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Collaborative Research Opportunities with Tufts Cummings School of Veterinary Medicine

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Collaborative Research Opportunities with Tufts Cummings School of Veterinary Medicine

UMass CCTS Mini Symposium
May 8, 2013

M. Sawkat Anwer
Associate Dean for Research
We seek to improve the health and well-being of animals, people and the environment in which they live, through excellence and innovation in education, clinical service and research.
About the school

- 360 Students, 120 Faculty (40 FTE Research), 400 Staff

- Academic departments
  - Clinical Sciences
  - Biomedical Sciences
  - Infectious Disease and Global Health
  - Environmental and Population Health
Research Resources

- **Research Space:**
  - 35,000 Sq. Ft.

- **NE Regional Biosafety Laboratory:**
  - BSL3 and ABSL3 (TB, Tuleremia, Anthrax)
  - Aerobiology

- **Lab Animal Medicine:**
  - Rodents, Small (dogs and cats) and large (Horses, sheep, goats, pigs, alpaca) animals

- **Five Teaching hospitals:**
  - Spontaneous disease models
  - Clinical trials
Research Funding Trends 2001 - 2011

- Government (w/o construction)
- Industry
- Private
Major Research Programs

- **Infectious diseases:**
  - *Pathogenesis and therapy*

- **Neuroscience and Reproductive Biology:**
  - *Maternal Behavior, Transgenerational effects of drug addiction*

- **Digestive Diseases:**
  - *Pathophysiology of cholestasis*

- **Comparative Pulmonology:**
  - *Stem cells for respiratory diseases, Pulmonary function testing*

- **International Medicine:**
  - *Veterinary Education, Epidemiology, Disease prevalence*

- **Clinical Research**
Research Expenditures by Program, 2011

- Infectious Disease: 51%
- Respiratory: 5%
- Digestive: 13%
- Neuro/Repro: 19%
- International: 1%
- Training: 4%
- Clinical: 2%
- Other: 5%
Major Clinical Research Programs

- **Nutritional basis of diseases:**
  - Obesity, Cardiac diseases, endocrine disorder, cancer

- **Comparative oncology**
  - Genetics, Pathogenesis, clinical trials

- **Emergency & Critical Care:**
  - Sepsis, Coagulopathies, Transfusion medicine

- **Behavior:**
  - Genetic basis of OCD

- **Human Animal Interaction**
  - Animal Assisted therapy, child development, Human-Animal Bond
Clinical Research by Specialty Area 2011

- Oncology: 16%
- Nutrition: 45%
- Behavior: 14%
- Emergency/Critical Care: 21%
- Cardiology: 2%
- Other: 2%
Other Research Areas

- Renal Diseases
- Cardiology
- Dermatology
- Ophthalmology
- Regenerative Medicine
- Pain management
- Wildlife and Conservation medicine
- Orthopedics, Tissue Repair and Regeneration
Research Training Programs

- Summer research training for DVM students (T35)
- DVM/MS in Comparative Biomedical Sciences (T32)
- DVM/MPH
- DVM/MS in Lab Animal Medicine
- PhD Program:
  - Infectious Diseases
  - Digestive Diseases
  - Neuroscience and Reproductive Biology
  - Pathology
Research Productivity

- 39% of submitted proposals funded
- Ranked 7th nationally (Vet schools) in total sponsored research funding per faculty member
- Ranked 3rd nationally (Vet Schools) in total sponsored research per net square foot of research space
Research Productivity

In the past 3 years -

- annual publication output has climbed from 147 to 231.
- 3 patents have been registered.
Mini symposium Presentations

- A pig model of the human gastrointestinal tract: Drs. Tzipori & Widmer
- Companion animals in translational cancer research: Dr. McNiel
- Human animal interaction (HAI) in research and clinical practice: Drs. Linder & Mueller
Thank you