to themselves or the animal subject before beginning any work with animals at UMW facilities commences. We offer this health screen through the UMW health clinic, lead by Nancy Wang, MD. Individuals will have the option to obtain a health screen through their personal physician and have the results of the health screen forwarded to be checked by the UMW health clinic. Dr. Nancy Wang will take charge of these reports and send the results of the health screen to the IACUC chair, revealing only necessary information that is consistent with HIPPA expectations. In addition to this health screen, we have made standard PPE – gloves, clean labcoats, N95 masks, goggles available to all employees in each animal facility. We also post information on the dangers of working with relevant species in each animal facility as appropriate.

Any accidents related to the care of animals will be reported according to UMW guidelines (<https://students.umw.edu/safety/>).

- *Control and prevention strategies:* Included in this category are the installation of puncture-resistant and leakproof containers for sharps at critical locations in the facilities. Training in the handling and disposal of sharps safely and the proper use of bite-resistant gloves and other personal protective devices (see below).
- *Hazard identification and risk assessment:* Besides being wounded with sharp objects or small animal bites we have assessed that the major risk to animal care personnel is animal exposure including the following factors: exposure intensity, exposure frequency, animal hazards, material hazards (reagents), and susceptibility. Each of these factors has been used to inform our control, prevention, personnel training and personal hygiene strategies. All individuals experiencing frequent or significant exposure to laboratory animals will also be provided information informing about the precautions that should be taken to minimize personal harm or harm to laboratory animals, including special precautions to be taken by individuals who are or may become pregnant, who are immunocompromised, or who are otherwise ill. We have also signage posted in all facilities to inform housekeeping, students, security and all other individuals on that basic precautions that should be taken to avoid or address injuries or other concerns.
- *Facilities, equipment, and monitoring:* The modest animal care facilities are nevertheless configured to maximize safety. Heavy equipment items, such as large cage washers, are lacking but trip hazard, stick and cut hazards (etc.) have been considered and mitigated. Gas cannisters are all properly anchored to walls or benches and other high-pressure sources are lacking. Our facilities are monitored by a dedicated physical plant department and the local fire marshal regularly inspects the facility. Finally, the annual IACUC inspection visits all parts of the animal facilities noting any unsafe conditions.
- *Personnel training:* Task specific safety training is the purview of each principal investigator. This would include handling animals, the proper use and disposal of sharps and the disposal of animal biohazards (animal waste). Minor first aid, emergency notification and fume hood storage of flammable chemicals are also covered. In addition, general laboratory safety training is part of science teaching labs dealing with matters such as the proper wearing of PPE, location and use of fire extinguishers etc.
- *Personal hygiene:* All personnel are required to wear PPE while working in the animal facility including eye protection, particle mask, and lab coat. Bite resistant gloves or disposable nitrile gloves may be used depending on task. Open-toed shoes are not permitted in the animal facilities. Hand washing stations are readily available, and personnel are required to wash their hands upon entering and leaving the facility. Personnel are required to wash their hands before and after handling animals and whenever protective gloves are removed. Prohibited are eating, drinking, smoking, application of cosmetics, or other activities that can increase the risk of ingesting hazardous materials or contaminating mucous membranes in animal care and animal use areas.
- *Animal experimentation involving hazards:* This topic is not relevant to our institution because we do not (and shall not in the future) allow experimentation involving biohazards (eg. infectious pathogens). Standard hazards such as trip/falls, sharps accidents, and animal bites are dealt with elsewhere in this section.
- *Personal protection:* As noted above, animal facility personnel are required to wear eye protection, a lab coat, gloves (nitrile or bite resistant depending on their task) and closed-toe shoes while in the facilities.
- *Medical evaluation and preventive medicine for personnel (including immunizations, vaccinations, and procedures for reporting and treating bites, scratches, and injuries.):* Animal facility personnel will be required to be up-to-date on standard immunizations including tetanus. First aid kits are available in the facility and minor bites and scratches will be attended to on sight. More serious injuries will be referred to the student clinic or

Mary Washington Hospital emergency dept (0.3 miles from campus). In the event of potentially life threatening injuries 911 will be called.

