The UIC MSTP welcomed twelve M1 students into the program family during summer 2018. After spending part or all of the summer pursuing their first UIC lab rotations, they were officially welcomed into the entering COM M1 class at the White Coat Ceremony on August 10. Pictured left to right they are David Gong, Tanner Roach, Michelle Sheena, Mitchell Butler, Jordan Barone, Bani Medegan-Fagla, Margaret Schultz, Miles Barney, Jessica Lee, Cody Justice, Amanda Snead, Deion Cheng.

This even dozen—half female and half male—are high academic achievers, and have all had extensive research training—both as undergraduates and in post-graduate work. In addition to their academic success, they all managed to excel in athletic, artistic and/or community service endeavors. In the arts, we find pottery (Barney), theatrical technician (Gong), graphic novels (Lee), traditional African dance (Medegan Fagla), experimenting with various graphic art styles (Sheena), and photography and web site design (Sneed). Athletic skills represented are gymnastics (Barney), figure skating and yoga (Barone), basketball and chess (Cheng), intramural soccer (Justice), club tennis (Roach) and lacrosse (Sheena). And every one of them has devoted countless passionate hours to community service in areas such as food pantries, homeless services, medical missions, nursing homes, risk management and wellness in campus organizations, arts for hospitalized children, counseling for abused children and teaching/tutoring children.
Meet the Newest MSTP Students—The 2018 Entering Class

Miles Barney  
Home town: Fresno, CA (born Santa Clara, CA)  
Degree: BA, Biology, 2016, University of Chicago  
Research Interests: Molecular Psychiatry, Neuroscience, Neurobiology  
2018 Rotation: Lab of Amynah Pradhan, PhD, Dept. of Psychiatry  
Why MD/PhD? My aspiration is to take advancements in understanding the neuroscience of substance abuse and mental illness and translate them into therapies to better treat the populations affected by these disorders. I believe that becoming a physician scientist will best help me achieve this.

Jordan Barone  
Home town: Arlington Heights, IL  
Degree: BA, Neuroscience, 2016, Vanderbilt University  
Research Interests: Neurodevelopment, Neurobiology, Neuroimaging Methods  
2018 Rotation: Lab of Pauline Maki, PhD, Dept. of Psychiatry  
Why MD/PhD? Stopping the house from burning down will always be my primary goal as a physician, as patients’ immediate needs come first. However, with PhD training, I hope to study the chemistry of the paint, knowing that each step towards understanding the science of disease and treatment can only bring us closer to preventing the fire in the first place.

Mitchell Butler  
Home town: Towson, MD  
Degree: BS, Biophysics, 2018, University of Southern California  
Research Interests: Biomed. Imaging, Imagining Modalities, Medical Physics  
2018 Rotation: Lab of Alex Leow, MD, PhD, Department of Psychiatry  
Why MD/PhD? I’m enthralled by the human body, particularly how it functions and the ways that diseases affect it. It doesn’t get much bigger-picture than that. In fact, my borderline unhealthy scientific appetite has long had a central purpose: I want to practice medicine. My life’s work will be with patients, but I dream of serving them both as a clinician and as a scientist. An MD/PhD degree would show me how to interweave these passions.

Deion Cheng  
Home town: Stoughton, MA (born Dallas, TX)  
Degree: BS, Biology, 2018, Northeastern University  
Research Interests: Immunology  
2018 Rotation: Lab of Donna Macduff, PhD, Dept. of Microbiology & Immunology  
Why MD/PhD? As a physician-scientist, I hope to study the pathobiology of diseases to establish novel and more precise methods for their treatments and diagnoses. Perhaps most important, the challenging and demanding career path will be driven not only by a passion for investigation, but also by the reward of directly helping those in need.

