I, James A. Weyhenmeyer, as named Institutional Official for animal care and use at Georgia State University, hereinafter referred to as Institution, by means of this document, provide assurance that this Institution will comply with the Public Health Service Policy on Humane Care and Use of Laboratory Animals, hereinafter referred to as PHS Policy.

I. APPLICABILITY OF ASSURANCE

This Assurance is applicable to all research, research training, experimentation, biological testing, and related activities, hereinafter referred to as activities, involving live vertebrate animals supported by the Public Health Service (PHS) and conducted at this Institution, or at another institution as a consequence of the subgranting or subcontracting of a PHS-conducted or -supported activity by this Institution.

"Institution" includes the following branches and major components of Georgia State University: College of Arts and Sciences, J. Mack Robinson College of Business, College of Education, Byrdine F. Lewis School of Nursing and Health Professions, College of Law, Andrew Young School of Policy Studies, Office of Research, the Language Research Center, Collab Tech and the Georgia State University Research Foundation, Inc. The Language Research Center is located within a semi-isolated, 55 acre wooded area in Decatur, GA, approximately 12 miles from the main GSU campus. All of the other entities are located on or in the immediate vicinity of the main campus. There are no other off campus satellite facilities and/or other covered components.

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, as well as with all 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 in accordance with the “Guide for the Care and Use of Laboratory Animals” (“Guide”).

Georgia State University
A3914-01
ANIMAL WELFARE ASSURANCE
in accordance with the PHS Policy for
Humane Care and Use of Laboratory Animals

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III. INSTITUTIONAL PROGRAM FOR ANIMAL CARE AND USE

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

Dr. Mark P. Becker is the President (CEO) of Georgia State University. Dr. James Weyhenmeyer, the Institutional Official (IO), is the Vice-President for Research and Economic Development. Members of the Institutional Animal Care and Use Committee (IACUC) are appointed by the IO per a formal letter designating this responsibility from the President (CEO). The Department of Animal Resources (DAR) operates under the administrative authority of the Vice President for Research. The IACUC reports directly to the Institutional Official (IO) as does the DAR Director and Attending Veterinarian (Dr. Michael Hart). A simple schematic of the organizational Chart may be seen below.

The IACUC oversees the institution’s animal care and use program, facilities, and approves procedures. It advises the IO (Dr. James Weyhenmeyer) about problems or deficiencies and recommends steps for correction. The IACUC reviews all animal use protocols for compliance with humane animal care and use and performs semiannual reviews of the animal care and use program at a convened meeting. Facilities are inspected semi-annually as required by federal regulations and Georgia State University policy. Currently, Dr. Margo Brinton, Regents' Professor, serves as the Chair of Georgia State University’s IACUC.

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

**Name:** Michael W. Hart  
**Qualifications:**  
- Degrees: DVM, MS, Diplomate of the American College of Laboratory Animal Medicine
Training and/or experience in laboratory animal medicine: Dr. Michael Hart graduated from the Texas A&M University College of Veterinary Medicine in 1994. Pursuant to obtaining his Doctor of Veterinary Medicine Degree, Dr. Hart practiced small animal medicine and surgery in a private veterinary practice (1994-1996). Dr. Hart received a Master of Science degree in Basic Medical Science in 1999 from the University of Alabama at Birmingham. That degree was awarded after he completed a laboratory animal residency program at the University of Alabama at Birmingham (1996 – 1998). He has served as a laboratory animal veterinarian since completing his residency (1999 – present). Dr. Hart became a Diplomate of the American College of Laboratory Animal Medicine (ACLAM) in 2002. He primarily works with rodents, rabbits, ferrets, non-human primates, fish, frogs, and birds.

Authority: Dr. Hart has direct program authority and responsibility for the Institution’s animal care and use program which includes the authority to implement the PHS Policy and the recommendation of the “Guide”. Dr. Hart has access to all GSU animal facilities and animals.

Time Contributed to Program: Dr. Hart is a full time employee who dedicates 100% of his time to the animal care and use program. He serves as the primary clinical veterinarian for all animals maintained by Georgia State University. Dr. Hart is on call seven days per week, 24 hours per day. When Dr. Hart is not available, two veterinarians are on contract to provide back-up veterinary services. They are as follows:

Name: Allison Williams
Qualifications:
- Degrees: DVM, Diplomate of the American College of Laboratory Animal Medicine.
- Training and/or experience in laboratory animal medicine: Subsequent to completion of her Doctor of Veterinary Medicine Degree, Dr. Williams completed a laboratory animal residency program at the Wake Forest University School of Medicine (1998-2000). She then accepted a position with the Centers for Disease Control and Prevention caring for a colony of new world primates used for malaria research. In 2008, she accepted another position with CDC as the laboratory animal veterinarian for the animal biosafety 3 and 4 laboratories. She primarily works with rodents, ferrets, non-human primates, prairie dogs and bats.

Responsibilities: When called in, this Vet will have the same authority and responsibilities as Dr. Hart.

Time Contributed to Program: This Vet is under official contract to be on-call. The actual percentage of time is determined by how much leave Dr. Hart takes in a given year. Currently the average active on-call time is 2-3 weeks per year. When Dr. Hart is on leave, the procedure is to call him in an emergency; he will evaluate the situation and determine whether or not the on-call Vet will be contacted to deal with the emergency.

Name: Brianna Skinner
Qualifications:
- Degrees: DVM, Diplomate of the American College of Laboratory Animal Medicine
- Training and/or experience in laboratory animal medicine: Dr. Skinner practiced veterinary medicine with military working dogs and privately owned pets in the United States Army Veterinary Corps in the United States and abroad for over 7 years. She received her laboratory animal medicine training ten years ago while stationed at the Walter Reed Army Institute of Research and has continued to work as a laboratory animal
veternarian since then. She has experience working with a variety of species including
non-human primates, rodents, rabbits, swine, dogs, ferrets, xenopus, and goats.

Responsibilities: When called in, this Vet will have the same authority and responsibilities
as Dr. Hart.

Time Contributed to Program: This Vet is under official contract to be on-call. The actual
percentage of time is determined by how much leave Dr. Hart takes in a given year.
Currently the average active on-call time is 2-3 weeks per year. When Dr. Hart is on
leave, the procedure is to call him in an emergency; he will evaluate the situation and
determine whether or not the on-call Vet will be contacted to deal with the emergency.

C. The Institutional Animal Care and Use Committee (IACUC) at this Institution is properly
appointed in accordance with the 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 President, as Chief Executive Officer (C.E.O.) has delegated to
the Institutional Official the authority to appoint the members of the IACUC. In accordance
with the Health Research Extension Act of 1985, this delegation of authority is specific and
is in writing. The IACUC consists of at least five members, and its membership meets the
composition requirements set forth in the PHS Policy, Section IV.A.3.b. Attached is a list of
the chairperson and members of the IACUC and their names, degrees, titles, specialties or
profession, and institutional affiliations. See Appendix I.

D. The IACUC will:

1. Review at least once every six 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:

   The IACUC will meet at least once every six months to review the Institutional Program
   for Humane Care and Use of Animals.

   The Committee uses the Guide and other pertinent resources, e.g., the PHS Policy, the
   Code of Federal Regulations (Animal Welfare) as a basis for the review.

   To facilitate the evaluation, the Committee will use a checklist based on the Sample
   OLAW Program and Facility Review Checklist from the OLAW website.

   The evaluation will include, but not necessarily be limited to, a review of the following:

   a) IACUC Membership and Functions;
   b) IACUC Records and Reporting Requirements;
   c) Husbandry and Veterinary Care (all aspects);
   d) Personnel Qualifications (Experience and Training);
   e) Occupational Health and Safety;
   f) Disaster Planning and Emergency Preparedness;
   g) The Institution's PHS Assurance.

   If program deficiencies are noted during the review, they will be categorized as
   significant or minor and the Committee will develop a reasonable and specific plan and
schedule for correcting each deficiency. A significant deficiency is one that is or may be a threat to the health and safety of the animals or personnel. Subcommittees may be used to conduct all or part of the reviews. However, no member will be involuntarily excluded from participating in any portion of the reviews.

2. **Inspect at least once every six months all of the Institution’s animal facilities, including satellite facilities, 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 at least two (2) members of the IACUC will visit all of the institute’s facilities where animals are housed or used, i.e., holding areas, animal care support areas, storage areas, procedure areas, and laboratories where animal manipulations are conducted. Equipment used for transporting of the animals is also inspected.

   The Committee uses the Guide and other pertinent resources, e.g., the PHS Policy, the Code of Federal Regulations (Animal Welfare) as a basis for the review.

   To facilitate the evaluation, the Committee will use a checklist based on the Sample OLAW Program and Facility Review Checklist from the OLAW website.

   If deficiencies are noted during the inspection, they will be categorized as significant or minor and the Committee will develop a reasonable and specific plan and schedule for correcting each deficiency. A significant deficiency is one that is or may be a threat to the health and safety of the animals or personnel.

   No member will be involuntarily excluded from participating in any portion of the inspections.

   All animal facilities, even those that house or involve only non-USDA covered species, will be inspected by the IACUC in the above described manner.

3. **Prepare reports of the IACUC evaluations as set forth in the 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:

   Individual IACUC members will convey their observations to the IACUC Chairperson, or his or her designee, who, in turn, will draft the reports using the sample OLAW Semiannual Report to the Institutional Official format from the OLAW website.

   The reports will contain a description of the nature and extent of the institution’s adherence to the Guide and the PHS Policy, identify specifically any departures from the provisions of the Guide and the PHS Policy, and state the reasons for each departure. If there are no departures the reports will so state.

   The reports will distinguish significant deficiencies from minor deficiencies. A significant deficiency is one that is or may be a threat to the health and safety of the
animals or personnel. If program or facility deficiencies are noted, the reports will contain a reasonable and specific plan and schedule for correcting each deficiency.

If some or all of the institution's facilities are accredited by AAALAC International the report will identify those facilities as such.

Copies of the draft reports will be reviewed, revised as appropriate, and approved by the Committee.

The final reports will be signed by a majority of the IACUC members and will include any minority opinions. If there are no minority opinions, the reports will so state.

Following completion of each evaluation, the completed report will be submitted to the Institutional Official within 30 days following the evaluation cycle.

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

Any individual may report concerns to the IO, IACUC Chair, Institutional Veterinarian, or any member of the IACUC. They may also report concerns anonymously via the “Institutional Animal Care and Use Committee Anonymous Email Form” which is on the IACUC main web page.

