

**ACLAM FOUNDATION
GRANT STATUS REPORT SUMMARIES for 2001-2005**

2005 (\$115,560)

1) Kurt K. Sladky, MS, DVM, University of Wisconsin

"Opioid-dependent Alterations in Nociception and Respiration in Bearded Dragons (*Pogona vitticeps*) and Corn Snakes (*Elaphe guttata*)"

The goal is to develop an effective analgesic therapy for attenuating nociception without causing respiratory depression across two (2) reptile Orders; Serpentes (snakes) and Squamates (lizards).

In 2007: **POSTER** at ACLAM Forum

PUBLISHED Sladky KK, Kinney ME Johnson SM. Analgesic efficacy of butorphanol and morphine in bearded dragons and corn snakes. JAVMA 233(2):267-273, 2008.

2) M. Babette Fontenot, DVM, PhD, University of Louisiana, Lafayette

"Dose Finding Study for Treatment of Self-Injurious Behavior in Rhesus Macaques"

The aim of this study is to develop effective treatment strategies for self-injurious behavior in macaques.

In 2007: **POSTER** at ACLAM Forum

3) **Henry and Lois Foster Grant** – Andrew M. Hoffman, DVM, DVSc, Tufts University

"Refinement of Pulmonary Function Testing Employed for Asthma Research in Mice"

The purpose of this project is to investigate a novel method/refinement to evaluate pulmonary function testing techniques used in asthma research.

PUBLISHED Lofgren JL, Mazan MR, Ingenito EP, Lascola K, Seavey M, Walsh A, Hoffman AM. Restrained whole body plethysmography for measure of strain-specific and allergen-induced airway responsiveness in conscious mice. J Appl Physiol. 101(5):1495-1505, 2006.

4) Grant made with assistance of the **Dolphin Trust** – F. Claire Hankenson, MS, DVM, University of Michigan

"Correlation Between Tail Ossification and Behavioral Response to Tail Biopsy in Laboratory Mice"

This study will rigorously evaluate temporal tail ossification in common strains of laboratory mice using novel rodent imaging techniques and correlate ossification with innervation, age, and pain responses.

In 2007: **POSTER** at ACLAM Forum

5) Grant made with assistance of **3M, AALAS, & AAALAC International** – Joy Mench, PhD, University of California, Davis

"Environmental Enrichment, Aggression and Stress in Male Mice"

This project will assess the effects of a range of common enrichments on aggression and stress in one outbred (CD1) and two inbred mouse stains (BALB/c, C57BL/6J). The goal is to provide data that can be used for successful enrichment strategies for group housed male mice.

2006 **PRESENTATION** made at ACLAM Forum

2004 (\$132,345)

1) Thea Brabb, DVM, PhD, University of Washington

"Analgesic Mitigation of Pain Associated with Embryo Transfer"

The goal of these studies is to determine if pain is present in mice post embryo transfer. If pain is present, they will seek a practical analgesic protocol to relieve pain effectively.

In 2006: **Poster** at the ACLAM Forum

2) Melanie Ihrig, MS, DVM, Texas A&M University

"Incorporation of Analgesics into Established Rodent Studies: Assessing the Effects on Experimental & Reproductive Outcomes"

This project will try to examine the impact of analgesia on the experimental outcomes. The secondary objective is to further evaluate the effectiveness of these analgesics on alleviation of pain following a variety of surgical procedures in rats and mice.

In 2006: **Poster** presentation ACLAM Forum

3) Atul J. Shukla, PhD, University of Tennessee

"Controlled Release of Analgesics in Mice"

The objectives of this project are to evaluate biodegradable injectable gels for delivery of buprenorphine in vitro and in vivo.

In 2006: **Poster** at the ACLAM Forum

In 2006: **Presentation** at the ACLAM Forum

PUBLISHED 2006: Yu S, Zhang X, Sun Y, Peng Y, Johnson J, Mandrell T, Shukla AJ, Laizure SC. Pharmacokinetics of buprenorphine after intravenous administration in the mouse. JAALAS. 45:12-16, 2006.

