

Samuel J. Rodgers

(704) 918-8874 ▪ 407 Givens Lane ▪ Blacksburg, Virginia 24060 ▪ samr@vt.edu

EDUCATION:

Virginia Polytechnic Institute and State University (Virginia Tech)

Virginia-Maryland College of Veterinary Medicine- Population Health Sciences

Master of Public Health

Blacksburg, VA

Concentrations in Infectious Disease, and Public Health Education

Expected Graduation: May 2023

Virginia Polytechnic Institute and State University (Virginia Tech)

Bachelor of Science, Biological Systems Engineering

Concentration in Biomedical Engineering

RELEVANT EXPERIENCES:

Viral Genetics and Host Interactions Lab at Virginia Tech

Genetic Engineering Researcher

- Using gene swapping techniques to create attenuated vaccines for Zika Virus and Dengue Virus
- Using rolling circle amplification and replication chain reaction techniques to clone and amplify porcine delta coronavirus (PDCoV) to determine the cause of the past spillover into the human population

Virginia Tech Institute of Policy and Governance (IPG)

Blacksburg, VA

Graduate Research Assistant in Community Public Health Outreach

January 2022-Present

- Doing data and project management and analytics on community health needs assessments in the Roanoke area
- Doing organizational development and capacity building for behavioral health centers in the New River Valley

Virginia Tech Department of Population Health Sciences

Blacksburg, VA

Graduate Research Assistant in Environmental Health and Policy

May 2021-December 2021

- Did disaster preparation research to make critical infrastructure in the food, energy, and water sectors resilient to various disruptions. Presented at Fall 2021 American Geophysical Union Meeting in New Orleans (December 2021).

Virginia Tech Department of Population Health Sciences

Blacksburg, VA

Graduate Student Researcher in Human Mobility and Infectious Disease Modeling

May 2021-October 2021

- Used human mobility data to create an early warning system for COVID and future pandemics

Pediatric Medical Device Institute

Roanoke, VA

Biomedical Researcher

May 2019 – May 2021

- Created a low-cost asthma spacer for use in low to middle income hospitals. Presented at the Virginia Tech Undergraduate Research Symposium (August 2019) and have presented at the National BMES Research Symposium in Philadelphia (October 2019).
- Created a fluorescence microscope to test for Tuberculosis in rural communities in low to middle income countries.
- Created a low-cost, Bluetooth vital signs monitor for use on pediatric and geriatric patients in hospitals in low to middle income countries. Will be presenting at the Consortium of Universities for Global Health Virtual Conference (March 2021).

Food Safety and Biosensors Laboratory

Blacksburg, VA

Genetic Engineering Researcher

February 2020-September 2020

- Worked with the CRISPR method of genetic modification to cleave single strands of DNA, which can prevent gold nanoparticles from aggregating, so that they can be used as biomarkers for early cancer detection.

Virginia Tech Recreational Sports

Blacksburg, VA

Intramural Sports Official

September 2018 – March 2020

- Responsible for officiating intramural basketball games, and ensuring players stay safe.

Clintons Transfer and Storage

Blacksburg, VA

Professional Mover

May 2020-September 2020

- Responsible for preventing damage to furniture while moving, packing items, and disassembling and re-assembling furniture.

LEADERSHIP EXPERIENCES:

Global Medical Brigades (GMB)

Blacksburg, VA

President

January 2020-January 2021

- Responsible for running all club meetings.
- Responsible for overseeing all aspects of the club.
- Responsible for planning the mission trip and serving as the club leader when on the trip.
- Responsible for aiding the other club officers in their respective positions.

Fundraising Chair

January 2019 – January 2020

- Responsible for creating fundraisers and acquiring corporate donations. Raised over \$2400 in less than a year.
- Responsible for collecting medical and dental supplies from local hospitals and dentists.

Received the Matthew Baskette Global Brigades Leadership Scholarship

2019, 2020

Virginia Tech Men’s Rugby

Blacksburg, VA

- *Serve as head player-coach of the DI-aa National Champions Virginia Tech Men’s Rugby 15’s Team*

January 2022-Present

Public Health Association

Blacksburg, VA

Co-President

April 2022-Present

- Responsible for leading the club in service activities, and providing club members with professional opportunities

Public Health Education Representative

September 2021-April 2022

- Responsible for bringing any issues PHE students in the department are having to the entire officer team

Student Ambassador

Virginia Tech MPH Student Ambassador

- Responsible for recruiting new students, and guiding existing students in the MPH program.

April 2022-Present

PUBLICATIONS AND PRESENTATIONS:

Virginia Tech Undergraduate Research Symposium

Blacksburg, VA

- Presented research project on creating asthma spacer for pediatric patients in third-world countries

August 2019

National Biomedical Engineering Society (BMES) Research Symposium

Philadelphia, PA

- Presented research project on creating asthma spacer for pediatric patients in third-world countries

October 2019

Consortium of Universities of Global Health (CUGH)

Washington, DC

- Presented research on creating a Bluetooth vital signs monitor for hospitals in third-world countries

March 2021

Carilion Hospital Annual Research Festival

Roanoke, VA

- Presented research on creating a Bluetooth vital signs monitor for hospitals in third-world countries

April 2021

Fall 2021 American Geophysical Union (AGU) Meeting

New Orleans, LA

- Presented research on increasing resiliency of food-energy-water systems to viral pandemics

December 2021

EXTRACURRICULARS:

- Virginia Tech Men’s Rugby Club 2018-Present
- Global Medical Brigades 2018-2021
- American Society of Agricultural and Biological Engineers 2019-2021
- Virginia Tech Undergraduate Biomedical Engineering Society 2019-2021
- Team Malawi 2019-2021

VOLUNTEER EXPERIENCE:

- Covid Companions March 2021-May 2021
- BSE Mentoring Program 2019-2020
- College Mentors for Kids October 2019
- Habitat for Humanity April 2019
- GMB Service Trip to Honduras January 2018
- GMB Service Trip to Panama January 2019
- Special Olympics Volunteer February 2019, 2020

RELEVANT SKILLS:

- Website Development
- Intermediate Level Fluency in Spanish
- Canva
- Interpersonal Communication Skills
- Google Programs
- Microsoft Word, PPT, and Excel

RELEVANT SKILLS:

- Public Speaking, Interpersonal Skills, and Writing
- Writing Research Abstracts and Papers
- Poster Presentations
- Statistical Software: R
- 3D Printing
- AutoCAD