Notices are posted in the animal facilities advising individuals how and where to report animal welfare concerns and stating that any individual who, in good faith, reports an animal welfare concern will be protected against reprisals.

If necessary, the IACUC Chair may appoint a subcommittee to interview personnel involved and gather additional information. In any case, the information obtained and suggested interventions will be presented at an IACUC meeting for discussion by the full Committee.

Reported concerns and all associated IACUC actions will be recorded in the IACUC meeting minutes.

The Committee will report such actions to the IO and, as warranted, to OLAW.

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

Recommendations regarding any aspects of the institution's animal program or facilities are discussed and developed by the Committee.

The Committee’s recommendations are included in the IACUC Meeting minutes or a report of the IACUC’s evaluations or a separate letter.
Such documents are reviewed and approved by the Committee and then submitted to the IO.

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

Prior to the review, each IACUC member will be provided with written descriptions of activities (protocols) that involve the care and use of animals and any member of the IACUC may obtain, upon request, full committee review of those protocols.

If full-committee review (FCR) is not requested, at least one member of the IACUC, designated by the chairperson and qualified to conduct the review, may be assigned to review those protocols and have the authority to approve, require modifications in (to secure approval) or request FCR of those protocols.

Other IACUC members may provide the designated reviewers with comments and/or suggestions for the reviewer’s consideration only. That is, concurrence to use the designated-member review (DMR) method may not be conditioned.

If multiple designated reviewers are used (two), their decisions must be unanimous; if not, the protocol will be referred for FCR.

If FCR is requested, approval of those protocols may be granted only after review at a convened meeting of a quorum of the IACUC and with the approval vote of a majority of the quorum present.

Generally, the FCR method will be used. However, should a situation warrant it, the protocol will be distributed to all IACUC members to allow all members the opportunity to call for FCR; records of polling of members to obtain concurrence to use the DMR method, or concurrence by silent assent after three working days, and approval of protocols via DMR are maintained and recorded in the minutes of the next convened IACUC meeting.

Required modifications Subsequent to FCR. When the IACUC requires modifications (to secure approval), of a protocol, such modifications are reviewed as follows:

1. FCR or DMR following the procedures delineated above.

2. DMR if approved unanimously by all members at the meeting at which the required modifications are delineated AND if the entire current Committee has previously approved, in advance and in writing, that the quorum of members present at a convened meeting may decide by unanimous vote to use DMR subsequent to FCR when modification is needed to secure approval. However, any member of the IACUC may, at any time, request to see the revised protocol and/or request FCR of the protocol.
3. Minor modifications of an administrative nature, i.e., typographical or grammatical errors, required signatures, etc. may be confirmed by IACUC administrative/support personnel.

No member may participate in the IACUC review or approval of a protocol in which the member has a conflicting interest (e.g., is personally involved in the project) except to provide information requested by the IACUC; nor may a member who has a conflicting interest contribute to the constitution of a quorum. The IACUC may invite consultants to assist in reviewing complex issues. Consultants may not approve or withhold approval of an activity or vote with the IACUC unless they are also members of the IACUC.

Any use of telecommunications will be in accordance with NIH Notice NOT-OD-06-052 of March 24th, 2006, entitled Guidance on Use of Telecommunications for IACUC Meetings under the PHS Policy on Humane Care and Use of Laboratory Animals.

In order to approve proposed protocols or proposed significant changes in ongoing protocols, the IACUC will conduct a review of those components related to the care and use of animals and determine that the proposed protocols are in accordance with the PHS Policy. In making this determination, the IACUC will confirm that the protocol will be conducted in accordance with the Animal Welfare Act insofar as it applies to the activity, and that the protocol is consistent with the Guide unless acceptable justification for a departure is presented. Further, the IACUC shall determine that the protocol conforms to the institution's PHS Assurance and meets the following requirements:

a. Procedures with animals will avoid or minimize discomfort, distress, and pain to the animals, consistent with sound research design.

b. Procedures that may cause more than momentary or slight pain or distress to the animals will be performed with appropriate sedation, analgesia, or anesthesia, unless the procedure is justified for scientific reasons in writing by the investigator.

c. Animals that would otherwise experience severe or chronic pain or distress that cannot be relieved will be painlessly killed at the end of the procedure or, if appropriate, during the procedure.

d. The living conditions of animals will be appropriate for their species and contribute to their health and comfort. The housing, feeding, and nonmedical care of the animals will be directed by a veterinarian or other scientist trained and experienced in the proper care, handling, and use of the species being maintained or studied.

e. Medical care for animals will be available and provided as necessary by a qualified veterinarian.

f. Personnel conducting procedures on the species being maintained or studied will be appropriately qualified and trained in those procedures.
g. Methods of euthanasia used will be consistent with the current recommendations of the American Veterinary Medical Association (AVMA) Guidelines on Euthanasia, unless a deviation is justified for scientific reasons in writing by the investigator.

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 as set forth in the PHS Policy IV.C. The IACUC procedures for reviewing proposed significant changes in ongoing research projects are as follows:

Review and approval of significant changes is in accordance with the DMR process unless FCR is requested by an IACUC member. See Paragraph III.D.6. above for details of the DMR and FCR review processes.

Examples of changes considered to be significant include, but are not limited to, changes:

a. in the objectives of a study
b. from non survival to survival surgery;
c. resulting in greater discomfort or in a greater degree of invasiveness;
d. in the species or in approximate number of animals used¹;
e. in Principal Investigator;
f. in anesthetic agent(s) or the use or withholding of analgesics;
g. in the method of euthanasia; and
h. in the duration, frequency, or number of procedures performed on an animal

¹Changes of less than 10% in the approximate number of animals used of mice of the genus Mus and rats of the genus Rattus that are bred for use in research only may, at the IACUC’s discretion, be considered minor (not significant).

If additional personnel are to be added, a Personnel Amendment Form must be submitted. All personnel to be added must have completed all required training and be enrolled in the Medical Monitoring Program. The Personnel Amendment must be approved by the IACUC Chair prior to new personnel working on approved IACUC protocols.

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 as set forth in the PHS Policy IV.C.4. The IACUC procedures to notify investigators and the Institution of its decisions regarding protocol review are as follows:

The IACUC Office sends the PI notice in writing informing them of the status of the protocol following review. The PI will be notified whether the protocol or the amendment has been approved, requires modification or approval has been withheld.

If approval is withheld, the notice will include the reasons that it was withheld and the PI may respond to the IACUC in writing,
The Institutional Official may contact the IACUC Compliance Officer regarding the status of any submitted or approved IACUC protocol at any time. The Institutional Official is notified by receiving a copy of the PI's notification letter and/or a copy of the IACUC meeting minutes.

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 in accordance with the PHS Policy IV.C.1-4 at least once every three years.** The IACUC procedures for conducting continuing reviews are as follows:

All ongoing activities are monitored continuously by the animal care and use staff and the IACUC Compliance Officer (post-approval monitoring).

The PI submits an IACUC Protocol Continuation or Cancellation Form (e.g. annual review form) to the IACUC on an annual basis. Review and approval of this Form is in accordance with the DMR process unless FCR is requested by an IACUC member. See Part III.D.6. above for details of the DMR and FCR review processes.

Annual protocol reviews are recorded in the IACUC meeting minutes. The IACUC meeting minutes are reviewed and approved by the Committee.

Protocols are approved for a maximum of 36 months. That is, all protocols expire no later than the three-year anniversary of the initial IACUC review. If activities will continue beyond the expiration date, prior to expiration of the original or preceding protocol a new protocol must be submitted, reviewed, and approved as described above in Paragraph III.D.6.

10. **Be authorized to suspend an activity involving animals as set forth in the PHS Policy IV.C.6.** The IACUC procedures for suspending an ongoing activity are as follows:

The IACUC may suspend an activity that it previously approved if it determines that the activity is not being conducted in accordance with applicable provisions of the Animal Welfare Act, the Guide, the institution's Assurance, or IV.C.1.a.-g. of the PHS Policy.

The IACUC may suspend an activity only after review of the matter at a convened meeting of a quorum of the IACUC and with the suspension vote of a majority of the quorum present.

If the IACUC suspends an activity involving animals, or any other institutional intervention results in the temporary or permanent suspension of an activity due to noncompliance with the Policy, Animal Welfare Act, the Guide, or the institution's Assurance, the Institutional Official in consultation with the IACUC shall review the reasons for suspension, take appropriate corrective action, and report that action with a full explanation to OLAW.
E. The occupational health and safety program for personnel who are working in laboratory animal facilities or who have frequent contact with animals is as follows: Following the guidelines of the National Research Council (NRC) publication, *Occupational Health and Safety in the Care and Use of Research Animals*, Georgia State University (GSU) developed a Medical Monitoring Program for Vertebrate Animal Exposure (MMPVAE). The purpose of the Program is to prevent, monitor, and reduce diseases transmitted from animals to humans (zoonotic diseases) and mitigate adverse reactions from exposure to laboratory animals (e.g. allergies). In addition, educational programs have been established to educate personnel about zoonotic diseases, personal hygiene, and other related issues. The University has implemented a medical monitoring program designed to protect the health and safety of individuals working with vertebrate animals.

1. Administrative and Management

The Research Health and Safety Officer (RHSO) within the Office of Research Integrity (ORI) administers the MMPVAE and establishes administering guidelines, coordinates the activities of the Program, and maintains records generated by the Program. Specific services provided by the RHSO include, but are not limited to, familiarizing GSU's departmental and laboratory contact representatives with the MMPVAE, identifying eligible participants and determining the type of medical monitoring that each participant should receive, providing the necessary forms used in the MMPVAE to the departments, coordinating services provided by consulting physicians to participants, and informing participants of these services. Questions concerning administration of the MMPVAE should be directed to the Richard J. Muller Jr., Research Health and Safety Officer at (404) 413-3510.

The Division of Animal Resources (DAR) provides training related to the appropriate animal handling and restraint in an effort to minimize the occurrence of injuries and exposures to disease. Questions regarding veterinary aspects of zoonotic diseases should be directed to the University Veterinarian. When necessary, the question will be routed to the medical services provider or to experts in the field of laboratory animal research.

The Medical Services Provider (MSP) offers professional medical support services for the MMPVAE. The University has a Memorandum of Understanding and Agreement (MUA) with a MSP who will consult with the RHSO to determine the risks associated with animal contact for each individual. The MSP will provide physical examinations, administer appropriate immunizations, and provide treatment for animal related illnesses or injuries and follow-up services when authorized by the University.

