

Book of Speakers

9th Annual CMB Symposium

Winter 2023

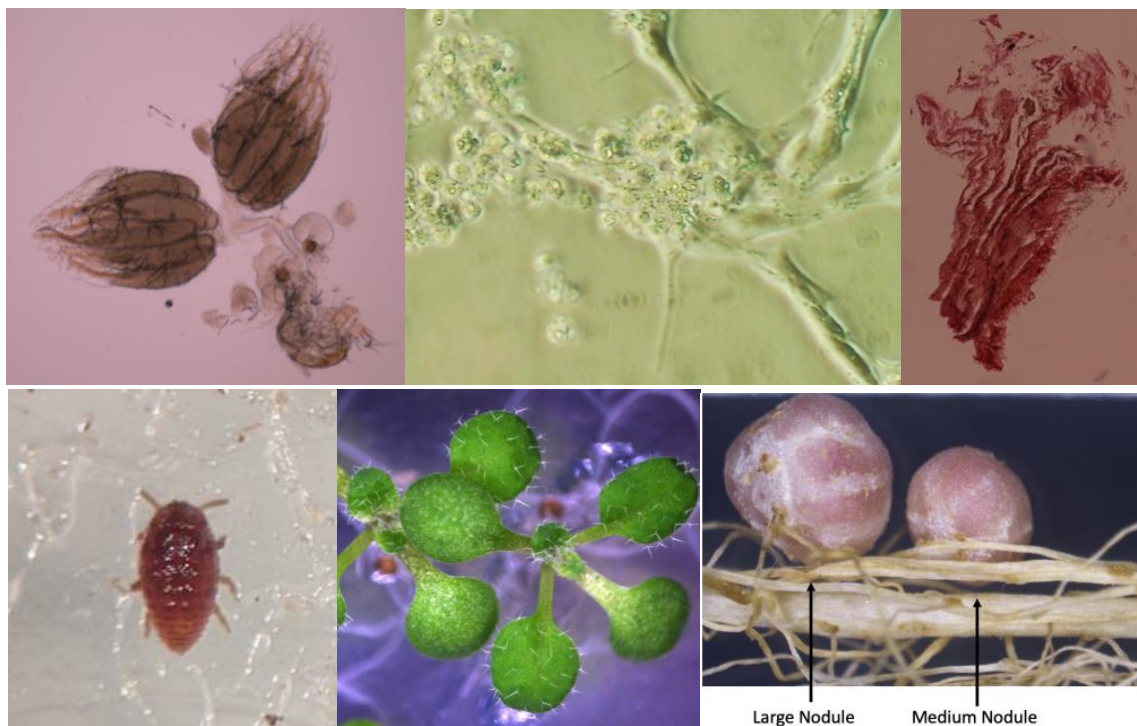


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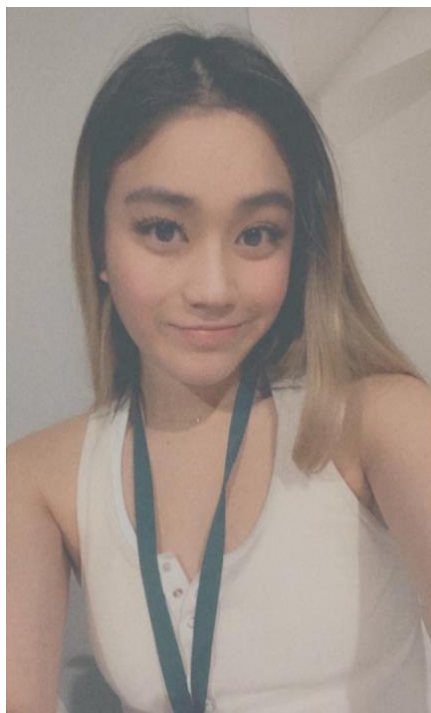
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Lyla Dao

Lyla is a senior at GVSU studying CMB. In 2019, she earned an Associate of Science Degree from GRCC, and has been a member of the Honor Society as well as a RISE Scholarship Program at GVSU. Lyla has 2 years of research experience, working in the CMB department, studying genes in soybean. Lyla has a passion for helping others, as well as for science and learning. She hopes to one day be able to go to medical school so that she can eventually help those who are underserved.



