

Assurance

of Compliance with Public Health Service (PHS)
on Humane Care and Use of Laboratory Animals.

(Animal Welfare Assurance #A3577-01)

(Animal Welfare Act #42-R-005)

(Last reviewed by IACUC, April 2005)

Drake University, 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, and related activities, hereinafter referred to as by the Public Health Service (PHS) and conducted at this institution, or at another institution as a consequence of the sub-granting of a PHS-conducted or supported activity by this institution. "Institution" includes major components of Drake University including the College of Pharmacy and Health Sciences, and the Departments of Biology and Psychology in the College of Arts and Sciences.

II. Institutional Policy

- A. This institution will comply with all applicable provisions of the Animal Welfare Act and other 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 the 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).

The Guide endorses the responsibilities of investigators as stated in the United States Government Principles for Utilization and Care of Vertebrate Animals Used in Testing, Research, and Training (Interagency Research Animal Committee 1985). Interpretation and application of those principles and the Guide require professional knowledge. In summary, the principles encourage:

1. Design and performance of procedures on the basis of relevance to human or animal health, advancement of knowledge, or the good of society.
2. Use of appropriate species, quality, and number of animals.
3. Avoidance or minimization of discomfort, distress, and pain in concert with sound science.

4. Use of appropriate sedation, analgesia, or anesthesia.
5. Establishment of experimental end points.
6. Provision of appropriate animal husbandry directed and performed by qualified persons.
7. Conduct of experimentation on living animals only by or under the close supervision of qualified and experienced persons.

In general, the principles stipulate responsibilities of investigators, whose activities regarding use of animals are subject to oversight by an IACUC. Because the Guide is written in general terms, IACUC's have a key role in interpretation, oversight, and evaluation of institutional animal care and use programs.

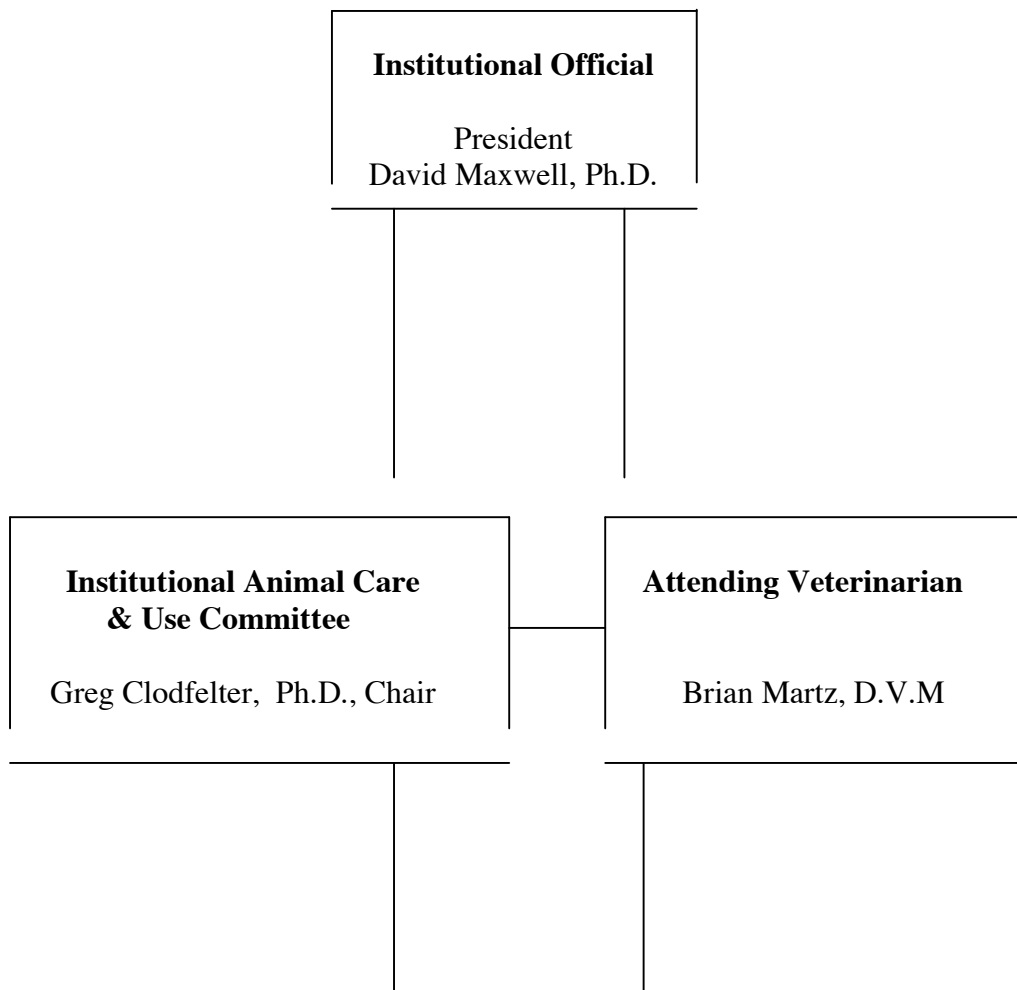
III. Institutional Program for Animal Care and Use

- A. The lines of authority and responsibility for administering the program and ensuring compliance with this policy are diagrammed below:

NOTE: The IACUC, the animal vivarian, and the veterinarian all work closely and cooperatively together to assure quality animal care and proper compliance with PHS Policy and the Guide.

1. The Animal Vivarian who is certified with the American Association for Laboratory Animal Science as an Assistant Laboratory Animal Technician, will report any deviations, non-compliances or problems regarding the animals, equipment or facility sites to the IACUC and the attending veterinarian.

Flowchart For Lines of Authority



Animal Vivarian

Elizabeth A. Stucker, A.L.A.T.

2. The Attending Veterinarian will report to the IACUC and to the institutional official (Dr. David Maxwell, President of Drake University), any deviations, noncompliance's or problems regarding the animal facility. The reports of animal inspections are on file with the IACUC.
3. The IACUC reports to the institutional official (Dr. David Maxwell, President of Drake University)

B. The qualifications, authority and percentage of time contributed by the Veterinarian.

The Attending Veterinarian is Brian P. Martz, D.V.M. Dr. Martz received his D.V.M. from Iowa State University in 1986. He has 23 years experience in clinical practice -- companion animal (including canine, feline, rodents, rabbits, and avian). He has had laboratory animal experience in clinical practice and 2 hours of post graduate education in rabbits and rodents.

Dr. Martz is a regular member of the Drake IACUC. His duties as the Attending Veterinarian include: general oversight of the Animal Vivarian and the duties that she performs. He also supplies medical advice and treatment for sick or injured animals, and guidance to the professional animal research staff of the university in accordance with the Guide for the Care and Use of Laboratory Animals.

Dr. Martz, in cooperation with the IACUC, is actively involved in training of all faculty and students who use animals in teaching and research as described in Section III.I of this Assurance.

Dr. Martz makes regular inspections of the animal facilities at least four times annually and attends all IACUC meetings. His reports are written, acted upon and filed with the IACUC. Approximately 4% of his time is spent on the animal care program at Drake University. His office is within walking distance of the animal facilities and he or his backup is on call to answer emergencies.

In the event that Dr. Martz is unavailable for any reason his backup are two veterinarians who share his practice, Drs. Michael Henning and Lisa Takes.

C. The Institutional Animal Care and Use Committee (IACUC)

This institution has established an Institutional Animal Care and Use Committee (IACUC), which is qualified through 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 compositional requirements set forth in Section IV.A.3.b. of PHS policy. A

list of the names, earned degrees, position titles, and other credentials of the current IACUC chairperson and members is found in Appendix "A".

The committee consists of:

The Chair of the Committee, who will act as the lead contact for the animal vivarian or attending veterinarian.

Vice Chair, who will perform the duties of the Chair when necessary

At least three Drake faculty members actively involved in animal use for research or teaching.

One Doctor of Veterinarian Medicine, with training or experience in laboratory animal science and medicine, who has direct or delegated program responsibilities for activities involving animals at the institution.

One member from a non-scientific area.

One member not affiliated with the institution in any way other than as a member of the IACUC, and who is not a member of the immediate family of a person who is affiliated. This member is expected to represent general community interests in the proper care and use of animals and should not be a laboratory animal user.

The Drake University Animal Vivarian who is a nonvoting member

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 evaluations are to formally meet once every six months to complete the *Semiannual Program Review Checklist of Institutional Policies and Responsibilities*. A blank copy of the checklist to be used is attached as appendix "D". Individual items will be rated as A = acceptable, M = minor deficiency, or S = significant deficiency.