Georgia State University follows the *Guidelines for Biosafety Laboratory Competency, MMWR, April 15, 2011, Vol. 60*, which defines the roles of individuals in laboratory safety. In Table 1, students, technicians, research associates, or specialist are defined as entry level laboratory workers. It is the Midlevel and Senior Level Employee’s responsibility to ensure that all individuals working with vertebrate animals are enrolled in the MMPVAE. The Midlevel or Senior Level Employee must inform the RHSO of new individuals working with animals.

Table 1: Roles of Laboratory Safety
<table>
<thead>
<tr>
<th>Entry Level</th>
<th>Midlevel</th>
<th>Senior Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students, Technician, Research Associates, or Specialist</td>
<td>Principal Investigator, Laboratory Manager, Postdoctoral Student, Senior Scientist or Staff Scientist</td>
<td>Senior Principal Investigator, Veterinarian, Branch Manager, Division Manager, Vice President of Research</td>
</tr>
</tbody>
</table>

Table 2 identifies the competences involved with understanding the hazards in a given laboratory setting. The ability to recognize hazards is the first step in preventing occupational and environmental exposures.

### Table 2: Laboratory Safety Competency Guidelines for Research Animal Laboratories

<table>
<thead>
<tr>
<th>Research Animals</th>
<th>Entry level</th>
<th>Midlevel</th>
<th>Senior level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Identify inherent hazards associated with research animals</td>
<td>1. Assess the inherent hazards associated with research animals</td>
<td>1. Assess the inherent hazards associated with research animals</td>
</tr>
<tr>
<td></td>
<td>a. Identify hazards associated with the animal species to be handled</td>
<td>a. Assess hazards associated with the animal species to be handled</td>
<td>a. Assess hazards associated with the animal species to be handled</td>
</tr>
<tr>
<td></td>
<td>b. Assess hazards associated with experimentally infected animals</td>
<td>b. Same as midlevel</td>
<td>b. Same as midlevel</td>
</tr>
<tr>
<td></td>
<td>2. Describe possible route of exposures to personnel in relation to the animal procedures used</td>
<td>2. Assess possible route of exposures to personnel in relation to the animal procedures used</td>
<td>2. Same as midlevel</td>
</tr>
<tr>
<td></td>
<td>3. Develop control measures and work practices to mitigate risks associated with research animals</td>
<td>3. Develop control measures and work practices to mitigate risks associated with research animals</td>
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</tr>
<tr>
<td></td>
<td>a. Ensure occupational health requirements for treatment of exposures</td>
<td>a. Ensure occupational health requirements for treatment of exposures are known and met</td>
<td>a. Ensure occupational health requirements for treatment of exposures are known and met</td>
</tr>
<tr>
<td></td>
<td>b. Ensure adherence to animal facility's policies and procedures manual</td>
<td>b. Implement animal facility's policies and procedures manual</td>
<td>b. Implement animal facility's policies and procedures manual</td>
</tr>
<tr>
<td></td>
<td>c. Ensure proper use of PPE that should be used when handling animals</td>
<td>c. Evaluate PPE that should be used when handling animals</td>
<td>c. Evaluate PPE that should be used when handling animals</td>
</tr>
<tr>
<td></td>
<td>d. Ensure limits to control measures are understood</td>
<td>d. Establish limits to control measures</td>
<td>d. Establish limits to control measures</td>
</tr>
<tr>
<td></td>
<td>e. Example of a control measure: establish the Laboratory Animal Allergy (LAA) protocol</td>
<td>e. Example of a control measure: ensure implementation of the LAA protocol</td>
<td>e. Example of a control measure: establish the LAA protocol</td>
</tr>
<tr>
<td></td>
<td>i. Recognize signs and symptoms of animal allergies</td>
<td>i. Same as entry level</td>
<td>i. Same as entry level</td>
</tr>
<tr>
<td></td>
<td>ii. Report suspected LAA to supervisor</td>
<td>ii. Ensure reporting of suspected LAA to supervisor</td>
<td>ii. Ensure reporting of suspected LAA to supervisor</td>
</tr>
</tbody>
</table>

2. Scope

The purpose of the Program is to prevent, monitor, and reduce diseases transmitted from animals to humans (zoonotic diseases) and mitigate adverse reactions from exposure to laboratory animals (e.g. allergies). In addition, educational programs have been established to educate personnel about zoonotic diseases, personal hygiene, and other related issues.
All faculty, staff, student and visiting researchers who are in direct physical contact with one or more animals used for research or in a classroom project at the University are required to be enrolled in the MMPVAE. Also included are all members of the IACUC and physical plant staff having responsibility in the animal facilities.

3. Hazard Identification and Risk Assessment

When an individual becomes associated with a Midlevel or Senior Level Worker and will have direct physical contact with laboratory animals (or otherwise have responsibilities which may involve direct or indirect exposure to animals (e.g. physical plant workers working in the animal facility, IACUC members conducting animal facility inspections), the Midlevel or Senior Level Worker must notify the RHSO of the name and contact information of the vertebrate animal user and provide specific details on the type of animal species being handled, scope of the animal work, hazard identification, a risk assessment, and any additional information that is needed on the "Medical Monitoring Program for Vertebrate Animal Users Enrollment Form."

The Form also provides information regarding the benefits of particular medical exams and procedures that may be offered to the individual who will be working with vertebrate animals. The individuals working with vertebrate animals must select to accept or waive the medical procedures and then (s)he and the Midlevel or Senior Level Worker must both sign the form. Once this form is received by the RHSO, the individual is "enrolled" in the medical monitoring program.

The "Medical Monitoring Program for Vertebrate Animal Users" Form available online. The RHSO can assist the individual working with vertebrate animals in completing the "Medical Monitoring Program for Vertebrate Animal Users" Form.

It is important to provide all requested information on the Form to help ensure that the appropriate tests and procedures are offered to the participants based on the hazard identification and risk assessment. The participant will submit the completed form via mail, fax, email or hand delivery to the RHSO. Enrollment in the MMPVAE is required prior to being granted access to the animal facility. Please note, whenever a participant uses a different species, a new Form must be completed and sent to the RHSO.

All faculty, staff, students and visiting researchers who are working with animals are required to be enrolled in the MMPVAE. Also included are all members of the IACUC and physical plant staff having responsibility in the animal facilities.

As a component of the enrollment process, individuals are required to read the “Medical Monitoring Program for Vertebrate Animal Exposure” document. This document provides important information about inherent risks involving a laboratory animal environment to include laboratory animal allergies, relevant zoonotic diseases, and the like. Individuals electing to receive medical services are evaluated by an occupational health physician with respect to the type and extent of his or her animal contact and are provided the recommended medical procedures in an effort to provide a healthy and safe work environment.
4. Health Histories and Evaluations

Upon enrolling in the MMPVAE, a "Medical Monitoring Authorization Packet" will be sent to the individual. The packet includes:

- A Memorandum outlining the "Medical Monitoring Program for Vertebrate Animal Exposure";
- An "Information Notice for Participant in the Medical Monitoring Program for Vertebrate Animal Exposure" information sheet;
- A "Medical Authorization" form with the website for the Medical Service Provider and their locations;
- A "Benefits of Participating in the Medical Monitoring Program for Vertebrate Animal Exposure" information sheet;
- A "Health Precautions for Pregnant Personnel Working with Animals" information sheet;
- A "Georgia State University Confidentiality of Medical Records of Individuals Participating in the Medical Monitoring Program for Vertebrate Animal Exposure" information sheet;
- An "Authorization to Release Medical Information" form;
- A "Waiver of Medical Screening" form; and
- "Occupational History and Health Questionnaire" packet.

Georgia State University uses Concentra Health Service as its medical service provider (MSP). The "Medical Monitoring Authorization Packet" will permit the MSP to perform medical screening procedures. An individual working with vertebrate animals should make an appointment with the MSP listed on the "Medical Monitoring Authorization Packet" and then report to the MSP and present the "Medical Authorization" form that is included in the packet to verify enrollment in the program and receive the required medical screening. The University will be billed directly for the services rendered.

Certain medical screenings will be repeated on a periodic basis. For example, the TB screening is required semiannually for all personnel working around non-human primates, and a Hepatitis B titer may be done every few years, depending upon the recommendation from the MSP. When an individual working with vertebrate animals is scheduled for such screenings, a "Medical Authorization" form will be sent to the person to review. The individual working with vertebrate animals should make an appointment with the MSP listed on the "Medical Monitoring Authorization" form and then report to the MSP and present the form to verify enrollment in the program and receive the required medical screening.

The MSP will maintain permanent medical records for each vertebrate animal user. Confirmation of services provided and results of authorized procedures under the MMPVAE will be maintained by the RHSO. "The Georgia State University Confidentiality of
Medical Records of Individuals Participating in the Medical Monitoring Program for Vertebrate Animal Exposure", addressing the confidentiality of records, is included in the "Medical Monitoring Authorization Packet". An individual may request the MSP to release medical information obtained under the MMPVAE to their personal physician by completing an "Authorization to Release Medical Information" form. The form can be obtained by contacting the RHSO and should be completed, witnessed, and signed by the vertebrate animal user and returned to the RHSO for processing.

An individual working with vertebrate animals can choose to waive the medical screening in two ways. An individual may indicate his or her desire to waive medical procedures directly on the "Medical Monitoring Program for Vertebrate Animal users Enrollment Form", or (s)he can selectively waive a particular medical procedure listed on "Waiver of Medical Screening" form found in the "Medical Monitoring Authorization Packet". A vertebrate animal user should check off each refused treatment on the waiver form. The form should be completed, signed by the vertebrate animal user and his or her Midlevel or Senior Level Worker, and returned to the RHSO for processing.

If an individual working with vertebrate animals chooses to waive the medical screening entirely or selectively, a(s)he can later decide to participate in those medical services; a vertebrate animal user may do so at any time. A vertebrate animal user should notify the RHSO immediately of his or her decision to participate in the available medical procedures and the appropriate forms will be issued.

A section entitled "Benefits of Participating in the Medical Monitoring Program for Vertebrate Animal Exposure" is found on the enrollment form as well as in the "Medical Monitoring Authorization Packet".

The Midlevel or Senior Level Worker or the designated contact person for MMPVAE must notify the RHSO whenever an individual working with vertebrate animals is about to terminate his or her association with the Midlevel or Senior Level Worker, or ceases vertebrate animal contact.

