

## **Mentors for 2018 SNPRC Summer Intern Program**

### **Elizabeth A. Clemmons, DVM, DACLAM**

Dr. Elizabeth Clemmons completed laboratory animal medicine residency training and a nonhuman primate clinical fellowship before joining the veterinary team at SNPRC in 2016. She looks forward to helping a summer intern gain both clinical and research experience with multiple nonhuman primate species. She hopes to provide an internship experience that aligns with the trainee's individual goals and interests.

### **Marcel Daadi, PhD**

Dr. Marcel Daadi's interests span both basic biology and translational research. His lab is pursuing reprogramming and genome-editing technologies to model neurological disorders in vitro and to understand mechanisms mediating disease development and degenerative processes following injury or disease. The Lab is also focused on developing technologies to establish pluripotent stem cells, isolate self-renewable multipotent NSCs and generate specific neuronal lineages. We explore the cellular and molecular mechanisms underlying the generation and differentiation of multipotent human NSCs from human pluripotent stem cells.

### **Edward J. Dick, Jr., DVM, Diplomate ACVP**

Dr. Edward Dick, ACVP is a board certified veterinary pathologist. Trainees will be fully involved in the pathology service, conducting gross and microscopic pathologic evaluations of clinical and experimental cases in nonhuman primates. The trainees will also have access to the clinical pathology laboratory, which conducts hematology, blood chemistries, cytology, and fecal parasite exams. Trainees will be expected to prepare a manuscript for publication.

### **Patrice A. Frost, DVM**

Dr. Patrice Frost is one of six veterinarians participating in clinical and research support at the SNPRC. Dr. Frost believes that education is the gate to one's future. As a team of veterinarians, we are committed to providing candidates with an opportunity to get first-hand knowledge in the field of primate medicine. She has had the privilege throughout her 32-year career in primate medicine guiding over 69 students with a variety of educational backgrounds through their introduction to nonhuman primates. Based on the applicant's individual goals and knowledge, we try to build a rewarding experience to include both clinical and research aspects of our practice.

### **Luis Giavedoni, PhD**

A summer student working with Dr. Luis Giavedoni will participate in the molecular characterization of novel AIDS therapies using the Simian Immunodeficiency Virus (SIV) and the CRISPR/Cas system. SIVs are found in a large number of African NHP species, where infection does not have apparent detrimental effects for the host; on the contrary, infection of Asian macaques, which do not have natural SIV infection, results in an AIDS-like disease. Additionally, a student may participate in studies related to natural Zika virus infections. The student will perform several virological and immunological techniques.

### **Olga Gonzalez, DVM, Diplomate ACVP**

Dr. Olga Gonzalez is a board certified veterinary pathologist with 11 years of combined experience in diagnostic pathology and translational research. Pathology internship will focus on further expanding anatomy and dissection skills while learning about gross and microscopic identification of common diseases that affect different non-human primate species. Students will work directly under the supervision of boarded veterinary pathologist and specialized technical staff. Students will have full access to Texas Biomedical Research library resources for research purposes and will be expected to complete a manuscript for publication and presentation at a local venue or national scientific meeting. Students will also participate in histopathology rounds with other veterinary pathologist from San Antonio area.

**Shannon Hall-Ursone, DVM**

Dr. Shannon Hall-Ursone is one of the newest veterinarians at the Primate Center but she is excited about the opportunity to be a mentor. Dr. Hall-Ursone has been in the field of Laboratory Animal Medicine since graduating from Veterinary school in 2005, and has worked with a wide variety of species. Students will have the opportunity to see and participate in both the clinical and research duties held by research veterinarians at the SNPRC. They will also have the opportunity to work with other sections such as the behavioral team and pathologists so they get the understanding that providing the best care is a team effort.

**Shyamesh Kumar, DVM, PhD, Diplomate ACVP**

Dr. Shyamesh Kumar is a board certified veterinary pathologist. Dr. Kumar's area of interest is infectious and non-infectious disease research using tissue based assays such as Immunohistochemistry and In Situ Hybridization. Trainees will have the opportunity to actively participate in necropsy, attend Wednesday Slide Conference rounds, and do a retrospective or prospective research project with an aim to publish the findings in a suitable journal.

**Corrine Lutz, PhD**

Dr. Corrine Lutz directs the Behavioral Services program at SNPRC. Her research focuses on primate behavior and wellbeing. A summer student working with Dr. Lutz will participate in the assessment of alopecia (hair loss) in female baboons. The student will assist in collecting photographs of baboon hair coats and will use the image processing program ImageJ to reliably assess the photographs. The intern may also assist in making environmental enrichment for the animals. Results from this work may be utilized in future behavioral management decisions.

**Ruth M. Ruprecht, MD, PhD**

Dr. Ruth Ruprecht is a physician-scientist with expertise in virology, molecular biology, immunology, and vaccine research. She is internationally recognized for her contributions towards understanding AIDS virus pathogenesis and the development of vaccines against HIV/AIDS. Using recombinant DNA technology, her group has generated a panel of simian-human immunodeficiency virus (SHIV) strains that carry envelope genes of HIV, the human AIDS virus. Such SHIVs replicate well in rhesus macaques and have the unique advantage to allow studying the safety and efficacy of human monoclonal antibodies generated against HIV itself. Summer interns have the opportunity to study viral evolution and/or participate in the cloning of new virus strains. Also, the Ruprecht group has developed the technology to generate recombinant monoclonal antibodies from rhesus monkeys that were protected by novel AIDS vaccines against repeated challenges with different viruses. Interns have an opportunity to participate in antibody engineering, protein biochemistry and/or virology, depending on their prior experience.

**Suzette D. Tardif, PhD**

Dr. Suzette Tardif's research integrates studies of reproduction, behavior, metabolism and aging using the marmoset monkey. Current studies focus on: (1) characterizing the naturally occurring pediatric obesity seen in this species – why do marmosets become obese and what are the sequelae of that obesity; (2) defining how the variable prenatal environment produced by differing litter sizes affect postnatal phenotypes; and (3) defining age-related motor and cognitive impairments in the marmoset and how those impairments are affected by putative anti-aging interventions.