2. Inspect at least once every six months all animal facilities using the Guide as a basis for evaluation.

The IACUC procedures for conducting semiannual facility inspection are to formally meet once every six months to tour and inspect the facilities and to complete the *Semiannual Facility Inspection Checklist of Animal Housing & Support Areas*. A blank copy of the checklist to be used is attached as appendix "E". Individual items will be rated as A = acceptable, M = minor deficiency, or S = significant deficiency.

3. Prepare reports of the IACUC evaluations as set forth in Section IV.B.3. of PHS Policy and submit the reports to our Institutional Official, President David Maxwell.

The IACUC procedure for developing these reports and submitting them to President David Maxwell will be for the IACUC Chair to prepare a report summarizing the results of the Semiannual Program Review of Institutional Policies and Responsibilities and the Semiannual Facility Inspection of Animal Housing & Support Areas, noting any deficiencies and recommendations. A sample copy of this Report is attached as appendix "F". The reports will then be reviewed by the IACUC members, signed by them, and sent to the President.

4. Review concerns involving the care and use of animals at the institution.

The IACUC procedure for reviewing concerns: If an individual is concerned about any issue of animal care and use at the University, he or she is encouraged to bring it to the attention of the IACUC. They may do so by contacting the Chair, or any member of the IACUC in person, by letter, phone, e-mail, or any other means. They will be instructed to submit a written signed complaint to the Chair of the IACUC outlining their concerns. The IACUC will investigate the concern and assure the individual of anonymity. If the concern rates merit, the committee will take appropriate action and inform the institutional official, OLAW, and the complainant in writing of the situation and its resolution within two weeks. A statement publicizing this procedure will be included in the student handbook as well as in the faculty and staff handbooks at Drake University.

5. Make written recommendations to the Institutional Official (President, David Maxwell) regarding any aspect of the institution's program, facilities, or personnel training.

The IACUC procedures for making recommendations to the institutional official: When concerns or needs are identified by the IACUC, such as additional funding for training, additional help for the animal vivarian, the need to appoint new members to the committee, or any other aspect of the institution's program or facilities, the Chair of the IACUC will make written recommendations to the Institutional Official (President David Maxwell).

6. 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 begin with the investigator picking up the *Application and Protocol forms* (see Appendix "B") from the Animal Vivarian. When completed and signed, it is returned to the Animal Vivarian who forwards it to the Chair of the IACUC. It is duplicated, and copies are sent to each IACUC member prior to a convened meeting of the IACUC in which the protocol will be discussed and voted upon. Projects are approved by majority vote of a quorum in attendance. No IACUC member may participate in the IACUC review or approval of a research project 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.

Following a majority approval of a protocol at a convened meeting of the IACUC, The Chairperson notifies the investigator and the institutional official, in writing, of the decision. 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 and give the investigator an opportunity to respond in person or in writing. A sample copy of the notification letter to investigators is attached as appendix "C".

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 at IV.C.

The IACUC procedures for reviewing proposed significant changes in ongoing research projects begin by annually sending each investigator, who has an approved ongoing research project, an *Institutional Animal Care and Use Committee (IACUC) Annual Continuing Review form*. A blank copy of the form to be used is attached as appendix “G”. Section 5 of this form specifically relates to proposed changes. When completed and signed, the form is returned to the Animal Vivarian who forwards it to the Chair of the IACUC. It is duplicated, and copies are sent to each IACUC member prior to a convened meeting of the IACUC in which reviews will be discussed and voted upon. By majority vote of a quorum in attendance, the IACUC will then either approve, require modifications to secure approval, or withhold approval for either new protocols or ongoing protocols being reviewed. The research and/or teaching protocol shall not be started until the IACUC has approved the protocol. If significant changes to an ongoing protocol have been made, then a new submission and approval of the entire protocol will be required before such changes can be implemented.

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 Section IV.C. of PHS Policy.

The IACUC procedures for notifying investigators and the institution of its decisions are that following a majority approval of a protocol under review (or modifications to a previously approved protocol) at a convened meeting of the IACUC, the chairperson notifies the investigator and the institutional official, in writing, of the decision. 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 and give the investigator an opportunity to respond in person or in writing. A sample copy of the notification letter to investigators is attached as appendix “C”.

9. Conduct continuing review of each previously approved, ongoing activity covered by PHS policy every three years, including a complete review in accordance with the PHS Policy at IV.C 1-4. At least once every three years.

In addition to the annual review of ongoing protocols which is described in #7 above and involves completing the *Institutional Animal Care and Use Committee (IACUC) Annual Continuing Review form*, appendix “G”, the IACUC will conduct a complete review of all previously approved protocols every three years. The IACUC procedures for conducting this three-year review of previously approved ongoing research projects begin by sending each investigator with a approved ongoing research project an *Institutional Animal Care and Use Committee (IACUC) Three-Year Continuing Review form*. A blank copy of the form to be used is attached as appendix “H”. When completed and signed, the form is returned to the Animal Vivarian who forwards it to the Chair of the IACUC. It is duplicated, and copies of it along with the complete research protocol, are sent to each IACUC member prior to a convened meeting of the IACUC in which the protocol will be discussed and voted upon. The IACUC will then either approve, or require modifications in order to approve, the protocol in question by majority vote of a quorum in attendance.

10. Be authorized to suspend an activity involving animals as set forth in Section IV.C. of PHS Policy at IV.6.

The IACUC may suspend an activity that it previously approved if it determines that the activity is not being conducted in accordance with the applicable provisions of the Animal Welfare Act, the Guide, the institution's Assurance, or Section IV.C. of 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. The Institutional Official and the investigator will be informed of this decision and the reasons it was made. The Institutional Official, in consultation with the IACUC, shall then review the reasons for suspension, and give the investigator an opportunity to respond in person or in writing. All suspensions of activities by the IACUC, whether temporary or permanent, will be reported to OLAW along with the corrective action taken by the institutional officer or the IACUC.

- E. 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 Chair of the IACUC (Currently Greg Clodfelter, Ph.D.).
- F. The health program for personnel who work in the laboratory animal facilities or have frequent contact with animals.

The animal facility personnel consist of one full-time animal vivarian and work-study students. The Vivarian keeps up on health concerns in her profession by regularly attending her national and regional AALAS meetings and seminars. In addition, she works closely with the attending veterinarian to stay current on protection from zoonotic agents. The work study students are directly under their supervision and are trained by them in personal protection techniques.

A summary of the specific health and safety policies for personnel who work in the laboratory animal facilities at Drake University is included as Appendix "I".

A summary announcement of Worker's Compensation Medical Treatment is given to all Faculty, Staff and Student employees of Drake University when they are hired. This is included as Appendix "J".

A summary a the specific procedures to follow in the event of a work-related injury or illness is included as Appendix "K".

A summary of the Supervisor's first report of injury form is included as Appendix "L".

- G. The total gross number of square feet in each animal facility (including each satellite facility), the species of animals housed, and the average daily inventory, by species, of animals in each facility.

FACILITY AND SPECIES INVENTORY

(Last Inventory numbers from 1/04 to 1/05)

NAME OF INSTITUTION: Drake University

ASSURANCE NUMBER: A3577-01

Laboratory, Unit, or Building*	Gross Square Feet (including service areas)	Species Housed in Unit (use complete common names)	Approx. Average Daily Inventory
Olin Hall 337 animal room	400	Rats	146
Olin Hall 336 animal room	400	Rats	11
Olin Hall 148 animal room	300	Mice	33
Olin Hall 146 animal room	300	Rats	59
Olin Hall 145 animal room	300	Rats	124
Olin Hall 144 animal room	300	Mice	130
Olin Hall 142 animal room	300	Rats	0
CHP&HS 10 animal room	170	Rats	6
CHP&HS 12 animal room	170	Rats	9
CHP&HS 15 animal room	170	Rats	4

- H. The training or instruction available to scientists, animal technicians, and other personnel involved in animal care, treatment, or use.

The researchers and primary investigators using the animal facilities at Drake University are all permanent faculty members who hold the Ph.D. degree and who have had training in those procedures and techniques that they employ in their laboratories. Most have had special courses in small animal surgery and animal care. They also share these skills with each other through in-house training sessions.

As an ongoing in-house training session, the IACUC invites all faculty and students who use animals in teaching and research to attend an annual special training session that involves viewing the Foundation for Biomedical Research (FBR) video tapes "The New Research Environment". This will be immediately followed by a question and answer session with the attending Veterinarian who will address specific questions from those attending concerning humane aspects of animal experimentation as it applies to their research and teaching including, but not limited to, the proper use of anesthetics, analgesics, tranquilizing drugs, appropriate surgical procedures, postsurgical care, and proper euthanasia procedures.

