

BIOCORE

UNIVERSITY OF WISCONSIN-MADISON



Biocore scientist pipetting samples to run gel electrophoresis in Biocore 384



Biocore DEI Researchers with Jennifer Mnookin, UW-Madison Chancellor (middle)



Peer mentor session in progress

CONNECTING PAST, PRESENT, AND FUTURE

Another year has passed, and Biocore continues to evolve. Nevertheless, we take a moment to look back at how far we have come, reflect on the present, and think about all the possibilities for growth in the future. We are thrilled to share these enriching experiences with you, our vibrant community!



OUR DEEPEST GRATITUDE TO DR. JANET BATZLI

Congratulations Dr. Janet Batzli on an extraordinary 21 year career serving as academic staff, Interim Director, and Associate Director within the Biocore program. Janet wanted to dedicate a portion of the newsletter to express her appreciation on all the well wishes she had received upon her retirement in July 2023.

Dear Biocorians (Students, Alumni, Colleagues, and Friends),

I write this note in gratitude for our connected community and the rich learning we have experienced together over the last 21 years. I am overwhelmed with your kind notes and well wishes upon my retirement. It feels like a huge Biocore embrace!

In particular, I want to thank Ann Burgess and Jeff Hardin for giving me the opportunity to form the centerpiece of my career in Biocore; to my family at home- Sam, Maddie and Oliver for unwavering and foundational support; to my family at work- Carol Borcharding and my dear teaching partners Michelle Harris and Seth McGee for inspired practice and friendship; for outstanding students (all ~2,379 of you...yes, I counted!), hundreds of TAs, brilliant faculty and postdocs, and innumerable partners across campus for helping create the context for teaching, learning and innovation in Biocore, and for making each day that I walked into Noland Hall or up the hill to the Biocore Prairie truly count.

Now, as I look back, I am incredibly proud of the work we accomplished together; the important work that constitutes high level teaching, learning, mentoring, and leading an exceptional program. We set the standards high for student learning outcomes, for inclusion and belonging, and for pushing the boundaries of innovation and excellence in undergraduate biology education.

As I move into the next phase of life (my "Janet 2.0") I feel grounded in knowing that Biocore is in exceptional hands with Heidi Horn and Shelby O'Connor at the helm! I know that the unique features of Biocore will continue long into the future. I am forever grateful to all of you and to UW Madison for an amazing 21 years!

You can continue to find me at jcbatzli@wisc.edu where I welcome you to connect. May you have a joyous and healthy New Year 2024.



First semester (2002)



Last semester (2023)



Biocore Team (2000)



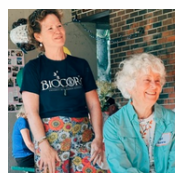
The process of science always at the core



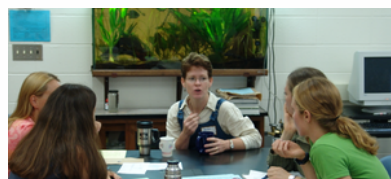
Leading Biocore teaching and learning during a pandemic



Prairie Crew (2010)



With Ann Burgess, previous Biocore Director



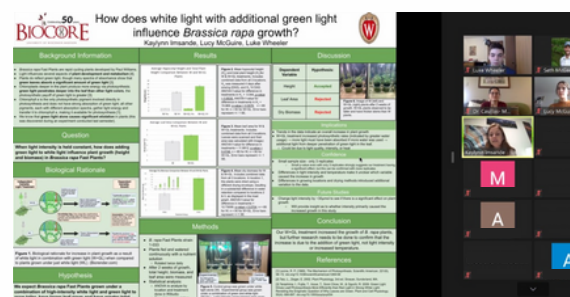
Click here to hear Janet speak about her experience teaching in Biocore on the L&S Exchange Podcast

STUDENT POINT OF VIEW: LIVING AND GROWING AS SCIENTISTS

Kaylynn Imsande, Lucy McGuire, Luke Wheeler

In the second semester of the Biocore sequence, we began an independent research project building off of research performed in our first semester of Biocore lab in Fall 2020. We were interested in how green light affected different aspects of plant growth and wanted to investigate this question remotely. Despite the limitations posed by the ongoing global pandemic, we successfully conducted authentic research to test our hypothesis. However, the most impactful aspect of the experience was the recognition of our personal development as scientists and our ability to apply the process of science iteratively and with confidence. Additionally, we became aware that "real" science can be conducted by anyone and can be performed using inexpensive and accessible methods.

As a trio, we decided to highlight this experience by writing a feature article for the journal American Biology Teacher in the spring of 2022, which was published in the November/December 2023 issue. Writing this article not only allowed us to reflect on our roles as student researchers, but also provided us valuable experience in navigating the peer review and publication process. While it was not our initial goal to produce publishable work, as we progressed we began to realize the value of our experience and the insight it could provide other undergraduates and instructors. The lessons learned from this experience continue to inform our scientific careers today, and we encourage both past and present Biocore students to be mindful and intentional about the impact of their Biocore learning experience on their future careers.



Students presenting at the Undergraduate Research Symposium during online class instruction in 2021

STUDENT SPOTLIGHT: LAUREN CORTRIGHT

Lauren is a Biology and Religious Studies major with certificates in Biocore and Folklore and graduating in Spring 2025



Looking for monarch caterpillars



Prairie Interns 2023 (Lauren & Ronan)



A local birder divulges a few of his birding secrets

The Biocore program gave me the opportunity to extend what I learned in the classroom setting into my co-curriculars and my role as a prairie intern. Through integrating academics and community in these roles, I deepened my understanding of how I can support others. During my first year, I learned how to effectively navigate academic challenges and better manage my time. Bringing this mindset to my role as a classroom and peer mentor this year, I help facilitate first-year Biocorians transition not only with class content, but also encourage them to discover their own learning strategies in weekly mentoring sessions.

