

ARKANSAS STATE UNIVERSITY GOVERNING PRINCIPLES AND PROCEDURES FOR THE CARE AND USE OF LABORATORY ANIMALS

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1.0 INTRODUCTION

Arkansas State University (ASU) is committed to providing a safe work environment for its employees, students, and affiliate workers, and is likewise committed to the care and use of animals used for educational and/or research purposes.

2.0 PURPOSE

The purpose of this document is to protect the safety and welfare of University stakeholders and to ensure that animals that are used in its educational and research programs are cared for and used in a manner consistent with Public Health Service regulations.

3.0 DEFINITIONS

Animal Facility. Any and all buildings, rooms, areas, enclosures, or vehicles, including satellite facilities, used for animal confinement, transport, maintenance, breeding, or experiments inclusive of surgical manipulation. A satellite facility is any containment outside of a core facility or centrally designated or managed area in which animals are housed for more than 24 hours.

Animal Welfare Assurance. The documentation from an institution assuring institutional compliance with Public Health Service policies concerning the care and use of animals.

Institution. Any public or private organization, business, or agency (including components of federal, state, and local governments).

Institutional Official. An official who has the authority to sign the Institution's Assurance of Compliance, making a commitment on behalf of the institution that the requirements of the Public Health Service animal care policies are met.

Institutional Care and Use Committee (IACUC). The IACUC assures compliance with federal laws and regulations in the care and use of laboratory animals.

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Material Data Safety Sheets (MSDS). A Material Safety Data Sheet is prepared in accordance with OSHA Hazard Communications Standards and is a document that is prepared by the manufacturer explaining the nature of the hazard and its safe handling.

Office of Laboratory Animal Welfare (OLAW). OLAW has responsibility for the general administration and coordination of the PHS Policy and provides specific guidance, instruction, and materials to institutions that must comply with the Policy.

Public Health Service (PHS). PHS includes the Agency for Healthcare Research and Quality, Centers for Disease Control and Prevention, the Food and Drug Administration, the Health Resources and Services Administration, the Indian Health Service, the National Institutes of Health, and the Substance Abuse and Mental Health Services Administration.

Significant Deficiency. A significant deficiency is one that, in the judgment of the Institutional Animal Care and Use Committee (IACUC) or the Institutional Official, is or may be a threat to the health or safety of the animals.

Zoonosis. Zoonosis is an infection or infectious disease transmissible under natural conditions from vertebrate animals to man.

4.0 APPLICABILITY

These policies and procedures apply to employees or other non-ASU affiliated personnel who, in the conduct of their work on campus have direct contact with animals, their tissues, body fluids, wastes and/or indirect animal aerosol exposure.

5.0 REGULATIONS

The Animal Welfare Act, Public Law 89-544, 1966, as amended (P.L. 91-579, P.L. 94-279, and P.L. 99-198) 7 U.S.C. 2131 et. seq. Implementing regulations are published in the Code of Federal Regulations (CFR), Title 9, Chapter 1, Subchapter A, Parts 1, 2, and 3, and are administered by the U.S. Department of Agriculture.

The Health Research Extension Act of 1985, Public Law 99-158, *Animals in Research*, provides the statutory mandate for the Public Health Service (PHS) Policy on Humane Care and Use of Laboratory Animals.

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The Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) promotes the humane treatment of animals in science through a voluntary accreditation program (see <http://www.aaalac.org>).¹

U.S. Department of Agriculture (USDA) Import-Export Regulations (7 CFR): Animal and animal products import/transport information. See <http://www.aphis.usda.gov/NCIE/>.

Occupational Health and Safety in Care and Use of Research Animals (National Research Council): Promotes occupational health and safety by recognizing and considering hazards and health risks associated with the care and use of research animals. See <http://www.nap.edu/catalog/4988.html>.

The Public Health Service requires use of the *Guide for the Care and Use of Laboratory Animals* (National Research Council) as a basis for developing and implementing an institutional program for activities involving animals. The *Guide* provides information that enhances animal well-being, the quality of biomedical research, and the advancement of biologic knowledge that is relevant to humans or animals. See <http://www.nap.edu/catalog/1592.html>.

6.0 GOVERNING PRINCIPLES

6.1 OVERVIEW

ASU complies with all applicable provisions of the Animal Welfare Act and other federal statutes and regulations relating to animals. It acknowledges its role in ensuring that animals that are used in its educational and/or research programs are cared for and treated in accordance with standards as stipulated in the National Research Council's *Guide for the Care and Use of Laboratory Animals*. The University reserves the right to review all applications and proposals that it sponsors; however, it acknowledges that the IACUC has sole responsibility for approving protocols that include the care and use of animals.

¹ AAALAC presents an overview of governmental regulations regarding use of animals at <http://www.aaalac.org/resources/usregs.cfm>.

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6.2 INSTITUTIONAL STATUS

ASU qualifies for use of laboratory animals under Category 2 (Section IV., 2 of the PHS Policy on Human Care and Use of Laboratory Animals), certifying that it will conduct self-inspections at least every six months and will submit its evaluations to OLAW.

6.3 INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE (IACUC)

6.3.1 Appointment

The Chancellor appoints the University's IACUC, a panel that consists of at least five members including: one practicing scientist, one member whose primary concerns are in a nonscientific area, one doctor of veterinary medicine, and one individual who has no association with ASU. Committee members will serve on rotating, three-year terms (??). A quorum is required to conduct business.

6.3.2 Humane Treatment. The IACUC will conduct its activities in accordance with the following tenets:

- Procedures with animals will avoid or minimize discomfort, distress, and pain to the animals, consistent with sound research design. Procedures that may cause more than momentary or slight pain or distress will be performed with appropriate sedation, analgesia, or anesthesia, unless the procedure is justified for scientific reasons in writing by the Investigator. 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, if appropriate, during the procedure.
- The living conditions of animals will be appropriate for their species and contribute to their health and comfort. The housing, feeding, and non-medical 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.
- Medical care for animals will be available and provided as necessary by the program veterinarian.
- Personnel conducting procedures on the species being maintained or studied will be appropriately qualified and trained in those procedures.

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- The principal investigator (PI) has considered alternatives to procedures that may cause more than momentary or slight pain or distress to the animals, and has provided a written narrative description of the methods and sources used to determine that alternatives were not available.
- The investigator has provided a written assurance that the proposed research does not unnecessarily duplicate previous experiments.
- 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 the program veterinarian with personnel trained and experienced in the proper care, handling, and use of the species being maintained or studied.
- Personnel conducting procedures on the species being maintained or studied will be appropriately qualified and trained in those procedures.
- No animal will be used in more than one major operative procedure from which it is allowed to recover, unless it is justified in writing for scientific reasons by the PI, required as routine veterinary procedure, or to protect the health or well-being of the animal as determined by the attending veterinarian.
- Methods of euthanasia used will be consistent with the recommendations of the American Veterinary Medical Association Panel on Euthanasia, unless a deviation is justified for scientific reasons in writing by the Investigator.

