INSIDE THIS ISSUE...

3 Welcome from CMB Chair
   Introduction by David Wassarman

5 Exceptional Thesis Award Recipient
   Shelby Lyon profiles awardee Sarah Neuman

7 CMB Lab Photos

10 Professional Development Committee

11 Old Newsletter Comics

12 Lab Highlight: The Newmark Lab
   Rosa Mejia-Sanchez and Umair Khan

14 Alumni Spotlight
   Allen Bateman

16 Interning as a CMB Student
   Ryan Kessens

18 Annual Student Retreat Photos

20 Student Publications

22 Honors and Awards

25 Alumni Career Updates

26 Other Alumni Updates

28 Faculty Photos

29 Campus News

30 Thesis Defenses

31 Coordinating Committee

32 Keep in Touch with CMB!
Welcome from the Chair

Hello, CMB alumni, students, and faculty, and welcome again to the CMB Transcript. After a slow start to summer, we are finally ready to head to the Terrace and enjoy the warm weather. If you happen to visit Madison this summer, you might notice that many life-size Buckys have popped up around town. One night in May, 85 “Bucky on Parade” statues appeared around campus and the city, each painted by different artists. The public art event will continue until September, with an auction and proceeds going to charity (much like the Cow Parade, which you might remember from 2005).

It has been a busy, productive year for CMB, with many CMB community members making interesting new discoveries and receiving prestigious awards. This year, we welcomed a promising new class that includes 14 rotating students and three MD/PhD students. We are delighted that Sarah Bierke, who served temporarily as a recruiting assistant during the past two years, has officially joined the CMB office as a permanent staff member. Sarah brings a breadth of experience and talents, and is a wonderful addition to our team.

After much consideration, this May the CMB Coordinating Committee decided to eliminate the admissions GRE requirement. CMB will no longer require or consider any GRE scores submitted as part of its admissions review. Following a review of data indicating that the GRE significantly disadvantages certain groups such as women, students from underrepresented minority groups, and students of lower socioeconomic status, the Coordinating Committee is confident that this decision will help to make CMB admissions more equitable. CMB joins peer programs like Harvard Systems Biology, Johns Hopkins Cellular and Molecular Medicine, MIT Biology, University of Washington Biology, and several biological science programs at the University of Michigan and in the University of California system in eliminating the GRE requirement.
During the past year, we undertook a large alumni update project in an attempt to connect current students to alumni in a variety of engaging careers. The CMB Professional Development Committee will use this information to plan panels and seminars with alumni, so that current students can benefit from the diverse career path experiences of alumni. If you have any additional updates to share or are interested in participating in a professional development event, please contact us at cmb@bocklabs.wisc.edu.

In this edition of the CMB Transcript, you will also read about Exceptional Thesis Award recipient Sarah Neuman, who was praised by the CMB Awards Committee for her intellectual fearlessness and outreach, science communication, and mentoring accomplishments. Rosa Mejia Sanchez shares a profile of the Newmark Lab, which studies how planarians regenerate entire new animals from tiny fragments of the body. We learn why CMB alumnus Al Bateman credits his experience doing a CPEP Clinical and Public Health Microbiology Fellowship with finding his dream job as Assistant Director of the Wisconsin State Laboratory of Hygiene, and how current student Ryan Kessens found an internship at Promega. Finally, enjoy some old photos and comics we recently unearthed from the CMB basement storage room (affectionately called the “roach room”), as well as photos from this year’s activities and other updates. We hope you are as inspired as we are by the CMB community’s many accomplishments.

David A. Wassarman
CMB Program Chair
Persistence, discovery, and creativity are important themes to Sarah Neuman, the 2017 winner of the CMB Exceptional Thesis Award. This award is given in recognition of the distinguished work contributed by a student during the completion and defense of their thesis. In honor of her thesis, “Characterization of Hobbit, a novel and conserved regulator of intracellular trafficking during regulated exocytosis,” Sarah has received a plaque, $250, and her name on a plaque in the Bock Penthouse.

Sarah is a Wisconsin native who has always liked science. She can trace her specific love for biology back to a seventh-grade assignment on the classification of living things. Even in that early project, Sarah enjoyed more than just the scientific facts. Learning the proper Latin notation and drawing up tidy groupings of organisms appealed to Sarah’s artistic sense in the same way that music had always done. So it was no surprise that Sarah pursued both passions as an undergrad at Lakeland University, where she double-majored in biology and music. Juggling these two distinct subjects forced Sarah to develop the time management and creative thinking skills that would set her up for success in grad school. She completed her first research project studying yeast prions while in undergrad and found she enjoyed the hands-on experience working at the bench. Sarah also had a strong interest in teaching and knew that if she wanted to work at the college level, she would need a Ph.D. Thus, grad school was the perfect fit for her scientific enthusiasm and aspirations.

