

Jessica Y. Choi

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EDUCATION

Master of Science in Global Health, Duke University, Durham, NC May 2019
Coursework in Sciences (24 credit hours), University of Oregon, Eugene, OR. Aug 2011 – June 2012
Bachelor of Science in Natural Science, Minor in Music, Univ. of Puget Sound, Tacoma, WA May 2008

RESEARCH EXPERIENCE

Research Analyst June 2019 - Present

Center for Health Policy and Inequalities Research, Duke University, Durham, NC

Mentor: Dr. Rae Jean Proeschold-Bell

- Conduct in-depth interviews and qualitative data analysis using NVivo on work-related burnout among medical providers at the Duke University hospitals
- Develop data collection survey (300+ questions) using REDCap and Qualtrics on stress reduction intervention program in clergy (400+ participants) of the state of North Carolina
- Perform literature reviews on positive mental health, resilience, and the health of caregivers
- Conduct quantitative data analyses using R and STATA on the following subset data:
 - Three-time point (one pre- and two post-test) survey (200+ questions) data of stress reduction interventions among clergy (70+ participants)
 - Heart rate variability tests on 70+ participants to examine physiological effects of the stress reduction interventions
- Conduct data analyses using R and STATA on a state-wide (1400+ participants) survey
- Lead a group of undergraduate students in collecting heart rate variability data on clergy members
- Lead and plan the bi-weekly Writing Group meetings attended by manuscript writers from three countries

Research Assistant Oct 2017 – May 2019

One Health at the Duke Global Health Institute, Duke University, Durham, NC

Mentor: Dr. Gregory Gray

- Conducted research on the bioaerosol sampling in potential high-risk areas (including Duke University Medical Center and Raleigh-Durham International Airport) and screen specimens for respiratory viruses (see Publications section)
- Led a research study in adapting a lateral flow immunoassay to rapidly diagnose melioidosis for summer research project in Malaysia; employed 2-stage bioaerosol samplers developed by the National Institute of Occupational Safety and Health for respiratory virus surveillance study in Sarawak, Malaysia
- Analyzed data for the aforementioned studies using R and STATA
- Conducted literature reviews on influenza viruses and prepared manuscripts for publication (see Publications section)
- Prepared monthly Duke One Health Newsletters by writing news update posts and compiling stories from Duke One Health teams at Duke Global Health Institute, Duke Kishan University, and Duke-NUS Medical School; the newsletter is distributed to 3000+ readers worldwide
- Co-led Duke Bass Connections team consisting of two master's students, two undergraduate students, and one medical student to carry out a summer research project in Malaysia
- Liaised and collaborated with local Malaysia Ministry of Health partners and researchers

Research Technician June 2016 – April 2017

University of Pittsburgh School of Medicine, Pittsburgh, PA

Supervisor: Dr. Cecilia Lo

- Managed and mentored three undergraduate students and a medical student with their project progress

- Conducted research on the role of protein trafficking in primary cilia that contributes to congenital heart disease in human subjects

Research Assistant

Aug 2014 – June 2016

National Institutes of Health, Bethesda, MD

Supervisor: Dr. Yosuke Mukoyama

- Analyzed data using immunohistochemical staining technique and 3D whole-mount confocal microscopy to visualize hair follicle development in mouse embryos

RELATED VOLUNTEER EXPERIENCES

Research volunteer, Center for Child and Family Health, Duke University

December, 2019 – present

- Conduct literature review on adverse childhood experiences and childhood traumas
- Report and discuss findings on literature review in biweekly meetings

Data analyst volunteer, CorStone

Sept 2019 – Jan 2020

- Analyzed quantitative data using Stata on the impact of the 10-month resilience-based school curriculum (developed by the non-profit organization) on resilience of students and teachers in India and Kenya

LEADERSHIP EXPERIENCES

Co-chair, Refugee Health Initiative, Duke University, Durham, NC

Aug 2018 – Aug 2019

- Provided resources and guidance for 30 volunteers in sharing health and wellness to their assigned refugee families located in Durham

Editor, Duke One Health Newsletter, Duke University, Durham, NC

Nov 2017 – April 2019

- Recruited writers within the One Health community to publish their project findings
- Evaluated and edited contents for monthly newsletter publications

Participant, Emerging Leaders Institute, Duke University, Durham NC

Feb – March 2018

- As a team of three graduate students and one post-doctoral trainee, a career development grant guideline was improved from conducting surveys and interviews of directors of graduate studies and stakeholders on campus

Co-chair, Post-bac Seminar Series Committee, NIH, Bethesda, MD

May 2015 – June 2016

- Facilitated discussion on how to effectively present oral presentations on scientific findings in a seminar consisted of post-bac IRTA students

HEALTH INNOVATION RELATED EXPERIENCES

Volunteer, Duke Elderly Family/Caregiver Training Center (DEFT)

Sep 2018 – May 2019

- Assist four students from the Fuqua Client Consulting Practicum (FCCP) with their innovation project and provide data for analysis

Executive Director of Internal Development, Duke Interdisciplinary Social Innovators (DISI) Dec 2018–May 2019