Noah Holkeboer

Noah Holkeboer was born and raised in Grand Rapids, Michigan. He will graduate from Grand Valley this semester as an Honors College student with a double major in Cell & Molecular Biology and Biology with an emphasis in Ecology & Evolution. After graduation he plans to pursue a job as an MRI Technician. Starting his freshman year, Noah has been involved in research focusing on the branching patterns of native tree species. Alongside other students and research mentor Dr. Greer, he worked to design and test a new photo-based method of data collection. He's presented his research at regional and national conferences and is working toward his first-author publication. Starting his junior year, he took his research in a genetic direction, working with Dr. Dietrich to explore two genes involved with tree branch angle. While at Grand Valley, Noah has worked as a videographer, paid researcher, peer educator, and resident assistant. Community building is important to Noah, and he hopes to continue the role he played as an RA later in life through involvement in Church and local community. Some of Noah's hobbies include kayaking, reading, and gardening.



Colleen McClure

Colleen McClure is a Michigan native and a transfer student in her second year at GVSU. Her research project was done with Dr. Charlyn Partridge at Annis Water Research Institute, in the Environmental Ecology lab. After studying invasive species over the summer her focus turned from forensics to ecology, particularly the study of preventive/regenerative ecology. She plans to continue with the CMB master's program at GVSU after completing her undergraduate degree. After graduation, she plans to enter a field position, preferably with the Department of Natural Resources or a related entity.



Grace Miller

Grace Miller has been able to explore many interests at GVSU through various programs and courses. Outside of the CMB department, she has been studying American Sign Language and learning ways to make scientific knowledge more accessible to the Deaf and Hard of Hearing community. In the CMB department, Grace has been studying the gravitational pressure model with Dr. Staves on *Oryza sativa* (rice) and *Arabidopsis thaliana* with additional mentorship from Dr. Blackman and Dr. Christians. She has been able to explore this through the support of the RISE program, OURS, MSGC, and the McNair scholars' program. This work has instilled a profound interest in space biology and plant biology for Grace. She is currently a member of the student board for the American Society of Gravitational and Space Research, where she helps other students get more involved in space sciences. After graduation, she plans to pursue a PhD at MSU in molecular plant sciences and cell and molecular biology where she will continue to study plant biology and eventually become a professor.



Gloria Baker

Gloria Baker is a senior at Grand Valley State University pursuing a bachelor's degree in Cell and Molecular Biology and a certificate in Bioinformatics and Genomics with honors from the Frederik Meijer Honors College. Her independent research project, under the mentorship of Dr. Matthew Christians, studied how abiotic stress impacts the amount of selective protein degradation occurring in *A. thaliana*. The results of this project concluded that more selective protein degradation occurs through the Cullin-3 RING ligase when plants are exposed to increasing concentrations of the phytohormone Absciscic Acid. This fall, Gloria will continue her studies by pursuing a dual title Ph.D. in Cell and Molecular Biology and Molecular Plant Sciences at Michigan State University.



Brandon Compton

Brandon is a senior at GVSU in the Cell and Molecular Biology program pursuing a Bachelor's of Science. Currently he is an intern in the Van Andel Institute's Genomics core where he has gained valuable knowledge in the utilization of various automated microfluidic electrophoresis instruments, lab management and sequencing library construction. At the moment, he is doing research and development into the miniaturization of the cores ChIP-seq library preparation protocol. A few of his favorite pastimes include reading classical literature, meditating, and acting in theater. After graduation he intends to pursue a career in the biotech industry.



Dylan Parker

Dylan is a graduating CMB Major with a minor in Chemistry and certificate in Bioinformatics and Genomics. Dylan has been conducting research under Dr. Hart, where he is studying the role of septins in neurological behavior of Planarian flatworms. After graduation, Dylan plans on securing a job and applying to graduate programs with the goal of obtaining his PhD. In his free time, Dylan enjoys running competitively, as he is Vice President of GVSU's Cross Country and Track Club. If he isn't in the lab or out for a run, Dylan enjoys playing video games, rollerblading, and spending time with his friends and family.