Because Sarah wasn’t set on any particular research topic, she looked at different biology Ph.D. programs across the country. During her interview trip to Madison, she liked the students and professors she met and could picture herself living happily in the city. But CMB’s major draw was the sheer number of research options. Sarah recalls thinking the program was the only one that “had enough trainers and areas where I could really explore my interests.”

Sarah ended up joining Arash Bashirullah’s lab and began a thesis project studying a previously uncharacterized gene that is conserved across species from yeast to humans. In Drosophila, mutations in this gene resulted in tiny flies. Since the gene hadn’t been studied in any organism before, Sarah got the naming rights. She chose “hobbit,” a moniker inspired by both the dwarf phenotype and her love of Tolkien.
But naming the gene was just the beginning of Sarah’s own scientific journey to discover how hobbit functioned. Sequence analysis didn’t reveal any predicted motifs that looked like any known protein domains, so Sarah had to rely on educated guesses based on the phenotypes she was seeing to design her experiments. Along the way, there were many false starts and promising leads that led to dead ends. Sarah chose to be persistent and kept trying new things, often in the face of her own self-doubt. The support of her lab-mates, PI, and fellow CMB students bolstered her confidence through the ups and downs of that initial hunt for a mechanism. The challenging nature of her search also motivated her to persevere when things didn’t work. Sarah says, “My favorite part of my project was that I got to be an explorer. I actually got to find something that’s both new and really cool.”

“My favorite part of my project was that I got to be an explorer.”

After many rounds of genetic interaction and rescue experiments, Sarah had a breakthrough. It turned out that flies with the mutant phenotype had an insulin secretion defect and that hobbit was required for normal, regulated exocytosis. The moment she first witnessed the defect was exhilarating and emotional. Sarah says there might have even been a few tears shed in the confocal microscopy room out of pure happiness. None of these discoveries would have been possible, though, without her determination, and Sarah advises other CMB students to develop resilience in response to failure. “The questions that are the most important ones to answer are often the most difficult. So you just have to push through and be persistent in order to find those important answers.”

Sarah’s thesis work is not the only exceptional thing about her grad school experience. Along the way, she’s mentored eight undergrads, traveled to Nazarbayev University in Kazakhstan to advise students on the grad school application process, completed an HHMI teaching fellowship (now the WISCIENCE Teaching Fellows program for current CMB students who are interested), and developed a “build your own fly” station for the Wisconsin Science Festival. In talking to Sarah, it is clear that these accomplishments were driven more by her creative interests than ambition. She says, “now that I only play my flute for fun, public speaking and teaching have become my new stage and a way to get that performance fix.” These extracurricular opportunities also taught her to look at science communication as a performance which, in turn, made it easier to craft her own data into compelling stories.

Today Sarah is continuing her research on hobbit as a postdoc in the Bashirullah lab. She eventually plans to transition to a staff scientist role where she can blend her desires to work at the bench, teach undergrads, and contribute to the writing of grants and papers. Unlike most students who choose to remain in academia, Sarah could never be content sitting in an office while others hand her data. Instead, Sarah will do what she’s always done: use her love of primary discovery to explore the difficult, but important questions that remain.
CMB LAB PHOTOS
Photos by: Becky Reese, CMB Graduate Student

Sydney Thomas
(Denu Lab)

Dan Tremmel
(Odorico Lab)

Bill Bement, Ani Varj abedian, Adriana Golding, Zac Swider

Katie Mueller
(Saha Lab)

Becky Reese
(Alarid Lab)

Sarah Rempel
(Gomez Lab)

Jenn Borchardt
(Czajowski Lab)
CMB LAB PHOTOS
Photos by: Becky Reese, CMB Graduate Student

Tamara Chamberlin (Arendt Lab) gives Chewy a lesson in tissue culture

Debayan De Bakshi (Miyamoto Lab) spends a chilly afternoon in the cold room

Will Olson (Knoll Lab) takes a break from research to get some puppy therapy with Tilly

Anna Heffron (O’Connor Lab) showing off proper PPE

Lauren Hillers (Arendt Lab) feels the pressure from Darth Vader
CMB LAB PHOTOS
Photos by: Becky Reese, CMB Graduate Student

Maz Bradberry
(Chapman Lab)

Zac Swider
(Bement Lab)

Kat Braun
(Friedrich Lab)

Ryan Denu
(Burkard Lab)

Ani Varjabedian
(Bement Lab)

Anna Heffron & Kat Braun
A Word from the CMB Professional Development Committee:

As grad students, it can be challenging to understand the range of available careers, and more challenging to prepare for non-academic careers from within academia. Students have found that connecting with alumni is an excellent way to learn about possible careers while also connecting with the CMB community. To help facilitate connections between students and alumni, CMB students on the Professional Development Committee recently hand-assembled a searchable alumni database using LinkedIn data for alumni who graduated between 2007 and 2011. In aggregate, this anonymized data shows how previous classes of CMB students entered the workforce, helping current students to map their own professional development. In order to expand their professional networks, a few students have also participated in a “beta test” to use this alumni search tool to network with alumni via LinkedIn. Our students have found networking with alumni to be a useful and rewarding experience.