6.3.3 Protocol/Program Reviews

IACUC's evaluation of protocols and programs that are related to the care and use of animals focuses on compliance with institutional, PHS, and Animal Welfare Act policies insofar as they apply to the research or teaching project. IACUC must also determine whether the research/teaching project is consistent with the *Guide*, or whether the proposal contains an acceptable written justification for any departures. Elements of the review include the following considerations.

- Prior to the review, each member of the IACUC will be provided with a list of projects to be reviewed. Written descriptions of research projects that involve the care and use of animals shall be available to all IACUC members.
- Committee members will recuse themselves when conflicts of interest exist. A member who has a conflicting interest must leave the room and may not contribute to the constitution of a quorum. If requested, however, such members may provide information.

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- The IACUC may invite consultants to assist in the review of complex protocols when necessary. Consultants may not vote unless they are officially appointed voting members of the IACUC.
- Any member of the IACUC can request full Committee review of a protocol. Absent such a request, the IACUC Chair (or his/her designee) may assign the protocol in question to at least one designated reviewer qualified to review the protocol. S/he or they (depending upon the complexity of the protocol) will either: 1) pre-approve the protocol, 2) request additional information from the Principal Investigator to pre-approve it, or 3) refer it to full committee review. If full committee review is requested, approval of those research projects 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.
- The designated reviewer(s) relays a description of the proposed significant changes to all IACUC members who will have the opportunity to request, within a timeframe determined according to urgency (but not less than 48 hours), full committee review at a convened meeting.
- The IACUC Chair, or the designated reviewer, informs the Principal Investigator in writing of required modifications, questions, or concerns.
- The Principal Investigator returns his/her written response to the reviewer(s). The process is repeated until all reviewers are in agreement and the protocol is pre-approved or is referred to the full committee for review at a convened IACUC meeting.
- The Chair of the IACUC, or his/her designee, notifies investigators and the Institutional Official in writing of its decision to approve or withhold approval, or of modifications required to secure IACUC approval. If the IACUC decides to withhold approval of an activity, it shall include in its written notification a statement of the reasons for its decision. The Investigator must be given an opportunity to respond in person or in writing.
- The Chair of the IACUC, or his/her designee, shall provide verification of protocol approval to sponsoring agencies, as required.
- Approved protocols will be kept on file in the Office of the Institutional Official and in the Animal Care Facility Office with access to this information openly available to the Institutional Bio-Safety Committee, Environmental Health and Safety, and any other interested parties.
- Suspend any protocol or approved activity involving animals after review of the matter at a convened meeting of a quorum of the IACUC and through a vote of a majority of the quorum present;

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- Review the reasons for the suspension with the Institutional Official and take appropriate corrective action;
- Submit a full report to the Institutional Official and to OLAW and any other relevant entities, as required.

6.3.4 Reports of Mistreatment of Animals

The IACUC will ensure that the University's Policy on the Reporting of Animal Mistreatment is posted in clear view in multiple locations within the Animal Care Facilities. The Committee will also:

- Protect the whistleblower's identity to the extent possible;
- When warranted, appoint a subcommittee to perform an investigation;
- Review any subcommittee findings at a convened meeting and take appropriate action, if warranted, up to and including suspension of a protocol and notification of the Institutional Official and OLAW.
- Make recommendations as necessary to correct and/or improve any aspect of the Institution's animal program, facilities, or personnel training. Recommendations will be submitted to the Institutional Official in writing or by electronic mail, and will include a description of the actions endorsed by the IACUC to make such improvements or corrections and a suggested timetable for action. Recommendations forwarded to the Institutional Official will be included in the semiannual program evaluations and the semiannual report to the Institutional Official.
- Review and approve, require modifications in (to secure approval), or withhold approval of those activities related to the care and use of animals as set forth in the PHS Policy.

6.4 TRAINING

The IACUC will ensure that all scientists, research technicians, animal technicians, and all other personnel involved in animal care, treatment, and use are qualified to perform their duties. They will attend mandatory seminars providing instruction on humane practices in animal care, research methods that minimize the numbers of animals required to obtain valid results, limiting animal pain and distress, surgery and post-operative care, euthanasia, and other relevant topics. Mandatory training seminars will be presented a minimum of once per semester. All attendees will sign a statement of attendance which will be kept on file in the Animal Care Facility office.

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Employees and their supervisors must be trained in best practices and proper use prior to the assumption of any work that involves research animals. They likewise must be trained to recognize allergic symptoms among their employees, with the awareness that exposure to animals may result in moderate to severe allergic reactions. When warranted, special training (e.g., zoonoses, allergies, hazards, special precautions for pregnancy, illness, and immune suppression) will be provided through targeted, in-service programs and seminars. These programs, in addition to educational materials sent via email to all animal users, emphasize the specific risks associated with different types of research with laboratory animals and provide guidance on appropriate methods of exposure control and protection.

All personnel working in the Animal Care Facility will be enrolled in the AALAS certified technician training program and through the use of internet-based training programs. Additional learning opportunities are also made available on a periodic basis.

All investigators involved in the care and use of animals shall have access to a copy of the *Animal Care Facility Training Manual*. Principal Investigators will be required to keep a copy of the *Manual* in his/her laboratory for the use of all personnel. Investigators are expected to review the *Manual* prior to completing an Animal Protocol Form and to ensure that all staff and students under their supervision are also familiar with its policies.

6.5 OCCUPATIONAL HEALTH

6.5.1 Preventive Measures

Preventive measures include:

- Pre-employment medical evaluation for all Animal Care Facility personnel;
- Immunization including tetanus (required every ten years), Hepatitis B, vaccinia virus, etc., depending upon specific circumstances, identified risk factors, and determined medical need;
- Maintaining good personal hygiene and refraining from eating, applying cosmetics, smoking, etc. where animals are housed or used;
- Administration of Laboratory Animal Occupational Health questionnaires to assess additional precautionary measures that may be required;
- Risk Assessments to determine the level of employee/student risk to animal allergies, zoonoses, illnesses, bites/cuts, and other physical injuries;

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- Customized training, and completion of a medical questionnaire if the risk assessment suggests the need;
- Use of signs and labels at entrances to the vivarium or laboratories that indicate any hazards that may be present;
- Use of Personal Protective Equipment for personnel working with laboratory animals including the use of appropriate clothing, maintenance of personal hygiene, and training in safe techniques;
- Surveillance to prevent the transmission of zoonosis by providing employees with information relevant to the species with which they work, by routinely screening animals for their ability to transmit zoonosis, and by providing appropriate quarantine facilities;
- Commitment to the appropriate use of hazardous materials as evidenced by policies that govern biohazards, chemicals, and radioactive materials; and
- Injury avoidance that includes:
 - Requiring that animals that are known to be aggressive are handled by at least two individuals;
 - Using best practices for the tasks that may be physically demanding to avoid injuries related to falling, slipping, or lifting;
 - Using sanitation or sterilization equipment appropriately to avoid burn injuries.

6.5.2 Reporting and Treating Injuries

Reporting and treatment of injuries have been incorporated into required training sessions and are posted throughout the Animal Care Facility. This Institution has also adopted and disseminated a campus-wide emergency response plan.

