

# Education and Research Innovation in China (The ERIC Study)



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## Background

- In recent history, emerging respiratory viruses have led to considerable human and animal morbidity and mortality across China.
- Such is the case for novel avian influenza viruses such as H7N9 and H5N6 subtypes, which have infected birds and humans in China since 2013.
- We seek to develop a Duke University/Duke Kunshan University ERIC respiratory virus training and research project (proposed start January 2017) near DKU.



**Study Focus:** Emerging infectious diseases, bioaerosol sampling, poultry markets and schools in China

**Status:** Active

**Location:** Duke Kunshan University, Canadian International School in Kunshan, Kunshan High school, open poultry markets in Kunshan

**Duration:** August 2017-August 2018

**Principal Investigator:** Gregory C. Gray, MD, MPH

## Primary Collaborators and Partners

- Duke University One Health Team
- Kunshan High School
- Kunshan Canadian International School
- Jiangsu Provincial Center for Disease Control and Prevention

## Funders

- Duke University

## Aims

- To adapt bioaerosol sampling for respiratory viruses in various community settings: live animal markets, poultry and swine farms, and meat processing plants.
- To train Duke University/Duke Kunshan University students in conducting such surveillance. Training will include both laboratory molecular work and aerosol sampling methods.
- To conduct occupational surveys in these public or agricultural settings to understand knowledge, attitudes, and practices related to the spread of respiratory pathogens and inform the future development of educational materials to reduce the spread of infectious disease.
- To develop graduate trainees' abilities to work collaboratively and with cultural competency in new settings.

## Study Design

### Cross-sectional study involving:

- Collection of bioaerosol samples from 3 schools and 1 open poultry market
- Collection of nasal swabs and surveys from university students exhibiting flu like symptoms
- PCR testing for various viruses



## Impact

- Preliminary data which will guide future grant submission, and provide the basis for scientific abstracts and manuscripts for submission to conferences and scientific journals.
- Long-term extension will provide the opportunities for future master students to organize educational outreach and further optimize surveillance methods and to design additional projects inspired by the things they learn during this initial effort.