Physical Examination

Individuals who have daily contact with any species located at the University will be offered a physical examination at the time of initial animal association. The physical examination is performed by the MSP. The examination includes obtaining a medical history; examination of the patient; laboratory tests as deemed appropriate by the MSP (e.g. may include the following: dip urinalysis, complete blood count and multi-chemistry blood panel, respiratory capacity test); and evaluation of test and exam results. Note that it is recommended that no eating or drinking occur within a twelve hour period before the examination for the purpose of an accurate analysis of the complete blood count. A physical examination needs to be performed only once unless the Medical Services Provider determines it should be done periodically.

Tuberculin Skin Test and Chest X-rays

Individuals who have contact with NHPs must receive a semi-annual tuberculin skin test and/or an annual chest x-ray as clinically indicated. Once the individual is cleared with their
initial chest x-ray, the individual may request an Annual Tuberculosis Screening Questionnaire to be used instead of the annual chest x-ray. Skin testing is done with the Mantoux (PPD) technique that measures hypersensitivity to tuberculin. The appearance of inflammation at the site of injection is measured to indicate past or present tuberculosis infection.

Personnel who have tested "positive" in the past are required to have one baseline chest x-ray and then annual symptom review. Chest x-rays will not be performed annually, but only if indicated based on the clinical presentation. At any time, if any employee has symptoms of TB (persistent cough, low grade fevers, unexplained weight loss, night sweats) further evaluation must be done. Contact the RHSO for more information.

Vaccines may be given on the same day as a TB skin test, or any time after a TB skin test is applied. However, if MMR has been given, and one or more days have elapsed, Advisory Committee on Immunization Practices recommend waiting 4-6 weeks before giving a routine TB skin test. No information on the effect of varicella or other live injected vaccines on a TB skin test is available. Until such information is available, it is prudent to apply rules for spacing measles vaccine and TB skin testing. There is no evidence that inactivated vaccines interfere with the PPD response.

Health History Questionnaire

All individuals working with vertebrate animals who choose to participate in MMPVAE will be asked to complete an "Occupational History and Health Questionnaire" to facilitate the MSP evaluation of the participant. The information generated will help to identify existing conditions that may influence the health of persons with animal contact and, in certain cases, the existence of human disease that could adversely affect the health of certain species of animals. If necessary, additional supplemental health history forms may be used in conjunction with the MSP questionnaire.

5. Common Identified Hazards and Risks

Laboratory Animal Allergies

Animal care staff and others who handle laboratory animals may be sensitized to animal dander or other proteins. Individuals at risk of developing allergies or experiencing the onset of existing allergic reactions include those with preexisting allergies, asthma, seasonal rhinitis or eczema. Preventing exposure to the allergies may require the use of personal protective equipment such as gowns, gloves, and respiratory protection.

Allergic reactions to animals are among the most common conditions that adversely affect the health of workers involved in the care and use of animals in research. Of the 90,000 laboratory animal workers in the United States, up to 46% develop allergies to laboratory animals. Of those who develop symptoms, more than 10% eventually develop occupational related asthma with symptoms that persist even after exposure ceases. The manifestations of animal allergies, which range from rhinitis and itchy eyes to respiratory distress, have caused more than one third of laboratory animal workers at the National Institutes of Health to lose time from work.

Vertebrate animal users are highly encouraged to review the information relating to animal allergies.

Macaque monkeys and the B virus
B Virus naturally occurs in macaque monkeys. While relatively benign in its natural host, the alpha herpes virus can cause rapidly ascending encephalomyelitis (inflammation of the brain) with a fatality rate of approximately 80% if spread to humans (through bites, scratches, splashes, or needle-stick injuries). B virus directly affects the central nervous system of infected human and nonhuman primates.

In the macaque host, B virus causes mild symptoms that are similar to those of herpes simplex virus 1 (cause of common cold sores) in humans. These symptoms can include oral or genital lesions, but virus can be shed in the absence of lesions. If infected, the macaque monkey remains infected for the duration of its lifetime and is a potential source of the virus for humans. All macaque monkeys maintained by GSU are serologically negative for B virus (screened annually) but, as false negatives can occur and due to the severity of infection if acquired by a human, they are treated as if they are infected.

The Georgia State University National B Virus Resource Laboratory provides diagnostic assays for both nonhuman primates and humans suspected of being infected with B virus. Service is provided 24/7 and on an emergency basis 365 days/year. Diagnostic testing services are offered for injury- (exposure) related human and nonhuman primate samples as well as for routine screening. B virus zoonosis can be effectively managed with early detection of these deadly agents in cases of zoonotic infection. Early detection can translate into prevention of morbidity and mortality as a result of an inadvertent exposure to this uniquely pathogenic herpes virus.

Individuals charged with working with macaque monkeys will be required to read and follow standard operating procedures to prevent potential exposure to this virus. Further, these standard operating procedures outline steps that must be followed in the event of a potential exposure.

Measles
Measles is best known for causing a rash in childhood, but measles infections can affect other parts of the body and sometimes occurs in adults. Vaccination has significantly reduced the number of cases in the United States, although isolated outbreaks continue to occur.

There are two types of measles, each caused by a different virus. Although both produce a rash and fever, they produce different diseases:

- The rubeola virus causes "red measles," also known as "hard measles" or just "measles." Although most people recover without problems, rubeola can lead to pneumonia or inflammation of the brain (encephalitis).

- The rubella virus causes "German measles," also known as "three-day measles." This is usually a milder disease than red measles. However, this virus can cause significant birth defects if an infected pregnant woman passes the virus to her unborn child.

Both the rubeola and rubella viruses are spread through the respiratory route. This means they are contagious through coughing and sneezing. In fact, the rubeola virus is one of the most contagious viruses known to man. As a result, it can spread rapidly in a susceptible
population. Infected people carry the virus in their respiratory tract before they get sick, so they can spread the disease without being aware of it.

If people are immune to the virus (either through vaccination or by having had measles in the past), they cannot develop the disease caused by this virus. For example, someone who had rubeola as a child would not be able to get the disease again. Since rubella and rubeola are different viruses, an infection with one of these viruses does not protect against infection with the other.

Like man, non-human primates (e.g. monkeys and apes) are also susceptible to both types of measles. If a non-human primate becomes infected with measles, it is usually because a human has passed the infection to the non-human primate.

Tuberculosis (TB)

It is important that the physicians and the University be made aware of a history of any positive TB tests that an individual may have had in the past. Tuberculosis can be a serious problem in a NHP colony. Direct transmission to and from humans can occur. The number of NHPs at the University is relatively small and tuberculosis has rarely been reported in the majority of the species that are housed at the University. The Division of Animal Resources periodically tests animals for the presence of TB and other diseases.

Oral Herpes Simplex (Cold Sores)

Humans who suffer periodically from cold sores represent a serious threat to some species of NHPs. The virus that causes cold sores in humans is lethal to some NHPs. People with active cold sore lesions should avoid contact with NHPs until their lesions have healed. It is the responsibility of the PI to decide if a "no contact" order should be given to the vertebrate animal user with cold sores if he or she is working with NHPs. This "no contact" order should not adversely affect the employee’s terms or conditions of employment.

6. Procedures in place to alleviate hazards and minimize risks

In order to ensure vertebrate animal users maintain the highest level of health and safety, the following preventive measures are highly encouraged:

Personal Hygiene

There are a number of personal hygiene issues that apply to all workers who are exposed to animals. There must be no eating, drinking, or applying of cosmetics in areas where animals are housed. All work surfaces must be decontaminated daily and after any animal-related spills or contacts. Laboratory coats must be worn over street clothes or employees can change into special designated clothing when working with animals. Personal protective equipment must be used appropriately. Most importantly, thorough hand washing must be done after handling the animals and prior to leaving the laboratory.

Health/Education Information
Periodic instruction and information about zoonotic diseases will be provided on an annual basis or more frequently if needed. Instruction would include information about precautionary procedures available to prevent accidents or contract any illness, the proper handling of animals and an overview of the administrative procedures for the MMPVAE.

The DAR and the RHSO have developed a small collection of materials relating to the diseases of animals that may be transmitted to humans. The materials are available to everyone in the Program, and those who have an interest in the subject. Animal users can contact the DAR or the RHSO for a list of available resources.

Personal Protective Equipment (PPE)

Appropriate PPE will be provided at no cost to individuals with vertebrate animal contact. Appropriate PPE includes gloves, face shields or masks, eye protection, scrubs, gowns, aprons, laboratory coats, or any other PPE necessary to conduct research with vertebrate animals in a safe and responsible manner. The department, laboratory, PI, or supervisor is also responsible for cleaning, laundering, disposal and replacement of PPE at no cost to individual with vertebrate animal contact.

The designated PPE should be used whenever animals are handled, transported, or restrained, cages are cleaned, or whenever animal contact could occur. For more information on the proper use of PPE, consult the guide for Occupational Health and Safety in the Care and Use of Research Animals and the Guide for the Care and Use of Laboratory Animals, published by the National Research Council. These two guides are available on line. Copies of each publication are also available from the RHSO.

Failure to use appropriate PPE may increase the chance of being exposed to potentially hazardous materials from animal contact; therefore the use of proper PPE is required.

7. Immunizations

In order to ensure vertebrate animal users' health and safety, the following medical vaccinations, screening and/or examinations may be offered.

Hepatitis B Vaccination

Individuals who may have occupational exposure to human or NHP blood, tissue or other potentially infectious materials while working on animal research, will be offered the Hepatitis B vaccination.

Measles, Mumps, and Rubella Vaccination

Since students, faculty, and health care and other workers in colleges and other post-high school educational institutions are at increased risk of acquiring measles and mumps, they should receive two doses of Measles, Mumps, and Rubella (MMR) vaccine or provide other evidence of measles immunity (physician diagnosis or laboratory evidence)

Personnel working with NHP are required to have proof of MMR vaccination or have their measles titer assayed. Personnel will be required to have a MMR vaccination booster if their titer assay is below the required level.
A personal history of measles and mumps is NOT acceptable as proof of immunity. Acceptable evidence of measles and mumps immunity includes:

- a positive serologic test for antibody,
- physician diagnosis of measles diseases,
- birth before 1957,
- or written documentation of vaccination.

Written documentation can be obtained from a physician using the “Vaccine Administration Record for Adults” form that is attached in Appendix B or can be downloaded from the website. This form can be faxed or mailed to the physician that completed the vaccination. The completed signed/initialed form should be sent to the RHSO Officer.

