From the Director:

Dear CMB colleagues and well-wishers,

It is a pleasure to welcome you to our July 2022 newsletter. This past semester, CMB went through its 50th year. The newsletter committee, as always, has done a fantastic job in summarizing our progress over the last semester.

The Annual Symposium this year was expanded to a 3-day event to celebrate 50 years of CMB. Our wonderful administrators, Lauren Perl and Carolyn Walsh, organized a great program where each of our student committees was given a chance to lead an event. The symposium was attended by current CMB members as well as a sizeable group of our excellent alumni. It was thrilling and humbling to hear the storied history of the program described by Drs. David Engelke, Jessica Schwartz, and Roberta Fuller - the three previous Directors who helmed the program for the last
From the Director (continued):

25 years - and by Dr. Mrinalini Rao, the first student to matriculate into CMB. The scientific part of the program was equally exciting, with talks by eight CMB faculty and two outstanding CMB alumni, Drs. Brian Athey and Evan Rosen. This year’s Myron Levine Keynote lecture was delivered by Dr. Erika Holzbaur, who gave a highly engaging seminar and mesmerized us with movies of circling actin waves. The poster session presented by CMB students that showcased the breadth and depth of research in CMB was, as always, lively and exciting. I congratulate Dr. Fuller for being awarded the CMB Service Award, for the second time in her career. I want to acknowledge Carolyn Walsh again, for working tirelessly to coordinate all the logistics and to make sure that the events went smoothly and responsibly.

In other exciting news, CMB was awarded a new T32 training grant this year from the NIH to support student education, research, and development. This grant replaces our previous grant that ended this year after supporting CMB for the past 45 years. Putting together this successful T32 application was a true team effort. I thank Dr. Fuller and Dr. Ben Allen, Lauren Perl and the superb training grant team - Dr. Jessica Schwartz, Margaret Allen, and Cathy Mitchell - for all their efforts in drafting the application. The current award is the largest that CMB has received. It is a recognition of both the past success and the future promise of the program.

CMB students continued to excel in all aspects. Gabe Manske and Marshall Howington were awarded the highly competitive Rackham Predoctoral Awards this year. Congratulations to them, and to all the students for their successes this semester, including by receiving F31 and similar awards, successfully defending their dissertations, and by passing their qualifying exams to become candidates. Our admissions committee, chaired by Drs. Sue Hammoud and David Antonetti, has recruited a strong cohort of students interested in CMB into the PIBS program. I thank the entire admissions committee, including Chris Pineda and Rosa Menjivar who served as student representatives, for their hard work and commitment for this important effort to sustain the excellence of the program.

Building strong ties with our alumni is a core goal for CMB in the near future. We are working hard with the University to make sure that we can reach each and every one of our alumni.

With warm regards,

Manoj Puthenveedu, MBBS, PhD

“Building strong ties with our alumni is a core goal for CMB in the near future. We are working hard with the University to make sure that we can reach each and every one of our alumni.”
This past May the CMB program celebrated an extraordinary milestone: 50 years! The celebration was a three-day event filled with science talks, a student symposium, and wonderful speakers. In addition to current students and faculty, the program welcomed many alumni along with former directors and administrators, who came from all over the country.

The celebration kicked off on Thursday, May 19th at The Kensington Hotel in Ann Arbor. CMB director Manoj Puthenveedu led a transparency meeting with current students and faculty to improve communication in the program. The afternoon consisted of science talks from our phenomenal CMB faculty members.

On Thursday evening, the program held a celebratory dinner where many past and current CMB faculty spoke. Dave Engelke, a former CMB director, gave students great insight into the history of the program and shared some wonderful memories. The dinner also included remarks from Dr. Mrinalini Rao, the first student to matriculate into the CMB program in 1972. She had fantastic stories of her time at Michigan and what the program was like, and shared some insightful advice for current CMB students.

