SUBJECT: Kansas State University Responsible Conduct of Research Training Plan for NSF-supported Activities

EFFECTIVE DATE: 4 Jan 2010

BACKGROUND: The America Competes Act imposes new training and compliance requirements on institutions receiving support from the National Science Foundation (NSF). Effective on the 4th of January 2010, the NSF requires <u>certification</u> that the institution has "a plan to provide appropriate training and oversight in responsible and ethical conduct of research to undergraduates, graduate students, and postdoctoral researchers supported by NSF to conduct research." The following document constitutes K-State's plan to comply with the Responsible Conduct of Research (RCR) training provisions of the Act.

RESPONSIBILITIES:

- **Office of the Vice President for Research:**
  - Responsible for administrative support and oversight of the NSF Responsible Conduct of Research (RCR) training plan mandated by the America Competes Act.
  - Responsible for identifying and appointing an institutional official with authority to "certify" the institutional plan for compliance with the NSF-related training provisions of the America Competes Act
- **Institutional Certifying Official will :**
  - Review the institutional plan for RCR training for undergraduate, post graduate, postdoctoral, and other appropriate personnel supported by NSF funding,
  - Certify that the institutional plan meets the regulatory requirements of the America Competes Act.
- **University Research Compliance Office (URCO):**
  - Responsible for developing and implementing training strategies, programs and materials appropriate to comply with the spirit and intent of the America Competes Act training requirements for NSF supported activities.
  - The URCO will maintain documentation of completion of targeted RCR training by NSF supported personnel as appropriate
  - The URCO will coordinate with the Preaward Services office to help ensure that those supported by NSF funding receive appropriate RCR training
  - The URCO is responsible for modifying and updating this plan as appropriate

- **Office of Preaward Services (PAS):**
  - o The PAS will identify personnel (known at the time of award) that will be, or are or be supported by NSF funds and notify the URCO and the certifying official for appropriate action
  - o Ensure that NSF funds are not dispersed to those who have not received appropriate RCR training and documentation
- **Principal Investigators (PI):** Those identified as PI's of NSF supported activities have unique and significant responsibilities for promoting responsible conduct of research, including:
  - o Mentoring of students, post-docs, and graduate students in principles and practices of RCR, including formal and informal discussions about RCR-related issues
  - o Instituting best practices and procedures as appropriate, that promote all practical and applicable aspects of RCR
  - o Promote compliance of all members of the team (colleagues, staff, collaborators, etc) with the tenets of RCR
  - o Create a research environment that promotes the spirit of RCR
  - o Ensure that new individuals who begin to receive support from existing NSF grants are identified and receive mandatory institutional RCR training as appropriate
  - o Have a working knowledge of institutional policies that relate to responsible conduct of research as appropriate
  - o Tracking and documenting RCR-related training activities for all personnel supported by NSF funds. Training documentation should be current, and reflect individual training for each supported person. Documentation of specific training activities should be readily available for institutional compliance monitors, and for review by agency auditors upon request (training form template available on the URCO website).
- **Individuals supported by NSF funding:**
  - o Complete mandatory RCR training as required by the institution
  - o Embrace the tenets of RCR and promote ethical behaviors as appropriate

RESPONSIBLE CONDUCT OF RESEARCH PLAN: By submitting an application for NSF funding, the PI and the institution are certifying that a plan for RCR is in place and functional. The K-State plan to implement this training requirement involves a multi-factorial approach. The RCR training plan includes but is not necessarily limited to:

- **Responsible Conduct of Research (RCR) online training module:**
  - o Training will be a mandatory requirement for all personnel identified as supported by a pending NSF award. The statutory NSF training requirement is not retrospective so, mandatory training documentation will be implemented as new institutional NSF proposals are submitted after 4 January 2010.
    - ▪ Personnel will be initially identified from a successful NSF grant application in the Preaward Services (PAS) Office in 2 Fairchild Hall. Mandatory trainees will include:
      - Principal Investigators (PI's)
      - Postdoctoral candidates
      - Graduate students
      - Undergraduates

