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Welcome from the Chair

Greetings, CMB alumni, students, and faculty. Thank you for taking the time to catch up on the past year’s happenings in the CMB Program. It has been another exciting year. The Professional Development Committee has continued past efforts to inform current students about possible next steps in their careers. Sarah Rempel writes about advice provided by CMB alumni Thomas Lentz (Class of 2010), Kelly Pittman (Class of 2015), and Craig Barcus (Class of 2016) at this year’s student retreat at Heidel House. We were fortunate to have Danielle Bashirullah, founder of a biotech and diagnostic recruiting and consulting company, provide her insights into non-academic careers in the biological sciences. Additionally, current students have been passing along their acquired skills. Kevin Cope describes his experiences mentoring UW-Madison undergraduate students, and there are wonderful photos of CMB students teaching Girl Scouts how to isolate DNA from strawberries. We have also seen students, past and present, make great strides in research and teaching. The newsletter contains a reprinted story about Asuka Eguchi (Class of 2016), who has used artificial transcription factors to reprogram cells. You can also read about the theses defended, papers published, and awards received by CMB students, including a story by Shelby Lyon about Jae-Sung You and Joseph Bruckner, who are this year’s recipients of the CMB Exceptional Thesis Award. We continue to encourage CMB alumni to become involved in the professional development of CMB students. Please contact the CMB office (cmb@bocklabs.wisc.edu) if you would be willing to discuss your career path with CMB students. In closing, I hope that you enjoy reading about the amazing accomplishments by members of the CMB Program.

David Wassarman
CMB Program Chair
Meet Jae-Sung You and Joseph Bruckner, the 2016 recipients 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. Each recipient has earned a $250 reward in addition to the placement of their name on a plaque that can be found in the Bock Laboratories Penthouse.

"Don't be afraid of failure and keep moving forward."

–Jae-Sung You

Jae-Sung You had always been inquisitive, but it wasn't until high school that he developed his love for science. To his surprise, he found himself drawn to chemistry and the idea that “everything we see is finely governed by numerous chemical rules.” It wasn’t long before this interest led Jae-Sung to Seoul National University (SNU). There he continued studying chemistry and began body building in his spare time as a way to relieve stress. In fact, Jae-Sung might never have become interested in biology or a doctoral degree, if a terrible accident hadn’t changed everything. Just before graduation, Jae-Sung experienced a knee injury that resulted in significant loss of muscle mass. It took two years of grueling rehabilitation to regain function in his leg, but Jae-Sung never gave up and, in the process, he became fascinated by muscles and how they function.

“The incident taught me the significance of maintaining skeletal muscle mass and awakened my passion to investigate the mechanisms of muscle plasticity and the role of various nutrients on it.”

Jae-Sung returned to SNU to obtain his masters in nutrition where he realized just how many people suffer from a loss of muscle mass due to disease, inactivity, or aging. He knew from experience the serious impact muscle loss could have on a person's quality of life and began looking for a doctoral program where he could learn from specialists committed to conducting cutting edge muscle research. That search ultimately led him to the CMB program and the lab of Dr. Troy Hornberger.

For his thesis work, Jae-Sung focused on the regulation of skeletal muscle mass by mechanical loading, things like exercise and limb immobilization, and the role of mTOR activity in this process. He also identified and defined a role for a protein called diacylglycerol kinase zeta (DGKζ) in the regulation of anabolic and catabolic events in the muscle.

Like all projects, there were many ups, downs, and frustrating moments where Jae-Sung relied on support from his PI and lab mates to resolve issues and alleviate stress. When things failed, he kept trying different possibilities. Sometimes they worked, but often they didn't. In the end, Jae-Sung says he still learned from every attempt and believes this is one of the sources for his success.

“Although many people say no, you actually don’t know until you try. Don't be afraid of failure and keep moving forward!”
According to Jae-Sung, the other key to his success was maintaining his quality of life outside of the lab. Jae-Sung's best memories from his time in Madison came while spending every weekend playing his favorite sport – baseball. His advice to current CMB students?

“You will have to go through this arduous process over 5 years, so keep your life balanced and avoid exhaustion.” Jae-Sung is continuing his studies on muscle mass as a post-doc in Dr. Jie Chen's lab at the University of Illinois at Urbana-Champaign where phosphatidic acid-mTOR signaling was first discovered. Jae-Sung’s goal is to become a PI, but, he says, he’s “open to any job that allows me to conduct muscle research that would ultimately help people improve the quality of their life.”

