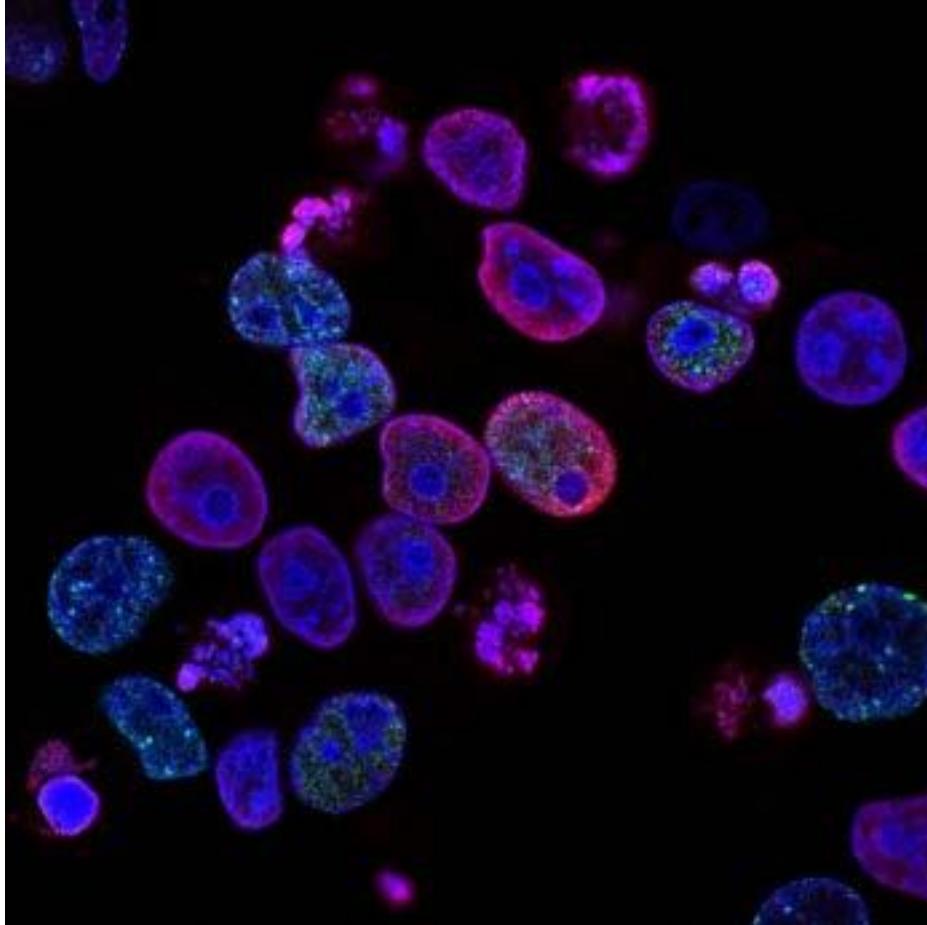


# Book of Speakers



**Cell and Molecular Biology  
Symposium  
10th Annual Undergraduate Research  
Seminar**

 GRAND VALLEY STATE UNIVERSITY

## Lydia Cruce



Lydia is a graduating senior majoring in Cell and Molecular Biology and minoring in Chemistry. During her time here at Grand Valley, she worked with Dr. Martin Burg for almost 2 years on multiple projects such as monitoring the movement of the *Hdc*-dependent histamine metabolite N-acetyl histamine (NAH) through the male reproductive system of *Drosophila* as a result of copulation, and generating a CRISPR/cas9 mutant in the gene responsible for generating NAH. She was a Student Summer Scholar this past summer and has had the opportunity to present her research at the 64th National *Drosophila* Conference in 2023 and The Allied Genetics Conference this past winter. She has also presented at GV research events such as the Summer Scholar's Showcase and Student Scholar's Day. Alongside the many wonderful opportunities she's had at Grand Valley, she also has had the opportunity to intern for the Michigan State Police in their forensic lab, which will help in her plan to pursue a career in forensic science after she graduates.