The researchers and primary investigators using the animal facilities at Drake University work closely with the attending veterinarian and animal vivarian who is AALAS certified. The IACUC

sees to it that they are also regularly updated on USDA regulations and procedures that may pertain to their individual research projects. Students working on animal projects are supervised and trained in proper animal care by the primary investigator they are working with.

As an additional training component, the IACUC is purchasing several copies of the book, "Occupational Health and Safety in the Care and Use of Research Animals" by the Committee on Occupational Safety and Health in Research Animal Facilities, National Research Council 168 pages, 6 x 9, 1997. These copies will be made available in each of the animal facilities as well as in the research, and teaching settings at the University where people interact with animals. Its use is intended for the faculty, staff and students working in each area. It is expected that each investigator will stay current with the safety information contained in the book and share this with those students who work with him or her. They will also be made aware of this resource on line at: <http://books.nap.edu/books/0309052998/html/index.html>

Investigators are expected to search the literature and other sources to determine whether less painful alternatives are available in order to minimize animal use and discomfort. This issue is addressed in section 6., "Determination that less painful alternatives are not available" in the Protocol Proposal Form illustrated in Appendix "B". Specifically, the investigator must address the following:

If painful procedures are to be used in this project, how have you determined that less painful alternatives are not available? [The Animal Welfare Act defines a painful procedure as any procedure that would reasonably be expected to cause more than slight or momentary pain or distress in a human being (AWA 1.1). Comments made by the USDA in the Federal Register to broaden this definition includes procedures in which the pain is relieved or ameliorated. For example, a surgical procedure performed on an anesthetized animal, even if the animal does not survive, is considered a painful procedure]. For each method or source you used below, you must indicate the date you performed the search, the key words or search strategy you utilized, and the date range (if applicable) you used for the search.

- A PUBMED literature search has been performed.
<http://www.ncbi.nlm.nih.gov/PubMed/>
- A Current Research Information Services (CRIS) search has been performed.
<http://cristel.nal.usda.gov:8080/>
- An Animal Welfare Information Center (AWIC) search has been performed.
<http://www.nal.usda.gov/awic/>
- Other current literature searches have been performed. (Explain)
- Other methods and sources were used. (Explain)

The IACUC committee has approved a special education budget for further education of the animal facility vivarian staff. It includes provisions for higher AALAS certifications, materials concerning animal training procedures or techniques, and attending seminars that may improve the capability of the facility to advance to more technical levels of research.

IV. Institutional Status

As specified in the PHS Policy at iv.A.2, as Category 2, all of this institution's programs and facilities, including satellite facilities, for activities involving animals have been evaluated by the IACUC and will be reevaluated by the IACUC at least once every six months in accord with IV.B.1. and 2. of the PHS Policy, and reports prepared in accord with IV.B.3. 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 correction each deficiency. Semiannual reports of the IACUC evaluations will be submitted to Dr. David Maxwell. Semiannual reports of IACUC evaluations will be maintained by this institution and made available to the office of Laboratory Animal Welfare upon request. The most recent semiannual report of the IACUC is attached.

V. Record keeping Requirements

- A. This institution will maintain for at least three years:
 - 1. A copy of the 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.
 - 3. Records of applications, protocols, and proposed significant changes in the care and use of animals and whether IACUC approval was given or withheld.
 - 4. Records of semiannual IACUC recommendations as forwarded to President David Maxwell.
 - 5. Records of accreditation body determinations.
- B. This institution will maintain records that relate directly to applications, 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 a reasonable time and in a reasonable manner.

VI. Reporting Requirements

- A. Will report in writing to the Office for Protection of Laboratory Animal Welfare(OLAW), at least once every 12 months (in June) through the Institutional Official:
1. Any changes 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, President David Maxwell.
- B. The IACUC, through the Institutional Official, will provide OLAW promptly 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. above shall include any minority views filed by members of the IACUC.

VII. Institutional Endorsement and PHS Approval

A. Authorized Institutional Official

Name: David Maxwell

Title: President

Address: Drake University
Des Moines, Iowa 50311

Phone: (515) 271-2191

Fax: (515)

Signature: _____

Date: _____

B. PHS Approving Official

Name: _____

Title: _____

Address: _____

Phone: _____

Fax: _____

Signature: _____

Date: _____

C. Effective Date of Assurance: _____

D. Expiration Date of Assurance:

Appendix "A"

2004-2005 DRAKE UNIVERSITY IACUC MEMBERSHIP

MEMBERSHIP OF THE INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE

NAME OF INSTITUTION: Drake University
 ASSURANCE NUMBER: A3577-01

Chairperson Name, Title, and Degree/Credentials		Business Address, Phone, Fax, and Email of Chairperson		
Name: Greg Clodfelter	03-05	Address: Department of Pharmacy Drake University Des Moines, IA 50311		
Title: Assistant Professor of Pharmacology				
Degree/credentials: Ph.D.		Phone: 515 271-3029	Fax: 515 271-4171	Email: greg.coldfelter@drake.edu

Name of Member*	Degree / Term Credentials	Position Title	PHS Policy Membership Requirements**
Wayne Merkley	Ph.D 03-05	Professor of Biology	Scientist
Jack Gerlovich	Ed.D. 04-06	Assoc. Professor of Education	Nonscientist
Craige Wrenn	Ph.D 02-04	Professor of Pharmacy	Scientist
Matt Dore	Ph.D 03-05	Professor of Law	Nonscientist
Brian Sanders	Ph.D 04-06	Associate Professor of Psychology	Scientist
Jayne Smith	MA. 03-05	Director of Sponsor Programs	Nonscientist
Bob Soltis	Ph.D 03-05	Associate Professor of Pharmacology	Scientist
Brian Martz	DVM On going	Veterinarian Starch Pet Hospital	Veterinarian
Jason Uehling	03-05	Standard & Poor's Advisor Services	Non-affiliated member
Elizabeth Ann Stucker	A.L.A.T. On going	Animal Vivarian	Non voting member

* non voting members must be so identified

***Veterinarian*: a veterinarian with direct or delegated program responsibility.

Scientist: a practicing scientist experienced in research involving animals.

Nonscientist: a member whose primary concerns are in a non-scientific areas (e.g. ethicist, lawyer, member of the clergy).

Non-affiliated member: a member who is not affiliated with the institution in any way other than as a member of the IACUC, and who is not a member of the immediate family of a person who is affiliated. This member is expected to represent general community interests in the proper care and use of animals and should not be a laboratory animal user. A consulting attending veterinarian may not be considered non-affiliated .

Appendix "B"

GENERAL POLICIES FOR USE OF ANIMALS FOR RESEARCH PROJECTS OR CLASSROOM LABORATORY EXERCISES AT DRAKE UNIVERSITY

(Revised 1/05)

To use live animals for research or teaching purposes, a completed Application form and Protocol Proposal Form (attached) must be approved by the Drake University Animal Care and Use Committee (IACUC) prior to the anticipated date of usage. Forms are to be picked up from Liz Stucker, A.L.A.T. Drake University Animal Vivarian. Her Office phone is 271-4933 and her office is room 7 in the Pharmacy and Sciences Hall. The completed Application and Protocol Proposal Forms are to be returned to Liz Stucker who will then forward them to the Chairperson of the ACUC.

All Forms must be signed by the Drake University Faculty member directly responsible for the research or classroom laboratory exercise. In the case of undergraduate and graduate student research projects, the faculty member directly supervising the research must sign the application.

On a timely basis, the investigator will be informed of the IACUC's action on the application by letter from the IACUC Chairperson

University policy and federal law require a review of projects for humane treatment and safe use of vertebrate animals. At Drake University, the review is conducted by the Drake University Animal Care and Use Committee (IACUC).

Principal investigators and course directors must obtain approval from the IACUC before initiating any research, testing or instructional project involving the use of live vertebrate animals. IACUC approval must also be obtained prior to changes in previously approved protocols.

The maximum period of approval is three years. (An annual review of your approved protocol is also required.) Prior to initial IACUC review, an approval number will be assigned to the project. No project involving the use of vertebrate animals may be initiated without approval by the IACUC, including projects where animals are not directly purchased (e.g. wild trapping, in-house breeding, field observation).

The Animal Care and Use Committee (IACUC) may be contacted for guidance in selecting analgesics, anesthetics, methods for euthanasia, nursing care techniques, etc. The IACUC maintains a repository of information on veterinary medicine, laws and standards, and many aspects of the humane care and use of animals. IACUC professional and technical staff are available for training and instruction of groups or individuals in animal manipulations.