4) Stephen T. Kelley, MS, DVM, University of Washington

"Flaviviral Screening & Seroepidemiology in Macaques: West Nile & Japanese Encephalitis Viruses"

These studies, using *Macaca nemestrina*, will identify commercial test kits to provide consistent and verified results and explore the Flavivirus antibody isotype, relative titers and persistence.

PUBLISHED Renee R. Hukkanen, H. Denny Liggitt, Stephen T. Kelley, Richard Grant, David Anderson, Barry J. Beaty, Nicole L. Marlenee, Roy A. Hall, and Helle Bielefeldt-Ohmann. Comparison of Commercially Available and Novel West Nile Virus Immunoassays for Detection of Seroconversion in Pig-Tailed Macaques (*Macaca nemestrina*) Comp Med. 56:46-54, 2006.

PUBLISHED Renee R. Hukkanen, H. Denny Liggitt, Stephen T. Kelley, Richard Grant, David M. Anderson, Roy A. Hall, Robert B. Tesh, Amelia P. Travassos DaRosa, and Helle Bielefeldt-Ohmann. West Nile and St. Louis Encephalitis virus antibody seroconversion, prevalence, and persistence in naturally infected pig-tailed macaques (*Macaca nemestrina*). Clin Vacc Immun. 13:711-714, 2006.

In 2006: as a **Poster** at the ACLAM Forum

5) Jennifer K. Pullium, MVB, Emory University

"Evaluation of Current Standards for Frequency of Wire Bar Lid and Filter Top Sanitization in Rodent Caging"

The objective is to evaluate the frequency with which wire bar lids and filter tops should be sanitized comparing results using ATP measurements and RODAC plates.

In 2005: as a **Poster** at the ACLAM Forum

PUBLISHED Schondelmeyer CW Dillehay DL, Webb SK, Huerkamp MJ, Mook DM, Pullium JK. Investigation of appropriate sanitization frequency for rodent caging accessories: evidence supporting less-frequent cleaning. JAALAS 45:40-43, 2006.

6) **ER Griffin Research Foundation Grant**

Jeanette E. Purcell, DVM, DAACLAM, Tulane University/Tulane National Primate Research Center

"Shedding of Herpes B Virus: A Comparison of SIV-positive and SIV-negative Rhesus Macaques (*Macaca mulatta*)"

These studies will determine the frequency of SIV-positive macaques shedding B virus vs. SIV-negative animals; can shedding be correlated to the presence of herpetic lesions; and the correlation of shedding to CD4/CD8 T-Cell counts and B virus antibody.

In 2008 **Poster** presented at ACLAM Forum.

2003 (\$135,281)

1) Yichun Sun, PhD, University of Tennessee, Memphis

"Controlled Release of Enrofloxacin in Mice"

In 2006: **Presentation** at ACLAM Forum

In 2005: as a **Poster** at the ACLAM Forum

2) Benjamin J. Weigler, DVM, MPH, PhD, Fred Hutchinson Cancer Research Ctr.

"Evidence-based Statistical Models for Determining Appropriate Sample Size in Rodent Disease Surveillance Programs with Microisolator Housing"

In 2007 as a **POSTER** at AALAS.

In 2008 **PUBLISHED** Besselsen DG, Myers EL, Franklin CL Korte SW Wagner AM, Henderson KS, Weigler BJ. Transmission probabilities of mouse parvovirus 1 to sentinel mice chronically exposed to serial dilutions of contaminated bedding. Comp Med. 58:140-144.

3) **Henry and Lois Foster Grant** - Abigail L. Smith, MPH, PhD, Jackson Laboratory

"Effects of Housing Density on FVB/J and NOD/LtJ Mice"

In 2004 **PUBLISHED** Smith AL, SL Mabus, JD Stockwell, and C Muir. 2004. Effects of housing density and floor space on C57BL/6J Mice. Comp Med. 54:656-663.