Having demonstrated the effectiveness of student-alumni networking, our next goal is to enable CMB students to network with any CMB alum available on LinkedIn. To that end, the committee is collaborating with graduate students from programs across campus to turn this hand-assembled LinkedIn search tool into a UW firewall-protected, programmable search engine. Based on our progress, we plan to make these tools available to the CMB community before the end of the year. We hope this project will serve to strengthen ties within the CMB family and help our students to translate their broad talents into engaging careers post graduation.

We are excited to see how 2018 will lead to the continued success of current CMB students, staff and alumni.

From the CMB Professional Development Committee, we wish you the best.

Pictured Left to Right: Shane Bernard, Lauren Hillers, Gul Kaur, Christi Binkley, Becky Reese, Sarah Wilson, and Will Olson
Lauren Weitkamp/UW-Madison
Need a laugh? Take a CoMedy Break!
These comics were found in 1991-1992 issues of the Alumni Newsletter
Newmark Lab:
Bringing planarians into the molecular age
by: Rosa Mejia-Sanchez and Umair Khan, CMB Graduate Students

Phil Newmark’s lab uses planarians to answer fundamental questions about regeneration, stem cells, and germ cell biology. Planarians have intrigued scientists for centuries due to their remarkable regenerative capabilities. H.V. Brøndsted described that T.H. Morgan, father of Drosophila genetics, tried to identify how the structure of the tissue enabled planarian regeneration. However, “failing to do so was one of the reasons why he turned to genetics”1. Stem cells called neoblasts, which are distributed throughout their body, give planarians the ability to regenerate from any fragment. Although the field is beginning to understand how planarians regenerate, there are still many gaps left to be filled (however, we won’t abandon our valued worms).

Phil first became interested in planarians in his freshman biology class. This interest was regenerated as a graduate student when reading a paper in journal club2. After completing his PhD, he followed his curiosity and moved to Barcelona, Spain, to work in a planarian lab. At the time there were no planarian labs in North America; therefore, Phil gathered planarians in thermoses and brought them to Alejandro Sanchez Alvarado’s lab at the Carnegie Institution for Science in Baltimore, MD. Together with Alejandro, Phil began to establish a molecular toolkit including RNA interference to probe planarian biology. Using these tools, biologists began to worm out answers from planarians and understand how they regenerate any part of their body (from brain to germ cells)!

With tools in hand, Phil established his laboratory at the University of Illinois at Urbana-Champaign. Through the years the lab opened their own can of worms. Asking questions such as how planarians regenerate their germ cells, which only a few animals can do, will help understand the causes of infertility or germ cell tumors. Taking lessons from planarian biology, the lab expanded toward exploring parasitic flatworms such as schistosomes and tapeworms. Living in blood vasculature, schistosomes are respon-
sible for causing schistosomiasis, a neglected tropical disease which affects millions of people in developing countries. Schistosomes lay hundreds of eggs per day in humans; these eggs get lodged in organs and irreversibly damage the tissues. Consequently, the reproductive output of these worms is one cause of pathogenicity and transmission of the disease. Former post-doc, Jim Collins, showed schistosomes possess somatic stem cells that presumably contribute to prolonged survival within their host (these parasites can live for decades). Therefore, by understanding the biology behind flatworm reproduction and stem cells, potential novel ways of targeting these parasites will be uncovered.

In August of 2016, with thermoses full of planarians, the lab arrived at the University of Wisconsin-Madison and massively expanded their planarian colonies at the Morgridge Institute for Research. At UW the lab enjoys the exciting science occurring on campus so much that Phil partnered up with professor Anne Griep to organize the Developmental Biology Student/Postdoc seminar series. In addition, assistant scientist, Melanie Issigonis, also initiated the Morgridge/WID Seminar Series (Contact Krista Pham, KPham@morgridge.org, if interested in either seminar). The lab looks forward to getting to know the people behind the science at the happy hours that follow. We highly encourage everyone to attend - there's free food and beer!

With experiments up and running, and planarians regenerating, we are excited to continue to learn about these remarkable animals in their new home. Along the way we also enjoy teaching the public, especially the young scientists in the community, about planarians.

For more information about the Newmark lab and research, visit: https://morgridge.org/research/regenerative-biology/newmark-lab/

Alumni Spotlight: Allen Bateman

Path to Laboratory Directorship in Clinical Microbiology: The Career Trajectory of Allen Bateman, CMB 2010. By Sarah Rempel, CMB Graduate Student.

I am often surprised by just how many career paths one can take with a PhD in cellular and molecular biology. When I was applying to graduate school, I knew of only two paths: research in academia or research in industry. Since being in CMB, I’ve learned of dozens more: patent law, science policy, journalism, data science, and science outreach, just to name a few. Thanks to Shane Bernard’s research and tool development related to the career paths of CMB alumni (see article on page 10), it’s now easier than ever to see what alumni are doing and connect with alumni who are where you want to be.

