

## BOAHEMAA ADU-OPPONG

### EDUCATION

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#### **Philosophy of Science Student in Evolution, Ecology and Population Biology, Expected July 2017**

Washington University in Saint Louis, Saint Louis, Missouri

- Distinguished Individual Leader Award, April 2017
- Outstanding YSP Director, October 2016
- Mellon Mays Graduate Initiatives, Pre-doctoral Research Grant, October 2016
- Gerry and Bob Virgil Ethic of Service Award, March 2016
- Edward A. Bouchet Fellow, January 2016
- National Science Foundation (NSF) Graduate Research Fellowship Program Fellowship, March 2012

#### **Bachelor of Science in Ecology and Evolutionary Biology, May 2011**

Rice University, Houston, Texas

- Julian Huxley Award, May 2011 (top award for undergrad research in EEB)
- Mellon Mays Fellow, February 2009

### RESEARCH EXPERIENCE

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#### **Graduate Student, July 2012 to Present**

##### **Graduate Student Researcher in Dr. Gautam Dantas' Lab, Washington University in Saint Louis**

- Research on microbial ecology.
- Train rotation students, undergraduates and high school students: Allison Tielking (high school summer 2014), Max Steger (high school YSP summer 2015)

#### **Research Technician II, July 2011 to July 2012**

##### **Ecology and Evolutionary Biology Lab, Washington University in Saint Louis**

- Research on social evolution in *Dictyostelium discoideum*.
- Train undergraduates on techniques and philosophy necessary for conducting original research
- Maintain safety compliance, coordinate experiments, equipment usage, order supplies
- Created and maintain the lab website: <http://strassmannandquellerlab.wordpress.com/>

#### **Biological Research Assistant, May 2008 to June 2011**

##### **Ecology and Evolutionary Biology Lab, Rice University**

- Experiments on social interactions between social amoebae *Dictyostelium purpureum* and *D. discoideum*.
- Learned techniques including extracting, genotyping and sequencing DNA and growing clones axenically.

### PUBLIC OUTREACH COMMUNITY TALKS/CONFERENCES/NEWSARTICLES

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#### **Community Advisory Board, Washington University in St. Louis, March 2015, December 2015, July 2016**

Bi-annual update on YSP programs and evaluation with advisory board feedback

#### **Teen Science Café, St. Louis, April 2017**

Bacteria Detective! How Scientists Study Bacteria, <https://www.academyofsciencestl.org/event/april-teen-science-cafe/>

#### **Washington University School of Medicine in St. Louis, St. Louis, January 2017**

Sparking curiosity, <https://outlook.wustl.edu/sparking-curiosity/>

#### **Science Friday, St. Louis, October 2016**

The Microscopic World Beneath Our Feet, <http://www.sciencefriday.com/segments/the-microscopic-world-beneath-our-feet/>

#### **Society for Advancement of Chicanos/Hispanics and Native Americans in Science, Long Beach Convention, October 2016**

Recruiting students of color for the Washington University St. Louis graduate school

#### **Mellon Mays Undergraduate Fellowship Conference Southeastern Regional Conference, Rice & Emory, November 2015, November 2016**

Panelist on how to survive in graduate school

## Washington University School of Medicine in St. Louis, St. Louis, July 2015

WashU grows young scientists, [http://www.stltoday.com/news/local/education/article\\_c83195d9-36a9-5f54-b4e9-59dc1f3628b2.html#.VbuTji45yhs.twitter](http://www.stltoday.com/news/local/education/article_c83195d9-36a9-5f54-b4e9-59dc1f3628b2.html#.VbuTji45yhs.twitter)

## LEADERSHIP EXPERIENCE

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### The Show Me Costa Rica Project November 2013 – Present

- This project was created by a teacher in a St. Louis public school who saw the need for students in the inner city to travel internationally. Many students are the first in their families to travel abroad or have a passport.
- Part of leadership board and helped with fundraisers, created promotional materials, and developed biology modules

### Experimental Ecology, January 2014 to May 2014

#### Teaching Assistant of an Undergraduate Course, Washington University in Saint Louis

- Assisted professor with grading papers, facilitating class discussions and designing short experiments.

### Behavioral Ecology, August 2013 to December 2013

#### Teaching Assistant of an Undergraduate Course, Washington University in Saint Louis

- Lead a weekly discussion section 6.44/7 overall rating
- 6.33/7 of overall rating of teaching effectiveness

### Young Scientist Program January 2012 – Present

- YSP is a non-profit organization focused on promoting STEM education and encouraging the pursuit of careers in STEM fields by traditionally underrepresented minorities.
- Organized meetings and events for high school and middle school students in the Saint Louis area.
- Co-consultant (2017), Co-Director (2016), Director (2015), Assistant Director (2014), Ecology and Evolution Teaching Team Member (2012), Continuing Mentor (2012-2016)

### Undergraduate Seminar Series, August 2011 to May 2012

#### Ecology and Evolutionary Biology Lab, Washington University in Saint Louis

- Train undergraduates how to use R.
- Arranged for guest speakers to teach students more about *Dictyostelium discoideum*.

## PUBLICATIONS

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Mining the microbiome using genomic technologies for antibiotic resistance and discovery. **Boahemaa Adu-Oppong**, Andrew Gasparrini, Gautam Dantas. Ann N Y Acad Sci. 2016 Oct 21. doi: 10.1111/nyas.13257. [Epub ahead of print] PubMed PMID: 27768825

Migration in the social stage of *Dictyostelium discoideum* amoebae impacts competition. Chandra N. Jack, Neil J. Buttery, **Boahemaa Adu-Oppong**, Michael Powers, Joan E. Strassmann and David C. Queller. 2015. Peer J.

Is there specificity in a defensive mutualism against soil versus lab nematodes, *Dictyostelium discoideum* farmers and their bacteria? **Boahemaa Adu-Oppong**, Joan E. Strassmann, David C. Queller. 2015. Evolutionary Ecology Research.

Collection and cultivation of Dictyostelids from the wild. Tracy E. Douglas, Debra A. Brock, **Boahemaa Adu-Oppong**, David C. Queller, Joan E. Strassmann. 2012. Dictyostelium Protocols II. Chapter 6.

Structured growth and genetic drift raise relatedness in the social amoeba *D. discoideum*. Neil Buttery, Chandra N. Jack, **Boahemaa Adu-Oppong**, Kate Snyder, Chris Thompson, David C. Queller, Joan E. Strassmann. 2012. Biology Letters

Cost of movement in the multicellular stage of *Dictyostelium discoideum* and *D. purpureum*. Chandra Jack, **Boahemaa Adu-Oppong**, Michael Powers, Joan E. Strassmann, and David C. Queller. 2011. Ethology, Ecology, and Evolution, 23:358-367

## SKILLS

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**Software:** Proficient in R, MS Office, MS Excel, MS Powerpoint, internet research. Experience with Python, Adobe Illustrator, Photoshop, EndNote, and QIIME.