RESPIRATORY BIOLOGY AND DISEASE MODELS

Unique Strength of the CNPRC

The CNPRC has been a leader in understanding nonhuman primate lung biology and respiratory disease for more than 30 years. It has the distinction of being the only NIH supported National Primate Research Center with a Respiratory Diseases research unit and scientific expertise in airway immunity, environmental air pollutants, lung physiology, and asthma.

The research program includes faculty from the UC Davis School of Veterinary Medicine and School of Medicine, with capabilities in rodent and nonhuman primate models. The CNPRC developed the first rhesus monkey model of adult and childhood asthma using a human allergen, which has given researchers the ability to test numerous biological mechanisms and new therapies.

In 2014 the CNPRC opened the Respiratory Disease Center (RDC). The state-of-the-art 19,000 square-foot Center, funded by the American Recovery and Reinvestment Act of 2009 and UC Davis, has wet laboratories and an inhalation exposure facility that is setting the standards for research in respiratory health. Research using nonhuman primate models of lung disease may be conducted by independent investigators with the assistance of CNPRC Research Cores. Scientists and staff associated with each of the Cores provide consultation in experimental design, sample collection, and data analysis, and offer assays that utilize species-specific reagents wherever possible. Core scientists can also work with users to develop new assays to meet research needs.

Lifespan Health

The scientific staff at the CNPRC utilize nonhuman primate models ranging from infants to geriatric animals to study the respiratory system across the entire life span. This includes close collaboration with other areas of research interest including infectious disease, behavior, and vision sciences.

For more information on conducting research at the CNPRC, contact:
Director of Research; conductingresearch_cnprc@ucdavis.edu

The mission of the CNPRC is to improve human health and quality of life through support of exceptional nonhuman primate research programs.
LISA MILLER, PhD  
CNPRC Core Scientist  
Leader, Respiratory Diseases Unit  
Pulmonary Immunology

KENT PINKERTON, PhD  
CNPRC Core Scientist  
CNPRC Pathogen Detection Laboratory  
Inhalation Toxicology

EDWARD SCHELEGLE, PhD  
CNPRC Core Scientist  
Pulmonary Neurophysiology

CHRIS ROYER, DVM, PhD  
Manager, CNPRC Inhalation Exposure Core

Enhanced viral replication and modulated innate immune responses in infant airway epithelium following H1N1 infection  
Clay CC, Reader JR, Gerriets JE, Wang TT, Harrod KS, Miller LA  

Attenuated airway epithelial cell interleukin-22R1 expression in the infant nonhuman primate lung  
Dugger DT, Gerriets JE, and Miller LA  
Am J Respir Cell Mol Biol 53:761-8, 2015  
PMID: 26309027

Global Climate Change and Public Health  
Pinkerton KE and Rom WN  
Kent E. Pinkerton and William N. Rom, (ed)  

Women and Lung Disease Sex Differences and Global Health Disparities  