- Research staff
- Select research administrators
  - Completion of the RCR online training module will be documented and archived by the University Research Compliance Office (URCO) located in the Lower Mezzanine Level, 203 Fairchild Hall
  - Certificates of completion for institutional RCR training will be issued / available to personnel completing the online training developed by the URCO
  - The RCR training module will be good for three years from the date of the award
- **Animal Care and Use online training:** Online training in animal care and use activities is mandatory for all K-State personnel involved using animal in research, testing or teaching (other forms of training are also used in the animal care and use program).
  - Significant information directly related to RCR is contained in the mandatory K-State animal care and use training
  - Completion of various online training modules are documented and archived by the University Research Compliance Office (URCO) in the Lower Mezzanine Level, 203 Fairchild Hall
  - Certificates of completion for animal care and use training are available from the URCO for personnel completing the training
  - Research-specific training performed by PI's and lead investigators / scientists during the course of the animal use activity
- **Human Subjects Research Training:** Tailored online training in human subjects research activities is mandatory for all K-State personnel involved in the use of humans in research activities.
  - Significant information directly related to RCR is contained in the mandatory K-State human subjects research online training
  - Completion of online training is documented and archived by the University Research Compliance Office (URCO) in the Lower Mezzanine Level, 203 Fairchild Hall
  - Certificates of completion for human subjects research training are available from the URCO for personnel completing the training
- **Recombinant DNA / Biological agent / biosafety training:** Tailored training in research activities involving recombinant DNA and /or biological agents is mandatory for all K-State personnel involved in these activities.
  - Significant information directly related to RCR is contained in the mandatory K-State biosafety / rDNA / biological agent online and didactic training
  - Completion of the online training is documented and archived by the University Research Compliance Office (URCO) in the Lower Mezzanine Level, 203 Fairchild Hall
  - Certificates of completion for biosafety / rDNA / biological agent training are available from the URCO for personnel completing the training
  - Specific training for Select Agent use is required as appropriate
  - Discipline-specific mentoring from PI's and lead investigators / scientists during the course of the NSF grant

- **Select Agent (SA) Program Training:** Certain biological organisms have been identified as "Select Agents" by the federal government, with corresponding institutional and personal training requirements. The K-State SA training program is required for all select agent users, and involves a considerable combination of didactic and hands-on training largely developed and coordinated by the Responsible Official (RO) to comply with the statutory provisions of the SA program. RCR-related content is an inherent component of the SA training.
- **Export Controls Training:** K-State has developed institutional training addressing the Department of Commerce's EAR and the State Department's ITAR Regulations. RCR-related content is an inherent component of K-State's export controls training.
- **Environmental Health and Safety (EH&S):** The office of EH&S has core responsibilities for some activities involving aspects of RCR. They provide training in a number ways, including online presentations, seminars, newsletters, demonstrations, etc. RCR-related content is an inherent component of EH&S training. Subjects include but are not necessarily limited to:
  - Fire protection
  - Radiation protection
  - Biosafety
  - Boodborne pathogen
  - Laboratory safety
  - Chemical hygiene
  - Respiratory protection
  - Public safety, etc.
- **RCR-related Training Materials:** Variable amounts of RCR training content and information is additionally contained in numerous research and academic activities such as:
  - Seminars
  - Existing curricula
  - Faculty meetings
  - Targeted retreats
  - Guest speakers
  - New student, graduate assistant, and new faculty orientations
  - Training grant opportunities
  - Professional society meetings and conferences
  - Classes
- **Graduate-level RCR Course**
  - Under development
  - Specifics undetermined – will be a 1 hour or no credit course
- **Research Methods Courses:** K-State currently lists 28 separate research methods courses in the university course catalogue. These ongoing academic courses address many elements of core issues relevant to RCR.
- **Web-based RCR Resources:** The URCO maintains a active research compliance web site with relevant RCR information, links, training and other pertinent RCR content for use by researchers, administrators, faculty and staff.

- **Institutional Compliance Training and Monitoring:** The University Research Compliance Office (URCO) is involved in numerous training and compliance initiatives and activities that are relevant to, and contribute to our RCR program and training. These include but are not necessarily limited to:
  - Participating in orientations, seminars, academic classes, guest lectures, workshops, lab visits and inspections, compliance investigations, program and facilities' reviews, etc.
  - Development of extensive institutional online and video training programs including those for animal care and use, occupational health and safety for animal workers, biosafety, human subjects research, RCR, conflict of time and interest, export controls, and select agent use.
  - Administration of institutional compliance committees (IACUC, IRB, IACUC) and associated programs
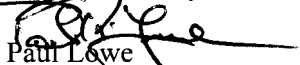
R.W. Trewyn
Vice President for Research

Jim Guikema
Associate Vice President for Research
and Assoc Dean of the Graduate School

Jerry Jaax
Associate Vice President for Research Compliance
and University Veterinarian

Paul Lowe
Assistant Vice President for Research

RCR Training Plan Adopted: 4 Jan 2010