- Organize social networking events and professional development educational workshops to build and strengthen DISI community for 70+ people
- Recruit professors and consulting firm specialists to provide educational training to 15+ innovators

Project Innovator, Duke Interdisciplinary Social Innovators (DISI)

Aug – Dec 2018

- Consulted, as nine students across disciplines, with the North Carolina Coalition Against Domestic Violence to create more user-friendly surveys and find strategies to distribute resources efficiently

VOLUNTEER EXPERIENCES

Databased researcher, Cardiostart, Lima, Peru

October 2019

- Collected socioeconomic data via patient interviews and performed data entry onto REDCap

Volunteer, Refugee Health Initiative

Sept 2017 – May 2018

- Provided health and wellness education and training during weekly home visits to support refugee families residing in Durham

Database researcher, Cardiostart, Macapa, Brazil

July 2017 - Aug 2017

- Collected socioeconomic data via patient interviews and performed data entry onto REDCap
- Provided triage services during outreach events at local elementary schools and a remote village by the Amazon River

TEACHING EXPERIENCES

Teaching Assistant, Duke University, Durham, NC

Aug 2018 – May 2019

- Assisted in teaching, hold office hours, and grade homework assignments for a graduate level Biostatistics and Epidemiology course with 30 students

Peer-led Learning Assistant, University of Oregon, Eugene, OR

Sept 2012 – June 2014

- Assisted in teaching a series of organic chemistry courses with 150+ students and facilitated group discussions during weekly office hours

PUBLICATIONS

Kolt GS, Ferdman BR, **Choi JY**, Henson J, Nguyen VT, Farkas EA, Nina VJ, Nina RV, CiFuentes RO, Zeman WF, Connett JE, Marath A. Emotional quality-of-life and patient-reported limitation in sports participation in children with uncorrected congenital and acquired heart disease in healthcare-restricted settings in low-and middle-income countries. *Cardiology in the Young*. 2020 Feb 5:1-9.

Choi JY, Hii KC, Bailey ES, Chuang JY, Tang WY, Yuen Wong EK, Ti T, Pau KS, Berita A, Saihidi I, Ting J, Chua TT, Toh TH, AuCoin DP, DeShazer D, Gray GC. *Burkholderia pseudomallei* Detection among Hospitalized Patients, Sarawak. *The American journal of tropical medicine and hygiene*. 2019 Nov 25.

Bailey ES, Zemke JN, **Choi JY**, Gray GC. A Mini-Review of Adverse Lung Transplant Outcomes Associated With Respiratory Viruses. *Frontiers in Immunology*. 2019;10:2861.

Hendrix CC, Matters D, Griffin T, Batchelder H, Kramer P, Prewitt, JR, Matters L, Lytle K, Yang Y, Park H, Riedel RF, **Choi JY**, McConnell E. Academic-Practice Synergy for Caregiver Training and Support: Academic-Practice Partnership for Caregiver Training and Support: The Duke Elder Family/Caregiver Training (DEFT) Center. *NC Medical Journal* (In press)

Bailey ES, **Choi JY**, Zemke J, Yondon M, Gray GC. Molecular surveillance of respiratory viruses with bioaerosol sampling in an airport. *Tropical diseases, travel medicine and vaccines*. 2018 Dec 1;4(1):11.

Choi JY, Zemke J, Philo SE, Bailey ES, Yondon M, Gray GC. Aerosol sampling in a hospital emergency room setting: a complementary surveillance method for the detection of respiratory viruses. *Frontiers in public health*. 2018 Jun 14;6:174.

Bailey ES, **Choi JY**, Fieldhouse JK, Borkenhagen LK, Zemke J, Zhang D, Gray GC. The continual threat of influenza virus infections at the human–animal interface: What is new from a one health perspective?. *Evolution, medicine, and public health*. 2018;2018(1):192-8.

Bailey ES, Fieldhouse JK, **Choi JY**, Gray GC. A mini review of the zoonotic threat potential of influenza viruses, coronaviruses, adenoviruses, and enteroviruses. *Frontiers in public health*. 2018 Apr 9;6:104.

Siboni RB, Bodner MJ, Khalifa MM, Docter AG, **Choi JY**, Nakamori M, Haley MM, Berglund JA. Biological efficacy and toxicity of diamidines in myotonic dystrophy type 1 models. *Journal of medicinal chemistry*. 2015 Aug 13;58(15):5770-80.

INVITED LECTURES

Jessica Choi (July, 2018): “An Introduction to Molecular Laboratory Tools.” Kapit Hospital, Kapit, Sarawak, Malaysia.

Jessica Choi (June, 2018): “Point-of-Care Tools to Detect Influenza Viruses.” Duke University, Durham, NC.

AWARDS/RECOGNITION

<i>IXL Innovation Olympics, Second Place</i>	Oct 2019
<i>Duke University Center for International and Global Studies Grant, Duke University</i>	May 2018
<i>Duke Global Health Institute Merit Scholarship, Duke University</i>	Aug 2017
<i>Summer Research Mentor Training Completion, NIH</i>	June 2015
<i>Intramural Research Training Award Fellow, NIH</i>	Aug 2014 – June 2016