“The bumps and falls are where you learn.” – Joseph Bruckner

Joseph Bruckner was naturally drawn to science by his innate desire to ask questions as a kid growing up in his hometown of Seattle. He knew that he didn't just want to learn science – he wanted to be involved in discovering how and why things worked.

During his time as an undergrad at Colorado College, Joseph’s favorite subject became parasites and the host pathogen interaction. He knew that if he wanted to study microbiology further, he would have to find ways to gain hands-on research experience. After completing an undergraduate thesis on a hepatitis C protein, Joseph worked as a technician in a herpesvirus lab at the University of Washington before applying for graduate school.

Joseph then chose the CMB program for two reasons: its reputation as a world leader in cell biology and, of course, the many opportunities to study parasites. But Joseph quickly found that other aspects of cell biology interested him too. His rotation in Dr. Kate O'Connor-Giles’ lab revealed how much he enjoyed working with fly neurons and studying genetics in a model organism. In the end, he decided to join the lab and enter an area brand new to him – neuroscience.

For his thesis project, Joseph examined Fife, a protein in the active zone cytomatrix of the Drosophila synapse. This protein served as his starting point for exploring the molecular machinery at the synapse and the dynamic regulation of neurotransmitter release, something that contributes to many different disorders when dysfunctional. Employing a variety of approaches from physiology techniques for recording neuronal activity to imaging experiments where “it was nice to just look and see what's going on” ensured that there was always something different and exciting to try.

Joseph said his work benefitted from collaborations that spanned everyone from fellow lab mates to experts across the country. In addition to significant encouragement and support from his PI, Joseph took the initiative to contact people with the expertise or skills he needed. While this strategy helped him avoid many roadblocks, there were still times he stumbled along the way. Joseph summed up the importance of these moments with a saying he encountered while skiing, “the bumps and falls are where you learn so if you're not falling, you're not learning.”

Winning the exceptional thesis award was an enormous honor for Joseph because he knows the strength of his fellow CMB students’ work. He attributes a portion of his own success to the insights and skills he picked up by presenting and seeing everyone’s data at retreats and seminars over the years.
“The nice thing about CMB is that we all work on such different things that when we talk, we can’t get bogged down in the nitty-gritty. We’ve had to learn this global approach to asking questions that’s taught us how to answer them in the most fruitful way.”

He also advises current CMB students to engage in interactive discussions with their fellow students and to pursue a passion outside of the lab to prevent burnout. For him, that outlet was kite surfing and snow kiting.

“Being able to get outside and have fun is incredibly important for clearing your head. Experiments are complicated enough. If something’s not working, step away for a bit and breathe.”

Joseph is now a post-doc at the University of Oregon in Eugene where he has joined the lab of Dr. Judith Eisen and Dr. Philip Washbourne. His project deciphering the gut-brain axis in zebrafish will blend his newfound interest in neuroscience with his love of microbiology. Joseph also enjoys teaching and one day plans to run his own research program where he can do what he loves most – designing questions and experiments to his heart’s content.

By Shelby Lyon, CMB Graduate Student
On the schedule for the CMB retreat in November 2016 there was something new. Or should I say old?

On Sunday morning of the retreat, CMB alumni Kelly Pittman, who graduated in 2015, and Craig Barcus, who graduated in 2016, joined us in person for a career panel on their experiences as recent alums. Thomas Lentz, who graduated in 2010, then joined us via Skype to give us another, slightly further out perspective.

They were informative sessions, made more fun and personal by the CMB connection: they know where we're coming from, and serve as seemingly tangible inspiration for where we could go. Even more importantly, they shared with us the details of how they got there, giving advice and tricks they've learned on the way.

A few things have changed since the panel last fall, and Kelly and Thomas graciously agreed to talk a bit more about their career paths for this newsletter.

Kelly is currently a Postdoctoral Associate in the lab of Dr. Dennis Ko at Duke University, a position she applied for after seeing the posting on the American Society for Microbiology website. She is studying “how human genetic diversity influences susceptibility to pathogenic infections.” She's currently expanding on the role a certain human single nucleotide polymorphism, which was found by the Ko lab in a large screen of human cell lines infected with several pathogens, has on intercellular growth of Chlamydia trachomatis.

