

Contact: Diana Gonzalez

**REQUEST TO ESTABLISH A NEW CENTER AT IOWA STATE UNIVERSITY:  
SWINE MEDICINE EDUCATION CENTER**

**Action Requested:** Consider approval of the request by Iowa State University to establish a Swine Medicine Education Center (SMEC) in the College of Veterinary Medicine.

**Executive Summary:** The proposed Center will focus on clinical education in modern swine production medicine. This proposal was reviewed by the Board Office and the Council of Provosts and is recommended for approval. Creation of the Center requires Board of Regents approval, as stated in the Board of Regents Policy Manual §6.08, because the Center will eventually require an annual institutional commitment  $\geq$  \$250,000. This request addresses the Board of Regents Strategic Plan priorities to provide “educational excellence and impact” and “economic development and vitality.”

**Background:**

- ◇ **Proposed Center objectives.** The academic program offered through the proposed Center will consist of a comprehensive series of swine production medicine educational modules and hands-on experiences covering all segments of the pork production chain. It will be the only North American location for veterinary students to access academic programs in swine production medicine specifically designed for the development of the next generation of swine-focused veterinary clinicians and general food animal clinicians. These educational modules will also be used in certificate programs or advanced graduate degree programs for practicing veterinarians from the United States and abroad. Appropriate modules may be developed for large animal focused veterinary technical training programs.

The proposed SMEC will also become a clearinghouse of swine production medicine research conducted in the ISU College of Veterinary Medicine (CVM) and across the university; organize resources for “emergency” field investigations of potentially emerging problems; organize resources to provide science-based preemptive responses to public health issues, such as antimicrobial use and influenza; coordinate and expand the design and execution of clinical trials; and perform systematic reviews to provide the best evidence for clients on swine production medicine topics to better inform animal health and business management decisions in pork production systems.

- ◇ **Relationship to other centers.** The U.S. Pork Center of Excellence (USPCE) was established in July 2005 to bring a higher level of cooperation and collaboration between universities, the pork production industry, and government. Housed on the ISU campus, this national center was established to “address budget realities and attrition that have forced many universities to reconsider their role in providing their pork producer clientele with research, education, and information.” The USPCE provides programs that cover several areas of research, teaching, and extension through a Swine Science Online program where undergraduates can earn a minor in swine science. The USPCE also provides the Pork Information Gateway which brings together swine extension specialists in all swine disciplines to provide information for pork producers.

Similar to what the USPCE is doing for undergraduate programs at land grant universities in the United States, the proposed Center has the potential to deliver the swine production medicine didactic curriculum and clinical experiences for the 28 veterinary colleges in the United States. The proposed Center will be focused on delivering clinical education to veterinary students, practicing veterinarians, veterinary technicians, and leaders from allied industries. The proposed Center will provide a comprehensive, high quality menu of educational modules and clinical experiences in modern swine production and medicine.

- ◇ Relationship to College's Strategic Plan. A serious deficiency in the supply of food animal veterinarians in the U.S. has been well documented. The current supply is short of meeting demand by at least 4-5% per year; the percentage of veterinary graduates entering food animal practice in the U.S. has been declining steadily. The ISU strategic plan states that ISU will lead in developing more sustainable ways to produce and deliver safe and nutritious food; capitalize on its land-grant mission and be at the forefront in addressing common global challenges; be a magnet for attracting outstanding students, faculty, and staff who will learn, work, and conduct world-class research and scholarship that address the challenges of the 21<sup>st</sup> century.
- ◇ Collaborations. The proposed Center will benefit from the cooperation and financial commitment of an Iowa-based, nationally recognized, veterinary practice and one of the top 10 swine production companies in the U.S. where the focus is on continuously establishing best practices in quality management, health assurance, and animal welfare. The College of Veterinary Medicine is dedicated to enhancing the health and well-being of animals and humans through excellence in education, research, and professional practice. The mission of the department of Veterinary Diagnostic and Production Animal Medicine is to create and support health assurance and animal health knowledge to benefit Iowa and the world. The department accomplishes this by creating interdisciplinary teams to answer complex animal and public health, animal welfare and production efficiencies challenges.
- ◇ Potential changes in education. Recent discussions by veterinary medical education leaders have focused on establishing species-focused national centers or institutes for educating students. The first 2-2½ years of the professional curriculum would consist of a core curriculum taught by all colleges of veterinary medicine and focused on basic science, medicine, and surgery while maintaining comparative aspects. The core would be followed by immersion in a chosen area of professional focus for the remaining 1½-2 years. During this later period, collaborating colleges would chose to offer selected educational opportunities most appropriate to their focus and capabilities in alignment with characteristics of the animal populations of their respective states. This specialization in delivery of clinical education will improve the product and create much needed efficiencies in the delivery of professional veterinary education. The Doctor of Veterinary Medicine (DVM) degree would ultimately be earned through this interactive, national cooperative program. ISU could lead the trend related to swine veterinary medical education and the SMEC would play a central role.

- ◇ Unique role of Iowa State University. A center or institute focused on swine production medicine does not exist. Iowa has a \$5 billion pork industry and the ISU College of Veterinary Medicine has a national reputation in food animal veterinary education, research and outreach. The University believes that it is the logical place for such a center or institute to be established. The proposed Center will likely attract students from all veterinary colleges in North America as well as students from veterinary colleges worldwide. It will also likely attract practicing veterinarians, federal veterinarians, and other scientists working in the pork supply chain, leaders in allied industries serving pork producers, and foreigners interested in modern swine production medicine.

Other features that make ISU an appropriate place to initiate such a center or institute include the following – ISU is a land-grant institute; there is a concentration of expertise in swine health and well being; the ISU Veterinary Diagnostic Laboratory is world renowned for swine diagnostics and infectious disease research; the College of Veterinary Medicine has a cooperative agreement in veterinary medical education with Nebraska. The combination of a collaborative program for access to the beef veterinary production medicine center of excellence at the Great Plains Veterinary Education Center in Nebraska and of establishing the proposed Center at ISU would further position the university as the national leader in food animal veterinary medical education.

- ◇ Required resources. The proposed Center will require partial support for a faculty director; clinical swine veterinarian on a 5,000 sow site; program manager; and IT and web support.
- ◇ Expected need. The need for the proposed Center is expected to be long-term because swine focused faculty at most of the other 27 colleges of veterinary medicine are not being replaced. Students with interest in swine production medicine are being encouraged to gain clinical experiences outside the curriculum available at the institution where they are enrolled.
- ◇ Costs and funding sources. The cost of the proposed Center is expected to be \$195,000 during the first year, increasing to \$253,500 during the seventh year. Funds for the proposed Center are expected to come from college reallocation (\$35,000); fee for service income (\$15,000); commodity group support (\$50,000); and private industry support (\$95,000).

The University has verbal commitment from a large veterinary clinic and associated pork production company for the necessary resources to add classrooms and dormitories and appropriate information technology to an existing swine unit and allow the students access to the entire pork production chain in the system. Other partners have also expressed interest. External support through donations and grants will be continually pursued. Current revenue generating agreements to deliver swine production medicine instruction to other colleges of veterinary medicine, such as Kansas State University and the University of Wisconsin, will likely be expanded and delivered through the proposed Center. Other revenue generating activities may include private electronic case rounds with experts from the proposed Center for an hourly fee or subscription to a weekly practice evidence update.