In 2004 **PUBLISHED** Mabus SL, AL Smith, JD Stockwell and C Muir. 2004. Effects of housing density and cage type on young adult C57BL/6J mice. In: The Development of Science-Based Guidelines for Laboratory Animal Care: Proceedings of the November 2003 International Workshop. The National Academies Press, Washington, DC, pp.107-113.

In 2005 **Published** Smith AL, SL Mabus, C Muir and Y Woo. 2005. Effect of housing density and cage floor space on three strains of young adult inbred mice. Comp Med 55:356-364.

4) Grant made with **AALAC, International** assistance - Ravi J. Tolwani, DVM, PhD, Stanford University

"Quantitative Effects of Group Housing, Environmental Enrichment and Exercise on Gene Expression and Structural Plasticity in the Mouse Hippocampus"

5) Grant made with **AALAS** assistance - Peter C. Smith, DVM, Yale University

"Evaluating the Accuracy and Sensitivity of Bedding Transfer"

In 2005: as a **POSTER** at the ACLAM Forum

6) **ER Griffin Research Foundation Grant**

Benjamin J. Weigler, DVM, MPH, PhD, Fred Hutchinson Cancer Research Center

"A Controlled and Retrospective Population-based Survey of Zoonotic Disease Occurrence among Laboratory Animal Workers in the United States"

In 2005: as a **REPRINT** at the ACLAM Forum

In 2005: **PUBLISHED** Weigler BJ, Di Giacomo RF, Alexander S. A national survey of laboratory animal workers concerning occupational risks for zoonotic diseases. Comparative Medicine 2005;55:183-191.

In 2004: **PRESENTED** as a Special Topic Lecture. 55th AALAS Annual Meeting, Tampa, FL, Oct. 17-21.

In 2005: **PRESENTED** at The Elizabeth R. Griffin Research Foundation Lecture (Invited Talk). 48th Annual Conference of the American Biological Safety Association, Vancouver, B.C., Canada, Oct. 23-26.

2002 (\$142,171)

1) Atul J. Shukla, PhD, University of Tennessee, Memphis

"Controlled Release of Morphine in Mice"

In 2006: Presentation at the ACLAM Forum

In 2004: as a **POSTER** at the ACLAM Forum

2) Jeffrey D. Fortman, DVM, University of Illinois at Chicago

"Effects of Formulation and Storage of Tribromoethanol on Anesthetic Effectiveness and Pathology"

In 2005: as a **PUBLICATION** Lieggi CC, Artwohl JE, Leszczynski JK, Rodriguez NA, Fickbohm BL, Fortman JD. Efficacy and safety of stored and newly prepared tribromoethanol in ICR mice. *Contemp. Top. Lab. Anim. Sci.* 2005;44:17-22.

In 2005: as a **PUBLICATION** Lieggi CC, Fortman JD, Kleps RA, Sethi V, Anderson JA, Brown CE, Artwohl JE. An evaluation of preparation methods and storage conditions of tribromoethanol. *Contemp. Top. Lab. Anim. Sci.* 2005;44:11-16.

3) Sanford H. Feldman, DVM, PhD, University of Virginia

"Development of ELISA Testing for *Syphacia* sp and *Aspiculurus tetraptera* Using Cloned Antigens"

In 2007: as a **PUBLICATION** Feldman SH, Bowman SG. Molecular phylogeny of the pinworms of mice, rats and rabbits, and its use to develop molecular beacon assays for the detection of pinworms in mice. *Lab Animal.* 2007; 36(9): 43-50.

4) Gregory W. Lawson, DVM, PhD, University of California – Los Angeles

"Development of a Vitamin E Fortified Diet for the Prevention and Treatment of Ulcerative Dermatitis in C57BL/6 and Related Strains of Mice"

In 2003: as a **POSTER** at the ACLAM Forum

5) **Henry and Lois Foster Grant** - Gregory P. Boivin, DVM, University of Cincinnati

"Telemetric Measurements of Effects of Post-Operative Analgesics"

In 2003: **PRESENTED** at AALAS

In 2004: as a **POSTER** at the ACLAM Forum.

In 2005: **PUBLISHED** in *Comp. Med.* 55(1): 27-34.