Thomas is currently “in the process of a transition from a teaching postdoc at North Carolina State University to a faculty position at University of Wisconsin - Stevens Point” that begins this fall. He studies Ranaviruses: “large double-stranded DNA viruses that perform at least some stage of genome replication in the cytoplasm of the cell.”

A great aspect of talking to recent alumni at slightly different points in their postgraduate careers is that you get to hear stories from multiple stages. We get Kelly’s perspective of standing in the middle of a career crossroads as well as Thomas’ perspective of having picked his direction and starting down that path. Both Kelly and Thomas took traditional research-oriented postdocs after graduation. Both also realized during those positions that the traditional academic track of research-oriented faculty at a major university was not for them.

Kelly had “been thinking of transitioning into industry since my last few years of graduate school, but decided to do a postdoc to make sure I was 100% sure that academia was not what I wanted to do long term.” She “didn’t feel ready to close the door on academia.” However “after I wrote 2 grants within a 3 month period (I got one of them!), I realized how much I dislike grant writing. I then found out how many grants PIs submit per year and decided that being a PI was not what I wanted to do. I am currently on the job hunt for biotech positions.”

Thomas also began a research postdoc after graduating and “decided pretty quickly (about 1 year into it) that I wanted to be faculty at a campus that focused more on teaching than research. Because I had little formal teaching experience to be competitive for such positions, I sought formal teaching training. The teaching postdoc at NCSU gave me time in the classroom and the opportunity to get into teaching research.” Thomas “found that competing for research faculty positions would make me less competitive for teaching faculty positions. I have always enjoyed teaching and engaging with science in a more broad way than just research at the bench. I decided that, for me, teaching was an element I wanted to preserve in my career.”

In the next few years, Kelly hopes to have transitioned into an industry position at a biotech company within Research Triangle Park. Her longer term goal is to manage a team of scientists in a biotech company because she “[likes] telling people what to do.” Thomas would like to continue as a full faculty member at UWSP for the foreseeable future, and would like to “build on UWSP’s programs in the biological sciences” and “see our reputation grow in the state as a campus for biology and biotechnology education” while being “a leader in the field of Ranavirus research and “an active member of the Ranavirus research community.”

While Kelly, at only two years out, is still standing at her career crossroads (job applications are one of her biggest frustrations right now), Thomas says, “My present career path is really a dream come true.” It’s comforting to know that it’s normal not to be exactly sure where we want to go right after graduate school, and that our awesome alumni are here to give us advice and demonstrate that being a little unsure is just part of the process of finding our way.
Updates from the CMB Professional Development Committee

While CMB excels at molding talented graduate students into accomplished researchers, it can be challenging for the graduate program to help students navigate the range of careers open to Ph.D. students after graduation. To guide students through this process, this year, the CMB Professional Development Committee continued to help students translate their broad talents into engaging careers. In March, a seminar on securing jobs post-graduation was led by Danielle Bashirullah, founder of a consulting and recruiting company in the biotech industry. Danielle shared information on different career paths in the biological sciences, as well as tips on preparing a cover letter, CV/resume and preparing for interviews. In April, the third annual Mock Interview Event gave students the opportunity to practice interview skills with professionals from various fields, including biotechnology, outreach, law and research administration. These events continue to be well-received within the community and will help the next generation of CMB graduates find successful careers post-graduation.

As CMB has invested more effort into developing students’ translatable skills, it has become increasingly clear that students are best prepared by surveying as many career options as possible, as soon as possible. To better understand the career interests of the community, CMB recently collected information to identify students’ career preferences. CMB hopes to combine information about students’ career aspirations with updates to our alumni database. This data will provide information about how previous classes of CMB students entered the workforce, as well as real-world examples of students who have achieved their career goals, which will help current CMB students map their own professional development.

While CMB remains focused on helping students become successful alumni, all alumni remain a part of the CMB family. To keep our community connected, we have continued to develop the CMB LinkedIn page, which now includes over 425 members of the CMB family. We would appreciate any information alumni can provide regarding their employment status, either via a short survey (http://go.wisc.edu/h68ab9) or by joining the CMB LinkedIn Page (https://www.linkedin.com/groups/3726436).