A few weeks ago, I learned about yet another path: directing a laboratory in clinical microbiology. Al Bateman, 2010 CMB alumnus, was excited to share his path to becoming Assistant Director of the Wisconsin State Laboratory of Hygiene. He wanted to let current and former CMB students know about a fellowship program and career option he only learned of years after leaving UW.

In retrospect, Al’s consideration of medical school and interest in seeing direct application to his work indicated that a clinically-related field would be a good fit. He was fortunate to have an advisor, Dr. Chris Olsen, who recognized this interest in public health and was affiliated with the Masters of Public Health program at UW-Madison. Dr. Olsen encouraged Al to pursue a Masters of Public Health after completing his PhD. During the year of working on that Masters, Al continued to work in the Olsen lab as a post-doc. While the extra degree was unnecessary for his ultimate Lab Directorship path, he found “it was a great way to burn a year” while finishing up a paper and deciding what to do next.

As seems to be so common in career path stories, Al’s path continued to meander from there. He found himself needing to find a job in Zambia to follow his wife, who had secured a post-doc there. Through his cousin’s PI’s husband, he learned of a Fogarty NIH Post-Doctoral Global Health Fellowship that fit the bill perfectly. (It pays to work that network!). Unbeknownst to him at the time, this experience ended up being pivotal in Al’s journey.

Al’s role in Zambia was supposed to be part epidemiology and part research at the Centre for Infectious Disease Research, but the space he was in also housed the clinical lab. When an inspection found that the clinical lab’s diagnostic testing protocols and documentation procedures were not meeting expectations, the entire building was at risk of being shut down, which would have included Al’s research. As an experienced researcher (if not actually qualified for clinical laboratory management), Al ended up helping develop protocols, improve documentation, and manage personnel in order to bring the lab in line with expectations. While he felt unqualified and unprepared for this challenge, he gained valuable lab management experience that he credits with landing him his next position: a Committee for Postgraduate Educational Programs (CPEP) Clinical and Public Health Microbiology Fellowship.

Al Bateman, PhD 2010, Christopher Olsen Lab
While still living in Zambia, Al flew back to the United States for the Association of Public Health Labs annual meeting. During lunch one day, someone mentioned having done a CPEP Fellowship, which immediately caught Al’s attention. The deadline was only a month away, but he quickly pulled together an application and was accepted to the fellowship at the University of Washington. Al credits those few months of intense clinical personnel management in Zambia for securing his spot, and he highly recommends anyone interested in a CPEP Fellowship to get some exposure to or experience in a clinical lab.

The American Society of Microbiology runs the CPEP Clinical and Public Health Microbiology Fellowships. There are twenty programs around the country, all affiliated with hospitals or universities. Each program takes only one or two applicants per year (with some taking one applicant every other year). Application deadlines vary for the different locations, with deadlines ranging from July to January. While not the only path to a clinical microbiology lab directorship, a CPEP Fellowship is certainly the fastest and most straightforward.

CPEP Fellowships are two year programs, with the first year focusing on knowledge development and training through rotations in different types of labs. The University of Washington CPEP program has a large number and variety of labs, which gave Al a great breadth of knowledge. It also allowed him to see a number of different management styles and pick the best aspects of each director’s style to emulate. Additionally, the CPEP Fellowship sets fellows up to pass the American Board of Medical Microbiology exam, which is required to run a clinical laboratory.

After the CPEP Fellowship, Al landed his dream job as Assistant Director of the Wisconsin State Laboratory of Hygiene. He does a lot of education of clinicians and continues to enjoy that his work directly impacts patient lives.

During the second year, fellows do research, give lectures, and go on call doing laboratory and clinical consultations. As an example of a consultation, a clinician may ask Al for help in interpreting lab results. Or they’ll ask some variation of “Will this drug work against this bug?” Al would then answer based on his previous knowledge and experience or look through the literature, talk to experts, and consult textbooks to find the answer. This aspect of educating clinicians is one of Al’s favorite parts of his current job. Additionally, he loves that his knowledge and expertise has direct applications on patient care. A doctor will ask about a dosing schedule, Al will find the answer, and then that information is immediately translated into change in patient treatment and care. Al finds this much more personally fulfilling than basic research which could take years or decades to impact patient lives, if it ever does.

After the CPEP Fellowship, Al landed his dream job as Assistant Director of the Wisconsin State Laboratory of Hygiene. He does a lot of education of clinicians and continues to enjoy that his work directly impacts patient lives. His role also includes a lot of contact with the Centers for Disease Control and state epidemiologists, requiring networking and communicating with people with a large variety of backgrounds and different expertise (this is where he finds his CPEP fellowship experience to be especially invaluable). Al also gets to stay up-to-date with the recent advances in clinical microbiology as new diagnostic tests begin to be implemented in the lab.

