



C.A.T.C.H Research Study

Chukwuma Odunze

College Park Scholars – Science & Global Change Program

General Biology

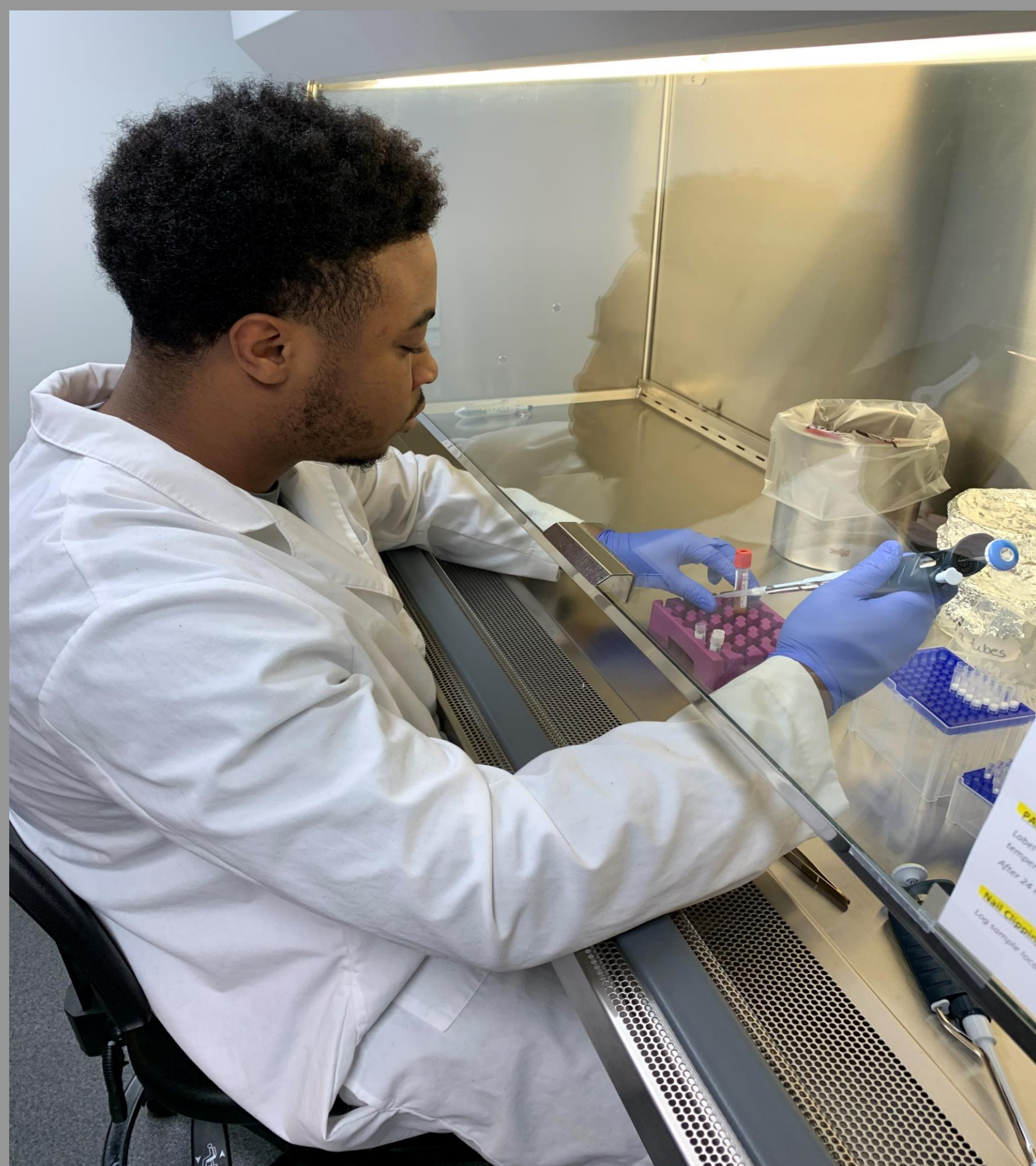
codunze@umd.edu

College Park Scholars Academic Showcase, May 1, 2020



Introduction

With the C.A.T.C.H research study we are trying to study respiratory infections such as COVID-19 and find out how these infections are transmitted to other individuals. We primarily focused on students who live in the Cambridge community and take samples from participants and people they have been in contact with.