I was inspired during my sophomore year to delve deeper into the science of my group's 382 lab project, reaching out to the U.S.'s leading *Amyntas agrestis* expert and Madison local to ask for help in classifying worms sampled on the prairie. A fascination with ecology, encouraged by mentors in the curriculum, led me to work at the Biocore prairie this past summer.

Serving as a Biocore prairie intern was transformative. One enduring memory from my summer at the prairie was witnessing purple martins communicate. When I took a moment to observe their interactions, I began to understand just how complex their vocalizations were. Over the months, Ronan, my prairie intern co-worker, and I became familiar with the birds' common syllables and movements, how they moved as a group at times and alone at others. The more I watched, the more I appreciated the intricacies of their community and the magnitude of evolutionary precision which allowed them this success.

The prairie, I realized, serves as a natural classroom for both UW students and others. From joggers, to painters, to children - these people all found a place at the prairie. I found the work of restoration to be gratifying, knowing that not just future Biocore students, but the entire Madison community may enjoy that little Wisconsin sanctuary. The Biocore program, centering community in the learning process, has allowed me to contextualize my learning experiences amongst peers and within Madison.

DIVERSITY, EQUITY, INCLUSIVITY (DEI) - OUR CONSTANT COMMITMENT

DEI INTERNS

This year, we welcomed three new DEI interns (Brian Zheng, Nathaniel Hanson, Nayef Hamdan) who embedded DEI comprehensively into the resources available to students. Throughout the summer, interns compiled resources addressing both academic and mental well-being.

Biocore seeks to introduce students to the fascinating fields of biology and it strives to pave the way for leadership, outreach, research, and so much more! Previous students commented that it is challenging to navigate all the resources available in Biocore and on campus. The goal of our DEI interns was to create a platform where resources could be accessed easily and equitably by all students.



Summer DEI Interns



Students utilizing resources via brochure



Interns leading the Fall teaching workshop for students and instructors

BIOCORE ALUMNI PANEL

Biocore Peer Advisors hosted two in-person alumni panel events this year, aiming to enrich students' understanding of available career paths and research experiences following graduation. Panelists focused on careers in research, education, industry, and medicine.

Huge thanks to our alumni for sharing their experiences and joining us back in Noland Hall (I am sure that was quite a trip down memory lane).



First alumni panel of 2023



Women in STEM



Call for Alumni!

We are eager to welcome alumni to join next year's panel. If you're interested, please email Dr. Heidi Horn (hhorn@wisc.edu)

WELCOME DR. HEIDI HORN - OUR NEW ASSOCIATE DIRECTOR!

I may be a familiar face to some readers – I was a Biocore student myself (too many years ago to admit), a graduate TA for Biocore, and a teaching postdoc in the program. I earned my PhD in 2018 at UW-Madison studying host-microbe symbioses, and I spent the last several years as an assistant professor at Edgewood College. I am honored to be joining the Biocore team again.

My goal as Associate Director is to maintain the rigor of Biocore and to continue progressing the program into the future. I aim to incorporate more bioinformatic and computational experiences into our courses, develop and collaborate an evolutionary experience in the Galapagos Islands, and provide a framework for students to develop mental and emotional resilience. I look forward to meeting and working with alumni and contributors as we grow our program together.



AWARD TO OUR BIOCORE INSTRUCTOR

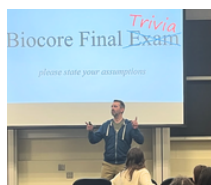
Congratulations to Biocore lab instructor Seth McGee who was awarded the L&S Mid-Career award for his outstanding work in teaching over 21 years.



BIOCORE 2023 GRADUATES



We are so excited to be celebrating 68 Spring 2023 Biocore graduates!



FROM THE DIRECTOR

Hi Biocore Friends!

At this time of year, I like to reflect on the many Biocore students simultaneously engaging in scientific inquiry. The annual rhythm of student transitions through Biocore is beautiful. We aim to help all our students develop into independent thinkers and learners. I hope that many alumni reading this newsletter are fondly remembering that time from their lives too (insert sappy music....)!

Transitions are not just for students but also happen among the staff. We said 'see you later' to our long-time Associate Director, Dr. Janet Batzli, in Spring 2023. Her influence on the program will continue for many years to come. Janet kindly handed off the baton to our new Associate Director, Dr. Heidi Horn (see her Welcome in this Newsletter), and we are excited to see the innovative ideas she will bring to the program in the next few years.

I also want to thank the fantastic staff who drive this program forward, the faculty who teach in it, the graduate students who work closely with Biocore students, and all the peer and classroom mentors and advisors. We appreciate all the past alumni engagement and welcome even more participation in the coming year. This could include serving on STEM career panels, joining a co-curricular activity, or answering questions about life from current Biocore students. Students, staff, faculty, and alumni keep the wheels turning on this program, and we rely on everyone's dedication and effort. So, a huge THANK YOU, and here's to an exciting 2024!

--Shelby O'Connor



left to right: Shelby O'Connor, Heidi Horn, Diana Tapia Ramon, Anna Kowalkowski, Carol Borchering, Seth McGee

Contact us to connect with students through **Alumni networking** or **Give to Biocore** @ biocore.wisc.edu



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