David Gong  
Home town: Champaign, IL  
Degree: BS, Computer Science, 2016, Johns Hopkins University  
Research Interests: Computational Biology Bioinformatics, Medical Informatics  
2018 Rotation: Lab of Alex Leow, MD, PhD, Department of Psychiatry  
Why MD/PhD? I believe that a physician’s experience is crucial for discerning the complex deficits in clinical practice, while the rigor of doctoral training endows a robust skillset for affecting novel change. Becoming a physician as well as a computer scientist will uniquely position me to tackle critical medical problems from an innovative perspective. Knowing the path will be challenging, long, unforgiving, but invaluably rewarding, I am committed to becoming a physician-scientist.

Cody Justice  
Home town: Grove City, OH  
Degree: BS, Biochemistry, 2018, Ohio State University  
Research Interests: Cellular Physiology, Pharmacology, Molecular Biology  
2018 Rotation: Lab of J. Michael O’Donnell, PhD, Dept. of Physiology & Biophysics  
Why MD/PhD? My goal is to serve as a liaison between technical and clinical communities; synthesizing interdisciplinary research into a form that is readily utilized in the clinic, all for the fellow man. Becoming a physician scientist will give me the challenging, but gratifying, opportunity to follow new treatments from conception to implementation; maintaining my desire to advocate for the health of others and provide personalized medical care.
Jessica Lee  
Home town: San Jose, CA  
Degree: BS, Microbiology, Immunology, Molecular Genetics, 2015, UCLA  
Research Interests: Bioinformatics, Microbiology, Translational Science  
2018 Rotation: Lab of Michael Federle, PhD, Dept. of Medicinal Chem. & Pharmacognosy  
Why MD/PhD? I am committed to pursuing the combined MD-PhD training to cultivate the necessary skills and knowledge for understanding biological systems and creating novel approaches to patient care. I am determined to gain the expertise to implement such approaches through the healthcare system to service those who need them. By integrating my MD and PhD education as a physician scientist, I will strive to advance successful clinical translation of life-saving treatments and enhance quality of care for all patients.

Bani Medegan-Fagla  
Home town: Cotonou, Benin  
Degree: BS, Biotechnology, Chemistry, 2013, University of Nebraska  
Research Interests: Infectious Disease, Virology  
2018 Rotation: Lab of Lijun Rong, PhD, Dept. of Microbiology & Immunology  
Why MD/PhD? I have come to the firm realization that scientific research and healthcare are undividable. Medicine finds itself driven by scientific research, and scientific research finds a purpose in medicine. I have also come to value the ability to apply the scientific method to solve a physician’s riddle: disease. By pursuing an MD/PhD degree I hope to truly connect the expertise of a scientist with the clinical approach and to achieve the true purpose of a physician scientist: blending science for medicine and medicine for science.

Tanner Roach  
Home town: Chapel Hill, NC  
Degree: BA, Biology, 2017, Washington University-St. Louis  
Research Interests: Cancer Biology  
2018 Rotation: Lab of Dept. of Alan Diamond, PhD, Dept. of Pathology  
Why MD/PhD? My curiosity is fed by scientific research discoveries, but while in the hospital setting, I knew I wanted to interact with the people for whom the research is done. I want to take discoveries in the lab and apply them to real people for improved health outcomes. I am learning how the people treated in clinic direct a doctor’s scientific research in the lab, and how discoveries on the bench circle back to patients’ bedside to improve their health.

Margaret Schultz  
Home town: Horicon, WI  
Degree: BS, Biophysics, 2018, Loyola University Chicago  
Research Interests: Kinetic Modeling of peroxidase enzymes, enzymatic mechanisms  
2018 Rotation: Lab of Robert Sargis, MD, PhD, Endocrinology, Diabetes & Metabolism  
Why MD/PhD? I am passionate about communicating with patients and I love working towards discovering new information. I recognize research is a vital part of medicine, and I desire to use my skills as a researcher to benefit the medical community and the patients I work with. I want to use my skills, knowledge and experiences to have a direct, positive impact on other’s health and quality of life. An MD/PhD allows me the opportunity to do both.