If directing a clinical microbiology laboratory sounds interesting to you, whether you’re a current student or an alumnus, a CPEP Fellowship may be a great next step. While most of the CPEP Fellowships are in microbiology, there are a few immunology programs as well. For more information, including details on application requirements and deadlines, see the American Society for Microbiology CPEP website: https://www.asm.org/index.php/about-cpep.
From Alpha to (pr)Omega: A Tale of My Internship in Industry
by: Ryan Kessens, CMB Grad Student, Class of 2013

When I decided to apply for graduate school, my primary motivation was the love for research I developed in my undergraduate lab. Performing experiments and making sense of the results was an intellectual challenge that often frustrated but occasionally exhilarated me. After a few years of graduate school, I still enjoyed the challenges of bench science but came to realize that I also enjoyed directing the research of others through my mentoring experiences. Like most of us, I was well aware of the opportunities available to direct research in government and academic labs but was less familiar with the opportunities available in industry. Additionally, the idea of undertaking a post-doc to obtain these positions was unappealing to me for a variety of reasons (financial being one of them!). I ultimately decided that the only way to see what it was like on the “other side” was to obtain an internship and spend some time as a research scientist in industry.

Deciding where to do my internship was one challenge; getting it was another.

The decision of where to do an internship, or for that matter where to go to graduate school or get your first job, is a complex one based on factors unique to the person making the decision. Do I stay local or leave town? Work at a big or small company? Try something different or do something that I most likely see myself doing in the future? For me, the decision boiled down to two factors. I needed to remain in Madison, and I wanted to experience what it was like doing research at a mid to large size company. These factors led me to Promega, a mid-size biotech company located in Fitchburg, WI.

Deciding where to do my internship was one challenge; getting it was another. This is where I had to utilize an often neglected skill: networking. Luckily, meeting people who currently or previously worked at Promega was fairly easy since it is a local company that frequently hires from UW. My connection was a former scientist at Promega who currently owns a company providing sequencing services to academic labs. As one of her first customers, I got to know her well and felt comfortable asking if she knew any scientists at Promega I could talk to about getting an internship. I informed her that I wanted to work in R&D, and I was open to working with anyone on any project that was available. With her recommendation, I got an interview for a research scientist intern position that hadn't even been posted yet! This experience highlighted the importance of utilizing my network to get considered for jobs before they are made available to the general public.

During the four-month duration of my internship, I was supervised by a senior scientist who led a small group of researchers in the Assay Designs group of R&D. My project was focused on developing a high-throughput screening assay to monitor autophagy in mammalian cell lines. The assay had already been used successfully in two human cell lines by stably expressing the reporter, but customers were interested in utilizing the assay in other cell types. My goal was to develop a system to transiently express the reporter in multiple cell types using an insect virus that had been modified to express proteins in mammalian cells. As a proof-of-concept, I successfully expressed and implemented the autophagy reporter in the two cell lines that were being used for stable expression. I was also able to express
the reporter in two cell lines that are notoriously difficult to transfect (exhilaration!). However, the assay did not respond appropriately to known autophagy regulators in these cell types (frustration!).

The internship culminated with a presentation of my findings to representatives from Promega’s German branch and the entire Assay Designs group on my last day. Through my experiences at Promega, I was exposed to techniques such as cell culture, mammalian cell transduction, and cell-based assays that I never would have had the chance to perform in my lab on campus. While the research skills I gained during my internship were invaluable, the experiences I had away from the bench were just as impactful. One of my biggest goals was to get to know the scientists and learn about their career paths. This was best accomplished by having lunch away from my office space and in the cafeteria (getting there early was a must on sushi Friday). While having lunch-time conversations with people 10-40 years older than me seemed like a daunting task, it wasn’t long before I was accepted as one of their own and even got to listen in on some of the company gossip.

Perhaps the most impactful experience was the opportunity to sit-in on a product development meeting for the assay I was working on. Representatives from sales, marketing, production, and R&D were led by the product manager who orchestrated the most productive 45-minute meeting I have ever been a part of! The sales team reported on customer feedback, marketing discussed their strategy for selling the assay, production updated the group on the design of a plasmid that would be used in the assay, and R&D prioritized experiments necessary to address customer feedback and meet product expectations. In that short session, I experienced all facets of product development and gained a deeper understanding of the career paths available to scientists in industry both at the bench and away from it.

In summary, my internship gave me the opportunity to experience exciting research being conducted in a stimulating environment outside of academia. This was made evident to me every day by the passion exhibited by scientists at Promega when they spoke about products they were developing, manuscripts they were writing, or the latest scientific discoveries. However, I also learned that company culture and investment in R&D can have a big impact on how research is conducted at a company. Many of the scientists I spoke with had great experiences at other companies before they joined Promega while others complained of stagnant or competitive environments in their previous jobs. This is where the value of doing an internship can be of real importance, as it gives you the opportunity to “test drive” a company you think you may want to work for some day. For anyone considering a career in industry, I highly recommend taking the opportunity to do an internship even if it’s only for a month or two. Make sure to utilize your CMB alumni network and feel free to contact me if you have any questions or would like advice.