## Marie Adinolfi



Marie Adinolfi is a senior here at Grand Valley. She has been working alongside Dr. Martin Burg conducting experiments in *Drosophila melanogaster* by using RNAi in flies with tan and ebony mutations to see its effects on histamine production in male secondary cells. She was awarded with the Kindschi Fellowship in the Fall 2023 semester which allowed her to work with the AANATL-7 mutation and perform RNAi experiments to see its effects on histamine production in secondary cells. After graduation, she is planning on taking a gap year before applying to med school where she is looking at pursuing osteopathic medicine.

## Ashlyn Tyson



Ashlyn Tyson is a senior at Grand Valley graduating in April 2024. She works with Dr. Martin Burg on the AANATL-7 mutation in the central nervous system of *Drosophila melanogaster*. She has been using histamine immunostaining techniques paired with confocal microscopy to visually analyze the histamine levels. She is planning on taking a gap year before applying to grad school, but her ultimate goal is to go into forensic science or become a lab technician.

## Maddison Marshall

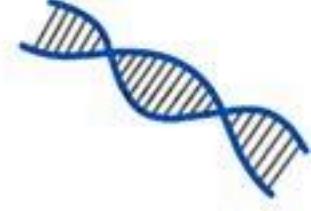
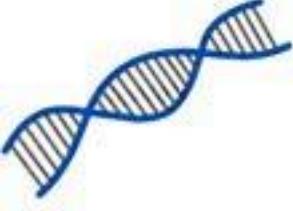


Maddison Marshall is a senior at Grand Valley State University where she studies cell and molecular biology. During her undergraduate education, she worked at the GVSU Molecular Monitoring Lab, analyzing Sars-CoV-2 in wastewater. Since May 2023, she has been an intern in the Williams Lab at Van Andel Institute where she researches how WNT signaling and Fzd2 processing are impacted by Robinow Syndrome associated variants. In her free time she likes to read books and spend time outside.

## Pranav Nalam



Pranav Nalam is a senior at Grand Valley State University studying cell and molecular biology with minors in chemistry and philosophy. Since 2022 Pranav has worked in Dr. Brian Smith's lab studying the enzyme ANT(6)-Ib and its relevance to aminoglycoside antibiotics resistance. In addition, Pranav is very active with several student organizations including the cell and molecular biology club, and was formerly on the executive boards of the pre-med club and the chemistry club. Pranav is the co-director of the Young PI Initiative which aims to introduce STEM oriented high school students to research at the university level. Pranav aims to pursue an MD-PhD degree after graduation and hopes to contribute to neurodegenerative and neurobiological research.



## Katherine Charnecki



Katherine Charnecki is a senior at Grand Valley State University, majoring in Cell and Molecular Biology. While not in school, she finds fulfillment in giving back to the community through volunteering, particularly as an active participant in the American Red Cross Club. Last summer, she had the valuable opportunity to further her knowledge and skills through an internship at Fujifilm Diosynth Biotechnologies in Holly Springs, NC. This experience provided her with hands-on insights into the biotechnology industry, strengthening her passion for the field. She is predominantly interested in research in genetics, and is enthusiastic about contributing to advancements in pharmaceuticals. As she approaches the end of her undergraduate education, she aspires to build a rewarding career in the pharmaceutical industry, leveraging her education and internship experience to prepare her for the challenges and opportunities that lie ahead.

## Olivia Brumar



Olivia is a senior at Grand Valley and will graduate in spring 2024 with a degree in Cell and Molecular Biology and a minor in Mathematical Statistics. During her high school career she trained as a Medical Assistant and spent some time as an intern in an internal medicine office. Through this internship she developed a passion for the medical field. Upon acceptance to GVSU Olivia was originally a Biochemistry major and planned to go to medical school. However, after one introductory genetics class she realized her passion for the subject. Olivia is now planning on going to graduate school for molecular genetics and wishes to work on a cancer related research project. After spending some time in the research field, she ultimately hopes to return to the college scene as a professor of genetics or biotechnology. As an undergraduate student, Olivia took on the challenge of researching with Dr. DeBruine in the department of computing, when she had never once worked in coding. She was the sole student working on a project she developed, analyzing the effects of myocardial infarction through spatially-resolved single cell transcriptomics using machine learning methods.

## Amber Heist



Amber Heist is a combined Bachelors and Master's student here at Grand Valley State University. She is currently finishing her final undergraduate year, and conducts research in Dr. Agnieszka Szarecka's laboratory working to understand the conformational differences undergone by GABA(A) receptors when binding to different ligands. Outside of research, Amber enjoys crocheting and spending time with my husband and two cats.

