

Independent Research at Archbishop Williams

Andrea Zhao '26



Years in Program: 4 - since Grade 9

Recent Research Symposium

Title(s): "Blue Light Effect on Circadian Rhythms and Sleep Cycle"; "Effects of Opioid Administration on Human Gut Microbiota: Gut Dysbiosis"

What is Your Key Takeaway?:

By experiencing the growing pains at the start of research, I learned that research's foundation is self discipline and that it becomes easier, more fulfilling, and very rewarding when you're conducting research on a topic that you are invested in.

How Are You Prepared for College?: *Research is supplementing my college applications by demonstrating my intense self discipline and genuine interest in science. It has been a physical means of pursuing my interests outside of the classroom and showcasing my strengths.*

Saraellen Mathewson '28



Years in Program: 4 - since Grade 7

Recent Research Symposium

Title(s): "Applications and Advancements in CRISPR-Based Technologies for Asthma"; "Effectiveness of Face Masks: Airborne Transmission of SARS-CoV-2"

Others Organizational

Collaborations: James Tufts Pender

Environmental Stewardship Conference 2024 (Thayer Academy)

What is Your Key Takeaway?: *While working in a real lab, I have learned that scientific discovery is not only about patience, teamwork, and curiosity, but it is an open door for life-long opportunities.*

How Are You Prepared for College?: *I've built research skills such as how to analyze data, think critically about results, and connect what I'm studying to real-world applications. I am more confident in my communication skills and ability to share my ideas*

Elsie Vijjeswarapu '26



Years in Program: 5 - since Grade 8

Recent Research Symposium

Title(s): "Forever Chemicals and Inflammation: Unraveling PFAS-Induced NF- κ B Pathways"; "Effects of Fluorinated Pesticides on Bees"; "Persistent Organic Pollutants"

Others Organizational Collaborations: *Braintree Stormwater Division, Cohasset Center for Student Coastal Research, Boston University's GLOBE: Mission Earth Program, Joshua Kaye Foundation, Cohasset Public Health Department, Hilltop Natives Nursery.*

What is Your Key Takeaway?: *It is important to start early in order to build upon what you have learned.*

How Are You Prepared for College?: *It gave me the foundation to be able to write and present my research at various conferences.*

Calogero Conklin '28



Years in Program: 1 - since Grade 9

Recent Research Symposium

Title(s): "Renewable Energy Efficiency"

Others Organizational

Collaborations: *I have an Internship planned for next summer with Boston University working on fluidic shaping.*

What is Your Key Takeaway?: *I am able to explore what areas of science I would like to study in more depth after I graduate high school and have realized I have a passion for Engineering, especially Mechanical and Electrical*

How Are You Prepared for College?: *I am growing in the skills to better self-motivate and hold myself accountable to always do my best work, especially when I have a lot to get done.*