We are excited to see how the next year will lead to the continued success of current CMB students, staff and alumni. From the CMB Professional Development Committee, we wish you the best.

By Shane Bernard, Bob Bradley, Will Olson, and Ani Varjabedian on behalf of the Professional Development Committee.
Mentoring Undergraduate Students
-It is Really Worth It

By Kevin R. Cope, CMB Graduate Student

As an undergraduate student at Utah State University (USU), I was the recipient of excellent mentoring by dedicated professors who helped me accomplish more than I ever thought possible. I attribute much of my success during my undergraduate years to the efforts of these mentors. After graduating with my B.S. in Plant Science, I left USU extremely grateful for their meticulous guidance. Consequently, I felt a sincere desire to begin actively mentoring undergraduate students while pursuing a Ph.D. in Cellular and Molecular Biology at the University of Wisconsin–Madison.

During my first week as a graduate student, my Ph.D. advisor, Dr. Jean-Michel Ané, told me that I would benefit from mentoring an undergraduate student immediately. Due to my desire to “pay-it-forward” I agreed, but at the same time I worried that I was neither adequately prepared nor sufficiently knowledgeable. How could I mentor somebody on a project that I just started working on? Despite my fears, I moved forward with my commitment.

It turns out that not only did I not know how to mentor, but as I tried to explain my project, I realized I basically had no idea what I was talking about. Rather than getting discouraged, I looked for the positive. For example, the questions my mentee frequently asked me were often the questions I should have already asked myself. As a result, I began using these questions to identify areas of my project that I needed to think about more critically. Through focused study, I found answers to my mentee’s questions and was able to then teach her how to find answers on her own. In time, we both came to understand the project quite well and jointly developed the skills necessary to carry out most experiments. In other words, instead of two hands working on my project, now I had four! Not surprisingly, my efficiency nearly doubled, and I decided to recruit and train additional undergraduate students to further increase my research efficiency. In spite of this desire, I felt I lacked the skills and the time to mentor multiple students simultaneously.

Fortunately, UW–Madison is home to the “Entering Mentoring” training curriculum (offered by the Delta Program: https://delta.wisc.edu/Courses_and_Programs/RMT.html) which is now used nationwide to help people learn how to mentor effectively. My Ph.D. advisor encouraged me to register for this 10-week training, so I did.

 Delta Program students participate in small group discussions. Photo by Jeff Miller, UW-Madison

continued on next page
“I have found that when I set my expectations high and provide each student with the same guidance that I received...they will push themselves to learn and grow...”

During this highly interactive course, which was offered one hour per week, I learned about various aspects of effective mentoring, including: aligning expectations, maintaining effective communication, cultivating ethical behavior, fostering independence, addressing equity and inclusion, assessing understanding, and promoting professional development. Essentially, I gained not only the vocabulary for describing what it means to be an effective mentor, but also the practical skills to apply what I learned. As part of the course, I also developed a personal mentoring philosophy that summarizes my interpretation of the principles listed above as well as my plan for abiding by them. To keep myself accountable, I share my philosophy with each of my mentees so that they can better understand my approach to mentoring. This document was crucial as I increased the number of students that I mentor from one to an average of five or more per semester. If you are thinking about mentoring, I strongly encourage you to take the Entering Mentoring course. It will make the difference between a successful and a disastrous mentoring experience.

Despite formal training and now four years of mentoring experience, it still is not easy helping five students maintain an active research project within the scope of my Ph.D. project. However, I have found that when I set my expectations high and provide each student with the same degree of guidance that I received as an undergraduate, they will push themselves to learn and grow in their research abilities. As such, I no longer underestimate what my mentees can achieve. By removing this barrier, many of my mentees have accomplished more than I ever thought possible. For this reason and the others described above, I can confidently say that mentoring undergraduate students is totally worth it!
Several CMB students have been involved with outreach events through the Girl Scouts of Wisconsin in recent years. In December, CMB sponsored a booth at the ACTIVATE! Girl Scouts in STEM fair, where the girls isolated DNA from strawberries and created a paper DNA model. In April, students again participated in a Girl Scouts event that enabled girls grades 6-12 to meet one-on-one with professional women employed in STEM fields to ask questions, share ideas, and build their professional network.
Alumni Spotlight: Asuka Eguchi

Designer switches of cell fate could streamline stem cell biology.
Recent CMB graduate Asuka Eguchi led the study in CMB trainer Aseem Ansari’s lab

By Kaine Korzekwa, UW-Madison News

Researchers in the Aseem Ansari lab, including 2016 CMB graduate Asuka Eguchi, have developed a novel strategy to reprogram cells from one type to another in a more efficient and less biased manner than previous methods.