- *Where appropriate, describe special precautions for personnel working with nonhuman primates (e.g., tuberculosis screening, training and procedures for bites and scratches, and education regarding Macacine herpesvirus 1, formerly Cercopithecine herpesvirus 1 (Herpes B)). [Note: do not reference or send attachments.]:* This topic is not relevant to our institution because we do not (and shall not in the future) house or utilize nonhuman primates or their tissues in research.

- [The context is an important element in considering our institution's occupational health and safety program. As noted elsewhere in this document, ours is a small liberal arts college whose very modest animal research enterprise serves our undergraduate teaching enterprise. Importantly, students who volunteer (or are working part-time) along with their faculty mentors are responsible for animal husbandry and research use. The methods and reagents utilized for student/faculty research are almost exclusively benign. And the one-on-one training and supervision of the students ("animal care personnel") are rigorous and continuous.]

- F. The total gross number of square feet in each animal facility (including each satellite facility), the species of animals housed there and the average daily inventory of animals, by species, in each facility is provided in the attached Facility and Species Inventory table.
- G. The training or instruction available to scientists, animal technicians, and other personnel involved in animal care, treatment, or use is as follows:  
This group will have free access to the following the documents:
  1. PHS Policy for the Humane Care and Use of Laboratory Animals
  2. The National Research Council (NRC) Guide for the Care and Use of Laboratory Animals
  3. A copy of the ARENA/OLAW IACUC Guidebook
  4. A copy of this Assurance.

Members of the IACUC will complete the Essentials for IACUC Members Curriculum located at the Collaborative Institutional Training Initiative website, [www.citiprogram.org](http://www.citiprogram.org). Continuing education will be available; IACUC members will complete CE/refresher training at least once every three years. New members also receive orientation to the program by the Chair at committee assignment, to include program orientation, sharing of documentation listed above, discussion and questions from the new member and ensuring that the new member understands and completes the CITI program training.

Anyone working with vertebrate animals will be required to complete training appropriate to their responsibilities and animal model. This training will be the joint responsibility of the animal care and use community (PIs and peers will participate) but will be supervised and evaluated by the IACUC Chair and IACUC veterinarian using internally validated test instruments. The training is designed to provide the following assurances:

1. That individuals using or caring for animals are trained and qualified in the appropriate species-specific housing methods, husbandry procedures, and handling techniques;
2. That researchers performing experimental manipulation, including anesthesia and surgery, are qualified through training or experience to accomplish the procedures humanely and in a scientifically acceptable fashion;



3. That instruction is provided in research and testing methods (including statistical power calculations) to scientists, animal technicians, and other personnel involved in animal care, treatment, or use including IACUC members, to include training on the use of G Power (a freeware program to calculate statistical power) to minimize the animals required to obtain valid results and minimizing animal distress.

4. That professional staff whose work involves hazardous biological, chemical, or physical agents have training or experience to assess potential dangers and select and oversee the implementation of appropriate safeguards.

All documentation of training will be maintained for at least three (3) years.

Our goal is to produce a library of instructional videos that cover different aspects of training (such as rodent housing and handling, feeding, drug delivery, etc.) to be available online. If needed we will supplement the expertise of our senior personnel (researchers, veterinarian, etc.) with commercially available instructional videos ([www.citiprogram.org](http://www.citiprogram.org)).

IACUC will review the efficacy of UMW's training program annually by reviewing all instances of non-compliance or other deviations from PHS policies. In the case of observed deficiencies, the full committee consider appropriate changes to our training by incorporating additional or more frequent completion of modules available through CITI program. If IACUC deems necessary, we will amend our training policies accordingly to include additional or alternative training.

#### **IV. Institutional Program Evaluation and Accreditation**

All of this Institution's programs and facilities (including satellite facilities) for activities involving animals have been evaluated by the IACUC within the past 6 months and will be reevaluated by the IACUC at least once every 6 months according to PHS Policy IV.B.1.-2. Reports have been and will continue to be prepared according to PHS Policy IV.B.3. All IACUC semiannual reports will include a description of the nature and extent of this Institution's adherence to the PHS Policy and the *Guide*. Any departures from the *Guide* will be identified specifically and reasons for each departure will be stated. Reports will distinguish significant deficiencies from minor deficiencies. Where program or facility deficiencies are noted, reports will contain a reasonable and specific plan and schedule for correcting each deficiency. Semiannual reports of the IACUC's evaluations will be submitted to the Institutional Official. Semiannual reports of IACUC evaluations will be maintained by this Institution and made available to the OLAW upon request.