Please note that approved and funded (or activated) Protocol's are available for public inspection (Iowa Public Records Act, Chapter 22, Iowa Code). In order to ensure that the information contained in this form is not misinterpreted, it is imperative that significance, aims and procedures of your protocol be in terms which are understandable by the lay public. Your attention to this will greatly facilitate the dissemination of accurate information concerning the essential role of animals in research and teaching. Be assured also that you will be contacted before any information concerning your project is released.

Building: _____ Room #: _____

9. Feed: Is standard animal chow per species used: Yes:____ No :____ (If no, specify the diet)
Water: Constant free access to tap water: Yes:____ No :____ (If no, specify the departure)

10. State how animals will be euthanized during or at the end of the project:
(NOTE All proposal's must have a means of euthanasia for emergency situations):

11. **Signature** of Drake University faculty member directly responsible for the _____ research or classroom
laboratory exercise:

Signature

Date

PROTOCOL PROPOSAL FORM FOR ANIMAL USE IN RESEARCH PROJECTS AND IN CLASSROOM LABORATORY EXERCISES

If this protocol is for a research project, provide the information requested in 1a.

1a. Introduction and Rationale:

(Provide a narrative which explains the basis for the research, including an historical overview and ending with the specific aims of this research project).

If this protocol is for a classroom laboratory exercise, provide the information requested in 1b. :

1b. Purpose of laboratory exercise:

(State the specific objectives of the exercise).

All protocols, whether for research projects of classroom laboratory exercises must provide the information requested in numbers 2 through 8.

2. Animals:

(Indicate the number and species of animal to be used. Justify why this number of animals is necessary and why this species is used. State the specific source of the animals).

3. Housing:

(Indicate specifically the building and room number where the animals will be housed, how many animals per cage, and any additional information relative to their housing).

4. Food and Water:

(Specify food and water conditions for the animals and explain any departures from constant free access).

5. Anesthesia:

(If surgery and anesthesia are involved, state (by generic name) the anesthetic to be used, describe dose and route of administration. Also state who will be directly responsible for the administration of anesthesia. If the use of an anesthetic and/or analgesic would defeat the purpose of the project, include a statement to this effect and explain fully).

6. Determination that less painful alternatives are not available:

If painful procedures are to be used in this project, how have you determined that less painful alternatives are not available? [The Animal Welfare Act defines a painful procedure as any procedure that would reasonably be expected to cause more than slight or momentary pain or distress in a human being (AWA 1.1). Comments made by the USDA in the Federal Register to broaden this definition includes procedures in which the pain is relieved or ameliorated. For example, a surgical procedure performed on an anesthetized animal, even if the animal does not survive, is considered a painful procedure]. For each method or source you used below, you must indicate the date you performed the search, the key words or search strategy you utilized, and the date range (if applicable) you used for the search.

- A PUBMED literature search has been performed.

<http://www.ncbi.nlm.nih.gov/PubMed/>

- A Current Research Information Services (CRIS) search has been performed.

<http://cristel.nal.usda.gov:8080/>

- An Animal Welfare Information Center (AWIC) search has been performed.

<http://www.nal.usda.gov/awic/>

- Other current literature searches have been performed. (Explain)

- Other methods and sources were used. (Explain)

7. Methods and Procedures performed:

(Describe the methods and procedures of the research project or laboratory exercise. Be sure to include and describe in detail, any surgery and state who will be directly responsible for it. Describe any manipulations and procedures to which the animals will be exposed. Where appropriate, describe procedures for reduction of animal harm or distress).

8. Recovery:

(If the procedure involves survival surgery, describe in detail the postoperative care to which the animals will be exposed and who will be providing it).

9. Euthanasia:

(Describe the method of euthanasia and who will be performing the procedure.)

NOTE All proposal's must have a means of euthanasia for emergency situations

Signature (Principal Investigator or Instructor)

Date

PROTOCOL PROPOSAL SUMMARY

Answer all of the following as each apply to this Protocol Proposal

- YES: NO: Instructional use of animals
- YES: NO: Survival surgery
- YES: NO: Multiple survival surgery
- YES: NO: Hazardous chemicals
- YES: NO: Infectious agents
- YES: NO: Other biohazards agents
- YES: NO: Death as an endpoint (i.e. tumor growth)(Does not include euthanasia)
- YES: NO: Custom antibody production by outside vendor
- YES: NO: Use of Complete Freund's Adjuvant
- YES: NO: Prolonged restraint of animal(s)
- YES: NO: Breeding colony in house
- YES: NO: Animals housed outside of Animal Facility (more than 12 hours)
- YES: NO: Special housing requirements

Assurances and Approvals

The policies and procedures of Drake University, the AWA and the PHS apply to all activities involving live vertebrate animals performed at or by the personnel of this Institution. Therefore, no activities involving the use of these animals are to be initiated without prior written approval by the Drake University Animal Care and Use Committee (IACUC).

The undersigned is familiar with the AWA and the PHS Policy on Humane Care and Use of Laboratory Animals by Awardee Institutions, the NIH Guide for the Care and Use of Laboratory Animals and the University Guidelines, and agrees to abide by the Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research, and Training contained in this document. I assure that I will obtain IACUC approval prior to significant changes in the protocol. I assure that students, staff, and faculty on the project are qualified or will be trained to conduct the project in a humane and scientific manner. Any change in the care and use of animals involved in this protocol that would affect their welfare will be promptly forwarded to the IACUC for review. Such changes will not be implemented until the Committee's approval is obtained. Animals will not be transferred between investigators without prior approval.

Signature (Principal Investigator or Instructor)

Date

Appendix "C"

NOTIFICATION LETTER TO INVESTIGATORS

Memorandum to: Insert name of investigator submitting protocol proposal
From: Institutional Animal Care and Use Committee
Subject: IACUC action on protocol proposal entitled (insert title of protocol proposal here)
Date: Insert Date

The Drake University Animal Care and Use Committee (IACUC) has approved the above protocol proposal. You may proceed with you research. Your protocol number is (insert protocol number here).

[NOTE:] 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 and give the investigator an opportunity to respond in person or in writing.

If you subsequently plan to make any significant changes regarding the use of animals in this protocol as set forth in the PHS Policy at IV.C., you must inform the IACUC as soon as possible.

You should also know that this, and all IACUC-approved protocols are reviewed annually and at three year intervals if the project runs that long. You will be contacted by the IACUC at the appropriate intervals and asked to submit information relative to the review process.

Thank you for your cooperation and good luck with your work.

Signatures

A majority of the members of the IACUC should sign the report:

Names of IACUC Members

Signatures

Two columns of horizontal lines for entering names and signatures.

Appendix "D"

SEMIANNUAL PROGRAM REVIEW CHECKLISTⁱ INSTITUTIONAL POLICIES AND RESPONSIBILITIES

(Revised 1/05)

INSTRUCTIONS FOR CHECKLIST

The IACUC has a mandate to review at least once every six months the institution's program for the care and use of animals using the *Guide* as a basis for evaluation. This program review shall be completed during an IACUC meeting.

DATE: _____

MEMBERS IN ATTENDANCE:

***A** = acceptable; **M** = minor deficiency; **S** = significant deficiency (is or may be a threat to animal health or safety)

IACUC Membership and Functions	*A	M	S
- at least 5 members, appointed by Institutional Official (IO)			
- members include veterinarian, scientist, non-scientist, and non-affiliated "non-lab animal user" ⁱⁱ			
- responsible for oversight and evaluation of institution's program			
- reports to Institutional Official (IO)			
- conducts semiannual evaluations of institutional animal care and use program			
- conducts semiannual inspections of institutional animal facilities			
- reviews and investigates concerns about animal care and use at institution ⁱⁱⁱ			
- procedures for review, approval and suspension of animal activities ^{iv}			
- procedures for review & approval of significant changes to approved activities			

IACUC RECORDS AND REPORTING REQUIREMENTS^v	*A	M	S
Reports to Institutional Official (IO)			
- reports of semiannual program reviews & facility inspections are submitted to IO			
- include minority IACUC views			
- describe departures from <i>Guide</i> or PHS Policy and reasons for departure ^{vii}			
- distinguish significant from minor deficiencies			
- include plan and schedule for correction of each deficiency identified ^{viii}			
Reports to Office for Laboratory Animal Welfare(OLAW)			
- reports include any minority IACUC views			
- annual report to OLAW documents program changes & dates of IACUC semiannual review			
- promptly advises OLAW of serious/ongoing <i>Guide</i> deviations or <i>PHS Policy</i> noncompliance			
- promptly advises OLAW of any suspension of activity by the IACUC			
Reports to United States Department of Agriculture (USDA)			
- annual report (APHIS form 7023) submitted and contains required information			
- application for registration (APHIS form 7011) submitted and contains required information			