6) Grant made with **AAALAC, International** assistance - Valerie Bergdall, DVM, Ohio State University

"Effects of Housing Conditions on Operant-Conditioned Rats"

In 2003 **PRESENTED** at AALAS: C. Kraly, V. Bergdall, M Sarter, and M Morgan, The Effect of Housing Conditions on Task Acquisition in Laboratory Rats.

In 2004: as a **POSTER** at the ACLAM Forum

In 2008: **PUBLISHED** C Freed, V Martinez, M Sarter, C DeVries, and V Bergdall Operant Task Performance and Corticosterone Concentrations in Rats Housed Directly on Bedding and on Wire

7) **ER Griffin Research Foundation & ACLAM** Joint Funding

Kate C. Baker, PhD, Emory University

"Improving Personnel Safety by Correcting Risk Perceptions: Dispelling Myths about Exposures in Primate Biomedicine"

8) **ER Griffin Research Foundation Grant**

Diane J. Gaertner, CVM, Albert Einstein College of Medicine

"Effect of Virus Strain and Mouse Genotype on the Frequency of Vaccinia Virus Transmission"

2001 (\$92,896)

1) Stephen A. Greene, DVM, MS, University of Illinois at Urbana

"Validation of Bispectral Index as an Indicator of Surgical Anesthetic Depth in Pigs"

SUMMARY report posted at www.aclam.org

In 2003: as a **POSTER** at the ACLAM Forum, Fort Myers, FL.

In 2003: **PRESENTED** at the 8th World Congress of Veterinary Anesthesiology in Knoxville, TN.

In 2003: **PRESENTED** at AALAS in Seattle, WA.

In 2004: **PUBLISHED** in *Comparative Medicine* 54:397-403.

2) Sanford H. Feldman, DVM, PhD, University of Virginia

"Cloning and Expression of the Guinea Pig Adenovirus (GPAdV) Hexon Gene for Development of Serology Testing"

SUMMARY report posted at www.aclam.org

In 2001: **PUBLISHED** in *Comp. Med.* 51(2): 120-126.

In 2003: as a **POSTER** at the ACLAM Forum.

3) James D. Macy, DVM, Yale University

"Pathogenesis and Transmission of Enterotropic Mouse Hepatitis Virus"

SUMMARY report posted at www.aclam.org

In 2004: as a **PUBLICATION** Compton SR, Ball-Goodrich LJ, Paturzo FX, Macy JD. Transmission of enterotropic mouse hepatitis virus from immunocompetent and immunodeficient mice. *Comp. Med.* 2004;54:29-35.

In 2003: as a **POSTER** at the ACLAM Forum.

4) **Henry and Lois Foster Grant** - Susan R. Compton, PhD, Yale

"Enhancement of Rodent Health Monitoring in Ventilated Cage Racks"

SUMMARY report posted at www.aclam.org

In 2003: as a **POSTER** at the ACLAM Forum.

In 2003: **PRESENTED** at AALAS

In 2004: **PUBLISHED** in *Comp. Med.* 54(4): 382-392.

5) Grant made with **AAALAC, International** assistance - Craig A. Harms, DVM, PhD, North Carolina State University

"Post-surgical Analgesia in Fish"

SUMMARY report posted at www.aclam.org

In 2003: as a **POSTER** at the ACLAM Forum.

In 2005, **PUBLISHED** in *Comp Med* 55(3): 221-226.

6) Grant made with **AAALAC, International** assistance - Samuel C. Cartner, DVM, MPH, PhD, University of Alabama at Birmingham

"Measures of Cortical Function in Mice Following Cervical Dislocation, Decapitation and Potassium Chloride Injection"

In 2003: as a **POSTER** at the ACLAM Forum (**Forum Poster Award Winner**).

In 2007: **PUBLISHED**—Cartner SC, Barlow SC, Ness TJ. Loss of cortical function in mice after decapitation, cervical dislocation, potassium chloride injection, and CO₂ inhalation. *Comp Med.* 57(6): 570-573, 2007.