

2009-2010
Summary of Scholarly Activities
Department of Comparative Medicine

I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

Howng SY, Avila RL, Emery B, Traka M, Lin W, Watkins T, Cook S, Bronson R, Davisson M, Barres BA, Popko B. ZFP191 is required by oligodendrocytes for CNS myelination. *Genes Dev* 2010 Feb;24(3):301-11.

Lin W, Lin Y. Interferon-gamma inhibits central nervous system myelination through both STAT1-dependent and STAT1-independent pathways. *J Neurosci Res* 2010; Sep;88(12):2569-77.

Rajendra RS, Brady AG, Parks VL, Massey CV, Gibson SV, Abee CR. The normal and abnormal owl monkey (*Aotus* sp.) heart: looking at cardiomyopathy changes with echocardiography and electrocardiography. *J Med Primatol* 2010 Jun;38(3):143-50.

Schuler AM, Brady AG, Tustin GW, Parks VL, Morris CG, Abee CR. Measurement of fetal biparietal diameter in owl monkeys (*Aotus nancymae*). *J Am Assoc Lab Anim Sci* 2010 Sep;49(5):560-3.

II. PUBLISHED ABSTRACTS

III. PUBLISHED BOOKS

IV. INVITED PRESENTATIONS

Gibson SV. Invited speaker. What's your diagnosis? MidSouth AALAS Spring Meeting; 2010 Apr 30; Birmingham, AL.

Lin W. Invited speaker. Endoplasmic reticulum stress in disorders of oligodendrocytes. Genmed Seminar Series, Research Center for Genetic Medicine, Childrens National Medical Center; 2010 Mar 18; Washington, DC.

Lin W. Invited speaker. Activation of pancreatic endoplasmic reticulum kinase specifically in oligodendrocytes attenuates EAE-induced demyelination. National Multiple Sclerosis Society Tykeson Fellows Conference on Multiple Sclerosis; 2010 Jun 4; San Antonio, TX.

Scammell JG. Invited speaker. New models: research opportunities unique to neotropical primates - glucocorticoid resistance. Workshop on Neotropical Primates in Biomedical Research, National Institute of Health; 2010 Sep 23; Bethesda, MD.

V. NATIONAL PROFESSIONAL RECOGNITION

Dr. Jonathan G. Scammell serves on the Editorial Advisory Board of the *Journal of Pharmacology and Experimental Therapeutics*. He also served as a reviewer for *Endocrinology*, *Endocrine*, and the *American Journal of Physiology*.

Dr. A. Michele Schuler served as a reviewer for the *Journal of Medical Primatology*, *Journal of the American Association of Laboratory Animal Science*, *Comparative Medicine*, *Journal of Zoo and Wildlife Medicine*, and *Theriogenology*. Dr. Schuler is a recipient of a Special Emphasis Research Career Award from the National Center for Research Resources of the National Institutes of Health.

Dr. Susan V. Gibson served as a reviewer for the *Journal of Medical Primatology*. Dr. Gibson was invited to coauthor a chapter on bacterial and mycotic diseases for the ACLAM book series on non-human primates in biomedical research.

Dr. Wensheng Lin, joint appointee with the Department of Cell Biology and Neuroscience, served as a reviewer for *Laboratory Investigation*, *Expert Review of Neurotherapeutics*, *American Journal of Respiratory and Critical Care Medicine*, *Annals of Neurology*, and *Human Mutation*.

VI. BRIEF SUMMARY OF ACTIVITIES AND PROGRESS

The faculty and staff of the Department of Comparative Medicine participate in service, education, and research in the university's animal care and use program. The department continues to upgrade and maximize the use of facilities with the goal of enhancing research capabilities for the benefit of investigators throughout the university. The department supports the operation of the Vevo high resolution ultrasound imaging system from VisualSonics, the hypoxia core for the development of pulmonary hypertensive rodents, and the *Pseudomonas* delivery core. In addition, the department now provides histology services. Drs. Schuler and Gibson have been active consultants in the design of the animal facilities in the new Laboratory of Infectious Diseases.

The faculty continued their expansion of both formal and informal educational commitments within the department to technical staff, supervisors, and colleagues and outside the department to graduate students, postdoctoral fellows, and faculty. The department sponsored seminars from: Dr. Frank Bartol, Alumni Professor and Associate Dean for Research and Graduate Studies in the Auburn University College of Veterinary Medicine "Maternal Lactocrine Programming of Neonatal Development: Implications for Fertility and Health"; Dr. Guy Caldwell, Blackmon-Moody Outstanding Professor in the

University of Alabama Department of Biological Sciences "Traversing a Wormhole in Combat Parkinson's Disease"; and Dr. Kim Caldwell, Blackmon-Moody Outstanding Professor in the University of Alabama Department of Biological Sciences "Worming Out Causes and Cures for Human Movement Disorders."