

#### Emerging Pathogens Institute UNIVERSITY OF FLORIDA

J. Glenn Morris, Jr., MD, MPH&TM Professor and Director

- Interdisciplinary Research Institute, created in 2006 with appropriation from Florida state legislature, focusing on human, animal, and plant pathogens
- Over 200 faculty members, from 11 UF colleges (including medicine, public health, veterinary medicine, and agriculture)
- Strong global emphasis, driven by Florida's sub-tropical location, the risk of introduction of new pathogens, and the critical role of trade and tourism in the Florida economy



(with representative current projects)

- Vector-borne Diseases
  - Zika (Haiti, Columbia, Venezuela, Jamaica, Brazil, Florida and Southeastern U.S.)
    - Viral isolation/sequencing, phylogenetic analysis
    - Modeling of transmission
    - Clinical, immunologic studies
    - *Diagnostics, therapeutics*
    - Animal models
    - Vector studies
  - Dengue (Haiti, Pakistan, Columbia)
    - Viral isolation/sequencing, phylogenetic analysis
    - Modeling of transmission
    - Design of global dengue vaccine trials
  - Malaria (Haiti, Ghana)



Areas of Active Local Zika Virus Transmission
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- Vector-borne Diseases (continued)
  - Chikungunya (Haiti)
    - Viral isolation/sequencing, phylogenetic analysis
    - Clinical studies
  - Mayaro, Coronavirus, EEEV, WNV (Haiti, US, Panama, Pakistan)
  - Tick-borne pathogens
  - Vector control/development of novel insecticides
- Influenza/viral respiratory diseases
  - Influenza
    - School-based influenza immunization
    - Sequencing/disease occurrence, severity
- HIV/AIDS





- Tuberculosis
  - Drug-resistance
  - Phylogenetics
- Enterics/foodborne/cholera
  - Cholera (Haiti, Bangladesh, Cameroon)
    - Rural/urban studies
    - *Risk factors for disease severity: studies of cholera bacteriophage, microbiome studies*
    - Cholera in the environment
    - Impact of cholera vaccine
    - *Cellphone-based surveillance, community response*
  - Diarrheal disease (Haiti)
  - Norwalk Virus
- Sexually-transmitted Infections



- Plant pathogens - *Citrus greening*
- Zoonoses
  - Marine viral discovery
- Drug resistance/infection control
  - ESBL's in cattle
  - Hospital Infection Control
- Biodefense
  - Burkholdaria
  - Anthrax
- Vaccine development
  - Salmonella-based vaccines
  - Brucella
  - Design/Analysis of ebola, dengue vaccine trials







# EPI (Main and APL Buildings)

- 301 people assigned space in building (another 115 collaborators have access)
  - 51 faculty members
  - 250 student interns/graduate students/post-docs/staff





- BSL2 laboratory space: fully committed
  - Carrel additions maxed out
- BSL3 laboratory space
  - USDA/CDC approval for work with: Ba, Yp, Bd, Bruc, CHIKV, Drug Resistant TB

### **EPI Haiti labs/clinics**



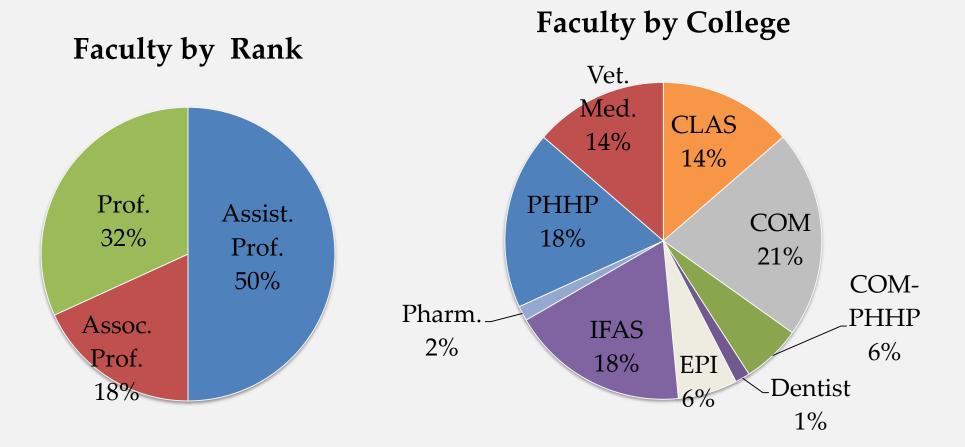


#### Areas of active research

- Cholera
- Arboviruses (ZIKV, DENV, CHIKV)
- Malaria
- TB
- Diarrheal disease
- STI's

#### Faculty Recruitments, by Rank and College, Total





Total Recruitments = 66

#### Sources of Extramural Funds, FY15-16