Izzat Teklu

Izzat is a 4th-year international student from Ethiopia, and he will be graduating from GVSU in the spring of 2023 with a degree in Cell and Molecular Biology and Chemistry. He has been conducting research with Dr. Hart, working on a species of planarian flatworms called *Schmidtea mediterranea*. This species of planaria has the unique ability to regenerate its entire central nervous system, including the brain, within weeks. His project involves studying the effect of knocking down PP2A-b55a, PP2twin, cullin3, NIMA, and spartin-like genes via RNAi to study the effect of these genes on regeneration and provide data that can be useful in our goal to further understand stem cell mechanisms, pathways and, neurodegenerative diseases such as Alzheimer's and Huntington's disease. He plans on continuing his education further while gaining more experience by working in research labs.



Natalie Woodland

Natalie Woodland will be graduating from Grand Valley State University in the spring of 2023 with a degree in Cell and Molecular Biology. She is also graduating from the Frederick Meijer Honors College and completed her senior project comparing the American and Italian healthcare systems. During her time on campus, she participated in computational chemistry research, where she presented at numerous conferences and became a published co-author in the scientific journal, *Molecules*, for her work on aziridination reactivity of a Manganese(II) complex. She was also highly involved in the Pre-Medical Club where she served as President during her senior year. Throughout her years at GVSU, she was an honors college mentor, a pre-med mentor, led a life-group for Campus Ministry, and served as the PR Representative for the CMB club. When not busy with her commitments on campus, she worked overnights as a nurse technician at Blodgett Hospital and volunteered her time at the Boys and Girls Club of Grand Rapids. Upon graduation from GVSU, she will attend medical school at Michigan State University College of Human Medicine and train to become a physician, hoping to work with rural and underserved populations.



Elizabeth Francis

Liz Francis is a 4th year student at Grand Valley State University majoring in Cell and Molecular Biology and minoring in Spanish. Throughout her time at GVSU, Liz has dedicated her time to academics as well as working as the CMB department stockroom employee. With her discovered interest in cell and molecular biology, Liz hopes to further her research experience in the field of pharmacy.



Hailee Wielkopolan

Hailee is a senior at GVSU graduating with a major in Cell and Molecular Biology and a minor in Criminal Justice. Throughout her academic career at Grand Valley, she has achieved placement on the Dean's list numerous semesters. Over the past year, Hailee has worked on research with Dr. Blackman focusing on testing wastewater provided by Kent County to detect the presence of human pathogenic viruses. With her laboratory experience and degree, she intends on pursuing a career as a forensic lab analyst. Due to COVID-19, Hailee was unable to complete an internship with the MSP forensic lab as that is where she hopes to begin her career. After graduation, Hailee plans to gain more experience working in a lab with the possibility of attending the Forensic Science Master's program at Michigan State University to further her education.



Mackenzie Hall

Mackenzie Hall is a Senior in the Cell and Molecular Biology program at GVSU, pursuing a Bachelors of science in Cell and Molecular Biology with a minor in Chemistry. During her Freshman year she worked with planarian worms to study the effects of the Plk1 gene on brain cell regeneration, and presented her findings to CMB faculty as well as other students. Over the course of her time at GVSU she has studied Beta Lactamase inhibitors and their impact on Beta Lactam Antibiotics, as well as created an experimental design to identify gene expression in soybean plants when put under ecological stress. More recently she has been working under Dr. Blackman to design and optimize a protocol that would allow for local health departments to more accurately identify the Mosquito species, *Aedes vexans*, which is responsible for spreading the West Nile Virus as well as canine heartworm. After graduation Mackenzie hopes to work within the field of genetic disease research, to expand on our knowledge of how genetic mutations impact our development and quality of life.