The ability to convert cells from one type to another holds great promise for engineering cells and tissues for therapeutic application, and the new study could help speed research and bring the technology to the clinic faster.

The new approach, published in December 2016 in the Proceedings of the National Academy of Sciences (PNAS), uses a library of artificial transcription factors to switch on genes that convert cells from one type to another. Natural transcription factors are cellular molecules that bind to DNA to turn genes on and off. They help determine cell fate, meaning that if a cell is destined to be a skin cell, a heart cell or an eye cell, different transcription factors switch on specific sets of genes that program the cell to attain one state or another. Using artificial transcription factors made in the lab, researchers are trying to find which ones best mimic these natural changes in cell fate.

“Our interest in changing cell fate comes from understanding how cells selectively use the information in our genomes to make specific cell types and also from the many therapeutic benefits such knowledge can offer,” says Asuka Eguchi, the study’s lead author and a member of Professor Aseem Ansari’s lab. “For example, if a patient needs a certain cell type, the idea is we can reprogram their own cells to what they need, rather than relying on donor cells. This allows us to study patient-specific cells and potentially avoids issues with immune response where a patient’s body could reject the cells.”

Conventional methods for finding the correct factors to change cell fate require scientists to perform a trial-and-error approach. They need prior knowledge about which combination of the thousands of natural factors would possibly work within a tightly choreographed timeframe to program cell fate. It is a slow, laborious, failure-prone process, the researchers say. The new method utilizes “libraries” of millions of artificial transcription factors that were designed to bypass natural controls and switch on genes that might be activated in a given cell type. In addition, the factors contain an attachment that lets them bind and work in concert to affect genes, a step not traditionally taken.

By exposing the library of factors to cells, they can see if cell fate changed in any of them. If so, they can revisit those cells to see which factors were responsible. For their experiments, the group started with mice fibroblasts, a cell in connective tissue, and looked for them to be reprogrammed into what
are called induced pluripotent stem cells. Given proper cues, these types of stem cells can become any type of cell in an animal's body. The technique could also be applied to humans. By reprogramming, the researchers mean that the artificial factors would trigger all of the right genes to cause the cell to shift from one type to another.

“Imagine you have millions of keys and only a unique key or combination of keys can turn a motor on,” says Ansari. “We test all those keys in parallel and when we see the motor fire up, we go back to see exactly which key switched it on.”

In the process of testing their tool, the researchers discovered three combinations of the artificial factors that reprogrammed a fibroblast into a stem cell. The factors played a role similar to that of a natural transcription factor important in a process, called Oct4.

“In this unbiased approach, we can try to basically cast a wide net on the whole genome and let the cell tell us if there are important genes perturbed,” Ansari says. “It's a way to induce cell fate conversions without having to know what genes might be important because we are able to test so many by using an unbiased library of molecules that can search nearly every corner of the genome.”

The reprogramming of fibroblasts into stem cells has been well studied. The researchers put their approach to the test in this context because it places a high bar and requires significant changes to the cell. With this proof of concept, the lab hopes other researchers use their method to discover new genes that can drive more difficult conversions of cell fate.

“Generating these pluripotent stem cells also helps us avoid having to make embryonic stem cells, which can be controversial,” says Eguchi. “We can also start better investigating direct conversions, which are conversions from one cell type to another without the need to go to the pluripotent stage first because that can cause problems in some contexts. This tool opens up the doors to research these areas more effectively.”

This story was adapted from a story originally published as a press release on the UW–Madison News site. See the original here: http://news.wisc.edu/designer-switches-of-cell-fate-could-streamline-stem-cell-biology/. Asuka Eguchi graduated from the CMB Program in July 2016, and currently works as a post-doc at Stanford University in Helen Blau's lab, studying muscular dystrophies and cardiomyopathies.
CHECK OUT THESE CMB STUDENTS IN THE LAB!

