INTRODUCTION: PERSISTENT IMMUNE EFFECTS OF WILDFIRE PM EXPOSURE DURING CHILDHOOD DEVELOPMENT

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BACKGROUND

- Infants and young children believed vulnerable to high air pollution exposure
  - Rapid development of the lungs and immune system
- Wildfires are common in California
  - Associated with high levels of PM2.5
- Few studies on health effects of wildfire smoke
  - No studies on infants or young children

WHY DID ARB FUND THIS PROJECT?

- Unexpected confluence of factors
  - Series of wildfires impacted the Sacramento Valley
  - High levels of PM2.5 for 10 days
  - California National Primate Center at U.C. Davis
    - Large colony of primates that live outdoors
    - Fires occurred at the end of the spring birthing season
    - Many exposed infant animals
- Opportunity to assess effects of high level wildfire PM2.5 exposure during infancy

WHAT DO THE RESULTS ADD TO OUR UNDERSTANDING?

- First study of infants
  - Exposed to wildfire PM2.5 that investigated
    - Immune system development
    - Links between immune and lung development
- Addresses key issues
  - Vulnerability of infants
  - Whether effects of exposure during infancy persist at maturity