**Good luck!**
HEIDEL HOUSE STUDENT RETREAT 2017

“Best Poster” Winner:
Sid Jain, CMB Class of 2013

“Best Talk” Winner:
Adriana Golding, CMB Class of 2013

Photos by Francisco Barros, CMB Graduate Student

First year students (above)

Third year students (below)

CMB alumni Joseph Bruckner and Brian Keppler joined the retreat to share some career wisdom
“Golden Pipette” Winners: (left to right) Brian Keppler (CMB alumnus), Christi Binkley, Zach Morrow, Tamara Chamberlin, Tricia Windgassen, and Tony Dawson

“Best Talent” Winners


STUDENT PUBLICATIONS


Students

Christiana Binkley, Class of 2017, Landick Lab
Science and Medicine Graduate Research Scholar

Kartik Gupta, Class of 2014, Liu Lab
2017 American Heart Association Predoctoral Fellowship

Amelia Haj, Class of 2016, O’Connor Lab
Fellowships at Auschwitz for the Study of Professional Ethics

Diya Binoy Joseph, Class of 2013, Vezina Lab
Gregory F. Daniels Travel Award for her poster presentation at the UW-Madison Stem Cell & Regenerative Medicine Center Fall Conference

Mitchell Ledwith, Class of 2016, Mehle Lab
NSF Graduate Research Fellowship Awardee

Shelby Lyon, Class of 2013, Kalejta Lab
Completed AAAS Science and Engineering Mass Media Fellowship - Summer 2016 Cancer Biology Training Grant

Katie Mueller, Class of 2016, Saha Lab
Gregory F. Daniels Outstanding Poster Presentation Award from the SCRM - Fall 2017 Student Leadership Council for the NSF Engineering Research Center for Cell Manufacturing Technologies
NSF Graduate Research Fellowship Awardee

Brandon Phan, Class of 2017, Reed Lab
Science and Medicine Graduate Research Scholar

Ani Varjabedian, Class of 2016, Bement Lab
NSF Graduate Research Fellowship Honorable Mention

Ellen Wagner, Class of 2017, Gasch Lab
NSF Graduate Research Fellowship Awardee

Sydney Thomas, Class of 2015, Denu Lab
Second Place in 2017 UW-Madison Three Minute Thesis Competition
Faculty

Richard Amasino
WARF Named Professorship

Jean-Michel Ané
Kellett Mid-Career Award

Anjon Audhya
UW2020 Project for Advancing CRISPR-mediated Genome Editing Technology at UW-Madison to Model Human Disease

Qiang Chang
Appointed Director of the Waisman Research Center

Erik Dent
H.I. Romnes Faculty Fellowship

Audrey Gasch
Vilas Faculty Mid-Career Award

Ying Ge
H.I. Romnes Faculty Fellowship

Simon Gilroy
Emil H. Steiger Award for Distinguished Teaching

Richard Gourse
Hilldale Award Winner

Chris Hittinger
Vilas Faculty Early Career Investigator Award

Meyer Jackson
UW2020 Project for Toxoplasma Infection and Brain Function

Robert Landick
Elected to American Academy of Arts and Sciences

Gail Robertson
Kellet Mid-Career Award

Qiang Chang was appointed Director of the Waisman Center
UW-Madison
Philip Romero
Shaw Scientist Award

Krishanu Saha
UW2020 Project for Gene Editing Nanomedicines to Correct Pathogenic Mutations in Retinal Pigmented Epithelium

Ahna Skop
College of Agricultural & Life Sciences (CALS) Equity and Diversity Award

Ahna Skop accepts the CALS Equity and Diversity Award from Dean Kate VandenBosch
Michael P. King/UW-Madison CALS

Michael Sussman
UW2020 Project for Acquisition of an Illumina NovaSeq Next Generation DNA Sequencer for UW-Madison

Karen Wassarman
Appointed College of Agricultural and Life Sciences (CALS) Associate Dean for Academic Affairs

The Game of T-Cells
*Chronicling the Epic Battles Between the Immune System with HIV, Other Threats, and Sometimes Itself*

If you like immunology or Game of Thrones, or both, you might be interested in this website created by CMB faculty trainer Rob Striker!

“Inspired by the hit TV show Game of Thrones, our goal is to share research from labs across the world about topics within the HIV field that relate to the balance between different aspects of the immune system! By sharing ideas and current HIV topics all in one place, we hope to help sway the odds in the fight against HIV and empower those living with the virus. Finally, while doing so, we hope to build a community that promotes and embraces ideas to combat this disease while also providing some entertainment.”
ALUMNI JOB UPDATES
Congrats to these alumni who started new jobs or got promotions this past year!