## Zsolt Palmer



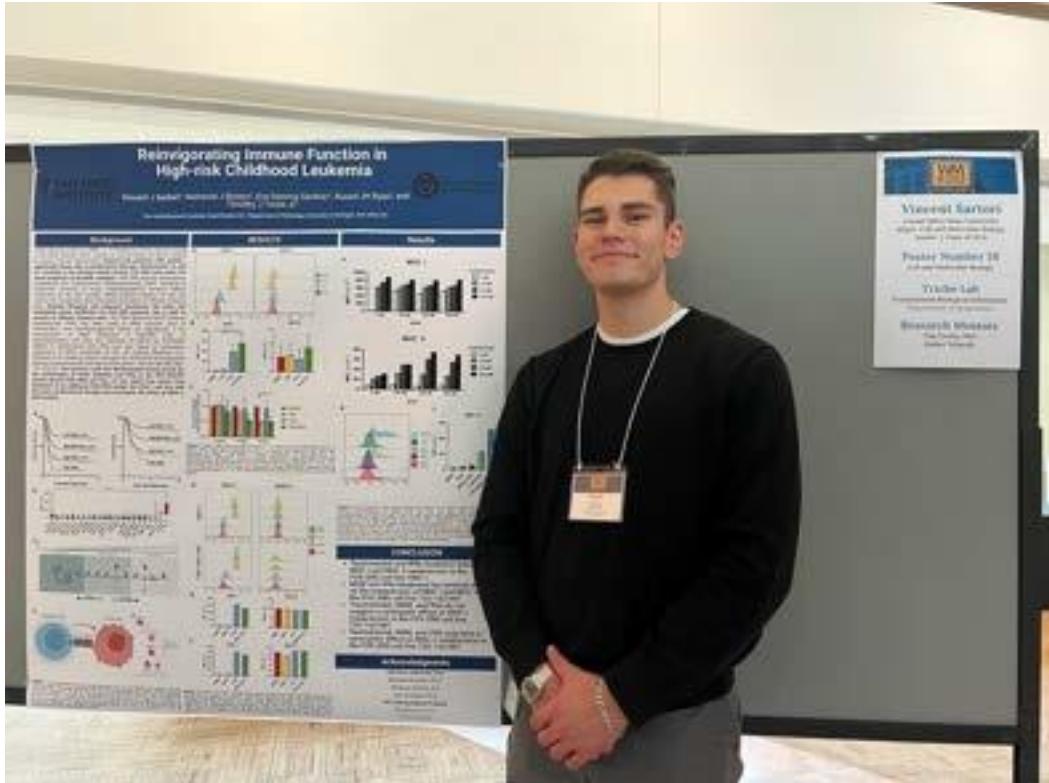
Zsolt Palmer is majoring in Cell and Molecular Biology at Grand Valley State University. He is currently working in the lab of Dr. Zach Debruine, studying the intersection between neural networks and cellular data. He was a participant in the Congress-Bundestag Young Professionals exchange program, and studied at the University of Konstanz in Germany, where he worked at the university's limnological institute to research ancient wooly rhinos.

## Isabelle Frechette

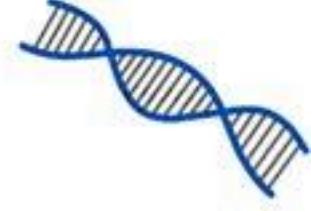
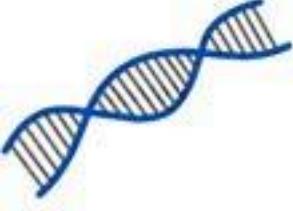


Isabelle Frechette is an undergraduate research student and senior at Grand Valley State University. She started her research through GVSU under the leadership of Dr. Osman Patel in September of 2022. With the guidance of Dr. Patel; she mastered the basics of cell culturing and applied these techniques to her respective research project. The research project revolved around treating gynecological cancer cells with testosterone and looking into the growth patterns. The project included five trials, each trial spanning over 4 weeks. In January of 2023, the first trial began with investigating the effect of testosterone on hormone-positive breast cancer cells, while the second trial incorporated hormone-positive endometrial cancer cells.