Aleksandra Makrievski

Aleksandra Makrievski is a senior at GVSU who is currently undergoing the Cellular and Molecular Biology combined master's degree with a minor in chemistry. She is currently taking a mixture of graduate and undergraduate courses and will convert to a full-time master's student this fall. Aleksandra has been the president of CMB club for the past two years and has been on the e-board for three. She enjoys connecting with students and the CMB community. Aleksandra had done research at GVSU with Dr. Staves on Chara phototropism. In addition, she worked with her mentor, Dr. Brush, on the association of CHEK2 protein and breast cancer at Wayne State connected with the Karmanos Institute. After graduation, Aleksandra is planning to complete her master's degree and start working within the biotechnology field. Future endeavors potentially include applying for PhD programs, work within crime labs, hospital lab work, or work for biotechnology companies.



Emily Sherry

Emily is a senior finishing up her Bachelors degree in cell and molecular biology and biomedical sciences. She has been involved in undergraduate research since freshman year and has been working with Dr. Reed in the Biomedical Science department on the collagen fiber arrangement of primate dura mater as it pertains to the closure of sutures. Also, she has had the opportunity to work at the Michigan State University research center in downtown Grand Rapids using bioinformatics to study genes and biomarkers for rare pediatric blood cancers as well as the isoform dynamics of the small GTPase family. Emily's highlights of her undergraduate journey include being a part of the Honors College, studying abroad in Cyprus for a semester, and getting her work on small GTPases published as a first author in the *Frontiers in Cell and Developmental Biology*. After undergrad, Emily plans to take a gap year to work in a clinical setting before pursuing an M.D./Ph.D. to study pediatric hematology oncology.



Zane Walters

Zane Walters is in his junior year at Grand Valley. He is majoring in Cell and Molecular Biology and is pursuing the combined PSM degree program. Zane is a member of the Frederik Meijer Honors College and has made the Dean's List every year. Zane worked as an undergraduate research assistant under Dr. Khoo researching micro-RNA inhibition of the protein alpha synuclein in Parkinson's Disease-like cell culture. After graduation, he plans on getting his PhD in Cell and Molecular Biology or a similar field.



Katelyn Ellis

Katelyn Ellis is a dual degree student at Grand Valley State University and a Fredrick Meijer Honors College member. She will complete her Bachelor of Science degree with a major in Cell and Molecular Biology, a Certificate in Bioinformatics and Genomics, and a minor in Mathematical Statistics in April 2023. She enrolled in the Master of Public Health program in the fall of 2022 at GVSU and will earn a Master of Public Health degree with an emphasis in Epidemiology in April 2024. Throughout her time at GVSU, she has collaborated on a research project with Professor Osman Patel to identify an effective targeted therapy for triple-negative breast cancer using anti-telomerase HIV therapies and aided underserved communities during an international medical service trip. Katelyn hopes to transition into a career in epidemiology, using data to identify ways to improve community well-being. In addition to her academic interests, Katelyn enjoys cooking, learning about other cultures through travel, and spending time outdoors or with her family.



Jurrien Wilson

Jurrien is a senior at Grand Valley State University completing her Bachelors of science in Cell and Molecular Biology and Biomedical Sciences with a minor in Chemistry. During her time at GVSU, she has worked alongside her mentor, Martin Burg, studying the developmental stages of *Drosophila melanogaster* and how age affects immunoreactivity within their reproductive organs. They had achieved placement on the Dean's list and been awarded the Kindschi Research Fellowship. Outside of their studies, she works at an assisted living home aiding the elderly with tasks that have become difficult with age, in addition to working at Helen DeVos Children's hospital and Butterworth as a Medical Scribe documenting patient's symptoms alongside a provider. Jurrien plans on taking her education beyond a bachelor's to pursue either a MD or DO at a medical school.



Carley Kenney

Carley is currently a senior at Grand Valley State University studying for her Bachelor's degree in Cell and Molecular Biology with a minor in chemistry. She now works in Dr. Martin Burg's research lab studying the physiological processes that involve the neurotransmitter histamine. Using *Drosophila melanogaster* (fruit fly) as the model organism, she more specifically looked into the female reproductive system and the effects of histamine after copulation. She has participated in extracurricular activities such as Hearts for Heroes volunteer club, intramural volleyball, and maintaining a part-time job as a Direct Care Worker in an assisted living facility. After graduation, Carley plans to take a gap year and then apply to medical school in hopes of improving the lives of others.