**Teresa Abraham** - Director, Scientific and Technical Partnerships at Click Diagnostics  
PhD 2007, Daniel Loeb Lab

**Catherine Albright** - Senior Research Associate I at Exact Sciences  
MS 2013, William Sugden Lab

**Allen Bateman** - Assistant Director at Wisconsin State Laboratory of Hygiene  
PhD 2010, Christopher Olsen Lab

**Adam Bayless** - Post-Doc at Tufts University with the Mike Levin and Kelly McLaughlin Labs  
PhD 2017, Andrew Bent Lab

**Emily Beebe** - Scientist at Illumina  
PhD 1997, Richard Vierstra Lab

**Jeff Coller** - Professor and Director of the Center for RNA Science and Therapeutics at Case Western Reserve University  
PhD 2000, Marvin Wickens Lab

**Viswa Teja Colluru** - Product Manager, Discovery & Innovation at Recursion Pharmaceuticals  
PhD 2016, Douglas McNeel Lab

**Nicholas Davenport** - Technical Application Scientist II, Thermo Fisher Scientific  
PhD 2016, Bill Bement Lab

**Xin Gao** - Post-Doc at Stanford University  
PhD 2010, Shigeki Miyamoto Lab

**Chris Hooper** - Senior Associate Research Scientist at Abcam  
PhD 2016, Shigeki Miyamoto Lab

**Emily Jobe** - Adjunct Assistant Professor of Biology at University of Cincinnati  
PhD 2011, Xinyu Zhao Lab

**Scott Johnson** - Senior Vice President at Exact Sciences  
PhD 1997, John Mansfield Lab

**Julie Keating** - Research Health Scientist at Veterans Affairs of Madison  
PhD 2012, Robert Striker Lab

**Antonis Kirmizis** - Assistant Professor at University of Cyprus  
PhD 2004, Peggy Farnham Lab

**Dominic Co** - Faculty at University of Wisconsin Medicine  
PhD 2004, Matyas Sandor Lab
**ALUMNI JOB UPDATES (continued)**

**Dhananjay Nawandar** - Scientist at Flagship Venture Lab 46, Inc.  
PhD 2017, Shannon Kenney Lab

**Kathryn Richmond** - Director, The Paul G. Allen Family Foundation  
PhD 1997, Tom German Lab

**Jessica TeSlaa** - Faculty Associate in Service Learning at UW-Madison WISCIENCE  
PhD 2014, Yevgenya Grinblat Lab

**Kelly Tyrrell** - Senior Science Writer, UW-Madison University Communications  
MS 2011, Kurt Amann Lab

**Cary Valley** - QC Scientist at Addgene  
PhD 2015, Marvin Wickens Lab

**Tam Thanh Van** - Director, Clinical Microbiology at Harbor-UCLA Medical Center  
PhD 2007, Laura Knoll Lab

**Regina Vidaver** - Section Chief, Chronic Disease Prevention at Wisconsin Department of Health Services  
PhD 1999, David Brow Lab

**Zhao Wang** - Senior Scientist at Merck Research Laboratories  
PhD 2012, Edwin Chapman Lab

**Xingmin Zhang** - Post-Doc at The Jackson Laboratory in Genomic Medicine  
PhD 2017, Thomas Martin Lab

---

**Other Alumni Updates**

- **Adam Bayless** (PhD 2017, Andrew Bent Lab), who recently graduated and started a job at Tufts University, has a [new publication in PNAS](#).
- **Amy Briggs** (PhD 2010, Andrew Bent Lab), Assistant Professor at Beloit College, had a busy year: she had a baby and had [four papers](#) published last year!
- **Brian Teague** (PhD 2012, David Schwartz Lab) is returning to Wisconsin in the fall to be an Assistant Professor at UW-Stout, and was a co-first-author on a large [review in SCIENCE](#).
- **Kelly Tyrrell** (MS 2011, Kurt Amann Lab) published a huge [science communication multimedia story project](#) after a trip to South Africa.
10-Year Reunion Photos: Class of 2008

10 years ago, we welcomed these students to the CMB program!
Check Out These Faculty Photos from the 90’s!
How many familiar faces can you recognize? (Answers on Page 29)

1. [Image of Faculty Member]
2. [Image of Faculty Member]
3. [Image of Faculty Member]
4. [Image of Faculty Member]
5. [Image of Faculty Member]
6. [Image of Group of Faculty Members]
7. [Image of Faculty Member]
8. [Image of Faculty Member]
9. [Image of Faculty Member]
10. [Image of Faculty Member]
11. [Image of Faculty Member]
Thank You for Your Support!
Bradley Gerberich, Sarah Kagan,
Moiz Kitabwalla, Scott Shore

As one of the largest biological science graduate programs at UW-Madison, CMB has been committed to excellence in graduate education since the 1960’s. If you would like to make a gift to this long standing effort, visit the CMB UW Foundation page.

What’s Happening on Campus?

