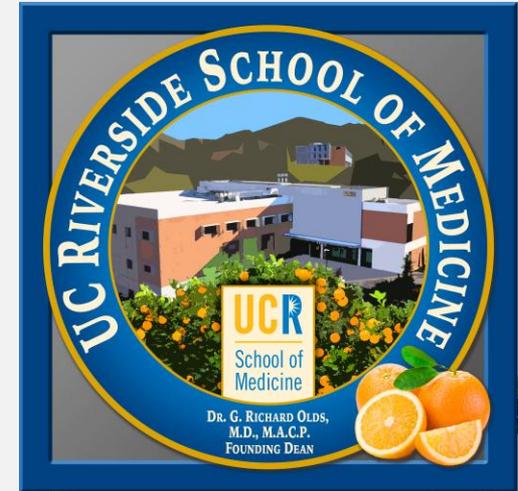


Air Quality and Health Research at the School of Medicine

David D. Lo, M.D., Ph.D.
Distinguished Professor, Biomedical Sciences
Senior Associate Dean, Research

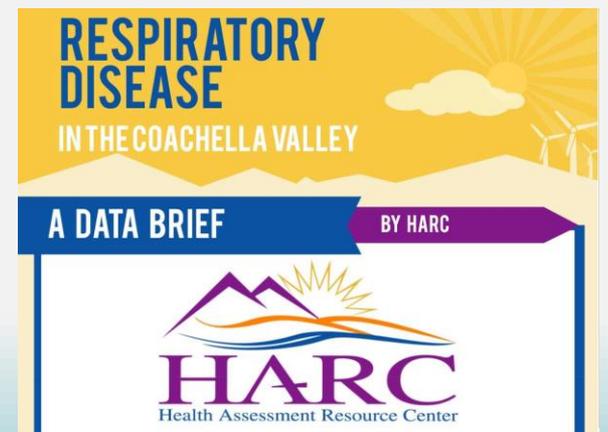
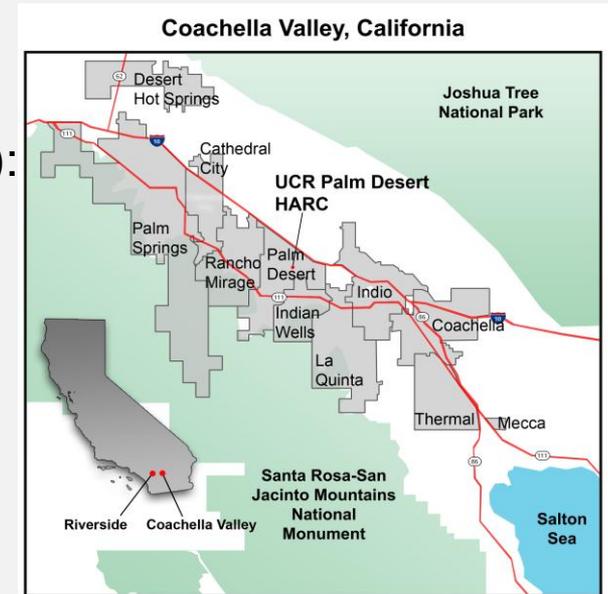
A New School of Medicine



- The new UCR School of Medicine was given preliminary accreditation in 2012, provisional accreditation in 2015
- The Division of Biomedical Sciences, the basic sciences division, has 20 research faculty, >90% NIH funded
 - Expertise in mucosal immunology, inflammation, chronic disease, neuroinflammation/neurodegenerative disease

BREATHE Center

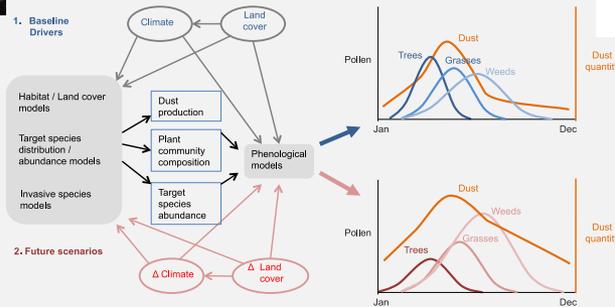
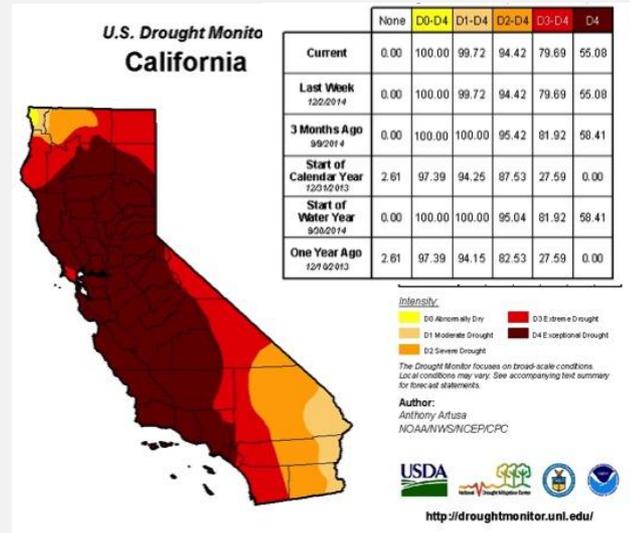
- Bridging Regional Ecology and Aerosolized Toxins to understand Health Effects (BREATHE): Health impacts of inhaled pollutants/particulates, effects of changes in regional ecology
- Cluster hires 2015-16 in climate modeling/air quality modeling, environmental medical history, pulmonary immunology/physiology, environmental microbiology
 - Existing UCR expertise in SOM, School of Public Policy, Center for Conservation Biology, CE-CERT/BCOE
 - Complementary epidemiology work in Coachella Valley by Health Assessment and Research for Communities (HARC)



