Katelyn Gostic

University of California, Los Angeles
610 Charles E Young Dr. S, Los Angeles, CA 90095
kgostic@ucla.edu, 631-219-4023

EDUCATION:

2013-present **PhD,** University of California Los Angeles, Los Angeles, CA
Department of Ecology and Evolutionary Biology
Research focus: Ecology and evolution of infectious disease
Advisor: Dr. James O. Lloyd-Smith
Relevant courses: Probability Theory A & B; Stochastic Processes; Applied Probability; Research Frontiers in Biomathematics; Basic Biostatistics; Computational Methods in Biology; Structure, Function and Evolution of Biological Systems; Modeling in ecological research (TA).
Thesis: *How does existing population immunity regulate the emergence and persistence of novel influenza A viruses?*
Degree expected: June, 2019

2009-2013 **AB,** Princeton University, Princeton, NJ
Department of Ecology and Evolutionary Biology, *summa cum laude*
Certificate in Environmental Studies
Advisor: Dr. Andrew Dobson
Relevant courses: Multivariable Calculus; Linear Algebra; Models and Uncertainty in the Natural World; Introduction to Biological Dynamics; Quantitative Principles in Cell and Molecular Biology; Advanced Analysis of Environmental Systems; Disease, Economics and Policy; Ecology and Epidemiology of Parasites and Infectious Diseases; Immune Systems: Molecules to Populations; Methods of Mathematical Ecology.
Thesis: *Macroparasites of domestic dogs and wild cats on Costa Rica's Osa Peninsula: How do spatial heterogeneity and host movement influence infection dynamics?*
Degree conferred: May, 2013

RESEARCH INTERESTS:

1. People born in different years will have different histories of exposure to influenza viruses. How do these differences shape the age distribution of pre-existing immunity against new, pandemic strains?

2. Emerging viruses only cause large outbreaks if they can achieve sustained spread through the human population. How do population demography, social contact patterns and age distributions of immunity determine probabilities of sustained spread?

PUBLICATIONS:

Submitted

3. **Gostic, K.,** Ambrose, M., Worobey, M., Lloyd-Smith, J.O. (2016) Potent protection against H5N1 and H7N9 influenza via childhood hemagglutinin imprinting.

2. Buhnerkempe M.G.*, **Gostic K.***, Park M., Ahsan P., Belser J.A., Lloyd-Smith J.O. (2015) Mapping influenza transmission in the ferret model to transmission in humans. *eLife.* 4:e07969. ***Authors contributed equally**

1. **Gostic, K*.** Kucharski, A*. Lloyd-Smith, J. O. (2015) Natural history of infection influences effectiveness of screening measures for emerging pathogens. *eLife*. ***Authors contributed equally**

HONORS AND AWARDS:

Oct. 2015	UCLA Systems and Integrative Biology Training Grant, NIH Ruth L. Kirschstien National Research Service Award (T32-GM008185)
March 2015	Carol Newton Legacy Symposium Poster Prize, UCLA Dept. Biomathematics
June 2015	UCLA Dean's Scholar Award
Oct. 2014	UCLA Systems and Integrative Biology Training Grant, NIH Ruth L. Kirschstien National Research Service Award (T32-GM008185)
July 2014	Scholarship and travel award, Summer Institute in Statistics and Modeling in Infectious Diseases, University of Washington, Seattle Washington
June 2014	UCLA Dean's Scholar Award
April 2014	UCLA Ecology and Evolutionary Biology Small Research Grant
Sept. 2013	Eugene V. Cota-Robles Foundation Fellowship
June 2013	*Summa cum laude*, Princeton University Dept. of Ecology and Evolutionary Biology
June 2013	Leslie Kilham Johnson Book Prize, Princeton University Dept. of Ecology and Evolutionary Biology, awarded for the best tropical biology thesis
June 2013	Thesis Poster Prize, Princeton University Dept. of Ecology and Evolutionary Biology, awarded for the best poster presentation in disease research
June 2013	Elected to membership in the society of Sigma Xi