Records			
- minutes of IACUC meetings and semiannual reports maintained for 3 years			
- IACUC review documentation maintained for 3 years after end of study			
- IACUC review of activities involving animals includes all required information ^{ix}			

VETERINARY CARE	*A	M	S
- institutional arrangement for veterinarian with training or experience in lab animal medicine ^x			
- veterinary access to all animals			
- provision for backup veterinary care			
- must provide guidance on handling, immobilization, sedation, analgesia, anesthesia, euthanasia			
- must provide guidance/oversight on surgery programs and oversight of postsurgical care			
- veterinary authority to oversee all aspects of animal care and use			

PERSONNEL QUALIFICATIONS AND TRAINING	*A	M	S
- institution has established and implemented an effective training program			
- includes animal care personnel and the IACUC			
- includes research investigators and students			
- Training program content includes humane practices of animal care (e.g. housing, husbandry, handling) ^{xi}			
- Training program content includes humane practices of animal use			

OCCUPATIONAL HEALTH AND SAFETY OF PERSONNEL	*A	M	S
Institutional program for a safe and healthy workplace			
- program is established and implemented			
- covers <i>all</i> personnel who work in laboratory animal facilities			
- based on hazard identification and risk assessment			
- personnel training (e.g. zoonoses, hazards)			
- personal hygiene procedures (e.g., work clothing, eating/drinking/smoking policies)			
- procedures for use, storage & disposal of hazardous biologic, chemical, and physical agents			
- specific procedures for personnel protection & injury prevention			
Program for medical evaluation and preventive medicine for personnel			
- immunizations as appropriate (e.g. rabies, tetanus) & tests			
- zoonosis surveillance as appropriate (e.g. Q-fever, tularemia, Hantavirus, plague)			
- procedures for reporting and treating injuries, including bites etc.			

IACUC MEMBERS:

Name Printed	Signature	Date
_____	_____	_____
_____	_____	_____
_____	_____	_____

Appendix "E"

SEMIANNUAL FACILITY INSPECTION CHECKLIST ANIMAL HOUSING & SUPPORT AREAS

(Revised 1/05)

INSTRUCTIONS FOR CHECKLIST

The IACUC is charged with inspecting at least once every six months all of the institution's animal facilities, including satellite facilities, using the *Guide* as a basis for evaluation. Because these are physical aspects of a program that require visual observation to evaluate, this section will be completed during an inspection of facilities.

DATE: _____

MEMBERS IN ATTENDANCE: _____

Criteria for Evaluation

Location: animal areas separate from personnel areas, separation of species, separation by disease status
Construction: corridors, doors, windows, floors, drainage, walls, ceilings, HVAC, power & lighting, noise
Room/cage: temperature, humidity, ventilation, illumination, noise control
Cage/run : sanitation, cleaning tools, food/water access, security, safety, allows undisturbed observation, size meets physiologic, behavioral ^{xii} social ^{xiii} needs
Food: feeding schedule & procedures, contamination, vendor quality control , storage in sealed containers, expiration date labeling, vermin control, rotation of stocks
Water: ad libium unless justified, QC procedures
Bedding: species appropriate, keeps animals dry, QC procedures, minimizes scientific variables
Sanitation: frequency of bedding change (note <i>Guide</i> exceptions), cleaning & disinfection, monitoring
Waste disposal: procedures for collection, storage & disposal of waste; hazardous waste; animal carcasses
Pest control: regular program includes control of rodent & insect pests
Emergency, weekend, & holiday animal care: provision for, accessible contact information, veterinary care
Animal identification and records: cage/rack cards contain required information, clinical records accessible and appropriate
Storage:

food and bedding, supplies, waste material, hazardous material, carcasses

Cleanliness of rooms:

Sinks, counter tops, floors, walls

*A = acceptable; M = minor deficiency; S = significant deficiency (is or may be a threat to animal health or safety)

LOCATION	*A	M	S	NOTES
Psychology				
Olin Hall 336 animal room				
Olin Hall 337 animal room				
Biology				
Olin Hall 147 cage washing rm				
Olin Hall 142 storage room				
Olin Hall 144 animal room				
Olin Hall 145 animal room				
Olin Hall 146 animal room				
Olin Hall 148 animal room				
Olin Hall 149 storage room				
Feed/Bedding room				
Pharmacy				
CP&HS 07 entry/exit				
CP&HS 09 supply room				
CP&HS 10 animal room				
CP&HS 12 animal room				
CP&HS 13 multipurpose rm				
CP&HS 14 isolation room				
CP&HS 15 animal room				
CP&HS 16 cage washing rm				
CP&HS 17 office/entry/exit				
CP&HS 18				

Walk-in cooler				
Storage room				

NOTES: _____

IACUC MEMBERS:

Name Printed

Signature

Date

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Appendix "F"

SEMIANNUAL PROGRAM & FACILITY REVIEW REPORT

(Revised 1/05)

Memorandum to: President David Maxwell

From: Institutional Animal Care and Use Committee

Subject: Semiannual Evaluation of Animal Care and Use Program and Inspection of Facilities

Date: *Insert Date*

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 and as a condition of this institution's Animal Welfare Assurance on file with the Office for Protection from Research Risks, and USDA Animal Welfare Regulations, 9 CFR Chapter I, subchapter A, as applicable.

Evaluation of the Animal Care and Use Program

The IACUC conducted its semiannual evaluation of the institution's animal care and use program on *INSERT DATE(S)*, using the Guide for the Care and Use of Laboratory Animals (Guide), and, as applicable, 9 CFR Chapter I, 2.31. *The IACUC may wish to describe the process of program evaluation and briefly describe the program, or highlight particular aspects of the program, positive and negative.*

The following deficiencies were found in the animal care and use program: Describe each deficiency, identify each deficiency as either minor or significant (a significant deficiency is one which is or may be a threat to animal health or safety), and provide a reasonable and specific plan and schedule for the correction of each deficiency.

If no deficiencies were identified in the animal care and use program, the report should state that no deficiencies were identified and that all aspects of the program are consistent with the PHS Policy, the Guide, and applicable Animal Welfare Regulations.

Inspection of Animal Facilities

The IACUC inspected the animal facilities on *INSERT DATE(S)*, using the Guide, and, as applicable, 9 CFR Chapter I, 2.31. The IACUC may wish to briefly describe each facility, or to highlight specific attributes of facilities, positive and negative.

The following deficiencies were found in the animal facilities: Describe each deficiency, identify each deficiency as either minor or significant (a significant deficiency is one which is or may be a threat to animal health or safety), and provide a reasonable and specific plan and schedule for the correction of each deficiency.

If no deficiencies were identified in any animal facility, the report should state that no deficiencies were identified and that all facilities are consistent with the PHS Policy, the Guide, and applicable Animal Welfare Regulations.

Minority Views

If there are minority IACUC views regarding the semiannual report, the Institutional Official must be informed and copies of the minority views attached to the report. If there are no minority views, the report should include a statement to that effect.

Signatures

A majority of the members of the IACUC should sign the report:

Names of IACUC Members

Signatures

Appendix "G"

INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE (IACUC)
ANNUAL CONTINUING REVIEW FORM

(Revised 1/05)

PROTOCOL TITLE: _____

IACUC#: _____ DATE OF INITIAL APPROVAL: _____

PRINCIPAL INVESTIGATOR: _____

DEPARTMENT: _____

CAMPUS ADDRESS: _____ PHONE: _____

1. RECORD OF ANIMAL USAGE

Species	Total # Approved	# Used to Date

2. OF THE PROTOCOL/STUDY. (Check [X] all applicable items.)

- Survival (Chronic) Study
- Prolonged Restraint
- Inducement of a Disease State
- Terminal (Acute) Study
- Neuromuscular Blockers
- Inducement of Behavioral Stress
- Multiple Surgeries
- Antibody Production
- Blood/Tissue Collection
- Transgenic Breeding

3. PROTOCOL STATUS. Please indicate (X) the status of this project.

Request Protocol Continuance

- A. Active - project ongoing.
- B. Currently inactive - project was initiated but is presently inactive.
- C. Inactive - project never initiated but anticipated start date is _____.

Request Protocol Termination

- D. Inactive - project never initiated.
- E. Currently inactive - project initiated but project has not/will not be completed.
- F. Completed - no further activities with animals will be done.