Michelle Sheena  
Home town: Houston, TX  
Degree: BS, Neuroscience, 2016, Tulane University  
Research Interests: Vision and perception: basic biological and cognitive processes  
2018 Rotation: Lab of Mike Steiff, PhD, Department of Chemistry  
Why MD/PhD? As a physician-scientist, I want to increase our understanding of the neuroscientific phenomena underlying psychiatric medication and the therapeutic benefits of artistic expression, and use this research to develop improved therapies for patients with neurological and psychiatric conditions. I hope to use my dual training to design clinically-informed studies, to improve patient mental health outcomes, and to guide evidence-based educational policy.

Amanda Snead  
Home town: Baltimore, MD  
Degree: BS, Neuroscience, 2013, Tulane University  
Research Interests: Neurodegeneration; affective, autoimmune and sleep disorders  
2018 Rotation: Lab of Jeffrey Loeb, MD, PhD, Department of Neurology & Rehabilitation  
Why MD/PhD? I am applying for the dual MD/PhD degree because being a physician scientist requires continuous learning and provides an immense benefit to speeding discovery of new treatments, promoting innovation, and helping a large population of patients.
Nancy Freitag, PhD, leaves MSTP to Become UIC Vice Provost for Faculty Affairs

In the previous issue of "The Medical Scientist," April 2018, we took great pride and pleasure in announcing the appointment of "our devoted MSTP Associate Director" Nancy Freitag, PhD, as a UIC University Scholar. We said that "we welcome the occasion to congratulate and praise her at every opportunity. Then, on June 13 came the news that she had been appointed Associate Provost for Faculty Affairs of the University, effective July 13. The announcement stated:"Dr. Freitag is currently a tenured Professor of Microbiology and Immunology, Associate Director of the Medical Scientist Training Program, and Assistant Dean of M.D./Ph.D. Education in the College of Medicine. She obtained her Ph.D. in Biological Chemistry from UCLA and served on the faculty at Wayne State University and the University of Washington before joining UIC in 2006.

Dr. Freitag’s research focuses on understanding the molecular mechanisms by which pathogenic bacteria cause disease as well as the host immune responses that limit infection. The NIH has continuously funded her laboratory since 1997 and in 2016 she was inducted as a Fellow into the American Academy of Microbiology. Dr. Freitag’s teaching has been recognized by several awards, including three Golden Apples. She has published over seventy peer-reviewed publications and holds two patents. In 2017 she became a University Scholar.

Dr. Freitag has served on numerous institutional committees, including three terms on the University Promotion and Tenure Committee. This past year she graduated as a Fellow in the Executive Leadership in Academic Medicine (ELAM) program, a national year-long fellowship program for women that enhances leadership skills including training in program development, conflict resolution, negotiation, and decision making skills.”

To express our love and gratitude for her six and a half years of dedicated service to the education, welfare and happiness of the MSTP students, we threw her a “thank you” party on the evening of August 6. After everyone was well sated with a delicious buffet dinner, Dr. Tobacman and Dr. Rosenblatt gave warm tributes to Nancy and then Julie presented her with a gift from the program: an engraved clock for her new desk in University Hall. Lots of hugs to her conveyed the thanks of the students, faculty and staff for her devoted service to the MSTP and best wishes as Vice Provost.

Following the event she wrote the following thank you note to the entire program community:

Dear All,

I have been composing in my head for many days a heartfelt thank you for the wonderful MSTP sendoff and dinner, and finally I realized I just have to try and write it out and send it off! Thank you all so much for the privilege of being involved with the MSTP. It has been my sincere pleasure to work and not-work with all of you, and I will miss my MSTP family! I always felt proud to be associated with a program that is dedicated to the success of its students and takes such pride in them, and it has been a joy to work with the MSTP leadership, Admissions committee, and students. The seven, eight, nine-year time frame may seem like a stretch, but what it meant for me was a chance to enjoy your company for as long as I could! Thank you so much for the warm sendoff, the beautiful card, the overwhelmingly kind poster, and the gorgeous clock which I opened only after most had left. Please know that my door is ALWAYS open, both in COMRB and on the 27th floor of University Hall, and I would love to see each and every one of you. You will always have my best wishes and respect, and I am an ETERNAL MSTP fan!

