

University of Maryland Center for Environmental Science

**ASSURANCE OF COMPLIANCE
WITH
PUBLIC HEALTH SERVICE
POLICY ON HUMANE CARE AND USE OF LABORATORY ANIMALS**

University of Maryland Center for Environmental Science (UMCES), 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 subgranting or subcontracting of a PHS-conducted or supported activity by this institution.

"Institution" includes the following branches and major components of University of Maryland Center for Environmental Science: Appalachian Laboratory (AL), Frostburg, Maryland; Chesapeake Biological Laboratory (CBL), Solomons, Maryland; Horn Point Laboratory (HPL), Cambridge, Maryland.

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.

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).

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 shown in Figure 1., the chart demonstrating lines of authority. This chart is inserted immediately after III. A. Institutional Program for Animal Care and Use, Organizational Structure. This is verification that the Veterinarian does have direct contact with the Institutional Official as well as the Laboratory Directors.

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

1. *Qualifications:* Janet E. Whaley, D.V.M., is a biologist in the Marine Mammal Division, National Marine Fisheries Service, Office of Protected Resources, Silver Spring, MD. She is licensed to practice veterinary medicine in Maryland and is Chair of the Aquatic Animal Health Subcommittee of the Maryland Aquaculture Advisory Commission. She has had fifteen years' postgraduate experience in laboratory and field animal medicine. Dr. Whaley's expertise in finfish toxicology is directly applicable to many of the vertebrate animal activities at UMCES, notably research and graduate studies in aquatic toxicology and aquaculture.

2. *Authority:* Dr. Whaley will have full authority to advise the IACUC, the Laboratory Directors, and the President of UMCES on appropriate procedures for use of finfish in research as set forth in the Guide and other applicable documents as identified at III.D.1 below. She may advise the IACUC to require specific changes in research protocol before faculty or student research is initiated. Further, she has the authority to suspend immediately any research found to be conducted in violation of UMCES or PHS policy until the IACUC shall advise the President of the institution that such violation(s) have been remedied. Dr. Whaley's authority pertains to all vertebrate animal research at UMCES, whether or not the research is funded by the PHS.

3. *Commitment:* Dr. Whaley will contribute 5% time in direct service to IACUC for site visits, research protocol review, and annual training. In addition, she will be available as needed by faculty and students for advice and consultation. Should she not be available, UMCES will request assistance from Dr. Eric May, fish pathologist with the Cooperative Oxford Laboratory, MD Department of Natural Resources, Oxford, MD. Dr. Whaley is under contract to UMCES and is

paid on an hourly basis to provide the above services.

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 seven members, and its membership meets the composition requirements set forth in the PHS Policy at IV.A.3.b. Attached is a list of the names, degrees, position titles, specialties and institutional affiliations of the IACUC chairperson and members.

As of December 1, 2004, the IACUC membership list is current. In January 2004, the IACUC Committee was transferred to the UMCES Appalachian Laboratory from the UMCES Chesapeake Biological Laboratory. By the end of the year (2004), we added new members for a total of seven, and the list became "official" as of December 1, 2004.

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 as well as other applicable documents pertaining to finfish, amphibians and reptiles that have been adopted by the appropriate professional societies. The IACUC procedures for conducting semiannual program evaluations are:

The IACUC has Semiannual Meetings, which usually take place in the spring (June) and fall (October) via the Interactive Video Network or a conference call. We discuss various issues, protocols, policies, and problems. A report of the October 25, 2006 meeting, which was held over the Interactive Video Network between UMCES Appalachian Laboratory, Horn Point Laboratory, and Chesapeake Biological Laboratory is attached. A quorum has been present for each meeting of IACUC under the current Chair and membership since being appointed in 2004.

2. Inspect at least once every six months all of the institution's animal facilities, including satellite facilities, using the Guide as a basis for evaluation. The IACUC procedures for conducting semiannual facility inspections are: semiannual inspections performed by at least two members of the IACUC using the Semiannual Facility Site Visit Checklist. The veterinarian is required to be present at one of the biannual inspections at each UMCES laboratory (AL, HPL, or CBL).