4. PROJECT PERSONNEL.

- Yes: Have there been any personnel/staff changes since the last IACUC approval was granted?

[If yes, please complete the following sections (Additions/Deletions).For additions, please submit a completed Personnel Qualification Statement with this Continuing Review Form and make arrangements with the Animal Resources Center staff for inservice training on the proper care and handling of laboratory animals.]

- No:

Additions: Name/Role/Responsibility for Project

Deletions: Name Effective date

5. FUTURE PLANS.

- No changes are planned and the project will continue as previously approved by the IACUC.
- Changes are planned. Provide the IACUC with a new protocol including the proposed changes. Be sure to indicate which parts of the protocol have been changed. full description and justification for the proposed changes.

[Please note that if you are proposing changes you must submit a new protocol incorporating these changes and provide a full description and justification for the proposed changes below]. If you have questions, contact the IACUC. **Expand this space as needed**

[] Other. Provide a brief explanation.

CERTIFICATION OF THE PRINCIPAL INVESTIGATOR.

Signature certifies that the Principal Investigator understands the requirements of the PHS Policy on Humane Care and Use of Laboratory Animals, applicable USDA regulations and the Institution's policies governing the use of vertebrate animals for research, testing, teaching or demonstration purposes. Signature further certifies that the investigator will continue to conduct the project in full compliance with the aforementioned requirements.

Signature of the Principal Investigator

Date

Appendix "H"

**INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE (IACUC)
THREE-YEAR CONTINUING REVIEW FORM**

(Revised 1/05)

PROTOCOL TITLE: _____

IACUC#: _____ DATE OF INITIAL APPROVAL: _____

PRINCIPAL INVESTIGATOR: _____

DEPARTMENT: _____

CAMPUS ADDRESS: _____ PHONE: _____

1. RECORD OF ANIMAL USAGE

Species	Total # Approved	# Used to Date

2. OF THE PROTOCOL/STUDY. (Check [X] all applicable items.)

- Survival (Chronic) Study
- Prolonged Restraint
- Inducement of a Disease State
- Terminal (Acute) Study
- Neuromuscular Blockers
- Inducement of Behavioral Stress
- Multiple Surgeries
- Antibody Production
- Blood/Tissue Collection
- Transgenic Breeding

3. PROTOCOL STATUS. Please indicate (X) the status of this project.

Request Protocol Continuance

- A. Active - project ongoing.
- B. Currently inactive - project was initiated but is presently inactive.
- C. Inactive - project never initiated but anticipated start date is _____.

Request Protocol Termination

- D. Inactive - project never initiated.
- E. Currently inactive - project initiated but project has not/will not be completed.
- F. Completed - no further activities with animals will be done.

4. PROJECT PERSONNEL.

- Yes: Have there been any personnel/staff changes since the last IACUC approval was granted?

[If yes, please complete the following sections (Additions/Deletions).For additions, please submit a completed Personnel Qualification Statement with this Continuing Review Form and make arrangements with the Animal Resources Center staff for inservice training on the proper care and handling of laboratory animals.]

- No:

Additions: Name/Role/Responsibility for Project

Deletions: Name Effective date

5. PROGRESS REPORT. If the status of this project of 3.A (active; project ongoing) or 3.B. (project was initiated, but is presently inactive), provide (by attaching to this form) a brief update on the progress made in achieving the specific aims of the protocol.

6. PROBLEMS/ADVERSE EVENTS. If the status of this project of 3.A (active; project ongoing) or 3.B. (project was initiated, but is presently inactive), provide (by attaching to this form) a description of any unanticipated adverse events, morbidity or mortality, the cause(s), if known, and how these problems were resolved. If NONE, this should be indicated.

7. FUTURE PLANS.

- No changes are planned and the project will continue as previously approved by the IACUC.
- Changes are planned. Provide the IACUC with a new protocol including the proposed changes. Be sure to indicate which parts of the protocol have been changed. full description and justification for the proposed changes.

[Please note that if you are proposing changes you must submit a new protocol incorporating these changes and provide a full description and justification for the proposed changes below]. **Expand this space as needed**

[] Other. Provide a brief explanation.

CERTIFICATION OF THE PRINCIPAL INVESTIGATOR.

Signature certifies that the Principal Investigator understands the requirements of the PHS Policy on Humane Care and Use of Laboratory Animals, applicable USDA regulations and the Institution's policies governing the use of vertebrate animals for research, testing, teaching or demonstration purposes. Signature further certifies that the investigator will continue to conduct the project in full compliance with the aforementioned requirements.

Signature of the Principal Investigator

Date

Appendix "I"

SPECIFIC HEALTH AND SAFETY POLICIES FOR PERSONNEL WHO WORK IN THE LABORATORY ANIMAL FACILITIES AT DRAKE UNIVERSITY

The Animal Facility personnel consist of one full-time animal vivarian and work-study students.

I. Drake University Policy for Personal Hygiene, Handling Hazardous Agents, and Personnel Protection.

A. Personal Hygiene in the Animal Facilities

A zoonotic disease is one that is shared in nature by man and other vertebrate animals. To avoid infection with zoonotic agents potentially carried by research animals and to limit the spread of infections agents from one animal population to another, certain general guidelines must be followed by all animal caretakers and laboratory personnel.

1. Eating, drinking, smoking, and the application of cosmetics and contact lenses are forbidden in animal rooms and procedure rooms.
2. Contact between the hands, nose, eyes and mouth must be avoided.
3. Wear disposable gloves when handling animals, bedding or soiled cages.
4. It is recommended that protective clothing (laboratory coats, gowns, or uniforms) be worn while in the animal room/animal facility. This clothing should not be worn outside of the animal facility or laboratory areas.
5. Hands should be washed with soap and water immediately after handling all animals and animal equipment and before leaving the laboratory or animal facility.
6. Exercise great care with needles. Keep needles capped until ready to use. Dispose of used needles properly and promptly.
7. Bites and other wounds should be washed immediately, followed by appropriate medical attention.
8. Personnel should handle only those species for which they have received appropriate training.
9. Animal room facility door should be closed at all times except for entrance and exit.
10. Unauthorized persons should not be permitted to enter animal rooms.

B. Handling Biohazardous Agents in the Animal Facilities

When a protocol involving the use of hazardous materials is approved by the IACUC, it is imperative that the personnel working in the animal facility take special precautions in order to avoid personal injury and the risk of contamination. In addition to the personal hygiene procedures listed in "A" above, the following precautions will be observed:

Signage:

1. Posted on the door will be a biohazard sign that lists the biohazardous agent being used and the name and phone number of the primary investigator.
2. Cages must also bear the universal biohazard label and list the biohazardous agent being used.

Use of agent:

1. Work surfaces are decontaminated after use or spills of viable materials.
2. Procedures should be performed to minimize creation of aerosols. Only needle-locking syringes or disposable syringe units (i.e., the needle is integral to the syringe) are used for the injection or aspiration of infectious fluids. The needle and syringe should be promptly placed in a puncture-resistant container.
3. Necropsy of animals or harvest of tissues will not be performed in the animal housing room.
4. All contaminated materials used by the investigator (syringes, used gloves) will be removed from the animal facility by the investigator.
5. All needles and syringes are to be placed in a sharps container.
6. Personnel should wear gloves when handling animals, cages or injecting agents.
7. Disposable personnel protective equipment should be discarded in a “biohazardous” container. Reusable personal protective equipment should be marked with a biohazard label prior to sending to laundry.
8. Disposable paper gowns will be present in the room. This protective clothing should be removed before leaving the animal room.

Cage handling:

1. Manipulate cages that are not marked biohazard first.
2. Manipulate each biohazard group individually.
3. Change gloves between each biohazard group.
4. Soiled bottles, tops and cages with bedding should be placed in a biohazard bag and taken to Room 16 of the College of Health and Science Building for autoclaving prior to reuse.

Infected Animal Disposal:

1. Sacrificed or expired animals experimentally exposed to infectious biohazards should be double bagged in plastic biohazard bags.
2. Notify the investigator of the animal death. If the investigator does not want the animal, double bag the animal in biohazard bags prior to removal from the room and stage for incineration by placement in the freezer located in the Olin Hall Building in room #144.
3. If the investigator wants the animal, double bag the animal in biohazard bags prior to removal from the room and place the animal on the shelf in the stand up cooler located in the Olin Hall Building in room #144 labeled with the date and investigator name.
4. If weekend or holiday animal deaths occur the animal should be double bagged in biohazard bags and placed on the shelf in the stand up cooler located in the Olin Hall Building in room #144 with the date and investigator name. The investigator should be contacted on the next regular work day to determine the animal's disposition (i.e. investigator pickup or placement in the gray biohazard containers).