7.0 RESPONSIBILITIES

7.1 IACUC

The IACUC oversees the University's animal programs, facilities, and procedures and ensures adherence to the Public Health Service Policy on Humane Care and Use of Laboratory Animals. Specifically, its responsibilities include:

- Making a reasonable effort to ensure that all individuals involved in the care and use of laboratory animals understand their individual and collective responsibilities.
- Reviewing the University's Program for Laboratory Animal Care and Use at a semi-annual, convened meeting utilizing the "Sample Semiannual Program and Facility

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Review,” the *Guide*, and PHS Policy, as bases for evaluation. The IACUC will categorize any program deficiencies as minor or significant and develop a plan and schedule for correction of any deficiencies.

- Reviewing ASU’s Animal Care Program at least every six months, using the *Guide* as the basis for evaluation.
- Inspecting all of ASU’s animal facilities, including all satellite operations, at least every six months and using the *Guide* as the basis for evaluation. Categories of evaluation include: environment, housing, management, veterinary care, and physical plant. Reports are to be submitted at least every six months to the Institutional Official.
- Preparing reports of IACUC evaluations and submitting such reports to the Institutional Official. Such reports must contain a description of the nature and extent of the ASU’s adherence to the *Guide* and to the PHS Policy, must specifically identify any departures from the provisions of the *Guide*, and contain both majority and minority reports of the Committee for each protocol. If program or facility deficiencies are noted, the reports must contain reasonable and specific plans for correction of deficiencies.
- Reviewing concerns involving the care and use of animals at ASU;
- Making recommendations to the Institutional Official regarding any aspect of the University’s animal program, facilities, or training.
- Reviewing all institutional protocols that require the use of laboratory animals, and confirming that the project is consistent with the *Guide* unless acceptable justification for a departure is presented.
- Conducting reviews of each previously-approved, ongoing activity at least once every three years.
- Suspending activities after careful review of the facts and after a convened meeting of the IACUC where a quorum is present and a majority of the quorum vote to suspend. 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.
- Maintaining appropriate records including copies of the Assurance document which has been approved by PHS; minutes of IACUC meetings, including records of attendance, activities of the Committee, and Committee deliberations; records of applications, proposals, and proposed significant changes in the care and use of animals and whether IACUC approval was given or withheld; records of semi-annual IACUC reports and recommendations (including minority views) as forwarded to the Institutional Official; and records of accrediting body determinations. At least once every 12 months, the

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IACUC, through the Institutional Official, will report any change in the status of the institution (*e.g., if the institution becomes accredited 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 the Assurance, or any changes in IACUC membership. If there are no changes to report, ASU will so report to OLAW. The report to OLAW will also include 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 and a full explanation of the circumstances and actions taken with respect to any serious or continuing noncompliance with the PHS Policy, any serious deviations from the provisions of the *Guide*, IACUC's suspension of an activity; and reports that included any minority views filed by members of the IACUC. All records will be maintained for a minimum of three years. Records that relate directly to applications, proposals, and proposed significant changes in ongoing activities reviewed and approved by the IACUC shall be maintained for the duration of the activity and for an additional three years after completion of the activity.

7.2 SUPERVISORS

It is the supervisor's responsibility to: 1) ensure that his/her employees participate in initial and ongoing training in the appropriate use of research animals; 2) inform an employee of any potential hazards associated with any reagent and to maintain an MSDS for each reagent²; 3) maintain and/or solicit the maintenance of appropriate work facilities; 4) report workplace injuries to the next level of supervision and to the Office of Workman's Compensation; and 5) change the employee's work assignments based upon known conditions including allergies, pregnancy, exposure to hazardous chemicals, etc. In the latter case, the University reserves the right to seek advice from an occupational medicine physician concerning permissible work assignments.

² Monitoring the safe handling, use, and disposal of hazardous agents in animals is accomplished through the joint efforts of the Office of Environmental Health and Safety and the Animal Care Facility manager. Additionally, the University's Institutional Animal Care and Use Committee and the Institutional Biosafety Committee assist in the development of policies, procedures, and monitoring criteria.

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7.2 EMPLOYEES

Employees must: 1) participate in training at specified intervals; 2) maintain up-to-date vaccinations as specified in this policy; 3) utilize best practices in the vivarium or the laboratory; 4) inform their supervisors of potential workplace hazards; 5) inform their supervisors of work-related injuries or illnesses immediately; 6) report work-related injuries to the Office of (Workman's comp requirements?) within 24 hours; and 5) report pregnancies as soon as known along with any written physician statements that contain any work advisories or restrictions.

8.0 PROCEDURES

8.1 IACUC INSPECTIONS

The IACUC is responsible for inspecting ASU's Animal Care Facilities at least every six months using standards as described in the *Guide*. Its evaluation shall include the environment, housing, management, veterinary medical care and physical plant facilities. The resulting reports will categorize any deficiencies found during the review as either minor or significant. If any program or facility deficiencies are noted, the reports shall contain a reasonable and specific plan and schedule for correcting each deficiency.

The reports shall be reviewed, approved, and signed by a majority of the IACUC members and will include any minority views. Semi-annual reports will categorize any deficiencies found during the reviews as either minor or significant. If any program or facility deficiencies are noted, the reports shall contain a reasonable and specific plan and schedule for correcting each deficiency.

8.2 REVIEW OF PROTOCOLS

Procedures for a typical animal use protocol from time of submission to time of approval is as follows:

- Once the IACUC receives the protocol form, it is reviewed by both the Chair (or his designee) and the attending veterinarian for completeness and is separated into one of three categories: 1) Administrative review, e.g., title change, funding addition without

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procedural changes; 2) Minimal Distress/Pain; and 3) Greater Than Minimal Distress/Pain.

- Review and record Category 1 protocols for administrative purposes. Within categories 2 and 3, select protocols to be assigned for full committee review. Any protocol not selected for full committee review will be reviewed by at least one member of the IACUC, designated by the Chairperson (or his designee) who is qualified to conduct the review. Protocols involving greater than minimal distress/pain will be given to two designated reviewers. The reviewers will review these protocols on behalf of the IACUC and have the authority to pre-approve, require modifications (to secure approval), or request full committee review, unless an IACUC member requests full committee review (as specified below).
- At least 5 days prior to the convened meeting, circulate to all IACUC members a list that includes all the protocols not assigned to full committee review. Written descriptions of these protocols will be available to all IACUC members. Any member of the IACUC may request full committee review of those protocols;
- Protocols selected for full committee review or protocols for which full committee review has been requested are presented at a convened meeting. All protocols are then voted on by a quorum of IACUC members. In the event that substantive questions prevent approval, the IACUC may wait until the next meeting for revisions to be reviewed by the full committee. Alternatively, the IACUC may decide to handle the resubmissions by the designated-member review process, with appropriate notation in the minutes. Under a full committee review, the IACUC members may also vote to withhold approval if they feel that the requirements of PHS Policy or other stipulations have not been satisfied.