MSTP Faculty News

David Carley, PhD, Professor Emeritus in the UIC College of Nursing, was quoted in an Associated Press article and featured in the accompanying video about alternative treatments for sleep apnea. Dr. Carley is investigating the first-ever potential drug to treat the sleep disorder, dronabinol. Currently used as a drug to treat nausea in chemotherapy patients, dronabinol contains synthetic THC - a chemical found in marijuana plants. Dr. Carley was the thesis advisor of MSTP alumnus Jonathan Waxman, MD, PhD (2014) who studied sleep apnea for his PhD thesis.

Patricia Finn, MD, the Earl M. Bane Professor of Medicine and Head of the Dept. of Medicine, and her husband David Perkins, MD, PhD, Professor of Medicine, Surgery and Bioengineering, are the co-principal investigators on a new $2.7 million, four-year NIH grant to investigate possible links between the lung microbiome and sarcoidosis (an inflammatory disease that attacks multiple organs, particularly the lungs and lymph nodes, and disproportionately affects African Americans). They are the co-thesis advisors of Cody Schott (G4) and Dr. Finn is also the thesis advisor of Benjamin Turturice (M4). Another investigator on the grant is Yang Dai, PhD, Associate Professor in the Dept. of Bioengineering. She was the thesis advisor of MSTP alumnus Joel Fontanerosa, MD, PhD (2013).

Brian Layden, (MD ’05 UIC), professor and chief of endocrinology, diabetes and metabolism, was one of three UIC researchers awarded funding by Chicago Biomedical Consortium. He was also the keynote speaker at the MSTP 2018 Retreat in June (see page 8).
**Recent Student Publications**

**Alexander Agelidis (G5)**


**Tiffany Berkel (M3)**

**Russell Dulman (G2)**

**Artemis Gogos (G3)**

**Laura Rogers Hardy (G4)**


**Jane Ivakhnitskaia (G3)**


**Evan Kyzar (M3)**


**Matthew MacDougall (G5)**

**Christopher Manzella (G4)**


**Alejandra Marinelarena (M3)**


continued on page 6
Michael Marshall (G4)


Amanda Mennie (M3)


Alan Perez Rathke (G5)


Mladen Rasic (G4)


Cory Reiter (G3)


Adam Schafer (G4)


Alumni News

In Memoriam: Harold Harrison (MD, PHD 1979)

It is with great sadness that we report the sudden passing of one of the program’s pioneer students, Harold Harrison. At the top of his illustrious physician scientist career as the Director of Clinical Pathology, Geisinger Health System and the Director of Pathology Residency at Geisinger Commonwealth SOM, Dr. Harrison died June 6 in his car while driving to work at Geisinger. A memorial service was held June 27 in Lewisburg, PA where he lived with his wife of 24 years, Brenda Naccari. Among his many mourners are their three children: Amelia, a graduate student at The University of Delaware; Maggie, a senior at the University of Massachusetts in Amherst, and Henry, a sophomore at Tulane University.

Harry, as he was affectionately known, grew up in West Rogers Park in Chicago, where his life-long best friend since grammar school was Chuck Bernstein, the first cousin of Roberta Bernstein’s husband Chuck. Roberta had the personal pleasure of seeing Harry at the wedding of friend cousin Chuck’s son in November 2017.

