The mission of the CNPRC is to improve human health and quality of life through support of exceptional nonhuman primate research programs.

LISA A. MILLER, PhD

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Pediatric Pulmonary Disease

My research program is focused on investigating the short and long-term impact of environmental exposures (air pollution, allergens, microbes) on pulmonary and immune system development during the first year of life. Our goal is to understand the molecular determinants of susceptibility in the human infant that initiate pediatric airways disease and lead to chronic pulmonary disorders in adulthood. Identification of the early life mechanisms that direct pathogenesis of lung disease at the cellular level may lead to predictive biomarkers for diagnostics and ultimately, preventative therapies.

Recent studies funded by the California Air Resources Board indicate that early life exposure to wildfire smoke can be detrimental to normal development of immunity and lung function.

To contact Dr. Lisa Miller and for more information on her research, see: http://www.cnprc.ucdavis.edu/lisa-a-miller/

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

Early life ozone exposure results in dysregulated innate immune function and altered microRNA expression in airway epithelium.
Plos One, [3]:e90401, 2014