The process for modifications to secure approval include:

- Informing the PI in writing or by electronic mail of any reviewer modifications, comments, questions, or concerns about the protocol and requesting a reply within a specified time;
- Circulating the PI's responses to the reviewers (electronic communications will be used in accordance with the guidelines defined in the *Use of Electronic Communications for IACUC Functions* (ILAR Journal Vol. 37 (4) 190-192, 1995);
- Repeating the process as necessary until the designated reviewers are in agreement and approve the protocol, or request that the protocol be presented for full committee review

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at the next convened meeting. If the full committee review process is chosen, the protocol is presented and voted on at a convened meeting. Approval requires an affirmative vote by a majority of the convened quorum. In the event that substantive questions prevent approval, the IACUC may wait until the next meeting for revisions to be reviewed by the full committee. Alternatively, the IACUC may decide to handle the resubmissions by the designated member review process, with appropriate notation in the minutes. Under a full committee review, the IACUC members may also vote to withhold approval if they feel that the requirements of PHS Policy or other stipulations have not been satisfied.

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APPENDIX A
ARKANSAS STATE UNIVERSITY
ASSURANCE OF COMPLIANCE WITH
PUBLIC HEALTH SERVICE POLICY ON HUMANE CARE AND
USE OF LABORATORY ANIMALS

Arkansas State University (ASU), hereinafter referred to as institution, hereby gives assurance that it will comply with the Public Health Service Policy on Humane Care and Use of Laboratory Animals, hereinafter referred to as PHS Policy.

I. APPLICABILITY

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 sub granting or subcontracting of a PHS-conducted or supported activity by this institution.

II. INSTITUTIONAL POLICY

- 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 make a reasonable effort to 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 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*).

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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 outlined in **Appendix A**.
- B. The qualifications, authority, and percent of time contributed by the veterinarian who will participate in the program is Program Veterinarian, Archie B. Ryan, D.V.M., Louisiana State University, 1987. 19 years experience. Licensed in the State of Arkansas. Dr. Ryan is a voting member of the IACUC and responsible for ensuring that the institution's animal facilities and veterinary care meet established standards. Dr. Ryan is also a Federally-Licensed Migratory Bird Rehabilitator. Percentage of time contributed: 5%.
- C. This institution has established an Institutional Animal Care and Use Committee (IACUC), which is qualified through the experience and expertise of its members to oversee the institution's animal program, facilities, and procedures. The IACUC consists of at least five members, and its membership meets the composition requirements set forth in the PHS Policy at IV.A.3.b. **Appendix B** is a list of the names, degrees, position titles, and other credentials of the chairperson and members.
- D. The IACUC will:
 1. Review the institution's program for humane care and use of animals at least every six months, using the *Guide for the Care and Use of Laboratory Animals* as a basis for evaluation. The IACUC procedures for conducting semiannual program evaluations include:
 - a. Reviewing the University's Program for Laboratory Animal Care and Use at a semi-annual, convened meeting utilizing the "Sample Semiannual Program and Facility Review," the *Guide*, and PHS Policy, as bases for evaluation. The IACUC will categorize any program deficiencies as minor or significant and develop a plan and schedule for correction of any deficiencies.
 - b. Inspecting all of the institution's animal facilities, including satellite facilities at least once every six months, using the *Guide* as a basis for evaluation. The IACUC procedures for conducting semiannual facility inspections are as follows:
 - i. The IACUC shall be responsible for inspecting ASU's Animal Care Facilities using the recommended standards as described in the *Guide*, including: animal environment, housing, management, veterinary medical care and physical

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plant. Deficiencies will be identified and handled in accordance with the procedures described in III.D.3.

- ii. The IACUC shall conduct evaluations of the facilities and program, as described in III.D.1 and III.D.2. at least once every six months and submit these reports to the Institutional Official, Dr. Michael Dockter. The reports shall be reviewed, approved and signed by a majority of the IACUC members and will include any minority views. Semiannual reports will categorize any deficiencies found during the review as either minor or significant. A significant deficiency is one that, in the judgment of the IACUC or the Institutional Official, is or may be a threat to the health or safety of the animals. If any program or facility deficiencies are noted, the reports shall contain a reasonable and specific plan and schedule for correcting each deficiency. The IACUC shall conduct evaluations of the facilities and program, as described in III.D.1 and III.D.2., at least once every six months and submit these reports to The Institutional Official. The reports shall be reviewed, approved and signed by a majority of the IACUC members and will include any minority views. Semi-annual reports will categorize any deficiencies found during the reviews as either minor or significant. A significant deficiency is one that, in the judgment of the IACUC or the Institutional Official, is or may be a threat to the health or safety of the animals. If any program or facility deficiencies are noted, the reports shall contain a reasonable and specific plan and schedule for correcting each deficiency.

E. IACUC procedures for reviewing concerns of mistreatment of animals or other noncompliance issues include:

- a. Posting the University's "Policy on the Reporting of Animal Mistreatment" in clear view in multiple locations within the Animal Care Facilities. Copies of the governing principles are also contained in the "ACF Training Manual," the "IACUC Policy Guide," and in Appendix C of this document.
- b. The IACUC will review all concerns with safeguards to protect the individual's identity, and if warranted, appoint a subcommittee to perform an investigation.
- c. The IACUC will review any subcommittee findings at a convened meeting and take appropriate action, if warranted, up to and including suspension of a protocol and notification of the Institutional Official and OLAW.

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- d. The IACUC will make recommendations as necessary to correct and/or improve any aspect of the Institution's animal program, facilities, or personnel training. Recommendations will be submitted to the Institutional Official in writing or by electronic mail, and will include a description of the actions endorsed by the IACUC to make such improvements or corrections and a suggested timetable for action. Recommendations forwarded to the Institutional Official will be included in the semiannual program evaluations and the semiannual report to the Institutional Official.
- F. Review and approve, require modifications in (to secure approval), or withhold approval of those activities related to the care and use of animals as set forth in the PHS Policy at IV.C. The IACUC procedures for protocol review include IACUC evaluation of all components related to the care and use of animals to determine whether the proposed research and/or teaching protocols comply with institutional, PHS, and Animal Welfare Act policies insofar as they apply to the research/teaching project. IACUC should also determine whether the research/teaching project is consistent with the *Guide*, or whether the proposal contains an acceptable written justification for any departures. Furthermore, the IACUC will determine that the research/teaching protocols conform to the Institutional Assurance and meet 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 otherwise 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 sacrificed 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 the program veterinarian with personnel 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 the program veterinarian.

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- 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 recommendations of the American Veterinary Medical Association (AVMA) Panel on Euthanasia, unless a deviation is justified for scientific reasons in writing by the investigator.
- h. The principal investigator (PI) has considered alternatives to procedures that may cause more than momentary or slight pain or distress to the animals, and has provided a written narrative description of the methods and sources used to determine that alternatives were not available.
- i. The investigator has provided a written assurance that the proposed research does not unnecessarily duplicate previous experiments.
- j. No animal will be used in more than one major operative procedure from which it is allowed to recover, unless it is justified in writing for scientific reasons by the PI, required as routine veterinary procedure, or to protect the health or well-being of the animal as determined by the attending veterinarian.