Climate Change, Regional Ecology and Health

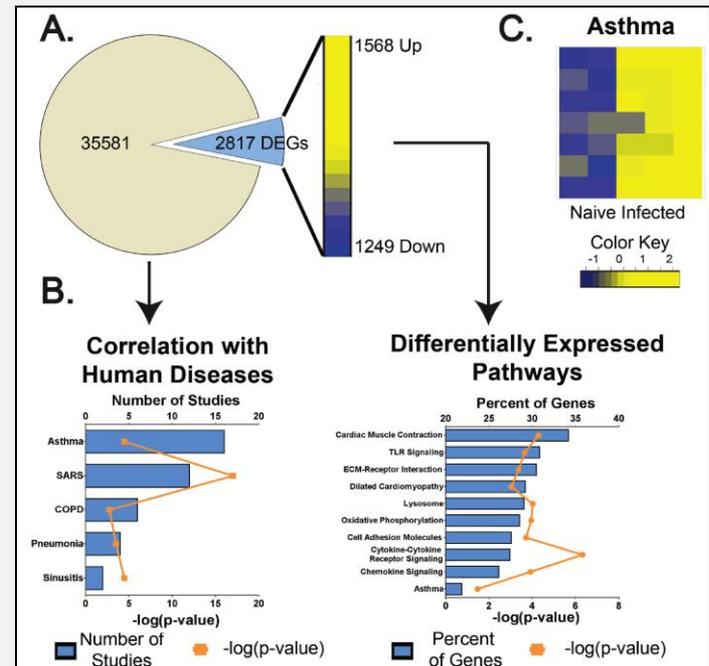
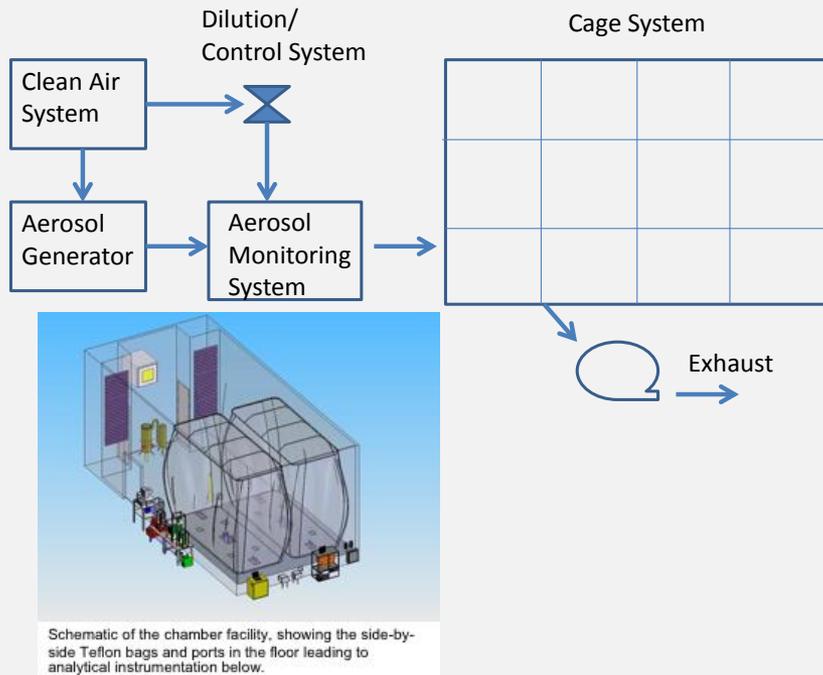


Photo of the exposed shore of the Salton Sea in December 2014 (credit: E. Allen).



- Climate change influences regional ecology, including drying lakebed soils (e.g., Salton Sea), invasive species, soil microbes
- Collaboration with the UCR Center for Conservation Biology is addressing the effects of climate change on regional ecology and impacts on health

Environmental Chamber Studies



- Collaboration with CE-CERT - Chronic exposure to inhaled material:
 - Pollutants, pollen (e.g., invasive allergenic plant species), lakebed soil particles (Salton Sea: accumulated heavy metals, pesticides, phytotoxins, etc.), environmental soil microbes (including human pathogens: Coccidioidomycosis/Valley Fever, Aspergillus, etc.)
 - Pulmonary inflammatory responses, lung microbiome, systemic and neuroinflammatory/neurodevelopmental effects