Ani Varjabedian          Kevin Cope

Laura Swanson            Mitchell Ledwith

Photos by Miranda Mishleau, CMB Undergraduate Student Assistant
(Left) The Alarid Lab works on isolating breast cancer cells from a patient sample the Carbone Cancer Center. Pictured left to right: Natasha Solodin (lab manager), Becky Reese (CMB student), David Lung (Cancer Biology), Kyle Helzer (Cancer Biology), and Elaine Alarid (CMB faculty trainer).

Photo provided by Becky Reese, CMB Graduate Student
CMB’s Golden Pipette Winners!

CMB Students gathered again in November at the Heidel House in Green Lake, WI for the annual student retreat. Congratulations to the winner for Best Talk - Adam Bayless, Bent Lab - and Best Poster - Drew Doering, Hittinger Lab. Pictured (left) are the winners of the coveted Golden Pipette. In addition to the usual activities, this year, three CMB alumni joined the retreat to talk about their career paths.

Retreat Photos by Francisco Barros, CMB Graduate

Above: Indro Ghosh gives a talk about his research

Above (left to right): CMB students Nadia Khan, Siddhant Jain, and Gulpreet Kaur during a poster session.

Left (left to right): CMB students Ani Varjabedian, Becky Reese, Lauren Hillers, and Dan Tremmel.
STUDENT PUBLICATIONS


**Students**

**Patrick Cervantes, Class of 2015, Laura Knoll Lab**  
NSF Graduate Research Fellowship Awardee

**Kevin Cope, Class of 2013, Jean-Michel Ane Lab**  
Young Scientist Grant, International Molecular Mycorrhiza Meeting  
Agronomy Outstanding Graduate Student Award and O.N. Allen Scholarship, Department of Agronomy  
Graduate Student Peer Mentor Award, Graduate School (awarded at Bucky Awards Ceremony)

**Ryan Denu, Class of 2014, Mark Burkard Lab**  
Predoctoral National Research Service Award Fellowship for MD/PhD (F30)

**Ryan Kessens, Class of 2013, Mehdi Kabbage Lab**  
2017 Research and Development Internship at Promega

**Nadia Khan, Class of 2013, Avtar Roopra Lab**  
Inducted into the Bouchet Graduate Honor Society

**Katie Mueller, Class of 2016, Krishanu Saha Lab**  
Biotechnology Training Program

**Sarah Neuman, Class of 2011, Arash Bashirullah Lab**  
WARF Discovery Challenge Award

**Taylor Scott, Class of 2015, Megan McClean Lab**  
NSF Graduate Research Fellowship Awardee

**Sydney Thomas, Class of 2015, John Denu Lab**  
NSF Graduate Research Fellowship Awardee

**Dan Tremmel, Class of 2015, Jon Odorico Lab**  
Stem Cell & Regenerative Medicine Center Graduate and Postdoctoral Training Award
Faculty

David Brow
Elected as a Fellow of the American Association for the Advancement of Science (AAAS)

Wan-Ju Li
Recently published paper about cues that regulate bone-building cells in Stem Cell Reports was highlighted by UW-Madison news: [http://news.wisc.edu/uw-scientists-find-key-cues-to-regulate-bone-building-cells/](http://news.wisc.edu/uw-scientists-find-key-cues-to-regulate-bone-building-cells/)

Ann Palmenberg
Elected as a Fellow of the American Association for the Advancement of Science (AAAS)

Darcie Moore
2016 Peter and Patricia Gruber International Research Award
2017 Alfred P. Sloan Fellowship

Alumni

Joseph Bruckner (PhD 2016)
CMB 2016 Exceptional Thesis Award

Nicholas Davenport (PhD 2016)
International Forum for Cell Biology 2017 Paper of the Year Awardee
(Davenport et al., 2016. Mol Biol Cell. 27:2272-85)

Jae-Sung You (PhD 2016)
CMB 2016 Exceptional Thesis Award
Thank You for Your Support!

Humphrey Wong & Linda Tong
Ellen Batchelder
Scott Shore
John Coan
Sarah Kagan
Robert Falk
Bradley Gerberich
Kevin O’Connell
Trevor Tubelle
Victoria Frohlich

2016-2017 CMB DONORS

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 website. Your generous support is greatly appreciated!

www.cmb.wisc.edu

Fun Campus News: Alumni Park to Open in October!