The process for modifications includes:

- iii. Informing the PI in writing or by electronic mail of any reviewer modifications, comments, questions, or concerns about the protocol and requesting a reply within a specified time;
- iv. Circulating the PI's responses to the reviewers (electronic communications will be used in accordance with the guidelines defined in the *Use of Electronic Communications for IACUC Functions* (ILAR Journal Vol. 37 (4) 190-192, 1995);
- v. Repeating the process as necessary until the designated reviewers are in agreement and approve the protocol, or request that the protocol be presented for full committee review at the next convened meeting. If the full committee review process is chosen, the protocol is presented and voted on at a convened meeting. Approval requires an affirmative vote by a majority of the convened quorum. In the event that substantive questions prevent approval, the IACUC may wait until the next meeting for revisions to be reviewed by the full committee. Alternatively, the IACUC may decide to handle the resubmissions by the designated

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member review process, with appropriate notation in the minutes. Under a full committee review, the IACUC members may also vote to withhold approval if they feel that the requirements of PHS Policy or other stipulations have not been satisfied.

- G. The handling procedure for a typical animal-use protocol from time of submission to time of approval is as follows:
- a. Once the IACUC receives the protocol form, it is reviewed by the Chair (or his/her designee) and the attending veterinarian for completeness and separated into one of three categories: 1) Administrative review, e.g., title change, funding addition without procedural changes; 2) Minimal Distress/Pain; and 3) Greater Than Minimal Distress/Pain.
 - b. Review and record Category 1 protocols for administrative purposes. Within categories 2 and 3, select protocols to be assigned for full committee review. Any protocol not selected for full committee review will be reviewed by at least one member of the IACUC, designated by the Chairperson (or his designee) who is qualified to conduct the review. Protocols involving greater than minimal distress/pain will be given to two designated reviewers. The reviewers will review these protocols on behalf of the IACUC and have the authority to pre-approve, require modifications (to secure approval) or request full committee review, unless an IACUC member requests full committee review (as specified below).
 - c. At least 5 days prior to the convened meeting, circulate to all IACUC members a list that includes all the protocols not assigned to full committee review. Written descriptions of these protocols will be available to all IACUC members. Any member of the IACUC may request full committee review of those protocols;
 - d. Protocols selected for full committee review or protocols for which full committee review has been requested are presented at a convened meeting. All protocols are then voted on by a quorum of IACUC members. In the event that substantive questions prevent approval, the IACUC may wait until the next meeting for revisions to be reviewed by the full committee. Alternatively, the IACUC may decide to handle the resubmissions by the designated-member review process, with appropriate notation in the minutes. Under a full committee review, the IACUC members may also vote to withhold approval if they feel that the requirements of PHS Policy or other stipulations have not been satisfied.

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H. IACUC policies on meeting and voting are as follows:

- a. Require a quorum to conduct business;
- b. Approve protocols only after review at a convened meeting with a quorum present and approval vote of a majority of the quorum present;
- c. Require members to decline participation in the IACUC review or voting of a protocol in which the member has conflicting interest (e.g., is personally involved in the project) except to provide information requested by the IACUC. A member who has a conflicting interest must leave the room and may not contribute to the constitution of a quorum.
- d. Invite consultants to assist in the review of complex protocols when necessary. Consultants may not vote unless they are officially appointed voting members of the IACUC. (The use of designated reviewers is described in III.D.6.b-d.)
- e. 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 at IV.C. The IACUC procedures for reviewing proposed significant changes in ongoing research projects are as follows:
 - i. A description of the proposed significant changes are to be communicated to all IACUC members who will have the opportunity to request, within a time frame determined according to urgency (but not less than 48 hours), full committee review at a convened meeting;
 - ii. If no member requests full committee review, the IACUC Chair (or their designee) may assign the protocol in question to at least one designated reviewer qualified to review this specific protocol, who will pre-approve the protocol, request additional information from the Principal Investigator to pre-approve it, or refer it to full committee review;
 - iii. The IACUC Chair or the designated reviewer informs the Principal Investigator in writing of any reviewer required modifications, comments, questions or concerns about the proposed significant change and requires timely clarification, modification, or elimination of concerns from the Principal Investigator;

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- iv. The Principal Investigator returns their written response to the reviewer(s). The process is repeated until all reviewers are in agreement and the protocol is pre-approved or is referred to the full committee for review at a convened IACUC meeting where it will be discussed and voted upon.
- I. 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 at IV.C.4. The IACUC procedures to notify investigators and the institution of its decisions regarding protocol review are as follows:
 - a. Notify Principal Investigators, in writing or via electronic posting, of the IACUC decision regarding their protocol;
 - b. Provide verification of laboratory animal approval to sponsoring agencies, as required;
 - c. Approved protocols will be kept on file in the Office of the Institutional Official and in the Animal Care Facility Office with access to this information openly available to the Institutional Biosafety Committee, Environmental Health and Safety, and any other interested parties.
 - J. Conduct continuing review (at least every three years) 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 at IV.C. 1-4. The IACUC procedures for conducting complete, continuing review are as follows:
 - i. Require the Principal Investigator to fill out a renewal application for the protocol on an annual basis;
 - ii. Review the renewal application with the initial protocol submission the conforms to the *Guide* and PHS Policy;
 - iii. Perform the IACUC review as outlined in III.D.6.
 - K. Be authorized to suspend an activity involving animals as set forth in the PHS Policy at IV.C.6. The IACUC procedures for suspending an ongoing activity are as follows:

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- a. Suspend any protocol or approved activity involving animals after review of the matter at a convened meeting of a quorum of the IACUC and through a vote of a majority of the quorum present;
 - b. Review the reasons for the suspension with the Institutional Official and take appropriate corrective action;
 - c. Submit a full report to the Institutional Official and for the PHS supported research to OLAW and any other relevant entities, as required.
- L. The individual authorized by this institution to verify IACUC approval of those sections of applications and proposals related to the care and use of animals is the Institutional Official, Dr. Michael Dockter, Vice Chancellor of Research and Academic Affairs.
- M. The occupational health and safety program for personnel who work in laboratory animal facilities or have frequent contact with animals is as follows:
- a. Personnel Hygiene includes the provision or requirement of appropriate clothing depending on the area in which animal care/researchers are working, and upon the species being used. Appropriate protective equipment and/or clothing are provided in the gowning room at the entrance to the Animal Care Facility. Dedicated work clothing is to be worn only within the Animal Care Facility.
 - b. No eating or drinking is allowed in any animal housing or procedure areas.
 - c. Biohazardous Agent Use is overseen by the Institutional Biosafety Committee (IBC) in collaboration with the Environmental Health and Safety Department. The IBC is responsible for the review of this institution's teaching projects and research activities involving the acquisition, use, storage, and disposal of Biohazardous agents. The EH&S Director and his staff work closely with the Program Veterinarian to provide training in the safe handling and management of biological and chemical agents used in studies with research animals. Detailed Biosafety requirements and safety procedures are contained in the Policies and Procedures for Biosafety
 - d. Radioactive Material Use must be authorized under the radioactive materials license issued to ASU by the Arkansas Department of Health. All projects must comply with pertinent regulations and relevant terms of this license. The ASU Radiation Safety Program overseen by the EH&S Director, monitors compliance with regulations, license conditions, and policies. Detailed policies and procedures governing the

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acquisition, use and disposal of radiation sources are found in the Radiation Safety Manual.