Persons who have documentation of receiving LIVE measles vaccine in the 1960s do not need to be revaccinated. Persons who were vaccinated prior to 1968 with either inactivated (killed) measles vaccine or measles vaccine of unknown type should be revaccinated with at least one dose of live attenuated measles vaccine. This recommendation is intended to protect persons who may have received killed measles vaccine, which was available in 1963-1967 and was not effective.

Personnel working with NHP who do not have proof of MMR vaccination will be required to have two doses of MMR vaccine. These two doses have to be separated by at least 28 days. Since 2%-5% of persons do not develop measles immunity after the first dose of vaccine, the second dose is to provide another chance to develop measles immunity for persons who did not respond to the first dose. There is no evidence that adverse reactions are increased when MMR is given to a person who is already immune to one or more of the components of the vaccine.

Rabies Vaccination

Individuals who have contact with dogs, cats, and certain wild animals or who work in wilderness areas will be offered the rabies vaccination. This is a pre-exposure vaccination consisting of a series of three injections given on days 0, 7, and 28. Every two years a rabies titer may be done to check for immunity against this virus. A rabies booster will be administered if necessary.

Tetanus Vaccination

A tetanus vaccination will be offered to all vertebrate animal users at ten-year intervals. Tetanus is normally associated with wounds contaminated with dirt or the feces of some animals. All bite wounds carry the risk of tetanus and should be reported to the RHSO and the Department of Risk Management and Workers’ Compensation. If a contaminated wound occurs (including all animal bites or cuts and/or scratches in contact with dirty surfaces) and it has been five or more years since vaccination, a booster may be administered at the time the person is seen for evaluation.
8. Precautions taken during pregnancy, illness or decreased immunocompetence

The Medical Monitoring Program recognizes the need to protect the health, safety and welfare of faculty, staff, and students with illness, decreased immunocompetence, or who may become pregnant. Existing safety procedures should be followed. In addition, this guideline outlines precautions that should be taken during pregnancy, illness, or decreased immunocompetence.

Impairment of the Immune System

The risk of contracting a disease from animals is minimal. However, individuals with an impaired immune system, due to medication or disease, may be at significantly greater risk. It is important that the University be apprised of factors such as this that could adversely influence human health.

The Midlevel or Senior Level Employee must inform the person of risks from specific workplace hazards in the event that person becomes ill, immunocompromised, or pregnant before they begin working with new or existing biological, chemical, and radiological material in the laboratory.

Faculty, staff and students who intend to become pregnant, are pregnant or breastfeeding and working with or near specific workplace hazards should:

- advise their Midlevel or Senior Level Employee;
- conduct a risk assessment before working with or near workplace hazards; and
- seek medical expertise from their healthcare provider in relation to specific workplace hazards such as the use of a particular biological, chemical, or radiological material.

The RHSO and the Midlevel or Senior Level Employee should perform a risk assessment once the person informs their Midlevel or Senior Level Employee that they may be ill, immunocompromised, become pregnant, are pregnant or breastfeeding. The IBC, IACUC, and/or veterinarian should review and approve the risk assessment and RHSO’s recommendations for precautionary measures.

A risk assessment should:

1. Identify relevant hazards;
2. Assess the risks arising from the hazards;
3. Adopt control measures to eliminate or reduce the risks, following the hierarchy of control;
4. Record these decisions and check the continued effectiveness of the control measures.

Further information is available by calling the Research Health and Safety Officer at (404) 413-3510.
Pregnancy Status and Toxoplasmosis Screening

Toxoplasmosis is a widespread disease of animals and humans. In both, the disease is usually asymptomatic and of no serious consequence. However, the fetus of a pregnant woman is at great risk. Infection during pregnancy may result in miscarriage, stillbirth, or severe morbidity in newborns. It is thought that an important mode of transmission is by human exposure to oocysts (a form of the infectious agent) in cat feces. There is no practical, simple test to determine which cats may be shedding the organism. As a result, the participant should consider exposure to any cat a potential threat to a pregnant woman. Pregnant researchers are advised to speak to their Midlevel or Senior Level Employees about working with cats during their pregnancies. All persons, regardless of sex, who normally work with cats, will be scheduled to have their blood checked for antibodies against the disease. A "Health Precautions for Pregnant Personnel Working with Animals" information sheet is included with the Medical Monitoring Authorization Packet.

9. Provisions for personnel who are not involved in animal care and/or use but nevertheless need to enter areas when animals are housed or used.

All faculty, staff, students and visiting researchers who are in direct physical contact with one or more animals used for research or a classroom project at the University are required to be enrolled in the MMPVAE. All members of the IACUC and physical plant staff having responsibility in the animal facilities must be enrolled in the MMPVAE.

The Midlevel or Senior Level Employee must identify the physical plant staff, contractors, engineers, housekeeping, etc. that will have access to the animal area that is under their control. Once the physical plant staff, contractors, engineers, housekeeping, etc. are identified, the RHSO will ensure that they are enrolled in the MMPVAE and have completed the appropriate training.

Before individuals (faculty, staff, students, physical plant staff, contractors, engineers, housekeeping, etc.) are allowed access to the animal area, the Midlevel or Senior Level Employee must:

- contact the RHSO to determine whether they are enrolled in the MMPVAE; and
- provide the appropriate training that is specific for the area under their control.

The physical plant staff undergoes annual training by the RHSO related to the identification of hazards as well as associated precautions to be taken while working in the animal area. The RHSO maintains records to ensure that each physical plant staff member has undergone such training before this individual is allowed access to the animal area.

10. Availability and Procedure for treatment in the event of bites, scratches, illness, or injury

Midlevel or Senior Level Employees must complete the appropriate annual training that is required by federal, state and local regulations.
Midlevel or Senior Level Employees are responsible for maintaining all training records or have the ability to access training records for their employees.

Midlevel or Senior Level Employees must ensure that all faculty, staff, or students have completed the appropriate training before working in the workplace.

Midlevel or Senior Level Employees must ensure that individuals are trained to promptly report any illnesses, needle stick, bite or scratch wounds, or splashes that might result from animal contact to the Midlevel or Senior Level Employee and the RHSO. The Midlevel or Senior Level Employee or the RHSO will subsequently notify the Department of Risk Management and Workers' Compensation.

Any necessary medical services would then be determined and authorization for treatment would be issued if recommended by the physician.

<table>
<thead>
<tr>
<th>Georgia State University</th>
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<tbody>
<tr>
<td>Department of Safety and Risk Management</td>
</tr>
<tr>
<td>PO Box 3961</td>
</tr>
<tr>
<td>75 Piedmont Ave., Suite 506</td>
</tr>
<tr>
<td>Telephone: (404-413-9545)</td>
</tr>
<tr>
<td>Fax: (404) 413-9550</td>
</tr>
<tr>
<td>E-mail: <a href="mailto:SAfBHP@langate.gsu.edu">SAfBHP@langate.gsu.edu</a></td>
</tr>
</tbody>
</table>

Non-emergency care for students is available through the Student Health Clinic at Georgia State University, a Division within Student Affairs. The website is designed to provide information for students about the services offered at the Student Health Clinic. High Quality Primary and Urgent Care services are provided by a Board Certified Family Practice Physician and Certified Nurse Practitioners. These services include but are not limited to: immunizations, physicals, gynecologic exams, STD and HIV testing. The clinic is located on street level of the new “Commons” student housing complex.

<table>
<thead>
<tr>
<th>Georgia State University Health Clinic</th>
</tr>
</thead>
<tbody>
<tr>
<td>141 Piedmont Ave, Suite D</td>
</tr>
<tr>
<td>Atlanta, GA 30303</td>
</tr>
<tr>
<td>(404) 413-1930</td>
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<table>
<thead>
<tr>
<th>Immunization Office</th>
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</thead>
<tbody>
<tr>
<td>141 Piedmont Ave, Suite D</td>
</tr>
<tr>
<td>Atlanta, GA 30303</td>
</tr>
<tr>
<td>(404) 413-1930</td>
</tr>
</tbody>
</table>

Monday - Thursday 8 a.m. - 8 p.m.  
Friday 8 a.m. - 5 p.m.  
Appointments needed  
Monday - Friday 9 a.m. - 5 p.m.  
No appointment necessary  

11. Procedures/Program for reporting and tracking injuries and illness

Individuals should promptly report any illnesses, needle stick, bite or scratch wounds, or splashes that might result from animal contact to the Midlevel or Senior Level Employee, and the RHSO. The Midlevel or Senior Level Employee or the RHSO will subsequently notify the Department of Risk Management and Workers' Compensation.

The Research Health and Safety Officer (RHSO) within the Office of Research Integrity (ORI) maintains various records generated by the Program. These reports are sent to the appropriate committees (IACUC, IBC, IRB, Laboratory Safety Committee, Health Assurance Committee, etc.) for review and corrective actions. The RHSO will determine
the appropriate committee and/or provide the report upon request by the committee. The Vice President of Research and the Health Assurance Committee is provided a copy of all of the work related incidents on campus by the GSU Department of Risk Management and Worker’s Compensation on a monthly basis. Furthermore, the GSU Department of Risk Management and Worker’s Compensation maintain a permit record of all work related incidents on campus.

Any necessary medical services would then be determined and authorization for treatment would be issued if recommended by the physician.

The MSP will maintain permanent medical records for each vertebrate animal user. Confirmation of services provided and results of authorized procedures under the MMPVAE will be maintained by the RHSO. “The Georgia State University Confidentiality of Medical Records of Individuals Participating in the Medical Monitoring Program for Vertebrate Animal Exposure”, addressing the confidentiality of records, is included in the "Medical Monitoring Authorization Packet". An individual may request the MSP to release medical information obtained under the MMPVAE to their personal physician by completing an "Authorization to Release Medical Information" form. The form can be obtained by contacting the RHSO and should be completed, witnessed, and signed by the vertebrate animal user and returned to the RHSO for processing.