This is an image of me in the lab of the C.A.T.C.H. Research study. In this photo you can see me using a micropipette to separate a sample. In the lab we typically process the samples that we get from the clinic and enter them into our system so we can keep track of each sample

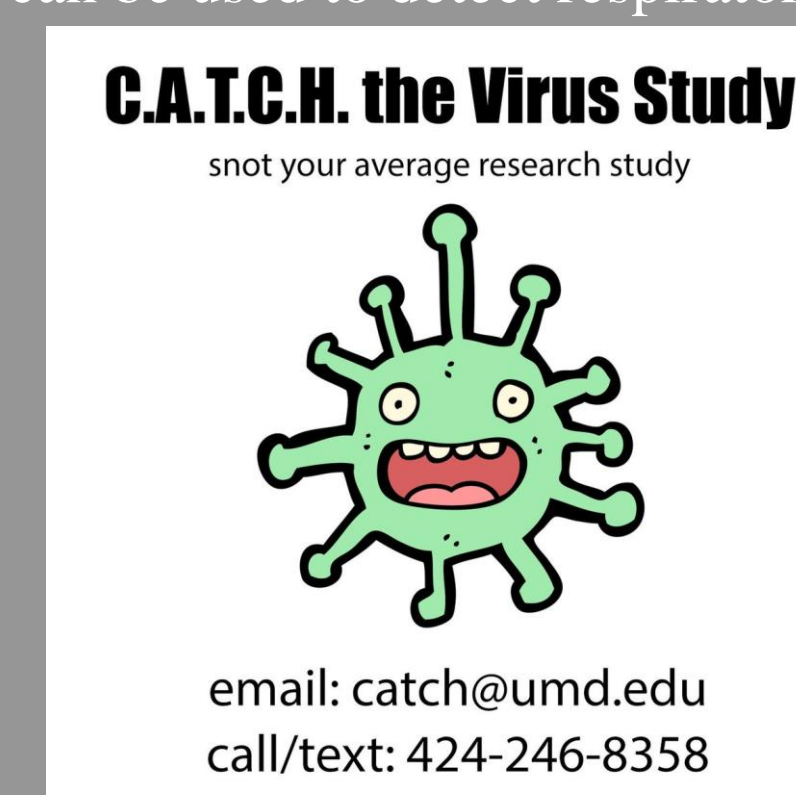
Materials

For this study, our work was split up on two primary components. Half of the time we worked in the lab and the other half of the time we spent in the clinic. In the lab we used instruments such as the micropipette to separate samples, centrifuge to things such as separating the plasma from the blood in the test tubes. While in the clinic we primarily focused on taking the actual samples on the patients. The instruments we primarily used include an oral temperature thermometer for taking body temperature, Mid turbinate swab for taking samples from the participants nasal cavity, and nail clipper for taking nail clipping which test cortisol levels. Other samples such as blood were taken but only the Clinicians on site were allowed to collect these samples



Methods

First, we start off by collecting samples from anyone who comes in for our baseline visit. Once their samples are collected, we bring them to the lab for further testing and if they have one of the respiratory infections, we are looking for we invite the participant back in for another visit along with any people our participant has been in close contact with and if they are willing we will ask them to participate in the wearable device portion of the study where we can further track them and monitor their physiological variables such as their heart rate, breathing and movement which can help us determine which metrics can be used to detect respiratory infections



Results

My role in this study primarily focused on data collection rather than the analysis of the data. The research in this study is still ongoing and grows even more important with respiratory infections such as COVID-19 spreading throughout the world. With the addition of the wearable technology portion of this study they are able to expand their research by measuring which physiological factors can be used to indicate or detect the presence of respiratory infections.

Discussion:

The study of respiratory infections grows more important especially in the wake of diseases such as COVID-19. My experience with the catch study gave me firsthand experience of what an actual research study entails and gave me a greater insight on how the scientific process works firsthand. It also taught me how to effectively work in a lab and how to work in a clinic setting where we took samples and consented the participants. The future of this study is very promising. With the incorporation of wearable technology it gives the study more room to study other factors that can affect the transmission of respiratory infections and possible warnings that could help you detect when you're about to get a respiratory disease

Site Information:

Name of Site : C.A.T.C.H. Research Study

Address: 4200 Valley Dr, College Park, MD, 20742

Your supervisor: Dr. Jennifer German

The site mission : Study the mode of transmission of respiratory infections

The particular goals of the site you were at : collect and process samples for future research on

Acknowledgments:

I would like to acknowledge my site supervisor Dr. Albert and also all the clinicians in the study for supporting me and helping me learn new techniques that I can take with me in my future endeavors. I would also like to thank Dr. Holtz and Dr. Merck for all you have taught me in class and for always bringing enthusiasm to all of your lectures