- e. Chemical Agent Use is administered through the Department of Environment Health and Safety through the Chemical Inventory/Hygiene Plan which is directed at controlling exposures to hazardous chemicals in laboratories. The Plan sets forth procedures, equipment, personal protective equipment, and practices that are capable of protecting employees from health hazards presented by hazardous chemicals used in laboratories and are capable of keeping chemical exposures below regulatory limits. Supervisors of researchers and husbandry/cage washing staff are responsible, with assistance from EH&S, for evaluating the potential exposure risks to their staff. Guidelines and operation specific exposure controls for occupational exposures to hazardous chemicals have been developed and are available to all employees.
- f. Personal Protection for personnel working with laboratory animals includes the issuance of appropriate clothing, the provision of appropriate facilities for maintaining personal hygiene, first aid equipment, and training in safe techniques including emergency responses in the event of an incident.
- g. Pre-employment Medical Evaluation is required for all Animal Care Facility personnel as a requirement for employment.
- h. Immunization Requirements may include tetanus, vaccinia virus, etc., depending upon specific circumstances, identified risk factors, and determined medical need.
- i. Preventive Medicine is addressed through the assessment of Laboratory Animal Occupational Health questionnaires with a determination of further action based on individual need.
- j. Zoonosis Surveillance is managed by routine screening of animals for their ability to transmit Zoonosis. This institution has appropriate quarantine facilities and procedures in place to prevent Zoonosis. Personnel are provided with zoonosis information relevant to the species with which they are working.
- k. Procedures For Reporting and Treating Injuries have been incorporated into required training sessions and posted throughout the Animal Care Facility. This Institution has also adopted and disseminated a campus-wide emergency response plan.

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- l. Covered Personnel are faculty, staff, students, and visiting scholars who work directly with animals, unfixed animal tissues or body fluids, and those who work in animal housing areas. The level of participation is dependent upon the level of assessed risk.
 - m. Procedures for Hazard and Risk Assessment involve evaluation of the protocol used, questionnaire review for specific and general risk factors, veterinarian input, as well as, physician consultation as needed.
 - n. Training of Personnel (e.g., zoonoses, allergies, hazards, special precautions for pregnancy, illness, and immune suppression) are provided through targeted, in-service training, programs and seminars. These programs, in addition to educational materials sent via email to all animal users, emphasize the specific risks associated with different types of research with laboratory animals and provide guidance on appropriate methods of exposure control and protection.
- N. The total gross number of square feet in each animal facility, the species of animals housed therein and the average daily inventory of animals, by species, in each facility is provided in the attached table, **Appendix D**.

IV. TRAINING

The training or instruction available to scientists, animal technicians, and other personnel involved in animal care, treatment, or use includes:

- A. The IACUC will ensure that all scientists, research technicians, animal technicians, and all other personnel involved in animal care, treatment, and use are qualified to perform their duties. This responsibility is fulfilled in part through the provision of training and instruction to those personnel. Training and instruction will be made available, and the qualifications of personnel reviewed, with sufficient frequency to fulfill the Institution's responsibilities.
- B. All personnel working in the Animal Care Facility will be enrolled in the AALAS certified technician training program and through the use of internet based training programs. Additional learning opportunities are also made available on a periodic basis at other institutions.
- C. All animal users will attend mandatory seminars providing instruction on humane practices in animal care, research methods that minimize the numbers of animals required

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to obtain valid results, limiting animal pain and distress, surgery and post-operative care, euthanasia, and other relevant topics.

- D. All investigators involved in the care and use of animals shall have access to a copy of the "Animal Care Facility Training Manual". Principal Investigators will be required to keep a copy of the manual in his/her laboratory for the use of all personnel. Investigators are expected to review the manual prior to completing an Animal Protocol Form and to ensure that all staff and students under their supervision are also familiar with the policies outlined in the manual.
- E. Mandatory training seminars will be presented at a minimum of once per semester. All attendees will sign a statement of attendance which will be kept on file in the Animal Care Facility office.

V. INSTITUTIONAL STATUS

As specified in the PHS Policy at IV.A.2, as Category 2, all of the institution's programs and facilities, including satellite facilities, for activities involving animals, have been and will be reevaluated by the IACUC at least once every six months in accordance with IV.B1 and B2 of the PHS Policy, and reports prepared in accordance with IV.B3 of the PHS Policy.

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 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 evaluations will be submitted to the Institutional Official, Dr. Michael Dockter. Semiannual reports of IACUC evaluations will be maintained by this institution and made available to the Office of Laboratory Animal Welfare (OLAW) upon request. The most recent semiannual report of the IACUC is attached.

VI. 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 PHS.
 - 2. Minutes of IACUC meetings, including records of attendance, activities of the committee, and committee deliberations.

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3. Records of applications, proposals, and proposed significant changes in the care and use of animals and whether IACUC approval was given or withheld.
 4. Records of semiannual IACUC reports and recommendations (including minority views) as forwarded to the Institutional Official, Dr. Michael Dockter.
 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. At least once every 12 months, the IACUC, through the Institutional Official, will report in writing to OLAW:
1. Any change in the status of the institution (*e.g., if the institution becomes accredited 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 changes in IACUC membership. If there are no changes to report, this institution will provide OLAW with 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, Dr. Michael Dockter.
- B. The IACUC, through the Institutional Official, will promptly provide the 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.

Reports filed under VI.A. and VI.B. above shall include any minority views filed by members of the IACUC.

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VII. INSTITUTIONAL ENDORSEMENT AND PHS APPROVAL

A. Authorized Institutional Official

Dr. Michael Dockter
Vice Chancellor of Research and Academic Affairs
Arkansas Biosciences Institute
Research and Academic Affairs
P.O. Box 2760
State University, AR 72467
Phone: 870-972-2694
Fax: 870-972-2336

Signature:

Date:

B. PHS Approving Official

Name:
Title:
Address:
Phone:
Fax:

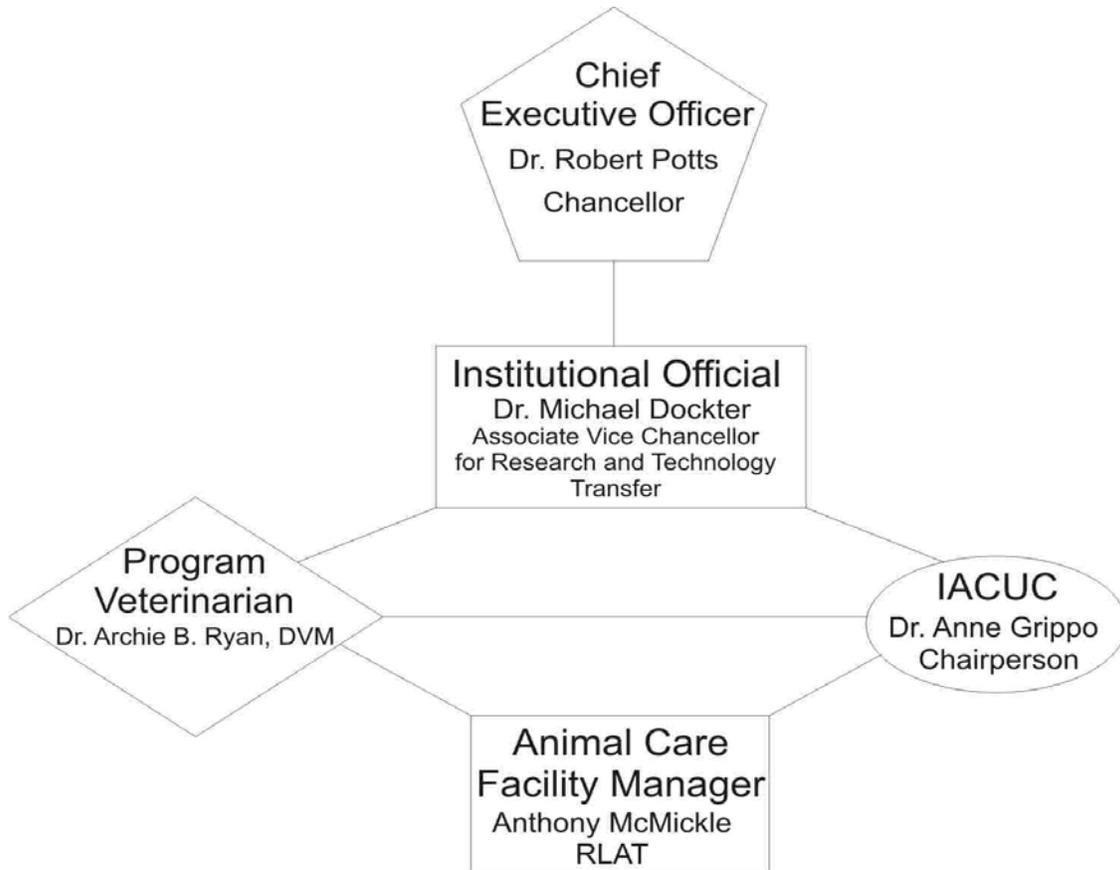
Signature:

Date:

C. Effective Date of Assurance: 1/03/2007

D. Expiration Date of Assurance: 5/31/20

Subject to the Review of the Shared Governance Committee.



APPENDIX B INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE

Chairperson Name, Title, and Degree/Credentials	Business Address, Phone, Fax, and E-Mail		
Dr. Anne Grippo	504 University Loop East, Room 101 State University, AR 72467		
Associate Professor of Biology, Ph.D. Biology	Phone: 870-972-2025	Fax: 870-972-2026	E-Mail: agrippo@astate.edu

Name of Member	Degree/Credentials	Position Title	Phone
Roger Buchanan	Ph.D. Biology	Associate Professor, Zoology	870-972-4297
Anne Grippo	Ph.D. Biology	Associate Professor, Biology	870-972-3493
Kris Biondolillo	Ph.D. Experimental Psychology	Associate Professor, Psychology	870-972-3064
Archie Ryan	Doctor of Veterinary Medicine	Veterinarian*	870-9354012
Tony McMickle	B.S. Biology, RALAT	Animal Care Facility Manager	870-972-4298
James Bednarz	Ph.D. Biology	Professor of Wildlife Ecology	870-972-3082
Shawn Drake	Ph.D. Human Performance	Assistant Professor Physical Therapy	870-972-3591

*Archie B. Ryan, D.V.M., Louisiana State University 1987, is ASU's program veterinarian. He has 19 years experience and is licensed in the State of Arkansas. Dr. Ryan is a voting member of the IACUC and is responsible for ensuring that the institution's animal facilities and veterinary care meet established standards. Dr. Ryan is also a Federally-Licensed Migratory Bird Rehabilitator. Percentage of time contributed: 5%.

ATTENTION

IT IS YOUR RIGHT/RESPONSIBILITY AS A USER OF THE ANIMAL FACILITY TO REPORT ANY CONCERNS WHICH YOU MAY HAVE ABOUT THE WELFARE OF RESEARCH ANIMALS. YOU MAY SPEAK TO YOUR SUPERVISOR, ANY MEMBER OF THE ANIMAL COMMITTEE (AS ABOVE) OR, IF YOU WOULD FEEL MORE COMFORTABLE REMAINING ANONYMOUS, YOU CAN SPEAK IN CONFIDENCE TO DR. BRETT SAVARY AT 870-972-4792.

THANK YOU!

ASU INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE

APPENDIX C
FACILITY AND SPECIES INVENTORY

Laboratory, Unit, or Building	Gross Square Feet (including service areas)	Species Housed in Unit (Use complete common names.)
ABI Animal Care Facility	4620 square feet	Mice and Rats
Psychology Holding Facility	186 square feet	Rats

*Institutions may identify animal areas in any manner, e.g., initials, ID number, etc. However, the name and location must be provided to OLAW upon request.

APPENDIX D

HEALTH QUESTIONNAIRE

**OCCUPATIONAL HEALTH AND SAFETY PROGRAM
FOR WORKING WITH
LABORATORY ANIMALS**

The objective of the Occupational Health and Safety Program is to provide a safe working environment and practices to ASU faculty, researchers, and their staff, animal facility personnel, and students involved in the care and use of research animals.

Last Name, First Name, M.I.:

Date:

List any known animal and environmental allergies:

Have you ever been told by a health care provider that you have one or more of the following conditions or symptoms?

Condition/Symptom	Yes	No
Asthma	<input type="checkbox"/>	<input type="checkbox"/>
Recurrent Bronchitis	<input type="checkbox"/>	<input type="checkbox"/>
Chronic cough	<input type="checkbox"/>	<input type="checkbox"/>
Chronic sneezing/runny nose	<input type="checkbox"/>	<input type="checkbox"/>
Chronic itchy, irritated eyes	<input type="checkbox"/>	<input type="checkbox"/>
Wheezing/shortness of breath	<input type="checkbox"/>	<input type="checkbox"/>
Allergy related skin rash	<input type="checkbox"/>	<input type="checkbox"/>

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**Have you received a Tetanus
vaccination within the last ten years?**

- * *Some infectious diseases, including zoonoses, are known to affect a fetus adversely. If you or someone in your household is pregnant or planning to become pregnant soon, please discuss your risk level with your personal healthcare provider. You may wish to review the Centers for Disease Control's website (www.cdc.gov) prior to working with animals.*
- * *Report any cuts, scratches, or bites to your supervisor or the Animal Care Facility Manager.*
- * *Continued exposure to animals may result in allergies in as many as 30% of people. Exposure can be limited by the use of personal protective equipment.*