3. Prepare reports of the IACUC evaluations as set forth in the PHS Policy at IV.B.3. and submit the reports to Dr. Donald F. Boesch, President, UMCES, as the designated Institutional Official. The IACUC process for developing reports and submitting them to the Institutional Official is: The Semiannual Report to the Institutional Official is developed, reviewed and approved by the IACUC.

4. Review concerns involving the care and use of animals at the institution. The IACUC procedures for reviewing concerns, if needed, are communicated by e-mail to the Chair and members of the IACUC, and discussed at a convened meeting via Interactive Video Network (audio-visual) conferencing or in person. After meeting, we notify the UMCES president (IO) of concerns and alternative ways to correct problems.

Anyone at UMCES or from the public who would like to report concerns of animal care and use at UMCES are free to contact the Chair or any member of IACUC with their confidential concerns. A list of the Committee members is on AL's website <www.al.umces.edu/iacuc> under Research, IACUC Animal Use and Care Policies. The convened Committee reviews the concerns and decides what action should be taken to rectify any problem(s). With a majority vote of the quorum present, the Committee can suspend a previously approved activity. If the concerns are of a serious nature then the Committee will forward this information and how we corrected this serious problem to the IO and OLAW.

Annually the Committee sends out an e-mail message to all of UMCES reminding them of this reporting procedure.

5. Make written recommendations to the President of UMCES as the designated Institutional Official regarding any aspect of the institution's animal program, facilities, or personnel training. The procedures for making recommendations to the Institutional Official are:

The IACUC makes recommendations to the UMCES President (Institutional Official) via its semiannual report. The report includes the results of the facility site inspections for the prior six months; a listing of any problems on the inspection forms for each laboratory facility (Appalachian Laboratory, Horn Point Laboratory, or Chesapeake Biological Laboratory); who was contacted about the problem; what suggestions were made for correcting any problem; and when the problem was resolved. If the problem was not resolved in a timely manner, the Chair of IACUC would likely contact the IACUC member located at that laboratory facility to determine the cause of the delay in resolving it. If the response were reasonable, he would give them additional time, if needed. The Chair also has the authority to contact the Laboratory Director or President of UMCES about the resolution of any problem. A report to the Chair via email or letter describing the resolution of the problem is then included in the report to the UMCES President (Institutional Official).

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 are:

Since the Committee members are physically located on the Western and Eastern

Shores of Maryland and western Maryland, we use Blackboard.com as our means of posting, reviewing, and approving research protocols; and discussions about proposals among Committee members since June 2000. Blackboard.com remains on the UMCES Chesapeake Biological Laboratory's secure website and only the Committee members have access to the IACUC site. We do not use designated reviewers for expedited review processes; every IACUC member is required to comment on each protocol. The PI must respond to any questions raised by an IACUC member to the satisfaction of the IACUC. Once all members are satisfied with the protocol and any modifications to it, the Chair or a designated IACUC member does a final review and, if it is in order, approves the protocol.

Handling Procedures: The Principal Investigator sends a written protocol to the Chair of IACUC via email and also a hard copy via regular mail with original signatures on it. This hard copy is kept in the file permanently. The Chair and Assistant pre-review the protocol to make sure the Principal Investigator has submitted a complete protocol before uploading it to Blackboard.com. Once this is done, the protocol is uploaded to Blackboard.com, and a full-Committee review is requested by contacting IACUC members via emails. The Committee is thereby notified that a protocol(s) has been posted for review and are given a deadline date of four (4) weeks past the submission date for 1) approval as submitted, 2) approval pending modifications, 3) hold for discussion by Committee, or 4) disapproved as presented; must resubmit. If modifications are required, the Chair writes a letter listing concerns/questions to the Principal Investigator and he is given two (2) weeks to reply with an answer. This reply is uploaded to Blackboard.com and the Committee is asked to review his answers and approve/disapprove the protocol. Once all reviews are in, if approved, a letter is written to the Principal Investigator from the Chair with an assigned protocol number. This packet includes a "Change" letter (for future changes before the protocol is final) and a Public Health Service Policy on Humane Care and Use of Laboratory Animals booklet as a guide for each Principal Investigator.

Meeting Attendance/Voting: A quorum of 50% is required in order to hold a meeting. The meetings are held over the Interactive Video Network system, which can connect all laboratories for face-to-face interaction. A majority vote is required for voting on items brought before the IACUC.

