GLAS Awardees Advancing Animal Welfare

By Ashlee Vaughn, PhD

The mission of the AALAS Grants for Laboratory Animal Science program (GLAS) is to enhance scientific knowledge in laboratory animal health and welfare through research and to promote collaborative efforts by the AALAS membership within the broader scientific community. Since the first grants were awarded in 2007, the GLAS program has awarded 86 grants totaling $1,684,062. We are proud to announce the 2021 GLAS awardees! Congratulations to the newest recipients!

2021 GLAS Grant Awards and Recipients

Evaluation of the Wellbeing of Aging Male Sprague Dawley Rats in a Variety of Commercially Available Individually Ventilated Caging System

(Indiana University)
PI: Debra Hickman, MS, DVM, DACLAM, DACAW
An assessment of the wellbeing of large, aging male Sprague Dawley rats pair-housed or individually housed has not been completed. This gap hampers the ability of laboratory animal professionals to provide guidance regarding ideal housing strategies for these animals. Our objective in this proposal is to determine the wellbeing of large (>500 g) male rats housed individually or in pairs.

Moving Marine Fish Toxicity Tests Towards the 3Rs

(Texas Christian University)
PI: Marlo Jeffries, PhD
Co-I: Dalton Allen, BS
Fish-based toxicity tests have been instrumental in protecting environmental health. However, up to 5 million larval and juvenile fish are used annually for effluent testing which poses serious ethical considerations. Furthermore, recent legislation calls for improvements in the welfare of vertebrates, including fish, utilized in toxicity assessments. The goal of this study is to identify alternative toxicity testing methods capable of replacing current methods that feature marine fish larvae.

Evaluating the Effectiveness of a Macaque-Specific Probiotic in Managing Post-relocation Diarrhea in a Colony of *Macaca fascicularis* (Charles River)

PI: Keely McGrew, BSc, CVT, LATG, CMAR
Co-I: Nicole Monts de Oca, DVM, ACLAM
Diarrhea is one of the most common health conditions noted in captive macaque populations and can result in mortality. Preventing the loss of valuable research animals through a proactive approach would be a refinement to current management practices of laboratory NHPs. The aim is to evaluate the effectiveness of a species-derived probiotic (SD Pro™) to prevent relocation-induced gut dysbiosis and subsequent diarrhea in cynomolgus macaques.

Handling, Enrichment, and Reproduction: The Effects of Transfer Tunnels on the Reproductive Indices of BALB/c and CD-1 Mice (University of Florida)

PI: Elizabeth Nunamaker, PhD, DVM, DACLAM, DACAW and Penelope Susan Reynolds, PhD
Co-I: Margaret Anne Hull, MoP, DVM;
Current methods of handling mice during cage change procedures have been shown to cause stress to the point of potentially compromising welfare. Transfer tunnels provide a simple and animal welfare friendly tool for cage change. However, there is no published data concerning the effect of transfer tunnels on breeding mice. The goal is to provide evidence of tunnel use as a major refinement measure for laboratory rodent handling, improving colony productivity, and improving overall welfare of rodents used in research.

Effects of LED Lighting on Fecundity and Stress in C57BL/6 mice (Rutgers, The State University of New Jersey)

PI: Joyce Stuckey, MS, DVM
Co-I: John Hershey, VMD, PhD
Lighting is a critical consideration for the housing and welfare of animals. Standard lighting protocols were developed under fluorescent and incandescent lights which are being replaced by new technology, light emitting diode (LED) lights, as facilities upgrade or construct new vivaria. However, the impacts of this lighting change on the health and welfare of animals have not been thoroughly investigated. The goal of this study is to determine the effects of LED lighting on breeding and stress.

We look forward to the 2022 GLAS applications. Updated grant application forms will be available beginning December 1, 2021, with a deadline for submission on February 1, 2022, at 11:59 p.m. CT. For more information on the GLAS program and application submission guidelines, visit our website at www.aalas.org/glas.

Ashlee Vaughn, PhD, is an Education Resources Editor at AALAS in Memphis, TN.

The 2021 AALAS Compensation Survey Highlights High Staffing Need and Lower Attrition Rates

By Colton Miller, PhD

When AALAS gathered data for the biennial 2021 Compensation Survey, the hardships of 2020 and the importance of flexibility and preparedness took center stage.

Questions about future planning for facilities were included in the survey, highlighting key facility staffing changes. For example, 42% of animal facilities are expected to increase employee numbers for the current year based on the responses. The survey offers insights into company pandemic responses by identifying specific steps taken by organizations and the growth rate for remote working among institutional staff. Merit increases in 2020 significantly fell compared to the last survey, which was reported on average to be between 2% and 3% in the 2019 compensation survey. In addition, attrition rates also fell, when compared to the 2019 survey – under 2% in the 2021 compensation survey. Another interesting finding reported a rise in remote working, with institutions reporting 25.7% of their employees working remotely, instead of only 4.6% in 2019.