Dr. Mrinalini Rao tells the audience about her experience as the CMB program's first graduate student. (Photo Credit: Chris Bidlack).
50th Anniversary (continued):

The main event on Friday, May 20th featured the Myron Levine Keynote lecture and student symposium. The Myron Levine Keynote lecture was delivered by Erika Holzbaur, Ph.D. Dr. Holzbaur is a Professor at the University of Pennsylvania in the Department of Physiology. She spoke about her current research in the lab involving mitochondrial biology, and how mitochondria navigate around the cell during mitosis. In the afternoon, current CMB students and alumni presented posters of their research to the public. This was followed by a happy hour at Conor O’Neils.

On the final day of the celebration, the Career Committee presented a Pathway to Industry Career Panel. The panelists were Frederick Derheimer, Ph.D., Dara Leto, Ph.D., and Hillary Warrington, Ph.D.. All the panelists were CMB alumni who offered their perspectives on their career paths and finding success in post-grad life.

A big thank you to all who participated. The symposium brought together the CMB community to celebrate the program’s successes and reflect on a half-century of progress. We look forward to using this energy to build on our achievements for the future!

#Trending in Academia
Alumni Corner

We ask three CMB alumni about how their doctoral work prepared them for their careers and for advice to current CMB students.

Current position: Program Management Lead  
Favorite memory from grad school: My thesis defense party  
Skills or experiences from your graduate training that were most important for your career: Planning and communicating  
Fun fact: I love to scuba dive.  
Advice for graduates students who want to follow a similar career path: Start talking to people in industry early. You often don’t even know about the many roles outside traditional career paths that exist, and you can’t learn about them without talking to people!

“\textit{You often don’t even know about many roles outside traditional career paths that exist, and you can’t learn about them without talking to people!}”

Current position: Professor of Biochemistry, Microbiology, and Immunology, Wayne State University School of Medicine  
Favorite memory from grad school: Get togethers with my fellow students after exams and the big celebrations after passing prelims! Some of those are rather hazy memories though...  
Skills or experiences from your graduate training that were most important for your career: Learning to give scientific talks and poster presentations, learning to write papers, becoming unafraid to ask questions!  
Fun fact: I picked up distance running in my 40s and have run 17 half marathons and one full marathon.  
Advice for graduates students who want to follow a similar career path: Network. Go to meetings/conferences and talk to people informally and socially. Take advantage of the lunches with invited speakers so they get to know you. The science world is small and these contacts will pay big dividends.

Current position: Director, Biotherapeutics  
Favorite memory from grad school: Hosting prospective students.  
Skills or experiences from your graduate training that were most important for your career: Oral presentation skills and how to make effective Powerpoint slides.  
Fun fact: I once bowled a 300 game.  
Advice for graduates students who want to follow a similar career path: For those that want to go into industry, extensive postdoctoral training isn’t required. Try to gain postdoc experience in a field which can be translated into the industry that you want as your career. A postdoc in industry is beneficial, but we hire many qualified candidates who have done an academic postdoc.
Team Portrait:
Brandon Chen and his Mentors, Costas Lyssiotis, Ph.D. and Yatrik Shah, Ph.D., Work Together to Unravel Mysteries of Cancer Metabolism at the Subcellular Level

Entering the fourth year of his Ph.D., Brandon Chen is a highly motivated and successful graduate student. He is co-mentored by two scientists at the cutting edge of cancer research, Dr. Costas Lyssiotis and Dr. Yatrik Shah.

But when I sat down with Brandon and his mentors, the first thing that came across is how relaxed, upbeat, and welcoming they are. All of them gave me a generous amount of time to interview them, and Costas immediately offered me a cup of espresso from his own machine. And the rapport between Brandon and his mentors is very strong.