## Vincent Sartori



Vincent Sartori started his undergraduate education in 2020 at Concordia University Chicago where he majored in Biology and played on the baseball team through his freshman and sophomore years. He transferred to Grand Valley State University, joining the Cell and Molecular Biology program, at the beginning of his junior year. He had the fortunate opportunity to work as a 2023 summer intern in the Triche lab at the Van Andel Research Institute, where he has continued to work part time throughout school. After a great CMB program experience, he will pursue a Ph.D. at the Van Andel Institute Graduate School. Outside of academics, Vincent enjoys reading, video games, and spending time with his friends and family.



## Morgan Canfield



Morgan Canfield is a senior at Grand Valley State University and is studying Cell and Molecular Biology. Morgan is originally from Ionia Michigan. She has done an internship at Van Andel Institute in the Metabolism and Nutritional Programming department. Morgan's mentor for the internship program was Dr. Sara Nowinski. She had the opportunity to continue her internship further and remains at Van Andel Institute currently. Morgan was able to present her research at Van Andel Institute as well as at WMRUGS. Science has become her passion while attending GVSU and looks forward to obtaining her degree at the end of the semester. Upon graduation, Morgan hopes to work as a research technician and potentially someday attend graduate school.

## Carter Griffioen



Carter Griffioen is from Schoolcraft, Michigan. He is a senior in the CMB department at Grand Valley State University. In his free time, he enjoys playing golf, reading, working out, and doing things with friends. He has done research with Dr. Blackman on assessing the accuracy of qPCR for detecting E.coli contamination in water. After graduation, he plans to move back to Kalamazoo and enter the workforce. His goal is to get a job at a biotechnology company where he can continue practicing science and further his education.

## Ashley Thompson



Ashley Thompson is a senior studying Cell and Molecular Biology. The past two years she has worked for the Molecular Monitoring for Health and Environment Lab at Grand Valley working in wastewater-based epidemiology (WBE) to monitor the spread of SARS-CoV-2 in the community. During the summer, she monitors public inland beaches for sources of contamination. Ashley won an award for best poster presentation for her work at the 2022 Great Lakes Beach Association Annual Meeting. After graduation, she plans on moving to Southern California and hopes to continue working in infectious disease for WBE.

## Hannah Bekius



Hannah Bekius is a senior and first year master's student in the combined Cell and Molecular Biology program. She is from Zeeland, Michigan. She works in the Molecular Monitoring Lab testing wastewater for Sars-Cov-2, RSV, and norovirus. Over the summer she did research under Dr. Blackman and Dr. Tsou testing beach water for human fecal contamination. She will continue at GVSU next year to complete her master's degree, hoping to continue to research in environmental sciences.

## Sophie Undlin



Sophie Undlin is a senior in the Cell and Molecular Biology program at Grand Valley State University, with a minor in Criminal Justice. She is from Oxford, Michigan. Currently, she is working at the Molecular Monitoring lab where they are testing for Sars-CoV-2 in wastewater and reporting that data to the health department. In her free time she enjoys reading, spending time with friends, and going on hikes. Over the summer she did research with Dr. Blackman where they were attempting to test for other RNA viruses in wastewater and trying to develop a qPCR assay to streamline the testing. In the future, she hopes to work as a forensic scientist and test DNA from crimes.