On October 6th, the new Alumni Park will open between Memorial Union and the Red Gym, finally completing the east-campus gateway. The park will create a green space out of the old parking lot next to Memorial Union and will complement the new Goodspeed Family Pier on Lake Mendota. Next time you are in town, be sure to check out the new park, which was made possible through alumni contributions, while you grab a brat or beer at the Terrace!

For more information on the park, visit: alumnipark.com.

Photo by The Wisconsin Foundation and Alumni Association
STUDENT THESIS DEFENSES

Joseph Bruckner - Molecular regulation of neurotransmitter release and active zone architecture
PI: Kate O'Connor-Giles; Post-doc, University of Oregon

Viswa Colluru - Anti-Tumor DNA vaccination: Optimizing Antigen Expression and Presentation
PI: Douglas McNeel; Research Scientist, Recursion Pharmaceuticals

Asuka Eguchi - Control of Cell Fate with Artificial Transcription Factors
PI: Aseem Ansari; Post-doc, Stanford University

Xin Gao - Genetic basis for HSC generation in the mammalian embryo
PI: Shigeki Miyamoto; Post-doc, Paul Frenette at Albert Einstein College of Medicine

Chris Hooper - Targeting NEMO's protein-protein interactions to mediate NF-κB signaling
PI: Shigeki Miyamoto; Technical Service Scientist, Promega Corporation

Brian Keppler - Uncovering novel regulation of pathogen-induced callose deposition through chemical inhibition and natural variation
PI: Andrew Bent; Technology Specialist, McKee, Voorhees and Sease, PLC

Amber Lasek - Interrogation of kinase-mediated signaling pathways to decode human cell division
PI: Mark Burkard; Post-doc, UW-Madison Weaver Lab

Jenna Lorenzini - Identification and Characterization of the Immunomodulatory Dipeptidyl Peptidase IV A (DppIVA) as a Virulence Factor of Blastomyces dermatitidis
PI: Bruce Klein

Allison Moe - Cell damage initiates a pattern formation hierarchy
PI: William Bement

Brett Morris - A Role for Collagen Density in Breast Cancer Metabolism and Metastatic Potential
PI: Patricia Keely; Medical Student, UW-Madison School of Medicine and Public Health

Dhananjay Nawandar - The epithelial cell differentiation regulates latent to lytic switch of Epstein-Barr virus
PI: Shannon Kenney; Post-doc, Dana-Farber Cancer Institute

Sarah Neuman - Characterization of hobbit, and novel and conserved regulator of intracellular trafficking during regulated exocytosis
PI: Arash Bashirullah

Ray Zhang - New Alkylphosphocholine Analogs for Multimodality Imaging and Therapy of Cancer
PI: John Kuo; Medical Student, UW-Madison School of Medicine and Public Health

Xingmin Zhang - BAIAP3, a C2 domain-containing Munc13 protein, controls the fate of dense core vesicles in neuroendocrine cells
PI: Thomas Martin
Program Coordinating Committee
- The Governing Body of CMB -

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Kurt Amann, Admissions
Reid Alisch, Recruiting
Jenya Grinblat, Advising & Orientation
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David Pagliarini, Cellular & Molecular Metabolism
Jennifer Reed, Systems Biology
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Sarah Bierke, Student Services Assistant
Miranda Mishleau, Student Assistant
Kim Voss, Assistant Director
Marcia Gratz, Payroll & Benefits
Katherine Spencer, Financial Specialist
Dennis Josi, Financial Specialist
SHARE YOUR STORY!

We are currently in the process of updating our Alumni Database. We would greatly appreciate it if you would fill out the survey that can be accessed using the following link:

http://go.wisc.edu/h68ab9

We would like to know of any updates in your personal and professional life for use in the next issue of The CMB Transcript. Be sure to keep us informed of address changes so that we can continue to send you a copy of the newsletter each season.

Would you like to speak about your career to current graduate students in the CMB Program and the biological sciences at UW? We are especially in need of alumni who work in areas other than tenure track faculty at large research institutions. Let us know if you would like to be contacted about speaking to graduate students about your career. You can contact CMB at: cmb@bocklabs.wisc.edu.

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