Principal investigator will provide:

1. Disposable paper gowns.
2. Alcidine chemical sterilant in a spray bottle.

C. Personnel Protection in the Animal Facilities

As a regular member of the IACUC, the Animal Vivarian continually reviews protocols that require IACUC approval and is present during the discussion of the protocol. Through this

process, the Vivarian is aware of potential risks from biohazards and other sources, and will appropriately instruct the student help.

II Procedures for Reporting and Treating Injuries

In the event of any injuries occurring in the animal facilities, immediate notification is required to direct supervisor and the steps to take are explained in Appendices "I", "J", and "K". If an accident or injury should occur to any faculty or staff member while working with or around the animals owned or used by Drake University, that person would be covered by Workers' Compensation Insurance carried by Drake University with Employers Mutual Companies. This insurance would cover any required medical or hospital costs and would replace a portion of the persons' wages or salary for any lost work time. The Animal Vivarian has full medical benefits with Drake's insurance policy. Out patient care and emergency first aid treatment are available without cost for full-time Drake students at the American Republic Student Health Center.

III. Personnel Training

The Vivarian keeps up on health concerns in her profession by regularly attending her national and regional AALAS meetings and seminars. In addition, she works closely with the attending veterinarian to stay current on protection from zoonotic agents. The work study students are directly under their supervision and are trained by them in personal protection techniques.

The researchers and primary investigators using the animal facilities at Drake University are all permanent faculty members who hold the Ph.D. degree and who have had training in those procedures and techniques that they employ in their laboratories. Most have had special courses in small animal surgery and animal care. They also share these skills with each other through in-house training sessions.

As an ongoing in-house training session, the IACUC invites all faculty and students who use animals in teaching and research to attend an annual special training session that involves viewing the Foundation for Biomedical Research (FBR) video tapes "The New Research Environment". This will be immediately followed by a question and answer session with the attending Veterinarian who will address specific questions from those attending concerning humane aspects of animal experimentation as it applies to their research and teaching including, but not limited to, the proper use of anesthetics, analgesics, tranquilizing drugs, appropriate surgical procedures, postsurgical care, and proper euthanasia procedures.

The researchers and primary investigators using the animal facilities at Drake University work closely with the attending veterinarian and animal vivarian who is AALAS certified. The IACUC sees to it that they are also regularly updated on USDA regulations and procedures that may pertain to their individual research projects. Students working on animal projects are supervised and trained in proper animal care by the primary investigator they are working with.

As an additional training component, the IACUC is purchasing several copies of the book, "Occupational Health and Safety in the Care and Use of Research Animals" by the Committee on Occupational Safety and Health in Research Animal Facilities, National Research Council 168 pages, 6 x 9, 1997. These copies will be made available in each of the animal facilities as well as in the research, and teaching settings at the University where people interact with animals. Its use is intended for the faculty, staff and students working in each area. It is expected that each investigator will stay current with the safety

information contained in the book and share this with those students who work with him or her. They will also be made aware of this resource on line at: <http://books.nap.edu/books/0309052998/html/index.html>

The IACUC committee has approved a special education budget for further education of the animal facility vivarian staff. It includes provisions for higher AALAS certifications, materials concerning animal training procedures or techniques, and attending seminars that may improve the capability of the facility to advance to more technical levels of research.

IV. Required Immunizations and Preventive Medicine Program

The animal facility personnel consist of one full-time animal vivarian and work-study students. A medical examination, including a tuberculosis test is required of all entering employees and student employees. A current tetanus vaccination is required of all those working in the animal facilities. The animal vivarian will have a yearly health physical and undergo the requisite serology tests to determine continual immunization.

V. Procedures for Hazard and Risk Assessment

Hazard and risk assessment is constantly occurring by a number of means.

Inspections: The Veterinarian make at least four inspections annually on his own to evaluate hazard and risk in the facility. The Animal Vivarian, who is in daily attendance in the facilities, is constantly assessing risk. The IACUC makes twice yearly inspections of the facilities as well. In addition, the USDA makes regular inspections.

Awareness: Through her membership of the IACUC, The Animal Vivarian is keenly aware of any risks posed by a research protocol. She then instructs her student help accordingly. In addition, Hazardous Risk Officer on the campus keeps the animal care personnel up to date on procedure.

Appendix "J"

ATTENTION ALL FACULTY, STAFF, AND STUDENT EMPLOYEES OF DRAKE UNIVERSITY

WORKERS' COMPENSATION MEDICAL TREATMENT

In the event you are injured on the job, please follow the steps listed below in receiving prompt, appropriate, and authorized medical treatment.

- You should notify your supervisor immediately in the event of a work-related injury or illness.
- The supervisor will investigate the injury or illness and complete a Supervisor's First Report of Injury form.
- You will receive priority treatment at one of the Concentra Medical Centers or Mercy Hospital Medical Center when the facility is notified and given authorization for treatment of your injury by the Safety Manager or your supervisor prior to your arrival.
- These medical treatment facilities are Drake University's designated workers' compensation treatment centers for non-emergency and emergency care.

The designated treatment centers for a non-emergency work-related injury or illness are:

Concentra Medical Centers

2323 Dixon
Des Moines, Iowa 50316
(515) 265-1020

OR

11144 Aurora Avenue
Des Moines, Iowa 50322
(515) 278-6868

Clinic Hours: 8:00 A.M. - 5:00 P.M. (Weekdays)

A Concentra Medical Center physician is on call 24 hours a day by calling either number.

For emergency treatment of a work related injury or illness (or any treatment that should not wait until clinic hours the next business day) seek treatment at:

Mercy Hospital Medical Center

Emergency Department

Sixth & University
Des Moines, Iowa 50314
(515) 247-3211
(24 Hour Service)

PLEASE NOTE:

If you choose to be treated by any other medical treatment center and/or physician, **you may not qualify for any WORKER'S COMPENSATION INSURANCE BENEFITS and YOU may be responsible for all medical costs related to this incident** (Section 85.27 of the Iowa Worker's Compensation Code of Iowa).

--

If you have any questions regarding this procedure, please call : Human Resources ext. 4804

Appendix "K"

DRAKE UNIVERSITY GUIDE TO HUMAN RESOURCE PROCEDURES

Section: Directed Medical Treatment
of Work-Related Injuries
and Illnesses

Page: 1 of 3
Approval Date: June, 1994
Revision Date: Dec., 1996

1.0 Non-emergency Medical Treatment:

- 1.1 A member of the Drake faculty, staff or a student employee who sustains a work-related injury or illness should notify their supervisor immediately.
- 1.2 The supervisor will investigate the injury or illness and complete a Supervisor's First Report of injury form and return it to Human Resources.
- 1.3 The supervisor will immediately call the Safety Manager at x4804 to report the injury or illness.
- 1.4 The Safety Manager will call Concentra Medical Centers to report the injury or illness and to authorize treatment. The Safety Manager will call the supervisor to confirm authorization. If the Safety Manager cannot be contacted call x3290 to leave a message and at that time it will be the responsibility of the supervisor to call the clinic to notify them of the injury or illness and to authorize treatment.
- 1.5 The injured faculty, staff or student employee should be given a copy of his/her job description to take to the clinic to assist in determining return-to-work restrictions.
- 1.6 Any faculty, staff, or student employee with a work-related injury or illness will be sent to the Concentra Medical Centers where they will be seen by a physician specializing in the treatment of work-related injuries and illnesses. In a non-emergency situation, an injured employee should not be taken to the emergency department.
- 1.7 For those prescriptions not filled by the clinic, the Drug-Mart pharmacy in the Mercy Plaza at 411 Laurel St. has agreed to fill prescriptions related to the treatment of work-related injuries and illnesses and to bill the university directly. Any Drake faculty, staff, or student employee with work-related injury or illness is encouraged to have prescriptions, associated with the injury or illness, filled at this pharmacy at the time of their visit(s) to Concentra Medical Centers.
- 1.8 If the treating physician releases the individual to return-to-work with restrictions during their healing period, every effort will be made to accommodate those restrictions and return the individual to work activities within those restrictions.
- 1.9 If a member of the faculty, staff or a student employee has reason to be dissatisfied with the medical treatment received for their work-related injury or illness, they should

communicate the reason for this dissatisfaction in writing to the Safety Manager, Human Resources, 1331 27th Street.