Designated Reviewer: We have appointed a Designated Reviewer because the Chair of our Committee often submits protocols for approval and declines from doing his own review. The protocol is presented to the full IACUC Committee for review and treated as a regular review. Then the Designated Reviewer approves/disapproves the protocol with letters to the Chair as needed and an assigned protocol number. All of our protocols go through a full-Committee review.

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 are:

Proposed Significant Changes: During the original assignment of a protocol number, a "Change" letter is included with the letter packet sent to the Principal Investigator. This letter allows the Principal Investigator to notify the IACUC Committee of any changes during the duration of the protocol. The change could be minor or significant. If it is a minor change, such as adding a student, they can request this through the "Change" letter and a review is not needed. If it is a significant change, such as change in number(s) of animals, etc., they will be requested to send in a new protocol with changes explained and included. All significant changes go through the IACUC Committee as a regular review over Blackboard.com and must be approved by the Committee. The IACUC assigned protocol number will stay the same with the revision noted via letter to the Principal Investigator and a copy put in the permanent file.

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

Notifying the PI: If modifications are required, the Chair writes a letter listing concerns/questions to the Principal Investigator and he is given two (2) weeks to reply with an answer. This reply is uploaded to Blackboard.com and the Committee is asked to review the answers and approve/disapprove the protocol. Once all reviews are in, if approved, a letter is written to the Principal Investigator from the Chair with an assigned protocol number. This packet includes a "Change" letter (for future changes before the protocol is final) and a Public Health Service Policy on Humane Care and Use of Laboratory Animals booklet as a guide for each Principal Investigator.

Notifying the Institution: The approval letters are sent to the UMCES Grants Officer. This is to notify the Grants Officer that the protocol has been approved and a number assigned. They can then attach the number/letter to the grant and notify the granting agency that a protocol has been approved. These letters are also sent to the Safety Officers of each laboratory for their records.

9. Conduct continuing review of each previously approved, ongoing activity covered by this Policy at appropriate intervals as determined by the IACUC, including a complete review in accordance with the PHS Policy at IV.C.1-4. at least once every three years. The IACUC procedures for conducting continuing reviews (yearly) are required from the investigators by written communication.

Continuing Review: The IACUC Committee performs a complete de novo review every three years. At this time, the IACUC requires the Principle Investigator to

provide the committee information on the status of the study to date. If the Principle Investigator plans to continue the protocol beyond the three years, the IACUC requires that the protocol be submitted to the IACUC Committee for a full review over Blackboard.com. This de novo review gives the Principle Investigator the opportunity to modify and update the protocol with any changes in methodology or improvements in techniques. The Committee will then approve, approve pending clarification, or disapprove the protocol. If approved, a revised IACUC number will be assigned to the protocol for another three years; or, if questions arise, the IACUC may require written clarification from the Principle Investigator prior to final approval. If not approved, a letter will be sent to the Principle Investigator stating why it was not approved. The Principle Investigator would then revise the protocol and resubmit it for review.

10. 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, if needed:

Any individual may bring or relay any concerns involving the care and use of animals at the institution to the President or to a Laboratory Director or to the IACUC Chair. Such concerns may be raised in confidence. Upon the recommendation of the veterinarian or as the result of majority vote of its IACUC members at a convened meeting of a quorum (not electronic discussion), the IACUC is authorized to suspend any activity involving animals. The Chair may also temporarily suspend any such activity under emergency circumstances pending further examination by the IACUC, which will decide whether to continue the suspension or to permit the activity to resume. Suspension of any activity must be justified in writing to the President of the institution within twenty-four hours. The IO in consultation with the IACUC shall review the reasons for suspension, take appropriate corrective action, and report that action with a full explanation to OLAW.

E. The individual(s) 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 Committee: J. Edward Gates, Janet E. Whaley, Andy Lazur, Christopher L. Rowe, John L. Hoogland, Bruce Taliaferro, and Steven C. Wilson.

