The Division of Comparative Medicine Resource Centers

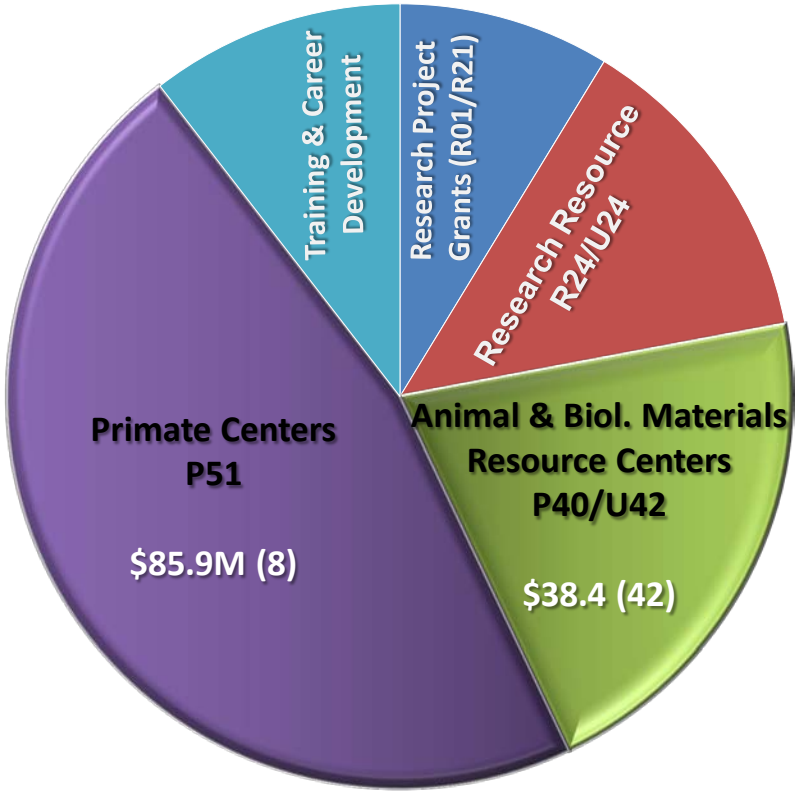
Michael Chang, Ph.D.
Division of Comparative Medicine, ORIP

Office of Research Infrastructure Programs

Division of Comparative Medicine (DCM)

DCM help meets the need of biomedical researchers for high-quality, disease-free animals and specialized animal research facilities.

Division of Comparative Medicine Resource Centers (FY2011)



- **Special colonies of lab animals as well as other resources such as cultures (cells, tissues, and organs).**
- **Trans-NIH: Limited to those that span the interests of two or more categorical NIH ICs.**

P40/U42 Resource Centers

- **Demonstrated need for the resource in the research community.**
- **Serve the needs of investigators in a variety of research areas.**
- **Available to investigators on a local, regional, and national basis.**
- **Research component to generate new information that is relevant to the resource.**

Resource Center Characteristics

- **Advisory Board / Steering Committee**
- **Mutant and Transgenic line genotyping**
- **Cryopreservation**
- **Health**
  - **Husbandry**
  - **Veterinary Service**
  - **Disease Surveillance**
- **Pathology Service**
  - **Identify major disease**
  - **Develop methods for disease monitoring, control, and treatment**
- **Training**
  - **Veterinary**
  - **Workshops**

Resource Categories

- Aquatic Model Resources
- Biological Materials Resources
- Genetic Analysis Resources
- Information Resources
- Invertebrate Animal Resources
- Primate Resources
- Rodent Resources
- Other Comparative Model Resources

Other Comparative Model Resources

National Swine Resource and Research Center

- Import animals
- Confirm genotype
- Cryopreserve germplasm
- Rederive animals free of infectious disease
- Maintain strains/lines as live animal or cryopreserved material
- Produce and Distribute animals and cryopreserved materials to biomedical investigators
- Create new genetically-modified pigs
- Training and educational activities (Workshop - Transgenic Pig Production by Nuclear Transfer)

National Swine Resource and Research Center

Principal Investigator: Randall Prather

- **Curators' Professor, Animal Science, College of Agriculture, Food and Natural Resources**
- **Ph.D. - University of Wisconsin-Madison**
- **Reproductive Physiology and Molecular Biology, Transgenic Pigs**
- **Creation of swine models:**
  - ✓ **Retinitis pigmentosa (Rhodopsin – P23H NIH SLA^{cc})**
  - ✓ **Xenotransplantation (Galactosyltransferase KO)**
  - ✓ **Cystic Fibrosis (CFTR KO)**