

## Katelyn Gostic

University of California, Los Angeles  
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### EDUCATION:

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- 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  
**Thesis:** *How does existing population immunity regulate the emergence of novel influenza A viruses with pandemic potential?*  
**Degree expected:** June, 2019
- 2013 **AB**, Princeton University, Princeton, NJ  
Department of Ecology and Evolutionary Biology, *summa cum laude*  
Certificate in Environmental Studies  
Advisor: Dr. Andrew P. Dobson  
**Thesis:** *Macroparasites of domestic dogs and wild cats on Costa Rica's Osa Peninsula: How do spatial heterogeneity and host movement influence infection dynamics?*

### PUBLICATIONS:

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4. **Gostic, K.**, Ambrose, M., Worobey, M., Lloyd-Smith, J.O. (2017) Maternal antibodies' role in immunity -- Response. *Science*. **355**:705.
3. **Gostic, K.**, Ambrose, M., Worobey, M., Lloyd-Smith, J.O. (2016) Potent protection against H5N1 and H7N9 influenza via childhood hemagglutinin imprinting. *Science*. **354**, 722-726.
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*. 4:e05564. **\*Authors contributed equally**

### HONORS AND AWARDS:

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- May 2017 UCLA Life Sciences Excellence Award for Outstanding Research Publication  
May 2016 Charles E. and Sue K. Young Graduate Student Award  
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	<i>Summa cum laude</i> , 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:**

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March 2017	Invited seminar, "Childhood immune imprinting and its implications for influenza pandemic preparedness." Occidental College, Los Angeles, CA
Sept. 2016	Talk, "Birth year predicts immunity against emerging influenza viruses with pandemic potential." UCLA EEB Graduate Seminar Series, Los Angeles, CA
Aug. 2016	Talk, "Bottom-up control of emerging influenza A viruses." Ecological Society of America 2016 Annual Meeting, Ft. Lauderdale, FL
July 2016	Talk, "Conserved epitopes and antigenic seniority." WHO workshop on models for influenza vaccine design, Princeton University, Princeton, NJ
May 2016	Poster, "Childhood hemagglutinin imprinting provides potent protection against novel influenza A viruses." Ecology and Evolutions of Infectious Diseases Conference, Cornell University, Ithaca, NY
April 2016	Talk, "Childhood immune imprinting provides potent protection against emerging influenza viruses." GATP-SIB-Big Data-BWFCCHIP 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, University of Georgia, 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 18 <sup>th</sup> 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 Conservancy influence macroparasite infection in plains zebras?” Ol Pejeta Conservancy, Kenya

## **MEDIA COVERAGE**

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- 7. The year of your birth affects your resistance to flu. *The Economist*.  
<http://www.economist.com/news/science-and-technology/21710156-specifically-it-determines-which-versions-virus-you-are-likely-be>
- 6. Birth year may affect your flu risk. Here's how. *NBC News*. Nov. 10, 2016.  
<http://www.nbcnews.com/health/health-news/birth-year-may-affect-your-flu-risk-here-s-how-n682076>
- 5. Your flu risk may be linked to the year you were born. *CNN*. Nov. 10, 2016.  
<http://www.cnn.com/2016/11/10/health/flu-risk-birth-year/>
- 4. Why some flus are deadliest in young adults. *The Atlantic*. Nov. 10, 2016.  
<http://www.theatlantic.com/health/archive/2016/11/flu-memory/507287/>
- 3. Podcast: How farms made dogs love carbs, the role of dumb luck in science, and what your first flu exposure did to you. *Science Podcast*. Nov. 10, 2016.  
 Audio available at :<http://www.sciencemag.org/podcast/podcast-how-farms-made-dogs-love-carbs-role-dumb-luck-science-and-what-your-first-flu>
- 2. 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/>
- 1. 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](https://soundcloud.com/bbc-world-service/airport-screening-for-ebola-and-other-diseases-inherently-leaky?ocid=socialflow_twitter)

## **OUTREACH:**

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- May 2016     Facilitator, DNA Day, UCLA Dept. of Human Genetics
- 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:**

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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:**

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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:**

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R, MATLAB, Python