APPENDIX E

PATHOGEN	TRANSMISSION	ANIMAL DISEASE	HUMAN DISEASE
<i>Streptobacillus moniliformis</i> , <i>Spirillum minor</i> (Rat bite fever, Haverhill fever)	animal bites, ingestion of contaminated food products	usually a subclinical infection, but purulent lesions have been reported in some animals	polyarthritits, myalgias, regional lymphadenopathy, fever
Salmonellosis (most rodents)	fecal-oral, ingestion of contaminated products	malaise, dehydration, bloody diarrhea	dehydration, vomiting, abdominal pain, nausea
Leptospirosis (most rodents)	direct contact with contaminated urine	infertility, fever, anorexia, anemia	headache, myalgia, conjunctivitis, nausea
Lymphocytic Choriomeningitis	exposure to saliva or urine from infected animals or to infected cell lines in the lab fomites may play a role	viremia, viuria, and chronic wasting disease	subclinical infection, mild flu-like symptoms viral meningitis and encephalitis (rare)
Hantavirus (most rodents)	exposure to aerosols, urine, and fecal material from infected animals fomites may play a role	subclinical	fever, myalgia, petechiation, abdominal pain, headache
Dermatophytosis (<i>Trichophyton mentagrophytes</i>)	direct contact	circular raised erythematous lesion with hyperkeratosis and hair loss	circular raised erythematous lesions with hyperkeratosis and hair loss
<i>Sarcoptes scabiei</i> (Guinea Pigs and	direct contact with infected	intense pruritus	intense pruritus

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Hamsters)	animal		
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**APPENDIX F
ANIMAL CARE FACILITY ACCESS REQUEST FORM**

PLEASE PRINT ALL INFORMATION REQUESTED LEGIBLY

Section A

Date _____

Person Requesting Access _____

Email _____

Supervisor's Name _____

Principal Investigator _____

Employee Category (check one):

- ACF Employee
- Undergraduate Student
- Faculty
- Facility Operations and Maintenance

- Environmental Services

Beginning Date: _____

Ending Date (If not full time employee): _____

Section B

APPROVAL SIGNATURES

Please acquire Supervisor and ACF Manager signatures before returning
this form to the ABI office.

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Contact

Contact Approval Signature

Employee's Supervisor

ACF Manager

Security Manager

Section C

I, the undersigned, acknowledge the responsibilities and privileges that come with receiving

this Palm Reader Access to the Animal Care Facility. I understand and agree to adhere to

all established policies for the use of laboratory animals. I understand and agree that violation

of this agreement may render me subject to disciplinary action and the loss of privileges that

go with this access.

Date: _____ Printed Name: _____
Signature: _____

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Please verify that you agree with the following statements by initialing to the left of each and signing at the bottom of the page.

- _____ I have received training in the humane care and use of laboratory animals and agree to adhere to those principles.
- _____ I have completed the health questionnaire, been advised of, and understand, the possible risks associated with exposure to animals.
- _____ I understand that a Tetanus vaccination is required within the past ten years before handling animals.
- _____ I understand that answering YES to any of the conditions/symptoms on the Health Questionnaire places me at a higher risk for developing allergies to the species to which I am exposed.
- _____ I have received a tour of the Animal Care Facility highlighting use of personal protective equipment, first aid kits, eyewash stations, emergency shower, fire alarm, and emergency exit.
- _____ I understand that further training is necessary before handling animals, performing surgeries, euthanasia, or using anesthesia equipment.
- _____ I understand that I have the right and obligation to report any concerns I may have about the care or use of laboratory animals without fear of reprisal. I understand that this may be done anonymously.

Name (Print)

Signature _____

Date _____

Received by: _____

Date _____

Subject to the Review of the Shared Governance Committee.

APPENDIX F HEALTH HAZARDS

Bites/Scratches. All bites and scratches can expose individuals to biologic hazards which may be transmitted through saliva, secretions, and/or blood, though the risk is mitigated by the University's practice to purchase laboratory rodents from laboratories which exclude zoonotic agents. Exceptions would include: 1) animals that have been inoculated with biohazardous materials (e.g., LCMV); or 2) secondary bacterial infections that may occur when common skin and intestinal bacteria are present on the individual or the animal. Training in animal handling techniques and the use of appropriate personal protective equipment help to mitigate risks.

Bites or scratches should be washed immediately with soap (preferably an antiseptic soap, such as chlorhexidine-Nolvasan® or Betadine®-povidone iodine) and running water. Bites or scratches that result in bleeding should be thoroughly scrubbed for at least 15 minutes. After cleansing, a topical disinfectant and bandage should be used on the wound to protect it. Depending on the severity of the wound and the amount time which has elapsed since receiving a Tetanus booster, individuals should seek medical treatment at the Student Health Center.

Allergies. Some 15% of the human population³ is allergic to some animal species –posing significant health risks that may include allergic rhinitis (a condition characterized by runny nose and sneezing similar to hay fever); allergic conjunctivitis (irritation and tearing of the eyes); asthma (characterized by wheezing and shortness of breath), or contact dermatitis (a red, bumpy rash that may appear where skin touches the animal). The most effective way to control and prevent allergies is to minimize exposure to the allergens by wearing dedicated, protective clothing, including long-sleeved lab coats and gloves. NIOSH-certified N95 respirators may also help.⁴ When possible, perform animal manipulations in a ventilated hood or a bio-safety cabinet or ensure that the work area is adequately ventilated and that the air handling equipment in the room is delivering at least 10 air changes per hour. If in doubt, ask your supervisor to request a review. Wash your hands frequently and avoid touching your face while working with or around animals. Keep the cages and work areas clean.

³ Various studies have shown that the incidence of animal allergies among animal handlers may be as low as 10% or as high as 30%. While this means that the majority of animal handlers don't suffer from allergies to the animals under their care, it also means that animal handlers have an incidence of allergy and asthma about three times as high as that seen in workers who do not work with animals.

⁴ Respirators are, in general, less effective than the other methods as above and should not be used as a substitute for good work place hygiene.

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Those who work with animals and exhibit allergy symptoms⁵ should report to Employee Health Services for counseling and appropriate treatment. Allergies can often be managed with medical management and appropriate work place strategies.

Zoonosis. Humans usually are not susceptible to most infectious diseases suffered by animals; however, the potential exists through environmental exposure and by handling animals, body fluids, cultured microbial pathogens, tissues and tumors. Infection in animals may sometimes produce severe disease in humans even when the animals appear healthy. Tissues and/or tumors from humans are potential sources of infectious material and should be screened for infectious agents prior to utilization in animals. HIV and hepatitis B viruses are examples of agents of concern. Personnel who are immuno-compromised may be at greater risk of infection. (Please refer to Appendix A for a list of the most well-established zoonotic diseases associated with rodents.)

Good laboratory practices and common sense can lessen the risk of infection and accidents. The CDC/NIH manual, *Biosafety in Microbiological and Biomedical Laboratories*, provides guidance on biosafety procedures for a wide spectrum of microbial agents with potential for human infection. *Control of Communicable Disease in Man*, published by the American Public Health Association, is another excellent resource for information concerning zoonotic diseases and infection control. However, if you are exposed to infection or have an accident while working with animals, seek immediate medical attention and let your physician know that you work with animals and/or pathogens.

⁵ In the event of a stuffy nose or other respiratory signs, and if it seems to last longer than a common cold (weeks instead of days), seek medical attention. If severe circumstances, employees may need to consider career changes to control their allergies.