PRESENTATIONS:

April 2016	Talk, "Childhood immune imprinting provides potent protection against emerging influenza viruses." GATP-SIB-Big Data-BWFCHIP Joint Research Symposium, UCLA, Los Angeles, CA
March 2016	Guest Lecture, "Statistics in ecological modeling." EEB C219B, Modeling in Ecological Research, UCLA, Los Angeles, CA
May 2015	Poster, "Natural history, epidemiology and human behavior shape effectiveness of traveler screening for emerging infectious diseases." Ecology and Evolution of Infectious Diseases Conference, Athens GA
May 2015	Poster, "Natural history, epidemiology and human behavior shape effectiveness of traveler screening for emerging infectious diseases." UCLA Ecology and Evolutionary Biology 18th Annual Research Symposium, Los Angeles, CA
April 2015	Poster, "Natural history, epidemiology and human behavior shape effectiveness of traveler screening for emerging infectious diseases." UCLA Global Health Day, Los Angeles, CA

March 2015	Poster, “Natural history, epidemiology and human behavior shape effectiveness of traveler screening for emerging infectious diseases.” Carol Newton Legacy Symposium, Los Angeles, CA
Feb. 2015	Talk, “What can influenza transmission in ferrets tell us about pandemic potential in humans?” UCLA EEB Graduate Seminar Series, Los Angeles, CA
May 2013	Poster, “How does domestic dog movement, habitat and care drive macroparasite infection in a host community that includes wild cats?” Princeton Environmental Institute Discovery Day, Princeton, NJ
May 2012	Talk, “How do environmental gradients on Ol Pejeta Conservany influence macroparasite infection in plains zebras?” Ol Pejeta Conservancy, Kenya

PRESS COVERAGE

1. Year of airport screening doesn't catch Ebola. *USA Today.* Sept. 22, 2015.

   Text available at: http://www.usatoday.com/story/news/2015/09/22/ebola-airport-screening-cbp-cdc/32493389/

2. Screening for Ebola and other diseases “inherently leaky.” *BBC World Service Radio, Newsday*. Feb. 19, 2015.

   Audio available at: https://soundcloud.com/bbc-world-service/airport-screening-for-ebola-and-other-diseases-inherently-leaky?ocid=socialflow_twitter

OUTREACH:

May 2015	Facilitator, DNA Day, UCLA Dept. of Human Genetics
May 2015	Activity leader, EmpowHER STEM Day, UCLA Empowering Women in Science
May 2014	Activity leader, EmpowHER STEM Day, UCLA Empowering Women in Science
Dec. 2013	Visiting scientist, Science Lunch Friday, University High School, Los Angeles, CA

SERVICE:

Sept. 2016 - present	Eco-Evo Careers Founder and Coordinator
Sept. 2014 - June ‘15	Eco-Evo Pub Committee Member
Sept. 2015	R Boot Camp Student Facilitator
Sept. 2014	R Boot Camp Student Facilitator

TEACHING:

Jan. 2016 – March 2016	Teaching Assistant, Modeling in Ecological Research, UCLA Dept. of Ecology and Evolutionary Biology
October 2014-Dec. 2014	Teaching Assistant, Research Immersion Laboratory in Microbiology, UCLA Dept. of Microbiology, Immunology and Molecular Genetics
Jan. 2012-June 2013	Wilderness First Aid Coordinator for Training & Curriculum Development, Princeton University Outdoor Action
April 2011-June 2013	Wilderness First Aid Instructor, Princeton University Outdoor Action

July 2010	Teaching Assistant/Mentee, Grade 5 Math, KIPP DC, AIM Academy, Anacostia, DC
Feb. 2010-June 2013	Trip Leader, Leader Trainer, Princeton University Outdoor Action

PROGRAMMING LANGUAGES:

MATLAB, R, Stata, Python