This survey offers comprehensive data concerning overall compensation across 18 positions within the laboratory animal science community. The survey's primary focus is to provide detailed information on current compensation from the previous year. Additionally, it offers insights into how the community responded to the 2020 pandemic as well as current trends.

The survey also presents general information about laboratory animal facility salary trends, with detailed analysis provided for job po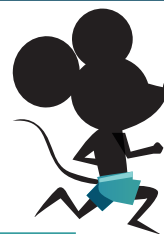sitions ranging from directors to technicians to cage washers. Compensation data for each position is broken down by various segments, including geographical location, institution type, institution employee number, department employee number, and annual institutional revenue. This segmentation analysis allows for an institution to compare data against other similarly structured institutions. One of the new 2021 Compensation Survey highlights is the addition of differentiating CMAR-certified and non-CMAR-certified data for the Manager and Facility Compliance Manager positions, much like other job titles with AALAS-certified and ACLAM-certified compensation. The survey data shows AALAS-certified personnel generally have a higher median total compensation than non-certified personnel.

AALAS is pleased to offer this survey as the most comprehensive and up-to-date compensation report available for the laboratory animal science community. While primarily focused on the compensation of members of our community, we hope that the information found here provides insight into compensation levels and offers a glimpse of preparedness for the future. Over 90 institutions generously provided data to allow AALAS to compile this report. Your institution can obtain a copy of the 2021 Laboratory Animal Facility Compensation Survey today.

For more information, please visit aalas.org/store at https://www.aalas.org/store/detail?productId=11125866.

Colton Miller, PhD, is an Educational Resources Editor at AALAS in Memphis, TN.

TRAINING SHORTS

Interested in training for technicians at your facility? Consider AALAS Technician Training Shorts to help extend your training program. Active learning exercises are included with their presentation so that technicians can participate in the learning process.

Use the new Technician Training Short "Health Observations of Mice and Rats" developed by the AALAS Educational Resources Committee and narrated by Steven Rydberg, CMAR, RLATG. This TTS will train staff to identify signs of good health and recognize common health problems.

The Technician Training Short has 3 parts, each discussing different health issues.

- Part 1: Signs of obesity, emaciation, malocclusion, alopecia, barbering, dermatitis, and fight wounds
- Part 2: Signs of hunched body and ruffled fur, lethargic, moribund, porphyrin staining, and diarrhea
- Part 3: Signs of a mass, rectal prolapse, vaginal or uterine prolapse, penile prolapse, and dystocia

This short, focused presentation gives essential information to help technicians do their jobs effectively in supporting animal welfare. The presentation has pause breaks for completing the active learning exercises accompanying each part, which are a quiz and scenarios for guided discussions. The three parts can be done during one training session or at different times.

Other topics in the TTS series include ergonomics training and compassion fatigue. Individuals who view any TTS recording and participate in the exercises may apply their training time toward CEUs in the Technician Certification Registry or CMAR recertification. Visit the AALAS Store and plan a training session today!

Focusing on Mice: Common Health Conditions in a Nutshell
ALL hosts a new microlearning series on mouse health issues and clinical conditions.

One of the important tasks for laboratory animal facility staff, as well as researchers, is to monitor animals' health under normal and experimental conditions. In collaboration with the MD Anderson Cancer Center at The University of Texas, AALAS is proud to bring you a new microlearning series on the AALAS Learning Library: Common Health Conditions of Mice. A special thank you goes to Dr. Nicole Monts de Oca, DVM, DACLAM, and Dr. Cynthia Lockworth, DVM, DACLAM, who, through their diligence of constructing these courses, presented AALAS with the opportunity to implement these courses into the AALAS Learning Library. This 10-course series details a wide range of mouse health issues and ways to identify clinical conditions in mice for early detection. Each course focuses on a veterinary topic and describes related clinical conditions, their etiology, and management plans. Supporting references are also provided. The courses are:

1. Physical Exam
2. Non-specific Signs
3. Integumentary
4. Ophthalmic
5. Gastrointestinal
6. Reproductive & Urinary
7. Musculoskeletal & Neurologic
8. Respiratory
9. Other Conditions
10. Emergency

One exciting feature is the video examples for many of the clinical conditions presented. These videos, in addition to the course photos and condensed text, offer a quick yet informative reference tool aimed at helping anyone identify and respond to common health conditions in mice. Many of these courses can be completed in under 5 minutes and are the ideal addition to your institution's training curriculum. We are thrilled to present this opportunity that is now currently available in the AALAS Learning Library in the Common Health Conditions of Mice course series.