Collaborative Research Opportunities with Tufts Cummings School of Veterinary Medicine

UMass CCTS Mini Symposium
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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%
- Infectious Disease: 19%
- Respiratory: 13%
- Digestive: 13%
- Neuro/Repro: 5%
- International: 4%
- Clinical: 2%
- Other: 1%
- Training: 5%

Tufts University | Cummings School of Veterinary Medicine
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