With his BS in Chemistry from UIUC in 1972, he entered the UIC College of medicine to study medicine and pursue a PhD in Biochemistry in what was then the pioneering fore-runner of what later became a formalized MD-PhD Program. In 2005, he wrote to the program as follows: “I believe I was in the first formal MD-PhD group that started in the Fall of 1973. There were four others. My thesis advisor was Paul W. Morris, PhD. I received a letter of commendation from the Dept. for achieving the highest score ever on their written preliminary exam and later won first place in the Medical Student Research Forum for my studies. Although I had finished my research studies by the summer of 1979, I didn’t get my thesis written and defended until after my internship [at UI Hospital]—the final night of which was spent wheeling patients through the tunnels from the old R&E hospital [the current Clinical Sciences Building, 820 S. Wood] wards to the new hospital on Taylor St. Thus my PhD diploma was issued in 1981.

“At my internship year, I did a residency in Clinical Pathology from 1980 to 1983 at Northwestern. I then did two years of post-doctoral study with Drs. Norman and Leigh Anderson on the Human Protein Index in the Molecular Anatomy program at Argonne National Laboratory. Today this field is called proteomics. In 1985 I moved over to the University of Chicago as a faculty member in Pathology. I directed the Special Chemistry and Molecular Pathology laboratory of the hospital and my research studies were on serum proteins and their genetics. In 1992, I was recruited to Genetrix, Inc. and the University of Arizona Medical School in Phoenix in a joint commercial/private genetics practice and academic setting (which is typical for Phoenix clinical faculty).”

The rest of his career can be summarized as follows:

1996-1997 – Director of Clinical Pathology, Genzyme Genetics, Scottsdale, AZ;
1997-2001 - Consulting Pathologies, HEMEX Labs, Phoenix, AZ; Medical Director & Partner, 2001-2007
2007-2018 - Geisinger

The memorial statement issued by Geisinger stated; “An intellectual powerhouse and a consummate clinical laboratory scientist, he ensured excellence in clinical lab services for Geisinger and contributed to the field of laboratory quality assurance. He had a very positive and cheerful personality and a good sense of humor and will be greatly missed by his colleagues.”

With stellar students like Harry forging the proper path for MD-PhD studies at the UIC College of Medicine, we have continued to attract top ranked dual degree students. May Harry rest in peace and may his memory continue to be a beacon for current and future MD-PhD students.

Note to all alumni: Please keep the updates on your news coming. If you’re going to be in Chicago, please stop by for an informal visit or to give a formal presentation.

In the Alumni Mailbag

From: Lila Glotfely (2014) [mailto:lilagollogly@gmail.com]
Sent: Friday, July 13, 2018
Subject: Baby girl is here

Aria Alexandra Glotfely, 7 lbs 10.8 oz. We are doing well so far!

From: Michael Rubin (1997) [mailto:Michael.Rubin@hsc.utah.edu]
Sent: Wednesday, April 25, 2018
To: Mann, Julianna L.
Subject: Re: UIC College of Medicine MSTP - Spring 2018 Newsletter

Great newsletter, thanks for keeping it going . Michael Rubin, MD, PhD, MS, FIDSA, FACP
Associate Chair for Faculty Affairs & Development; Director, Vice President's Clinical & Translational Scholars Program; Professor of Medicine Department of Internal Medicine, Division of Epidemiology, University of Utah School of Medicine; Chief, Epidemiology Section; Associate Director, Salt Lake IDEAS 2.0 Center, VA Salt Lake City Health Care System, Salt Lake City, UT 84148

From: Uzma Samadani (1999) [mailto:usamadan@umn.edu]
Sent: Monday, April 23, 2018
To: Cohen, Edward, Bernstein, Roberta, Tobacman, Larry, Mann, Julianna

Thanks so much for your super kind emails! Sometimes when one is deep in the trenches it is nice to hear that hard work is getting recognized. Congratulations on the progress with the MSTP program. I remember that when I was there the infrastructure was "lean" and it is wonderful to hear how it has grown! I'm not yet sure when next I will be back in Chicago. But I look forward to staying in touch and visiting again. Best, Uzma
Assoc. Prof., Dept. of Neurosurgery, U. Minnesota Medical School; Neurosurgeon, Minneapolis VA Medical Center; Rockswold Kaplan Endowed Chair for Traumatic Brain Injury Research-Hennepin County Medical Center.