F. The occupational health and safety program for personnel who work in laboratory animal facilities or have frequent contact with animals is:

1. At the time of hire new personnel will be asked for documentation of a tetanus/diphtheria vaccination or booster within the past 10 years and of a tuberculin skin test. If documentation is not available a new hire will be required to have a routine physical examination to include the tetanus/diphtheria vaccination/booster and tuberculin skin test no later than 3 months after health benefits become active. All employees who work with animals will be required

to have a tetanus/diphtheria booster every 10 years and a tuberculin skin test every 2 years.

2. Protective clothing, including uniforms, gowns, sleeve extenders, rubber boots, caps, masks, gloves, safety glasses, and respirators are provided for use in activities that involve vertebrate animals whenever required by the work assignment.

3. The Vice President for Administration, through the Office of Human Resources, monitors the UMCES Occupational Health Program. Accidents and wounds are reported to the appropriate Laboratory Health Officer and, if deemed to warrant professional attention, the individual is sent to a health care provider for treatment. Any such referrals are reported to the UMCES Office of Human Resources.

4. Animal care and use protocols involving the use of hazardous agents (pathogens, carcinogens, other hazardous chemicals, recombinant, or radioisotopes) must be reviewed and approved by the appropriate Laboratory Safety Committee and the IACUC before the activity can be initiated. The UMCES Office of Sponsored Programs and the principal investigator(s) are informed of approvals that involve research proposals. The UMCES Radiation Safety Officer monitors all areas where radioisotopes are used, disposed of, and/or stored. Each Laboratory Safety Officer monitors the use, storage, and disposal of other hazardous materials.

5. The institutional training program will include information about zoonoses, personal hygiene, use of hazardous materials, and other considerations regarding occupational health and safety practices that relate to activities involving the care and use of vertebrate animals at UMCES. Personnel must be fully trained in both the care and use of animals and in the use of hazardous materials before they will be permitted to undertake such activities.

6. Eating, drinking, and smoking are strictly prohibited in areas where vertebrate animals are being kept or used. Signs to this effect are prominently posted in all such areas.

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

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

Training: A notice is submitted quarterly to all employees of the University of Maryland Center for Environmental Science (UMCES) (AL, CBL, and HPL) stating

that if they have need for a protocol, then they must take the Training Class if they have not done so. They should apply via e-mail notifying the Assistant that they need the class. This class is announced via e-mail one month before time of the class. The class is held over the Interactive Video Network, which allows for all people within UMCES to access the class. This year (2007) we held one class in January 2007 and will be holding another class this fall in order to make sure all people are able to attend a class. The class training consists of General Information, including OSHA instruction; Fishes; Amphibians and Reptiles; and Field Studies. As new techniques arise of which IACUC is aware or that are listed in a new protocol, the IACUC requires that the PI demonstrate proficiency in the practice. If proficiency cannot be demonstrated, the IACUC via the Chair requires that training be sought by the PI and be completed to its satisfaction before proceeding with the practice. The IACUC can delay approval of a protocol until the required training is complete. The IACUC keeps abreast of changes in practices and regulations via periodicals and publications, the OLAW website, various guides from professional societies, and communication with other institutions. These changes are made known to UMCES employees via IACUC training and emails from IACUC members.

Training for Members: New members are mentored by current members on the issues faced by the IACUC; some members have attended IACUC workshops and conferences offered by OLAW. We are now looking into expanding our training by opening the training sessions of OLAW to our Committee on an "if/when" basis as the budget permits.

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 correcting each deficiency. Semiannual reports of the IACUC evaluations will be submitted to Dr. Donald F. Boesch, President, UMCES. 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.

V. RECORD KEEPING 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.
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 Dr. Donald F. Boesch, President, UMCES.
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 Dr. Donald F. Boesch, President, UMCES.

B. The IACUC, through the Institutional Official, will provide the 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 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: Donald F. Boesch, Ph.D.