So Long, SERF: Hello, Nick!
Demolition of the long-standing Southeast Recreational Facility, endearingly deemed the “SERF,” began this past fall. The newly updated building will now be called the Nicholas Recreation Center, or as students may prefer, “The Nick.” This facility is named in honor of the late Albert “Ab” Nicholas, his wife Nancy, and their family, who provided a generous donation to construct the Nick. During the transition period, an additional athletic facility was opened on the main floor of Ogg Residence Hall, and the UW Natatorium and the Shell have increased hours and offerings to make up the deficit. The budget for this new facility is a whopping $87.5 million derived from student fees, donations, and gifts to the University recreation and athletic programs. This will be more than just a “gym.” The high-end facility will be bigger, better, Bucky-er. Construction is projected to be completed for the 2019-2020 academic year.

Concept photo provided by RecSports Marketing at University of Wisconsin-Madison

Answers to Faculty Photos:
Adam Bayless
Atypical Variants of the Soybean SNARE - (Soluble NSF Attachment Protein Receptors) - Recycling Machinery Underlie Rhg1--mediated Resistance to Soybean Cyst Nematode
PI: Andrew Bent; Post-doc, Tufts University

Mitch Biermann
Cardiac Progenitor Cell Engineering by Forward Immune Activation
PI: Tim Kamp; Medical Student, University of Wisconsin-Madison MSTP Program

Robert Bradley
Heterogeneity and Function of Human Astrocytes
PI: Su-Chun Zhang

Ryan Denu
Causes and Consequences of Centrosome Amplification in Cancer
PI: Mark Burkard; Medical Student, University of Wisconsin-Madison MSTP Program

Nasim Jamali
Vitamin D and Regulation of Angiogenesis
PI: Nader Sheibani; Post-doc, UW-Madison Dept. of Ophtalmology and Visual Sciences

Amy Jancewicz
A genetic study of cadaverine response reveals crosstalk between cadaverine and putrescine pathways in Arabidopsis thaliana
PI: Patrick Masson; Senior Scientist, AmebaGone, Inc.

Meihua (Christina) Kuang
The evolutionary constraints and dynamics of sugar metabolism in yeasts
PI: Chris Hittinger; Post-doc, University of California-San Diego, Jing Wang Lab
Program Coordinating Committee, 2017-18
THE GOVERNING BODY OF CMB

CHAIRS
David Wassarman, Program Chair
Bill Bement, LCMB Chair
Kate O’Connor-Giles, Admissions
Reid Alisch, Recruiting
Curtis Brandt, Advising & Orientation
Donna Peters, Curriculum
Caroline Alexander, Awards
Tim Gomez, Training Grant Liaison

FOCUS GROUPS
Paul Ahlquist, Virology
Caroline Alexander, Cancer Biology
Jill Wildonger, Cell Adhesion & Cytoskeleton
Sebastian Bednarek, Plant Biology
David Brow, RNA
Anna Griep, Developmental Biology & Regenerative Medicine
Guy Groblewski, Membrane Biology & Protein Trafficking
Melissa Harrison, Transcriptional Mechanisms
Robert Landick, Molecular and Genome Biology of Microbes
David Pagliarini, Cellular & Molecular Metabolism
Pam Kreeger, Systems Biology
Jyoti Watters, Immunology

STAFF
Lauren Weitkamp, Student Services Coord.
Sarah Bierke, Student Services Coord.
Miranda Mishleau, Student Assistant
Kim Voss, Assistant Director
Marcia Gratz, Payroll & Benefits
Katherine Spencer, Financial Specialist
Dennis Josi, Financial Specialist

STUDENTS
Kevin Cope
Netta Golenberg
Will Olson

Bock Labs building, ca. 1965-1969
UW Digital Collections
We are collecting *alumni spotlight stories* to be shared on our website! If you are interested, please submit the answers to this questionnaire: [https://go.wisc.edu/77f936](https://go.wisc.edu/77f936). Your stories will be extremely helpful to our current students, and will give prospective students an idea of the variety of career paths CMB graduates pursue. Thanks in advance!

---

**Remembering Dr. Teresa Compton**

Dr. Teresa Compton, who served as CMB Chair from 2004-2006, passed away on May 8, 2018. As a professor at UW-Madison, Dr. Compton built an internationally known research program focused on virus:host interactions. She was extensively engaged in university, national and international service and held multiple campus leadership roles including Chair of the Human Cancer Virology program and Chair of the CMB program. She trained many PhD graduates while running a research laboratory, was awarded several U.S. patents and had over 70 published papers.

---

**Cellular & Molecular Biology Program**

University of Wisconsin - Madison
413 Bock Laboratories, 1525 Linden Drive
Madison, WI 53706
cmb@bocklabs.wisc.edu
608-262-3203
www.cmb.wisc.edu

---

**CMB Program Staff:**

Miranda Mishleau, The CMB Transcript Content & Design
David Wassarman, CMB Program Chair
Lauren Weitkamp, CMB Program Coordinator
Sarah Bierke, CMB Program Coordinator

---

**Stay Connected!**

[Facebook](#)  [Twitter](#)  [LinkedIn](#)