F. The total gross number of square feet in each animal facility (including each satellite facility), the species of animals housed therein and the average daily inventory of animals, by species, in each facility is provided in the Facility and Species Inventory table below.
<table>
<thead>
<tr>
<th>Laboratory, Unit, or Building*</th>
<th>Gross Square Feet (including service areas)</th>
<th>Species Housed in Unit (use complete common names)</th>
<th>Approx. Average Daily Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Science Center Basement</td>
<td>4276</td>
<td>Mice(^{1}) (200), Rats(^{1})(0), Hamsters (1000), African clawed frogs (3)</td>
<td>1203</td>
</tr>
<tr>
<td>Language Research Center Lanson Building B</td>
<td>2576</td>
<td>Chimpanzees</td>
<td>4</td>
</tr>
<tr>
<td>Language Research Center NASA Building E</td>
<td>3639</td>
<td>Rhesus Monkeys</td>
<td>8</td>
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<tr>
<td>Language Research Center Capuchin Building C</td>
<td>2220</td>
<td>Capuchin</td>
<td>12</td>
</tr>
<tr>
<td>Language Research Center Administrative Building</td>
<td>600</td>
<td>Capuchin</td>
<td>10</td>
</tr>
<tr>
<td>Petit Science Center 9(^{th}) floor</td>
<td>13564</td>
<td>Ferrets (5), Mice(^{1})(1500), Rats(^{1}) (350), Hamsters (300), rabbits (2), and Zebra finches (300)</td>
<td>2457</td>
</tr>
<tr>
<td>Petit Science Center 8(^{th}) floor</td>
<td>586</td>
<td>Sea Catfish (15), Green Anole Lizards (70) and Green Tree Frogs (25)</td>
<td>110</td>
</tr>
<tr>
<td>SunTrust Annex</td>
<td>544</td>
<td>Mice(^{1}) (0) and Rats(^{1}) (0)</td>
<td>0</td>
</tr>
<tr>
<td>Kell Hall</td>
<td>1891</td>
<td>Bluebanded Goby Fish</td>
<td>300</td>
</tr>
</tbody>
</table>

\(^{1}\) Mice and Rats means mice of the genus *mus* and rats of the genus *rattus* that are purposely bred for research.
G. The training or instruction available to scientists, animal technicians, and other personnel involved in animal care, treatment, or use is as follows:

The completion and documentation of all training, including generic as well as species- and procedure-specific training, is required prior to approval of the animal protocol by the Institutional Animal Care and Use Committee. Targeted individuals include the PI, co-investigators, instructors, staff, students and others working with animals in association with a protocol. Georgia State University requires training for all personnel listed on a protocol even those not having animal exposure. Individuals in this category must complete the online training module “Working with the IACUC” prior to being listed on an approved IACUC protocol. The online training modules must be repeated at three-year intervals. GSU uses the AALAS Learning Library as the primary online training resource. Each investigator, student, staff member, etc. listed on an animal use protocol must take and pass the relevant modules of online training. At the time of completion of a module, AALAS provides the IACUC Office with the title of the module, the completion date, and the name of the person who completed the session. Training or instruction is available 24 hours a day with the AALAS Learning Library. Onsite hands on workshops have also been developed and are presented by the Division of Animal Resources under the direction of the Attending Veterinarian. Prior to approval of any protocol, investigators and their listed staff must have completed and passed the exams of the online training modules listed below. Additional training mandated by the IACUC (e.g. in the event of any noncompliance report), may be required as well. In addition, individual training is conducted periodically at the request of any investigator, student, or staff member.

The training includes training or instruction on research or testing methods that minimize the numbers of animals required to obtain valid results and limit animal pain or distress as well as other requirements delineated in 9 CFR, Part 2, Subpart C, Section 2.32(c). Specifically, training and instruction of personnel include guidance in at least the following areas:

1. Humane methods of animal maintenance and experimentation, including:
   a. The basic needs of each species of animal;
   b. Proper handling and care for the various species of animals used;
   c. Proper pre-procedural and post-procedural care of animals; and
   d. Aseptic surgical methods and procedures;

2. The concept, availability, and use of research or testing methods that limit the use of animals or minimize animal distress;

3. Proper use of anesthetics, analgesics, and tranquilizers for any species of animals used by the facility;

4. Methods whereby deficiencies in animal care and treatment are reported, including deficiencies in animal care and treatment reported by any employee of the facility. No facility employee, Committee member, or laboratory personnel shall be discriminated against or be subject to any reprisal for reporting violations of any regulation or standards under the Act;

5. Utilization of services (e.g., National Agricultural Library, National Library of Medicine) available to provide information:
a. On appropriate methods of animal care and use;
b. On alternatives to the use of live animals in research;
c. That could prevent unintended and unnecessary duplication of research involving animals; and
d. Regarding the intent and requirements of the Animal Welfare Act and USDA-APHIS Regulations.

In addition, targeted individuals must attend an animal facility orientation meeting. These orientations are offered on a monthly basis by the Division of Animal Resources. The orientation is not required for established users of the animal facility. Rather, the targeted individuals are those new to the GSU animal facilities. Targeted individuals must also enroll in the Research Occupational Health and Safety Program (ROHSP). This program is described in Section E above.

The training or instruction available to IACUC members is as follows:

IACUC members receive training from both internal and external training programs. Regarding internal training, new IACUC members participate in an orientation session in which the GSU IACUC Policies and Procedures Manual is reviewed. Other aspects of training include: Legal Issues: Regulations, Animal Welfare Assurance, Guide, & USDA regulations; IACUC Handbook/Program Description; Roles & Responsibilities of 1st & 2nd Reviewers of protocols; Designated Reviewers; AALAS Training requirements; application and training of researchers/staff; Introduction to the roles and responsibilities of the IACUC Chair, University Veterinarian; and IACUC Compliance Officer.

Each IACUC member is provided the following resources:

1) The 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) The ARENA/OLAW IACUC Guidebook;
4) The current AVMA Guidelines on Euthanasia; and
5) A copy of the current [most recent OLAW approved] GSU Assurance.

In addition, relevant training topics and literature applicable to laboratory animal use and the IACUC are discussed at the IACUC meetings on a regular basis. When possible, IACUC members attend one or more of the following training opportunities: IACUC 101, IACUC 201, IACUC Advanced, the PRIM&R-ARENA conference, SCAW/OLAW workshops and other similar conferences addressing IACUC-relevant issues.

**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 six months and will be re-evaluated by the IACUC at least once every six months thereafter, in accordance with the PHS Policy IV.B.1-2. Reports have been and will continue to be prepared in accordance with the 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 “Guide.” Any departures from the “Guide” will be identified specifically and the 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.

This Institution is Category Two (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) is attached.

V. RECORDKEEPING REQUIREMENTS

A. This Institution will maintain for at least three years:

1. A copy of this Assurance and any modifications thereto, 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 documentation of whether IACUC approval was given or withheld.

4. Records of semiannual IACUC reports and recommendations (including minority views) forwarded to the Institutional Official, the Vice President for Research and Economic Development.

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 three 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. This Institution’s reporting period is January 1 – December 31. The IACUC, through the Institutional Official, will submit an annual report to OLAW on January 31st of each year. The 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), any change in the description of the Institution’s program for animal care and use as described in this Assurance, or any change in
the IACUC membership. If there are no changes to report, this Institution will provide written notification that there are no changes.

2. 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, the Vice President for Research and Economic Development.

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 sections VI.A. and VI.B. of this document shall include any minority views filed by members of the IACUC.
VII. INSTITUTIONAL ENDORSEMENT AND PHS APPROVAL

A. Authorized Institutional Official

Name: James A. Weyhenmeyer, PhD

Title: Vice President for Research and Economic Development

Name of Institution: Georgia State University

Address: 30 Courtland St. SE, PO Box 3999, Atlanta, GA 30303-3999

Phone: 404-413-3517

Fax: 404-413-3518

E-mail: jweyhenmeyer@gsu.edu

Signature: ________________________________

Date: _____

B. PHS Approving Official

Name:

Title:

Address:

Phone:

Fax:

E-mail:

Signature: ________________________________

Date: _______

C. Effective Date of Assurance:

D. Expiration Date of Assurance:
# Appendix I

**MEMBERSHIP OF THE INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE**

**DATE:** January 2012  
**NAME OF INSTITUTION:** Georgia State University  
**ASSURANCE NUMBER:** A 3914-01

<table>
<thead>
<tr>
<th>Chairperson Name, Title, and Degree/Credentials</th>
<th>Business Address, Phone, Fax, and Email of Chairperson</th>
</tr>
</thead>
</table>
| Margo A. Brinton                              | Department of Biology  
P.O. Box 4010  
161 Jesse Hill Jr. Drive  
Atlanta, GA 30302-4010 |
| **Title**: Professor                         | **Phone**: (404) 413-5388  
**Fax**: 404-413-5301  
**Email**: Mbrinton@gsu.edu |

<table>
<thead>
<tr>
<th>Degree/credentials*: Ph.D.</th>
<th>Phone*: (404) 413-5388</th>
<th>Fax*: 404-413-5301</th>
<th>Email* <a href="mailto:Mbrinton@gsu.edu">Mbrinton@gsu.edu</a>*</th>
</tr>
</thead>
</table>

<table>
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<tr>
<th>Name of Member/Code**</th>
<th>Degree/Credentials</th>
<th>Position Title</th>
<th>PHS Policy Requirements***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Margo A. Brinton, Chair</td>
<td>Ph.D.</td>
<td>Regents' Professor and Professor, Biology</td>
<td>Scientist</td>
</tr>
<tr>
<td>Dr. Christopher P. Ingalls, Vice-Chair</td>
<td>Ph.D., M.S.</td>
<td>Associate Professor, Kinesiology and Health</td>
<td>Scientist</td>
</tr>
<tr>
<td>Dr. Michael Hart</td>
<td>D.V.M., M.S.</td>
<td>University Veterinarian and Director Animal Resources</td>
<td>Veterinarian</td>
</tr>
<tr>
<td>Dr. Matthew Grober</td>
<td>Ph.D.</td>
<td>Associated Professor, Biology</td>
<td>Scientist</td>
</tr>
<tr>
<td>Dr. Roberta Attanasio</td>
<td>Ph.D.</td>
<td>Associate Professor, Biology</td>
<td>Scientist</td>
</tr>
<tr>
<td>Dr. Aras Petrulis</td>
<td>Ph.D.</td>
<td>Associate Professor, Neuroscience Institute</td>
<td>Scientist</td>
</tr>
<tr>
<td>Dr. Anne Murphy</td>
<td>Ph.D.</td>
<td>Associate Professor, Neuroscience Institute</td>
<td>Scientist</td>
</tr>
<tr>
<td>Name</td>
<td>Degree</td>
<td>Position</td>
<td>Affiliation</td>
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</tr>
<tr>
<td>Kay Lee Summerville</td>
<td>M.A.</td>
<td>Senior Program Associate, (Administration) Yerkes, Emory University</td>
<td>Non-affiliated Member Non-Scientist</td>
</tr>
<tr>
<td>Dr. Dwight Lawson</td>
<td>Ph.D.</td>
<td>Director of Animal Programs, Zoo Atlanta</td>
<td>Scientist</td>
</tr>
<tr>
<td>Dr. Charles Menzel</td>
<td>Ph.D.</td>
<td>Senior Research Scientist, Language Research Center</td>
<td>Scientist</td>
</tr>
<tr>
<td>Dr. Richard Rothenberg</td>
<td>M.D.</td>
<td>Professor, Institute of Public Health</td>
<td>Member</td>
</tr>
<tr>
<td>Cynthia Roberts</td>
<td>BA</td>
<td>President, Sentient Search Solutions</td>
<td>Non-affiliated Member Non-Scientist</td>
</tr>
</tbody>
</table>
OTHER KEY CONTACTS (OPTIONAL)
If there are other individuals within the Institution who may be contacted regarding this Assurance, please provide information below.

