COLLEGE OF VETERINARY MEDICINE EDUCATION/TRAINING PLAN FOR RESPONSIBLE CONDUCT OF RESEARCH AND SCHOLARSHIP

There is tremendous breadth in the scope of research conducted within the College of Veterinary Medicine at MSU and in the veterinary profession at large. Of primary importance in the veterinary field are issues relating to responsible use of animals in research, animal welfare, veterinary ethics, and professional conduct. Thus, these topics are explicitly covered and are presented to all students in the veterinary curriculum. Along with veterinary students we also train graduate students, undergraduate students, residents, and postdoctoral fellows.

Instruction in responsible conduct of research will be provided to all individuals associated with a research training program in the college, regardless of the individuals’ source of support. Guidelines described below are tailored to groups of individuals based on their stage of training and represent the minimum training provided.

Documentation of responsible conduct of research training will utilize the MSU Angel non-credit registration system.

Veterinary Professional Students

1) All veterinary students take the 2 credit course VM513 Ethical and Animal Welfare Issues in the Veterinary Profession during semester 1 of the veterinary curriculum. (30 hr)

2) Veterinary students participating in the Summer Research Program receive responsible conduct of research training infused throughout the 12 week program.

   a. Responsible conduct of research is discussed during the Summer Research Program orientation. (0.5 hr)

   b. Book club style discussions of the book “Greatest Feuds in Science” are conducted by the Program Director or other faculty at several times during the program. (2 hr)

   c. A seminar on Laboratory Animal Medicine that covers responsible use of animals in research is presented and followed by group discussion. (2 hr)

   d. *Small group (lab meeting) or individual discussions with the faculty mentor on responsible conduct of research topics take place on a regular basis. Resources to facilitate such discussions are made available to the faculty mentors and trainees at the MSU Graduate School Research Integrity Council website (http://grad.msu.edu/ric/). (2-6 hr)

   e. Reading assignments on responsible conduct of research topics utilizing the resources available at the MSU Graduate School Research Integrity Council website may be required in support of above described small group and/or individual discussions. (typically 1+ hr)
f. Online training based on the specific research topic/laboratory setting is completed as required (e.g. IACUC Tutorial, Species Specific Training, Collaborative Institutional Training Initiative (CITI) Human Research Curriculum, etc). (typically 0.5-1.5 hr)

Graduate Students

1) Formal coursework requirements in the responsible conduct of research vary by graduate program within the college. Examples of required courses include The Nature and Practice of Scientific Integrity (EPI 827, 3 credits, spring of every year), Research Ethics (KIN 895, 1 credit, summer of every year), and the Graduate School Responsible Conduct of Research workshop series. (minimum of 16 hr)

2) *Small group (lab meeting) or individual discussions with the faculty mentor on responsible conduct of research topics take place on a regular basis. Resources to facilitate such discussions are made available to the faculty mentors and trainees at the MSU Graduate School Research Integrity Council website (http://grad.msu.edu/ric/). (6+ hr)

3) Reading assignments on responsible conduct of research topics utilizing the resources available at the MSU Graduate School Research Integrity Council website may be required in support of above described small group and/or individual discussions. (typically 1+ hr)

4) Online training based on the specific research topic/laboratory setting is completed as required (e.g. IACUC Tutorial, Species Specific Training, Collaborative Institutional Training Initiative (CITI) Human Research Curriculum, etc). (typically 0.5-2 hr)

Undergraduate Students

1) *Small group (lab meeting) or individual discussions with the faculty mentor on responsible conduct of research topics take place on a regular basis. Resources to facilitate such discussions are made available to the faculty mentors and trainees at the MSU Graduate School Research Integrity Council website (http://grad.msu.edu/ric/). (4+ hr)

2) Reading assignments on responsible conduct of research topics utilizing the resources available at the MSU Graduate School Research Integrity Council website may be required in support of above described small group and/or individual discussions. (typically 1+ hr)

3) Online training based on the specific research topic/laboratory setting is completed as required (e.g. IACUC Tutorial, Species Specific Training, Collaborative Institutional Training Initiative (CITI) Human Research Curriculum, etc). (typically 0.5-1.5 hr)
Other Trainees (postdoctoral fellows, residents conducting research, others)

1) *Small group (lab meeting) or individual discussions with the faculty mentor on responsible conduct of research topics take place on a regular basis. Resources to facilitate such discussions are made available to the faculty mentors and trainees at the MSU Graduate School Research Integrity Council website (http://grad.msu.edu/ric/). (8+ hr)

2) Reading assignments on responsible conduct of research topics utilizing the resources available at the MSU Graduate School Research Integrity Council website may be required in support of above described small group and/or individual discussions. (typically 1+ hr)

3) Online training based on the specific research topic/laboratory setting is completed as required (e.g. IACUC Tutorial, Species Specific Training, Collaborative Institutional Training Initiative (CITI) Human Research Curriculum, etc). (typically 0.5-2 hr)

*Specific topics covered in the small group and individual discussions with faculty mentors will be selected by the mentor and trainee. Topics relevant to disciplines within CVM include, but are not limited to:

Completeness, accuracy, accessibility of recorded data
Data/records fabrication
Data/records falsification
Data ownership
Sample ownership
Ownership of materials generated (figures, slides, teaching materials, etc)
Plagiarism
Confidentiality (data, reviewed manuscripts, reviewed grants)
Conflict of interest
Data analysis, appropriate statistical test application
Intellectual property
Authorship practices, acknowledgement of contributions (people and funding sources), allocation of credit
Whistleblower
Expenditures appropriate for the source of support
Animal use
Human subjects
Informed consent
Adherence to approved IACUC or IRB protocols
Material transfer agreements
Collaboration agreements