

BOAHEMAA ADU-OPPONG

EDUCATION

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

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

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

LEADERSHIP EXPERIENCE

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

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

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