For Brandon’s part, he wants to pursue a career in academia and appreciates all of the time and attention that Costas and Yatrik give him in his training. He also likes working in two different labs with diverse research interests, and plenty of scientific freedom to shape the questions he wants to ask. Costas is now the chair of the Cancer Biology program and his lab focuses on the metabolism of cancer cells. Yatrik’s lab studies the effects of hypoxia on various diseases related to the gastrointestinal tract, including cancers. And he enjoys the friendly atmosphere in both of the research groups.

“I would call anyone in either lab my friend,” Brandon mentions, and finds these relationships important as he navigates the difficulties of Ph.D. thesis work.

Brandon’s mentors also enjoy working with him immensely. And one thing that becomes apparent, right away, is how much they value the intellectual leadership and independent thinking he displays in his thesis project.

“Talking to Costas is good, I always get a lot of good ideas from him,” Brandon comments at one point.

“Do you?” Costas interjects. They both burst out laughing.

“It’s a two-way street,” Costas continues, “Brandon gives me more good ideas than I give him.”

“I think ‘being independent’ is kind of scratching the surface when it comes to explaining Brandon’s surface.” Yatrik concurs, and points out that Brandon actively sought out collaborators for his thesis work across the global science community. One of these researchers, an Italian scientist named Tito Cali, even joined Brandon’s thesis committee. “What I enjoy most about mentoring students like Brandon is that he’s very enthusiastic about the project and passionate about it.”

Brandon’s project is clearly his own brainchild, and something he arrived at after spending his undergraduate degree working on both cellular biology and cancer research.

“Brandon’s project is so distinct because it is entirely of his own design. Literally of his own design.” Costas points out. “And we try to push him in the right direction every now and again. But he came in with his own idea, he said ‘this is what I want to do,’ wrote his NSF (National Science Foundation grant) and his DoD (Department of Defense grant) on it, both of which were funded, and he said ‘this is what I want to do, too bad if you think I should work on something else.”
Outside of science, Brandon serves on the CMB DEI Task Force, and is dedicated to helping his fellow students feel included in the CMB community. Costas enjoys a variety of hobbies including cycling, brewing and soccer, and is a science fiction aficionado. Yatrik loves to spend time with his three sons, and they pursue a variety of sports together including cross-country running, basketball, and martial arts.®
Congratulations to the 2nd year CMB students who successfully passed their qualifying exams in the winter of 2022.

**Lab: Ariella Shikanov**
**Brief research description:** Human follicle activation and culture
**Hometown:** Chicago, IL
**Favorite A2 summer activity:** Exploring new restaurants.

**Lab: Peter Freddolino**
**Brief research description:** *E. coli* chromosome conformation mapping.
**Hometown:** West Bloomfield, MI
**Favorite A2 summer activity:** Cycling up Huron River Drive with friends, then tubing down.

**Lab: Pierre Coulombe**
**Brief research description:** Stress-response keratins in health and disease
**Hometown:** Los Angeles, CA
**Favorite A2 summer activity:** Enjoying the sunshine! (Cali girl forever and always!)

**Lab: Carole Parent**
**Brief research description:** Signal relay in neutrophil chemotaxis
**Hometown:** Biloxi, MS
**Favorite A2 summer activity:** Swimming :)

**Lab: Paul Jenkins**
**Brief research description:** ANK3 bipolar disorder variants in iPSC-neurons.
**Hometown:** Jacksonville, FL
**Favorite A2 summer activity:** Hiking with my dogs.
Getting to Know You 2nd Year CMB Students

**Najia Elkahlah**

**Lab:** Josie Clowney  
**Brief research description:** The development of sexually dimorphic neural circuits.  
**Hometown:** Ann Arbor, MI  
**Favorite A2 summer activity:** Being outdoors, enjoying the sun.

**Jonathan D. Williams**

**Lab:** Mike Cianfrocco  
**Brief research description:** Structural biology of microtubules.  
**Hometown:** Worcester, MA  
**Favorite A2 summer activity:** Tubing down the river!