Ed. Note: Dr. Uzma was the MSTP graduation speaker in 2014.
Wedding Bells & Baby Booties

Congratulations to:

Mir (Isaam) Isaamullah, M3, and Crystal Rayon on their marriage May 5 at Reza’s Restaurant in Oakbrook, IL. Crystal is Family Medicine Intern at Advocate Illinois Masonic Hospital.

Laura Rogers Hardy, G4, and husband Adam Hardy on the birth of their first child: “Owen Andrew Hardy was born July 14th weighing 7lb 5oz. He’s shot up in size and now is in the 90th percentile for both height and weight! Which means he’s eating a lot and keeping me up with lots of feedings! But I’m happy he’s healthy and getting cuter every day. He’s got the social smile down, which cheers me up even when I’m super tired.”

Alumni News, cont.

Long-time MSTP pals, (l. to r.) Donny Hoang (2006) and David Ramsey (2008), both ophthalmologist-scientists, enjoyed having a social reunion while attending a professional conference, the 2018 meeting of The Association for Research in Vision and Ophthalmology (ARVO), April 29-May 3 in Honolulu.

Dr. Hoang is Assistant Professor, Duke-NUS Graduate Medical School and Clinical Scientist in the Vitreo-Retinal Dept. of the Singapore National Eye Centre with a clinical and research focus on extreme short-sightedness.

Dr. Ramsey, a vitreoretinal surgeon and retinal electrophysiologist, is Director of Ophthalmic Research at Lahey Hospital and Medical Center, a teaching affiliate of Tufts University SOM, where he is also Assistant Professor of Ophthalmology. He is a member of the New England Ophthalmologist Society.

Recent Student Defenses – CONGRATULATIONS:

Amanda Mennie — Friday, July 27, 2018, Department of Biochemistry & Molecular Genetics; Faculty Advisor: Nakamura, PhD; Thesis Title: “Telomere Protection and Length Regulation in Schizosaccharomyces Pombe”
Meeting at a new venue this year, the Cheney Mansion in Oak Park, the 2018 Retreat opening with breakfast and Dr. Freitag’s always hilarious introduction of the new students. It was followed by an ice-breaker led by Denise Yates, and then Dr. Tobacman’s annual State of the Program message. Using many of the spacious, elegant rooms in the house, the group moved into the library for the poster session. Presenters were: Alex Agelidis (G5), Catherine Blaha (G4), Russell Dulman (G2), Joseph Geraghty (G3), Laura Hardy (G4), Jane Ivakhnitskaia (G3), Allison Kirchner (G3), Trevor Leonardo (G2), Cutler Lewandowski (G2), Amanda Mennie (M3), Alan Perez-Rathke (G5), Adam Schafer (G4), Cody Schott (G4), Alexander Terry (G3), Alexander Ticho (G4), Benjamin Turturice (G4), and Morgan Zenner (G2).

Back in the living room, rising M4 students Reid Wilkening and Michael Marshall conducted a senior panel to give advice and answer questions based on their experiences in the program.

During lunch, Brian Layden, MD, PhD, Associate Professor Medicine and Chief of the Department of Endocrinology, Diabetes and Metabolism, gave the keynote address on “Metabolic Sensing of the Gut Microbiota through Nutrient Receptors”.

After lunch, everyone went outside into the beautiful gardens to get some exercise and pose for various group photos.

Back inside, SAC conducted its annual all-student meeting. Oral presentations on their research were given by Artemis Gogos (G3), Michael Merrick (G2), and Alexandria Young (G3). The final session was the annual Cohort meetings, and then a social hour took place at Bar Louie on Lake Street in Oak Park.

With the weather cooperating, great erudition, and lots of good humor, it was a fun-filled and educational day off campus.
The Medical Scientist

Recent Student Publications, continued from page 6

Rachael Smith (G2)


Alan Tseng (G5)


Benjamin Turturice (G4)


Reid Wilkening (M4)


Alexandria Young G4)