2.0 Emergency Medical Treatment:

- 2.1 If appropriate, the supervisor should call emergency medical response (9-911) and then call Security (811) to report the work-related injury or illness. Request that the individual be transported to Mercy Hospital Medical Center.
- 2.2 If transported by any other means, the driver should be instructed to take the individual to the Mercy Hospital Medical Center Emergency Department.
- 2.3 If time and circumstances allow, telephone the Mercy Hospital Medical Center emergency department 247-3211 to notify them that a Drake employee, with a work-related injury, is being transported to the emergency department.
- 2.4 Call the Safety Manager at x4804 to report the incident.
- 2.5 The Safety Manager will call Concentra Medical Centers to notify them that a member of the Drake faculty, staff or a student employee, with a work-related injury or illness is being transported to the emergency department.
- 2.6 The supervisor will investigate the injury or illness and complete a Supervisor's First Report of injury form and return it to Human Resources.
- 2.7 After initial emergency and/or hospitalization treatment, all follow-up treatment will be coordinated through Concentra Medical Centers.

3.0 Weekends, Holidays and Non-Business Hours:

- 3.1 If emergency medical treatment is indicated, the supervisor should call emergency medical response (9-911) and then call Security (811). Request that the individual be transported to Mercy Hospital Medical Center.
- 3.2 If transported by any other means, the driver should be instructed to take the individual to the Mercy Hospital Medical Center, emergency department.
- 3.3 If time and circumstances allow, telephone the emergency department 247-3211 to notify them that a Drake employee, with a work-related injury, is being transported to the emergency department.
- 3.4 Call the Safety Manager at x4804 and leave a PhoneMail message or send a QuickMail message concerning the incident. Include name of the person injured, a brief description of the incident and the injury or illness, and the name and telephone extension of the supervisor.
- 3.5 If emergency medical treatment is not indicated, but the injury or illness is such that treatment should not wait until clinic hours the next business day, seek treatment at Mercy Hospital Medical Center, emergency department.

- 3.6 Any work-related injury or illness requiring emergency medical care will receive follow-up treatment through Concentra Medical Centers.
- 3.7 If the injury or illness does not require immediate medical attention and treatment can wait until clinic hours the next business day, have the individual call the Safety Manager (271-4804) at 8:00 A.M. the next business day. The Safety Manager will call Concentra Medical Centers to authorize treatment and make arrangements for the individual to be seen for an evaluation. The Safety Manager will call the injured employee to confirm that authorization for treatment has been given and to convey any other information or instructions.
- 3.8 If it is questionable as to whether treatment is necessary or not, an on-call Concentra Medical Centers physician can be contacted by calling 265-1020 or 278-6868, for consultation and to make a treatment determination. Note that these are the clinic telephone numbers. An answering service will answer the call and page the on-call physician who will return the call and make recommendations for treatment.
- 3.9 In any event, the supervisor will investigate the injury or illness and complete a Supervisor's First Report of injury form and return it to Human Resources.

Appendix "L"

SUPERVISOR'S FIRST REPORT OF INJURY
DRAKE UNIVERSITY

- INSTRUCTIONS: 1. Please fill out both sides completely.
2. Send immediately to Human Resources, 1331 27th St.

Identification of the Accident

- 1. Name of Injured
2. Department 3. Title
4. Employment Status: Full time Part Time Student
5. Date of Accident 6. Hour am pm
7. Time employee's workday started am pm
8. Weather (if accident occurred outdoors)
9. How did you (supervisor) learn of the injury?
Date of Notification to Supervisor

Personal Information

- 10. Social Security No. Birthdate
11. Address, city, zip Phone
12. Marital Status # of dependent children
Other dependents
13. Date of Hire Date of Current Position
14. Hourly/Monthly Wage Hours per week
Pay Period: Weekly Bi-weekly Monthly
15. Has employee earned any over-time during prior 13 weeks?

Medical Information

- 16. Did injured receive medical attention? Yes No
Concentra Medical Centers (2323 Dixon or 11144 Aurora Avenue)
Mercy Hospital Medical Center - Emergency Room
Other:

Nature and Degree of Injury

- 17. Did accident involve time away from work beyond the day of injury? Yes No
Was the employee paid in full for the day of the injury? Yes No
Date disability began Date returned to work

If not yet returned, expected date of return to work
Please call Human Resources, Extension 3290, when employee returns to work.
(Releases from physician to be off work and to return to work must be turned in to Human Resources.)

- 18. Exact part of body affected and type of injury (include right or left):

Description of the Accident

- 19. Narrative summary of accident (include what the employee was doing when injured and how the injury/accident occurred.)

20. Machine, tool, or thing causing injury _____
21. Exactly where did the accident happen? _____

**Names of
Witnesses**

Name	Telephone
_____	_____
_____	_____

(If witnesses were interviewed, attach copies of their statements.)

**Safety
Instruction
and
Training**

22. This person was instructed specifically about safety on the job on _____ (date).
23. Describe training given (if any) _____

Remedy

24. What can be done, or what has been done, to prevent a recurrence of this accident? _____

25. To request special follow-up by the Safety Manager, check box ☘
Explain: _____

Supervisor

Safety Manager

Date of Report

Employee's Signature

ⁱThe PHS Policy requires that Assured institutions comply with the regulations (9 CFR, Subchapter A) issued by the U.S. Department of Agriculture (USDA) under the Animal Welfare Act, as applicable. The endnotes below are specific USDA regulatory requirements that differ from or are in addition to the PHS Policy. This list is not intended to be all inclusive. For additional information please refer to 9 CFR Subchapter A - Animal Welfare.

ⁱⁱPart 2 Subpart C- Research Facilities

- 2.31(b)(2) - "The Committee shall be composed of a Chairman and at least two additional members;... at least one shall not be affiliated in any way with the facility...such person will provide representation for general community interests in the proper care and treatment of animals." [PHS policy requires 5 members]

ⁱⁱⁱ 2.32(c)(4) - "...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." [USDA requirement additional to PHS Policy]

^{iv} 2.31(d)(5) - "...shall conduct continuing reviews of activities...not less than annually." [PHS Policy requires a complete new review every 3 years utilizing all the criteria for initial review]

^v 2.36 - "...each reporting facility shall submit an annual report to the APHIS, AC sector supervisor for the State where the facility is located on or before December 1 of each calendar year." [The USDA annual report has a list of requirements which differ from PHS annual report]

^{vi} 2.31(c)(3) - "...The reports shall be reviewed and signed by a majority of committee members..."[USDA requirement additional]

^{vii} 2.36(b)(3) - "...exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the IACUC. A summary of all such exceptions must be attached to the facility's annual report." [Refers to USDA annual report]

^{viii} 2.31 (c)(3) - "...Any failure to adhere to the plan and schedule that results in a significant deficiency remaining uncorrected shall be reported in writing within 15 business days by the IACUC, through the institutional official, to APHIS and any Federal agency funding that activity." [PHS Policy requires prompt reporting to OPRR of serious or continuing noncompliance with the PHS Policy or serious deviations from the provisions of the Guide]

^{ix} [In addition to PHS requirements for IACUC review/application for funding, USDA regulations require]:

2.31(d)(1)(ii) - "The principal investigator (PI) consider alternatives to procedures that 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."

2.31(d)(1)(iii) - "The PI has provided written assurance that the activities do not unnecessarily duplicate previous experiments."

2.31(d)(1)(iv) - "Procedures that may cause more than momentary or slight pain or distress to the animals will:
- involve in their planning, consultation with the attending veterinarian or his or her designee; [PHS Policy does not specify veterinary consultation]
- not include paralytics without the use of anesthesia;"

2.31(d)(1)(x) - "No animal will be used in more than one major operative procedure from which it is allowed to recover, unless justified for scientific reasons by the principal investigator, in writing..."

^x 2.33(a)(1) - "In the case of a part-time attending veterinarian or consultant arrangements, the formal arrangements shall include a written program of veterinary care and regularly scheduled visits to the research facility." [USDA requirement additional]

^{xi} 2.32(c) - "Humane methods of animal maintenance and experimentation, including the basic needs of each species, proper handling and care for the various species of animals used by the facility, proper pre-procedural and post-procedural care of animals, and aseptic surgical methods and procedures."

^{xii} Part 3 Subpart A 3.8 - "...research facilities must develop, document, and follow an appropriate plan to provide dogs with the opportunity for exercise. In addition the plan must be approved by the attending veterinarian. The plan must provide written standard procedures..."

^{xiii} Part 3 Subpart D 3.81 - "...research facilities must develop, document, and follow an appropriate plan for environment enhancement adequate to promote the psychological well-being of nonhuman primates."