Title: President, UMCES

Address: University of Maryland, Center for Environmental Science
Post Office Box 775
Cambridge, MD 21613-0775

Phone: 410-228-9250, ext. 601

Fax: 410-228-3843

Signature: *Donald Boesch*

Date: 6/15/07

B. PHS Approving Official

Name: Venita Thomson, D.V.M., M.P.H.
Senior Assurance Officer, Division of Assurance
Office of Laboratory Animal Welfare

Title: National Institutes of Health
6705 Rockledge Drive
RMT 1, Suite 500, MSC 7982

Address: Bethesda, MD 20892-7982
Phone: 301-431-4208
Fax: 301-402-7065

Phone:

Fax: -----

Signature: *Venita B. Thomson DVM, MPH*

Date: Aug 7, 2007

C. Effective Date of Assurance: 8-07-07

D. Expiration Date of Assurance: 8-31-2011

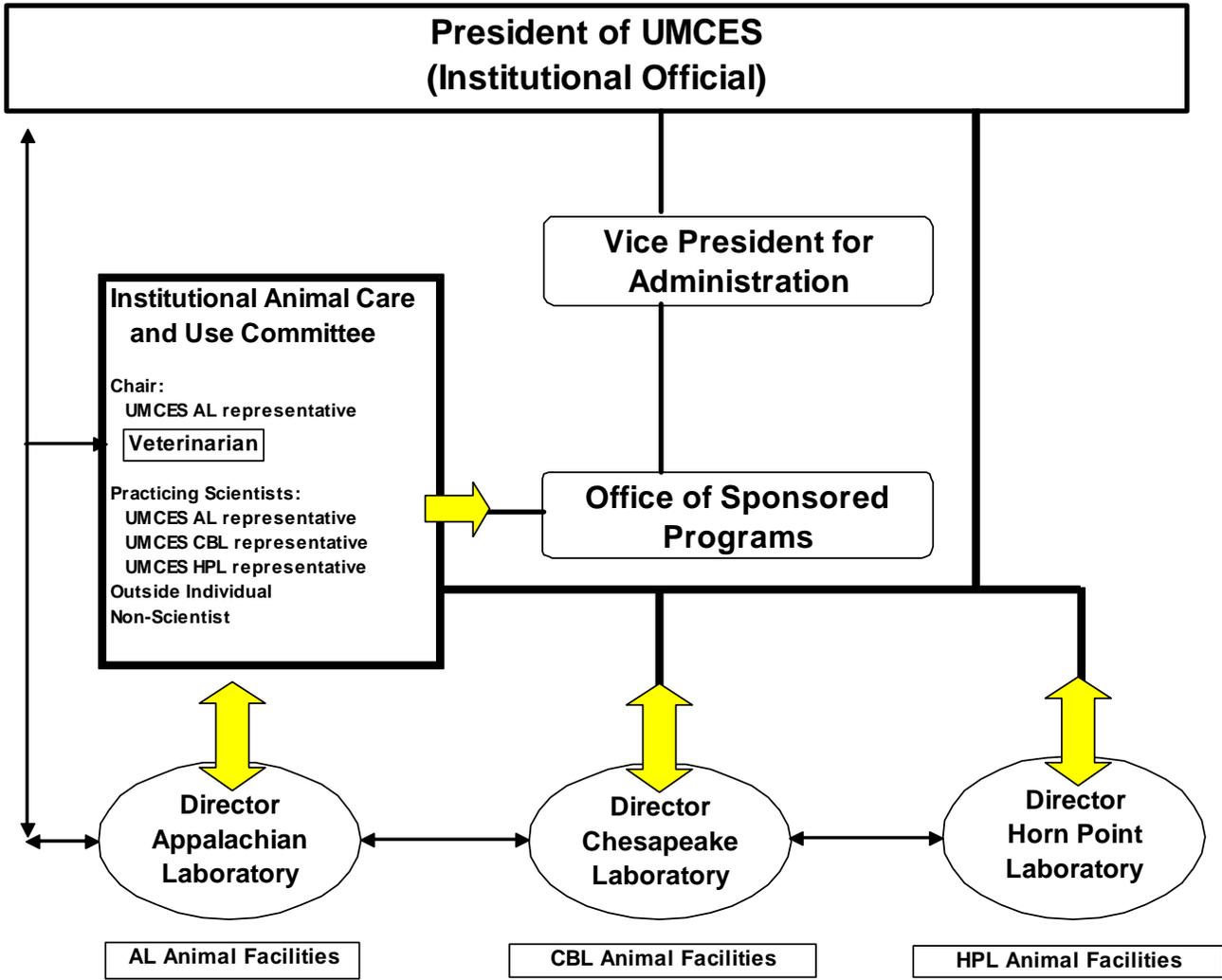


Figure 1. Lines of authority for administering institutional program for animal care and use at UMCES.

