CENTER FOR
INFERENCE & DYNAMICS
OF INFECTIOUS DISEASES

Issue #9 | November 2016

Welcome to the November 2016 edition of the MIDAS CIDID Newsletter. This is where you can find Center-wide updates, along with relevant news and highlights.
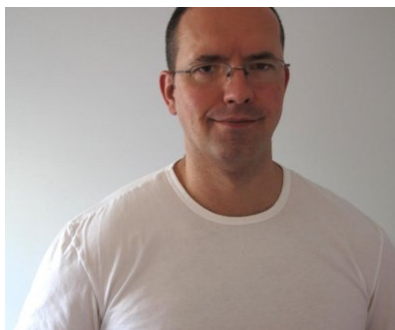
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UPCOMING EVENTS

CIDID Seminar: Pelton Auditorium, Fred Hutch
March 30th, 2017, 10:30am - 11:30am

Speaker: Nicolas Rodrigue
Recent advances in methods for detecting adaptation in protein-coding DNA

The **9th Summer Institute in Statistics and Modeling in Infectious Diseases (SISMID)** takes place July 10-26, 2017, at the University of Washington in Seattle. More details to follow soon.

RECENT PUBLICATIONS

Eradicating infectious disease using weakly transmissible vaccines
Royal Society B [pdf]

Statistical inference in partially observed stochastic compartmental models with application to cell lineage tracking of *in vivo* hematopoiesis
arXiv [pdf]

Deep Sequencing of Influenza A Virus from a Human Challenge Study Reveals a 2 Selective Bottleneck and Only Limited Intrahost Genetic

Diversification
Journal of Virology [pdf]

Spatiotemporal dynamics of the Ebola epidemic in Guinea and implications for vaccination and disease elimination: a computational modeling analysis
BioMed Central [pdf]

Spatial spread of the West Africa Ebola epidemic
Royal Society Open Science [pdf]

NEWS

Photo by Dennis Chao

CIDID current and former members Alex Vespignani, Betz Halloran, Ira Longini, Ana Pastore y Piontti, and Dennis Chao are part of an Italian/US team that won the inaugural **Aspen Institute Italia Award** for scientific research and collaboration between Italy and the United States. The team was awarded for their research study entitled: "*Spatiotemporal spread of the 2014 outbreak of Ebola virus disease in Liberia and the effectiveness of non-pharmaceutical interventions: a computational modelling analysis*". The award ceremony took place in Rome on October 26, 2016.

aspen

Jesse Bloom and Erick Matsen were both named HHMI-Simons Faculty Scholars. This new program provides five years of support to early-career scientists who have potential to make unique contributions to their field.

HHMI

Ira Longini participated in the August 31, 2016 meeting in Mexico City, where dengue experts formed a new alliance, named the "Global Dengue and Aedes-transmitted Diseases Consortium" (GDAC). This new partnership will expand its expertise in dengue to other Aedes-transmitted diseases including Zika, chikungunya and yellow fever, responding to the urgent need for coordination in the efforts to control the diseases transmitted by the Aedes mosquito. The four institutions leading the initiative are: the International Vaccine Institute, the International Vaccine Access Center of the Johns Hopkins University, the Partnership for Dengue Control Foundation, and the Sabin Vaccine Institute.

dvi

International Society for Disease Surveillance (ISDS): 2016 Awards for Outstanding Research Articles in Biosurveillance
MIDAS-related papers won first and second prize in the Impact on Field Category -
1st: *The biosurveillance analytics resource directory (BARD): Facilitating the use of epidemiological models for infectious disease surveillance.* PLOS One
2nd: *Potential biases in estimating absolute and relative case-fatality risks during outbreaks.* PLOS Neglected Tropical Diseases.

ISDS

CIDID members featured in news items on Zika:
Why Zika has infected so many people in Puerto Rico; The Conversation

Zika virus: Only a few small outbreaks likely to occur in the continental US; The Conversation

How Big, Really, Is The Zika Outbreak In Florida?; NPR

Zika Moves Quickly, and Scientists Fear That Journals Aren't Keeping Pace; Chronicle of Higher Education

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CIDID trainee updates: Tim Tsang has joined the University of Florida as a postdoc. Tim completed his PhD with Ben Cowling at the University of Hong Kong.

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CIDID summer interns udpates: Stephanie Stacy (mentor: Trevor Bedford) won Best Poster Presentation at Fred Hutch.

Links to posters by interns at University of Georgia REU and Fred Hutch SURP:

Stephanie Stacy - *Using the Coalescent Framework to Detect Missed Infections in Phylogenetic Trees*

Lianne Siegel - *A Risk Scoring Tool to Predict HIV-1 Acquisition in African Women Under Age 25*

Thayer Fisher - *Phylogenetic Topographer: Systematically Identifying a Collection of High-Quality Evolutionary Trees*

Alexis Lerner - *When ideas go viral: Early warning signals in theoretical and real-world social contagion systems*

Sarah Rainey - *Simple models for complicated situations: Ebola in West Africa*

Celine Snedden - *Diet, Dispersal, and Disease: How Food Supplemented Habitat Alters Metapopulation Disease Spread*

Jonathan Waring - *Epidemiological data, parameter estimation and pitfalls*

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