Name: Margaret “Casey” Kilcullen-Steiner
Title: IACUC Compliance Officer
Phone & Fax: 404-413-3508 (Office) and 404-413-3504 (Fax)
E-mail: iacuc@gsu.edu
Memorandum

To: James A. Weyhenmeyer, Vice President for Research and Economic Development, Institutional Official for Animal Care and Use

From: Institutional Animal Care and Use Committee


Date: October 10, 2011 (Revised January 27, 2012)

This represents the semiannual report of the Institutional Animal Care and Use Committee (IACUC), as required by the PHS Policy on Humane Care and Use of Laboratory Animals and as a condition of this institution’s Animal Welfare Assurance on file with the Office of Laboratory Animal Welfare (OLAW), and USDA Animal Welfare Regulations, 9 CFR Chapter I, subchapter A, as applicable.

Evaluation of the Animal Care and Use Program

1. The IACUC conducted its semiannual evaluation of the institution’s animal care and use program on September 23, 2011, using the Guide for the Care and Use of Laboratory Animals (Guide), and, as applicable, 9 CFR Chapter I, 2.31

The Committee used the NRC Guide for the Care and Use of Laboratory Animals and other pertinent resources, e.g., the PHS Policy, the Code of Federal Regulations (Animal Welfare) as a basis for the review. To facilitate the evaluation, the Committee used a checklist based on the Sample OLAW Program and Facility Review Checklist from the OLAW website. The evaluation included, but was not necessarily be limited to, a review of the following: a) IACUC Membership and Functions; b) IACUC Records and Reporting Requirements; c) Husbandry and Veterinary Care (all aspects); d) Personnel Qualifications (Experience and Training); e) Occupational Health and Safety; and f) disaster planning. In addition, the evaluation included a review of the Institution’s PHS Assurance. No member was involuntarily excluded from participating in any portion of the review.

2. Accreditation.
The Institution’s Program for Laboratory Animal Care and Use is not currently accredited by the Association for the Assessment and Accreditation of Laboratory Animal Care International (AAALAC-Int’l).

3. IACUC Approved Departures from the NRC Guide.

The following departures from the Guide are scientifically justified and approved by the IACUC: Why these Exceptions to Regulations were compiled:

USDA
"IACUC Functions: Review ... programs ... and inspect ... using the [USDA regs] as a basis for evaluation. [IACUC] reports must contain a description of ... facility's adherence to the [USDA regs] and must identify specifically any departures [from them] and must state the reasons for each departure."

PHS Policy p. 7
("Functions of the IACUC review ... programs, inspect using the Guide as a basis for evaluation." 
"[IACUC] reports must contain a description of the nature and extent of the Institution's adherence to the Guide and this Policy and must identify specifically any departures from the provisions of the Guide and this Policy and must state the reasons for each depart."

3.28(b)(3)(i)
"The interior height of any primary enclosure used to confine hamsters shall be at least 6 inches."

We sometimes house dwarf hamsters in 5 inch cages because it is documented that 6 inch cages are detrimental to their growth [Gilman WC, et.al "Effect of the New USDA Cage Height Standard on Body Weights of Weanling and Djungarian Dwarf Hamsters (Phodopus sungorus). Contemporary Topics in Lab Animal Science, 32(1): 17-19, 1993.]

3.28(b) (3) (ii)
"A nursing female hamster, together with her litter, shall be housed in a primary enclosure which contains no other hamsters ..."

All of our breeding female dwarf hamsters with litters are housed with the adult male sire because our experience is that, unlike common golden hamsters, the Siberian dwarf hamster male is not injured by the female and he participates in the rearing of the young such that pup survival is higher when the sire is present.

3.31(a) (1)
"[Hamster] enclosures shall be sanitized at least once every 2 weeks..."

We sometimes do not change hamster cages for up to maximally 4 weeks due to the experimental needs of IACUC-approved research involving territorial aggression and circadian rhythms.

Policy #12
"When a database search is the primary means of meeting (the requirement to search for alternatives), the narrative must, at a minimum, include ... the period covered by the search."

If an entire database is searched it may not be possible to determine the period covered by the search. For example, The National Library of Medicine's "PubMed" database goes back to 1966 for some major journals, but coverage of other journals begins in various different years not necessarily starting with the earliest year that the journal was published. Therefore, instead of reporting the period covered by the search we require a statement that the entire database was searched without time limitations on a particular date.

Guide p. 44
"... the acceptable range of relative humidity is considered to be 30 to 70% for most mammalian species."

Mechanisms for humidity control are not available at the Language Research Center.

Guide p. 140
"Temperature is best regulated by having thermostatic control for each holding space. Use of zonal control for multiple spaces can result in temperature variations between spaces in the zone because of differences in animal densities and heat gain or loss in ventilation ducts and other surfaces within the zone."

The NASA building has zonal temperature control. The "master" control is in an animal room but documentation shows that temperatures have been controlled within the temperature and humidity ranges appropriate for the species, to which the animals can adapt with minimal stress and physiologic alteration.

Guide p. 141
"In the event of power failure, an alternative or emergency power supply should be available to maintain critical services (e.g., the HVAC system, ventilated caging systems [Huerkamp et al. 2003], or life support systems for aquatic species) or support functions (e.g., freezers and isolators) in animal rooms, operating suites, and other essential areas."

The downtown animal facilities are on the same triple redundant grid as the state and federal buildings and have never lost power for an extended period of time; in addition PSC has a back-up generator. All of the primate buildings have backup generators for power.

4. Program Deficiencies.

Attached is a list of deficiencies. As required, the Committee categorized them as significant or minor (a significant deficiency is one that is or may be a threat to the health and safety of the animals or personnel) and developed a reasonable and specific plan and schedule for correcting each deficiency. All other aspects of the program are consistent with the PHS Policy, the Guide, and applicable Animal Welfare Regulations.

No deficiencies were identified. All aspects of the program are consistent with the PHS Policy, the Guide, and applicable Animal Welfare Regulations.

Inspection of the Animal Facilities

1. The IACUC inspected the animal facilities on 9/13/11, 9/14/11, 9/15/11, 9/20/11 & 10/3/11, using the Guide, and, as applicable, 9 CFR Chapter I, 2.31.

Members of the Committee visited all of the institute’s facilities where animals are housed or used, i.e., holding areas, animal care support areas, storage areas, procedure areas, and laboratories where animal manipulations are performed. Equipment used for transporting of the animals was also inspected. The Committee used the NRC Guide and other pertinent resources, e.g., the PHS Policy, the Code of Federal Regulations (Animal Welfare) as a basis for the inspection. To facilitate the evaluation, the Committee used a checklist based on the Sample OLAW Program and Facility Review Checklist from the OLAW website. No member was involuntarily excluded from participating in any portion of the inspection.
2. Facility Deficiencies.

Attached is a list of deficiencies. As required, the Committee categorized them as significant or minor (a significant deficiency is one that is or may be a threat to the health and safety of the animals or personnel) and developed a reasonable and specific plan and schedule for correcting each deficiency. All other aspects of the program are consistent with the PHS Policy, the Guide, and applicable Animal Welfare Regulations.

Minority Views

There are no minority views.
<table>
<thead>
<tr>
<th>Signatures</th>
<th>Name:</th>
<th>Signature and Date:</th>
<th>Minority Opinion Y/N</th>
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### I. Semiannual Program Review and Facility Inspection Report

**Date: 9/23/2011**  
**Members in Attendance:** Margo Brinton, Chris Ingalls, Mike Hart, Roberta Attanasio, Jeff Rupp, Dwight Lawson, Anne Murphy, Aras Petrulis, Charles Menzel and Matthew Grober