## Sofia Martinez Martinez



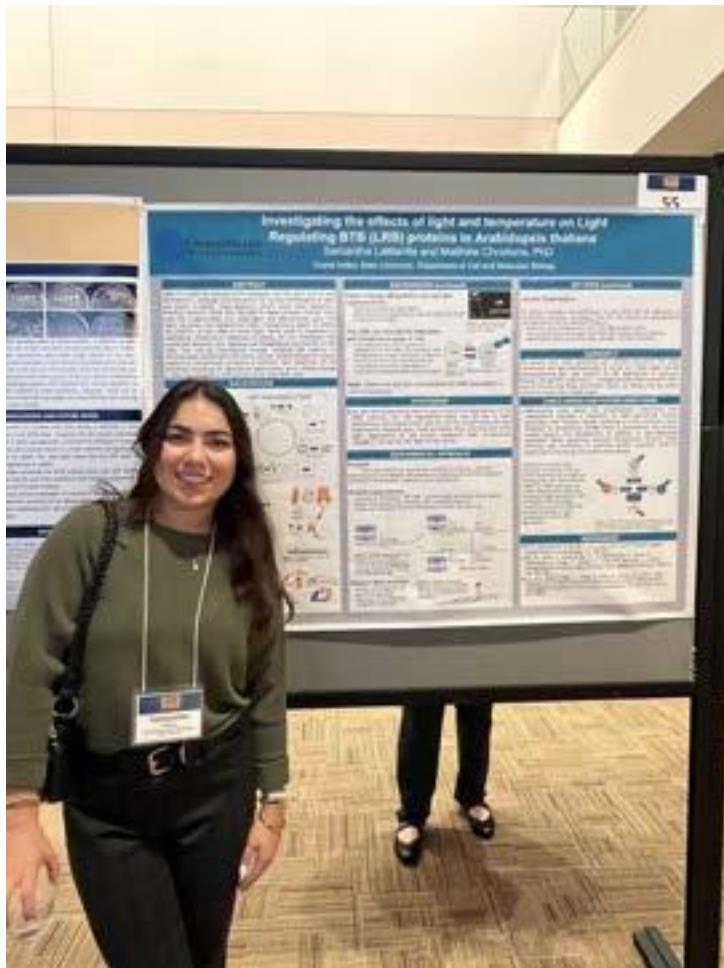
Sofia is majoring in Cell and Molecular Biology with a minor in Studio Art. She has always been passionate about science and art. She hopes that pursuing her passions will help shape her future in positive ways. Sofia gained great experience doing research with Dr. Sarah Hamsher in her algae lab. Sofia has been on the Dean's List for 7 consecutive semesters and awarded with multiple academic scholarships. Additionally, Sofia has been a Thompson Scholar and worked for the K-12 Connect program during her time at GVSU. She hopes to attend graduate school in the future but would like to work in a lab after graduation for now. With more experience in the future, her goal is to find employment in the scientific illustration field.

## Brett Vincent



Brett is a graduating senior at Grand Valley State University currently studying for his bachelor's degree in Cell and Molecular Biology. He attended North Central Michigan College where he received his associate degree in science before transferring to GVSU where he has earned the Outstanding CMB Student award twice, the I Am Grand Valley award, and dean's list recognition. He worked in the lab of Dr. Fatima pir Cakmak where he assisted with her research in studying complex coacervation and simulating organelle function. He is currently assisting Dr. Sarah Hamsher in her lab and researching the ideal lab growth conditions of the genus of diatoms known as Epithemia. After graduating, Brett plans to take a gap-year to obtain more lab experience before further pursuing a graduate program. In the future, he hopes to do further research in research and development.

## Samantha LaMantia



Samantha is a graduating senior completing her Bachelor's in Cell and Molecular Biology this semester. She has worked with Dr. Matthew Christians for two years during her undergrad. Currently, her research focuses on LRB protein interactions and their relation to environmental conditions such as light and temperature within *Arabidopsis thaliana*. While the majority of her work has been with plant biology, she also has an interest in cancer genetics and hopes to explore that area prior to finding a permanent lab. Samantha is a member of the Frederik Meijer Honors College and has made the Dean's List for 5 semesters. She currently works as a pharmacy technician as well as an adaptive sports supervisor at GVSU RecWell. In her free time, she enjoys crocheting, reading, and playing volleyball and soccer. Samantha is enrolled in the combined BS/MS degree at GVSU, and following graduation intends to intern at Van Andel Institute this summer, as well as finish her Master's degree before pursuing a career in research.

## Parker Miller



Parker Miller is a senior at GVSU majoring in CMB. She originally obtained her associate degree in biology at GRCC before narrowing down her area of study. She has always enjoyed science classes since high school and biology at the cellular and molecular level intrigued her because it requires both wet and dry lab skills. Not to mention, the program at GVSU allows for a lot of hands-on experience and teaches skills guaranteed to be used in multiple fields of work. Parker has been working full-time while alternating between full and part-time enrollment, so it is nice for her to finally see the light at the end of the tunnel. This semester, she has started working with Dr. Hamsher in her lab that is also collaborating with multiple universities and research institutes across the globe to address the evolutionary origins and diversification of diatoms via functional genomics and phylogenetics. After graduation, she plans on holding off on any additional schooling to focus on what life is like outside of school and work.