**Madeline Shay**

**Lab:** Jayakrishnan Nandakumar  
**Brief research description:** Nuclear membrane proteins that move meiotic chromosomes.  
**Hometown:** Lathrup Village, MI  
**Favorite A2 summer activity:** Going for a walk in one of the parks on a sunny day.

**Nick Vangos**

**Lab:** Costas Lyssiotis  
**Brief research description:** Function of metals in pancreatic cancer.  
**Hometown:** Bothell, WA  
**Favorite A2 summer activity:** BBQ with friends.

**Narges Pourmandi**

**Lab:** Nicole Koropatkin  
**Brief research description:** Microbial mucus degradation in the gut ecosystem  
**Hometown:** Joliet, IL  
**Favorite A2 summer activity:** Hiking.
Getting to Know You  2nd Year CMB Students

Ruth Azaria

**Lab:** Andrew Lieberman  
**Brief research description:** Protein folding and degradation in Niemann-Pick Type C.  
**Hometown:** Natick, MA  
**Favorite A2 summer activity:** Tubing in the Huron River.

Desiree Gordian

**Lab:** Martin G. Myers  
**Brief research description:** Identifying neuronal populations/circuits that control feeding.  
**Hometown:** Brooklyn, NY  
**Favorite A2 summer activity:** I enjoy walking and exploring new places around Ann Arbor.

Adele Correia

**Lab:** Andrew Lieberman  
**Brief research description:** Therapeutics of Niemann-Pick Type C Disease.  
**Hometown:** Brockton, MA  
**Favorite A2 summer activity:** Floating down the river.
Congratulations!

**F30 Predoctoral MD/PhD Fellowship:**
Wesley Huang (mentor: Yatrik Shah)
Hannah Bell (mentor: Yatrik Shah)

**F31 Predoctoral Fellowship:**
Kate Van Pelt (mentor: Matthias Truttmann)
Shannon Miller (mentor: Peter Todd)
Jeff Knupp (mentor: Billy Tsai)
Shannon Lacy (mentor: Matthias Truttmann)

**AHA Predoctoral Fellowship:**
Sarah Connolly (mentor: Melanie Ohi)

**Rackham Predoctoral Fellowship:**
Marshall Howington (mentor: Scott Leiser)
Gabe Manske (mentor: Sue Hammoud)

**Rogel Award:**
Matt Pun (mentor: Sriram Venneti)

**HBCS Fellowship/Training Grant:**
Gunseli Wallace (mentor: Gabriel Corfas)

**Cardiovascular Research and Entrepreneurship Training Grant:**
Sylvia Emly (mentor: Jordan Shavit)

**CMB Newsletter Committee:** Chris Bidlack, Sarah Connolly, Kate Van Pelt

**Supporting Faculty and Staff:** Karl Desch, MD; Lauren Perl

**Contact:** Chris Bidlack, bidlackc@umich.edu

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Winter/Spring Thesis Defenses

**Vani Ravichandran**
(Margaret Westfall, mentor)
“The contribution of chronic protein kinase C-mediated troponin I phosphorylation to cardiac dysfunction”

**Morgan Gingerich**
(Scott Soleimanpour, mentor)
“Intrinsically disordered protein regions encoded by the diabetes gene CLEC16A regulate mitophagy”

**Marshall Howington**
(Scott Leiser, mentor)
“Regulation of Longevity by Flavin-containing Monoxygenases”

**Anna Michmerhuizen**
(Corey Speers, mentor)
“Defining the role of nuclear hormone receptors in response to radiation therapy: targeted therapies for radiosensitization in androgen receptor-positive and estrogen receptor-positive breast cancers”

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Have an opinion on a science or program issue? **Write an article!**
Want to put your editing skills to the test? **Become an editor!**
Can’t wait to show off your awesome new data? **Submit your bioart!**
The CMB Newsletter Committee is always looking for more people to write, edit, and design.