“Current” MEMBERSHIP OF THE INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE as of September 14, 2007.

NAME OF INSTITUTION: University of Maryland Center for Environmental Science
 ASSURANCE NUMBER: A4160-01

Chairperson Name, Title, and Degree/Credentials		Business Address, Phone, Fax, and Email of Chairperson		
Name: Dr. J. Edward Gates	Title: Associate Professor, UMCES, Appalachian Laboratory (AL)	Address: 301 Braddock Road, Frostburg, MD 21532		
Degree/credentials: Ph.D.		Phone: 301-689-7173	Fax: 301-689-7200	Email: egates@al.umces.edu

Name of Member*	Degree/Credentials	Position Title	PHS Policy Membership Requirements**
J. Edward Gates	Ph.D.	Associate Professor, UMCES Appalachian Laboratory	Scientist
Janet E. Whaley	D.V.M.	NOAA-National Marine Fisheries Service	Veterinarian
Christopher L. Rowe	Ph.D.	Assistant Professor, UMCES CBL	Scientist
Andy Lazur	Ph.D.	Associate Professor, UMCES Horn Point Laboratory	Scientist
John L. Hoogland	Ph.D.	Professor, UMCES Appalachian Laboratory	Scientist
Erica Kropp	Non-scientist	Interim Vice President for Administration, UMCES Center Administration	Non-scientist
Bruce Taliaferro	Environmental Educator	Coordinator, Hickory Environmental Education Center	Non-affiliated 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.

FACILITY AND SPECIES INVENTORY

Date: January 8, 2008

NAME OF INSTITUTION: University of Maryland Center for Environmental Science

ASSURANCE NUMBER: A4160-01

Laboratory, Unit, or Building*	Gross Square Feet (including service areas)	Species Housed in Unit (use complete common names)	Approx. Average Daily Inventory
AL, Teaching Classroom 112	1,163 sq. ft.	Centrarchidae, Cyprinidae, Percidae, Ictaluridae, Esocidae	35
CBL, Coastal Chemistry Laboratory, 2114	3000 sq. ft.	Red ear slider turtles (juveniles)	90
CBL, Coastal Chemistry Laboratory, 2114	3000 sq. ft.	Snapping turtles (juveniles)	90
CBL, Holding Bay (Fish Res. Complex (FRC))	400 sq. ft.	Yearling Atlantic sturgeon	14
CBL, Holding Bay (Fish Res. Complex (FRC))	400 sq. ft.	Juvenile menhaden	Fluctuates between 5 and 300 seasonally
CBL, Holding Bay, (Fish Res. Comple (FRC)	400 sq. ft.	Spot (adults)	3
“	“	Striped blenny (adult)	1
“	“	Naked goby (adult)	1
“	“	Toadfish (adult)	1
“	“	Mummichog (adults)	3
“	“	Striped killifish (adult)	1

Continued: FACILITY AND SPECIES INVENTORY

Date: January 8, 2008

NAME OF INSTITUTION: University of Maryland Center for Environmental Science
 ASSURANCE NUMBER: A4160-01

Laboratory, Unit, or Building*	Gross Square Feet (including service areas)	Species Housed in Unit (use complete common names)	Approx. Average Daily Inventory
HPL, Fish Hatchery	2 tanks (12 ft diameter)	Atlantic sturgeon	2
HPL - AREL Fish Hatchery (7500 square feet)			
“	50 aquaria (5-30 gallon)	Clownfish	2,500
“	12- 2 ft and 3- 4 foot tanks	Clownfish	1,500
“	80- 8 ft diameter tanks	Atlantic sturgeon	100
“	1- 8 ft diameter tank (display)	Atlantic sturgeon/white bass/yellow perch	20
“	10 – 6 ft tanks	Striped bass	1,500
“	10- 6 ft tanks	Atlantic sturgeon	25
“	2- 8 ft tanks	Diamondback terrapin	90
HPL Earthen Ponds	87,120 (4 ponds, ½ acre ea)	Atlantic sturgeon	120
HPL Lined Ponds	87,120 (8 ponds, 1/4 acre ea)	Atlantic sturgeon	8

*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.