- (1) This Institution is Category 2 — not accredited by the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC). As noted above, reports of the IACUC's semiannual evaluations (program reviews and facility inspections) will be made available upon request. The report of the most recent evaluations (program review and facility inspection) was provided and reviewed.

#### **V. Recordkeeping Requirements**

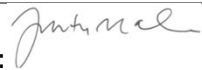
- A. This Institution will maintain for at least 3 years:
  1. A copy of this Assurance and any modifications made to it, as approved by the PHS
  2. Minutes of IACUC meetings, including records of attendance, activities of the committee, and committee deliberations
  3. Records of applications, proposals, and proposed significant changes in the care and use of animals and whether IACUC approval was granted or withheld
  4. Records of semiannual IACUC reports and recommendations (including minority views) as forwarded to the Institutional Official, Timothy M O'Donnell.
  5. Records of accrediting body determinations

- B. This Institution will maintain records that relate directly to applications, proposals, and proposed changes in ongoing activities reviewed and approved by the IACUC for the duration of the activity and for an additional 3 years after completion of the activity.
- C. All records shall be accessible for inspection and copying by authorized OLAW or other PHS representatives at reasonable times and in a reasonable manner.

**VI. Reporting Requirements**

- A. The Institutional reporting period is the calendar year (October 1 – September 30). The IACUC, through the Institutional Official, will submit an annual report to OLAW after September 30 but on or before December 1 of each year. The annual report will include:
  - 1. Any change in the accreditation status of the Institution (e.g., if the Institution obtains accreditation by AAALAC or AAALAC accreditation is revoked)
  - 2. Any change in the description of the Institution's program for animal care and use as described in this Assurance
  - 3. Any change in the IACUC membership
  - 4. Notification of the dates that the IACUC conducted its semiannual evaluations of the Institution's program and facilities (including satellite facilities) and submitted the evaluations to the Institutional Official, Timothy M O'Donnell.
  - 5. Any minority views filed by members of the IACUC
- B. The IACUC, through the Institutional Official, will promptly provide OLAW with a full explanation of the circumstances and actions taken with respect to:
  - 1. Any serious or continuing noncompliance with the PHS Policy
  - 2. Any serious deviations from the provisions of the *Guide*
  - 3. Any suspension of an activity by the IACUC
- C. Reports filed under VI.A. and VI.B. above should include any minority views filed by members of the IACUC.

**VII. Institutional Endorsement and PHS Approval**

<b>A. Authorized Institutional Official</b>	
Name: Tim O'Donnell	
Title: Provost	
Name of Institution: University of Mary Washington	
Address: <i>(street, city, state, country, postal code)</i> 1301 College Ave Fredericksburg, VA 22401	
Phone: 540-645-1252	Fax:
E-mail: todonnel@umw.edu	
Acting officially in an authorized capacity on behalf of this Institution and with an understanding of the Institution's responsibilities under this Assurance, I assure the humane care and use of animals as specified above.	
Signature: 	Date: 8-2-23

**B. PHS Approving Official** *(to be completed by OLAW)*

Name/Title:  
Office of Laboratory Animal Welfare (OLAW)  
National Institutes of Health  
6700B Rockledge Drive  
Suite 2500  
Bethesda, MD USA 20892-7982 (FedEx Zip Code 20817)  
Phone: +1 (301) 496-7163  
Fax: +1 (301) 451-5672

Date: 8/8/2023

Assurance Number: D23-01167

Effective Date: 8/8/2023

Expiration Date: 8/31/2027



**IX. Other Key Contacts (optional)**

If there are other individuals within the Institution who may be contacted regarding this Assurance, please provide information below.

<b>Contact #1 IO</b>	
Name: Timothy M O'Donnell	
Title: Provost	
Phone: 540-654-1252	E-mail: todonnel@umw.edu
<b>Contact #2 IACUC Chair</b>	
Name: R Parrish Waters	
Title: Associate Professor of Biology	
Phone: 540-654-1416	E-mail: rwaters@umw.edu

