



#### Conditions Treated:

#### Research Areas:

- *Cystic Fibrosis (CF)*
- *Molecular Diagnostics*
- *Genetic Epidemiology*
- *Nontuberculous Mycobacteria (NTM) Infections*
- *Mycobacterium Tuberculosis*
- *Bioinformatics/Genomics/Transcriptomics*
- *Bacterial Genome Evolution*

#### Programs & Services:

- *Center for Genes, Environment and Health*
- *NTM Center of Excellence*
- *Department of Biomedical Research*

The Davidson Laboratory uses high throughput sequencing technologies and computational approaches to study the dynamics of infectious diseases. Research areas include genetic epidemiology of pathogen populations, pathogen genome evolution, and microbial responses during disease progression and antibiotic treatment. Research projects range from using functional genomics to identify genetic components of virulence and antibiotic resistance to developing molecular diagnostics for rapid detection of bacterial pathogens in clinical samples. The overarching goals are to improve the diagnosis and treatment of patients with infectious diseases.

#### Education

2001 Colorado State University (Fort Collins, CO), BS

2009 Colorado State University (Fort Collins, CO), PhD, Molecular Plant Pathology

#### Fellowship

2011 Michigan State University (East Lansing, MI), Postdoctoral Fellow, Genomics-Bioinformatics

#### Doctor's Contact Information

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#### Locations

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