<table>
<thead>
<tr>
<th>Deficiency Category*</th>
<th>Location</th>
<th>Deficiency and Plan for Correction</th>
<th>Responsible Party</th>
<th>Correction Schedule and Interim Status</th>
<th>Date Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor</td>
<td>PSC 855</td>
<td>Frozen Shrimp need expiration date written on the packaging</td>
<td>C Derby</td>
<td>Shrimp discarded, new package marked with expiration date on date of inspection</td>
<td>9/20/11</td>
</tr>
<tr>
<td>Minor</td>
<td>PSC 861</td>
<td>Rusty razor blade in drawer needs to be discarded in the sharps container</td>
<td>W Wilczynski</td>
<td>Razor blade discarded in sharps container</td>
<td>10/1/11</td>
</tr>
<tr>
<td>Minor</td>
<td>PSC 561</td>
<td>IACUC approved protocol not available</td>
<td>D Merlin</td>
<td>Protocols needs chair’s signature. Will be signed on 9/23/11</td>
<td>10/7/11</td>
</tr>
<tr>
<td>Minor</td>
<td>PSC 634/636</td>
<td>Signed IACUC approved protocol not available</td>
<td>Y Liu</td>
<td>Signed Protocols moved to notebook with SOPs</td>
<td>10/3/11</td>
</tr>
<tr>
<td>Minor</td>
<td>PSC 654</td>
<td>Signed IACUC approved protocol not available</td>
<td>R Dix</td>
<td>IACUC Compliance Officer provided a copy for lab notebook</td>
<td>9/22/11</td>
</tr>
<tr>
<td>Minor</td>
<td>PSC 830</td>
<td>Anesthetic Scrubber needs additional data on the label</td>
<td>H E Albers</td>
<td>Anesthetic scrubber no longer used by lab</td>
<td>Discarded 10/5/11</td>
</tr>
<tr>
<td>Minor</td>
<td>PSC 834</td>
<td>IACUC approved protocol not available</td>
<td>L Carruth</td>
<td>Protocols only available on PIs computer. Hard copies placed in notebook in lab Bottle disposed of properly.</td>
<td>9/28/11</td>
</tr>
<tr>
<td>Minor</td>
<td>PSC 928</td>
<td>Expired isoflurane</td>
<td>L Carruth</td>
<td>Protocols only available on PIs computer. Hard copies placed in notebook in lab Bottle disposed of properly.</td>
<td>9/28/11</td>
</tr>
<tr>
<td>Minor</td>
<td>PSC 843</td>
<td>Lab personnel did not know location of approved protocol</td>
<td>B Cooke</td>
<td>Lab personnel were shown location of protocol by PI</td>
<td>9/27/11</td>
</tr>
<tr>
<td>Minor</td>
<td>PSC 912</td>
<td>Empty controlled drug bottles should be labeled empty and stored together</td>
<td>A Petrulis</td>
<td>Some of the empty bottles were labeled while inspectors were present others will be labeled and placed on the same shelf in the locked drug cabinet</td>
<td>9/28/11</td>
</tr>
<tr>
<td>Minor</td>
<td>PSC 915</td>
<td>Two approved protocols not available. Acepromazine is expired but not labeled.</td>
<td>A Murphy</td>
<td>All protocols now in binder. Some drug bottles were labeled while the inspectors were present. Other controlled drugs will been clearly labeled “empty” or “expired” where applicable. Empty and expired drug bottles have been grouped together away from viable drugs.</td>
<td>9/29/11</td>
</tr>
<tr>
<td>Minor</td>
<td>PSC 938A</td>
<td>Constant dark room has not been sanitized every 6 months per the protocol.</td>
<td>S Pallas &amp; DAR</td>
<td>DAR &amp; PI have developed a schedule for sanitation every 6 months.</td>
<td>Room sanitized on 10/11/11</td>
</tr>
<tr>
<td>Minor</td>
<td>PSC 950</td>
<td>Electrical cord from the hood is draped from the hood to the wall at neck level.</td>
<td>DAR</td>
<td>Hood moved against the wall to eliminate hazard</td>
<td>9/30/11</td>
</tr>
<tr>
<td>Minor</td>
<td>PSC 970D</td>
<td>Food bin label is missing expiration date</td>
<td>DAR</td>
<td>Label has been updated and affixed to bin</td>
<td>9/30/11</td>
</tr>
<tr>
<td>Minor</td>
<td>PSC 955</td>
<td>Expired drugs were found</td>
<td>S Pallas &amp; DAR</td>
<td>Drugs were marked as expired and set aside for disposal</td>
<td>9/15/11</td>
</tr>
<tr>
<td>Minor</td>
<td>PSC 960</td>
<td>Feed and Bedding on flat bed carts touching the walls</td>
<td>DAR</td>
<td>Signage has been placed in the area and staff will be re-trained</td>
<td>10/5/11</td>
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<td>------------------------------------------------------</td>
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<tr>
<td>Minor</td>
<td>PSC 963</td>
<td>The guillotine use log is unclear. Species of animals are listed in the sharpening column. How is it determined when the guillotine is sharpened is not clear</td>
<td>DAR</td>
<td>A new, revised guillotine log was placed in the binder which includes the date of the last sharpening.</td>
<td>10/5/11</td>
</tr>
<tr>
<td>Minor</td>
<td>PSC 965</td>
<td>Expired saline</td>
<td>S Pallas &amp; DAR</td>
<td>Saline was removed immediately and disposed of while inspectors were present</td>
<td>9/15/11</td>
</tr>
<tr>
<td>Minor</td>
<td>LRC Lanson</td>
<td>New controlled drug cabinet needs to be installed. Bite injury inventory sheet needs to be updated to reflect new supplies</td>
<td>J Kelley</td>
<td>Cabinet installed Inventory check off list updated</td>
<td>10/15/11</td>
</tr>
<tr>
<td>Minor</td>
<td>LRC Building C</td>
<td>Antibiotic ointment missing from bite/injury kit Bite injury inventory sheet needs to be updated to reflect new supplies</td>
<td>J Kelley</td>
<td>Antibiotic ointment replaced Inventory check off list updated</td>
<td>10/15/11</td>
</tr>
<tr>
<td>Minor</td>
<td>LRC NASA Building</td>
<td>Biohazardous bags should be used for macaque trash Bite injury inventory sheet needs to be updated to reflect new supplies</td>
<td>J Kelley</td>
<td>Regular trash bags replaced with biohazard Inventory check off list updated</td>
<td>10/15/11</td>
</tr>
<tr>
<td>Minor</td>
<td>LRC NASA Building Halls</td>
<td>Need to caulk around all outlets and wall fixtures not presently sealed</td>
<td>J Kelley</td>
<td>Caulking was done on most of the outlets and fixtures last year, but a few were missed</td>
<td>10/31/11</td>
</tr>
<tr>
<td>Minor</td>
<td>LRC NASA Building Storage room 102</td>
<td>Touch up paint needed in a few spots</td>
<td>J Kelley</td>
<td>Painting done</td>
<td>10/31/11</td>
</tr>
<tr>
<td>Minor</td>
<td>LRC NASA Building 107</td>
<td>Door sweep needs to be replaced Pipes on wall needs touch up paint</td>
<td>J Kelley</td>
<td>Sweep was replaced last year &amp; has worn down again due to uneven floor Touch up paint applied</td>
<td>10/15/11</td>
</tr>
<tr>
<td>Minor</td>
<td>Old shop site</td>
<td>Area needs to be cleaned</td>
<td>J Kelley</td>
<td>Clean up done</td>
<td>10/30/11</td>
</tr>
<tr>
<td>Minor</td>
<td>LRC Admin Building</td>
<td>Approved protocols need to be available Disaster plan needs to be reviewed and made available to LRC staff Post current year wildlife permit</td>
<td>J Kelley</td>
<td>Approved protocols now available Disaster plan reviewed and updated and made available to staff Wildlife permits posted</td>
<td>10/3/11</td>
</tr>
<tr>
<td>Minor</td>
<td>LRC Admin Building renovated indoor animal housing</td>
<td>Before capuchins arrive touch up paint several areas and clean all surfaces. Smooth cement wall edges in 1st cage. Install signage “No Entry or Exit Through This Door” on locked door. Place Bite/Injury kit in the area.</td>
<td>J Kelley</td>
<td>Touch up paint and smoothing cement edges done Signage posted on locked door Bite/Injury kit placed in area</td>
<td>9/29/11</td>
</tr>
<tr>
<td>Minor</td>
<td>LRC Admin Building renovated outdoor animal housing</td>
<td>Hanging chain link wire needs to be removed from outside play area – too many sharp edges. Remove remaining leaves from roof and repair corrugated roofing. Touch up paint</td>
<td>J Kelley</td>
<td>Hanging chain removed Leaves removed and roof repaired Touch up painting done</td>
<td>9/29/11</td>
</tr>
<tr>
<td>Minor</td>
<td>LRC Admin Building South Exterior</td>
<td>Remove surplus items (chair &amp; shopping cart)</td>
<td>J Kelley</td>
<td>Surplus items removed</td>
<td>10/8/11</td>
</tr>
<tr>
<td><strong>Significant</strong></td>
<td><strong>NSC 204C</strong></td>
<td>Currently there are not ground-fault interrupters in place in bluebanded goby fish room. GFI need to be installed or the animals need to be moved to another location with GFIs installed.</td>
<td>M Grober</td>
<td>GFI must be installed within the next two weeks or the animals must be moved by 2/10/12.</td>
<td><strong>Must be done by 2/10/12</strong></td>
</tr>
<tr>
<td><strong>Minor</strong></td>
<td>✓</td>
<td>NSC 350 Counter tops and sink area dirty</td>
<td>C Jiang</td>
<td>Lab personnel will be re-trained to clean area after each use</td>
<td>9/29/11</td>
</tr>
<tr>
<td><strong>Minor</strong></td>
<td></td>
<td>NSC 444 Recommend a guillotine sharpening SOP for rats and mice Recommend another level of security for controlled drugs</td>
<td>A Roseberry</td>
<td>SOP developed for guillotine sharpening schedule for rat &amp; mouse use Upper drawer will be outfitted with a lock</td>
<td>11/15/11</td>
</tr>
<tr>
<td><strong>Minor</strong></td>
<td></td>
<td>NSC 180 Hall Food storage bins outside 180T do not have mill date or expiration date on label</td>
<td>Kail</td>
<td>Food bin labels filled in with missing information and adhered to bin</td>
<td>9/30/11</td>
</tr>
<tr>
<td><strong>Minor</strong></td>
<td></td>
<td>NSC 190 Hallway 3 gallon jug of unknown liquid on top of dryer</td>
<td>Kail</td>
<td>Jug labeled</td>
<td>9/15/11</td>
</tr>
<tr>
<td><strong>Minor</strong></td>
<td></td>
<td>NSC 175 Food and bedding need to be pulled away from the wall</td>
<td>Kail</td>
<td>Food &amp; bedding moved 6 inches from wall</td>
<td>9/30/11</td>
</tr>
<tr>
<td><strong>Minor</strong></td>
<td></td>
<td>Kell Hall 203E Single housed hamster found dead in cage</td>
<td>M Davis</td>
<td>Animal had been checked earlier by DAR and records indicate breathing was labored. DAR staff contacted the lab with the expectation they would check on the animal within an appropriate time. DAR staff will now call the Animal Health Care Technician or Vet immediately when an animal is deemed to be in distress.</td>
<td>9/14/11</td>
</tr>
<tr>
<td><strong>Minor</strong></td>
<td></td>
<td>Kell Hall 231 Large tank WS 9 4 bio filters are not turning Tank WS 2 one bio filter not turning</td>
<td>M Grober</td>
<td>Filters replaced on both tanks</td>
<td>9/28/11</td>
</tr>
<tr>
<td><strong>Minor</strong></td>
<td></td>
<td>Kell Hall 483 Food and bedding need to be pulled away from the wall</td>
<td>Kail</td>
<td>Food &amp; bedding moved 6 inches from wall</td>
<td>10/5/11</td>
</tr>
<tr>
<td><strong>Minor</strong></td>
<td></td>
<td>SunTrust 142 Empty animal room needs to have drains serviced with water (to prevent from drying out and smelling) weekly</td>
<td>T McCann</td>
<td>Water will be poured down drain weekly</td>
<td>9/14/11</td>
</tr>
</tbody>
</table>

* A = acceptable  
M = minor deficiency  
S = significant deficiency (is or may be a threat to animal health or safety)  
C = change in program (PHS Policy IV.A.1.a.-i.) (include in semiannual report to IO and in annual report to OLAW)  
NA = not applicable  
✓ = Check if repeat deficiency