Pelotonia 2013
Steven Scoville
This year marked the 5th annual Pelotonia ride to support cancer research at The Ohio State University. The MSTP has been fortunate to have several students obtain Pelotonia fellowships, including two current students Adam Hinzey and Muhtadi Islam, who received fellowships this year for their cancer related research. Overall, we had 5 students and Dr. Kirschner ride in this year’s event. It was an inspiring day riding through the various communities and feeling everyone’s support and desire for Pelotonia’s one goal which is to cure cancer.

SUCCESS 2013
Kelly Regan
The SUCCESS (Summer Undergraduate Course Creating Excellence in Scientific Study) Program concluded its second annual program with the Closing Dinner and Ceremony August 1-2, 2013. After spending nine weeks in biomedical research labs at OSU, the 20 students showcased their research to family members and faculty at a poster symposium on Thursday evening and gave oral presentations on Friday morning. Symposium attendees heard remarks from SUCCESS Program Director Dr. Lawrence Kirschner, University President Joseph Alutto, Dr. Janet Weisenberger, Dr. Steven Gabbe, Dr. Charles Lockwood Dr. Patrick Osmer, Dr. Joanna Groden, and Dr. Larry Schlesinger. In addition to conducting research, students took professional development and clinical techniques courses during their time at OSU. Highlights of the program included social outings at Hocking Hills, the Columbus Zoo and a Columbus Clippers game. Congratulations to all the SUCCESS students on their hard work this summer; we hope to see you back at OSU!
**Joint Summer Retreat**

**Kelly Regan**

In early July 2013, students and faculty from The Ohio State University and Case Western Reserve University kicked off the first ever joint MSTP retreat at the Mohican State Lodge and Conference Center. The motivation behind the event was to foster relationships and share experiences and ideas between training programs. Attendees spent two days in Loudonville, OH to enjoy opportunities to hear from renowned clinical and basic science investigators, share student research, and take advantage of Mohican’s many recreational activities.

The first day of the retreat included State of the MSTP presentations by OSU directors, Drs. Larry Schlesinger and Lawrence Kirschner, and CWRU directors, Drs. Cliff Harding and George Dubyak. Students and faculty heard presentations from researchers from both institutions. OSU’s Dr. Michael Caligiuri discussed NK cell development and clinical applications. CWRU’s Dr. David Wald presented strategies for cancer drug development and Dr. Jonathan Stamler shed light on a novel perspective on the human respiratory cycle. Student presentations included Sankalp Maholtra (OSU), Bradley Martin (CWRU), Bin Ni (OSU) and Joseph Vithayathil (CWRU). Sankalp Maholtra recalls his experience presenting at the retreat as an educational opportunity, where “Dr. Caligiiuiri and students from both programs offered constructive feedback and advice for future directions.” Following outdoor activities, students regrouped for a poster symposium in the afternoon.

The keynote speaker for the event was Dr. Charles Stiles PhD, Professor in the Department of Neurobiology at Harvard Medical School and Deputy Director of the Mahoney Center for Neuro Oncology and Co-Chair of Cancer Biology at the Dana-Farber Cancer Institute. His talk was entitled “Conflict of Interest: An Oppositional Relationship between Stemness and p53 in Malignant Glioma.” Dr. Stiles congratulated both programs in this endeavor, calling the joint retreat “revolutionary,” and that more programs training young scientists should aspire towards collaboration. The evening culminated in a memorable night of karaoke.

The retreat concluded with a day devoted to OSU program review, where students provided feedback on the past year’s activities, new ideas for the future and welcomed the incoming class. Alumnus Dr. Ken May joined the program for both days of the retreat. On the final day of the retreat, Dr. May shared his personal and professional story, and reminded trainees of the importance of following your passion. Finally, the 5th annual awarding of “The Larry” tested students’ vast wisdom on national parks and was awarded to Dylan Nielson.

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**Student Achievements**

Edward Briercheck received his PhD in the IBGP program (PhD advisor: Dr. Michael Caligiuri)

Rebekah Browning received a 2013 F30 NRSA Fellowship Award

John Frater received a 2014 Distinguished University Fellowship

Adam Hinzey received a 2013-2015 Pelotonia Graduate Fellowship

Bin Ni received the 2013 Midwest Microbial Pathogenesis Conference Travel Award

Richard Price was inducted in the 2013 American Association for Cancer Research

Sean Reiff and Michael Sharpnack received a 2014 University Fellowship

MD/PHD Leadership & Academic Achievement Awards 2013: Stephen Bergin, John Frater, Zachary Hing, Jillian Liu, Susan McClory, Kelly Regan, Michael Sharpnack
Dr. Erin Longbrake graduated from OSU's MD/PhD program in 2009. She received her MD, cum laude and her PhD in the Integrated Biological Sciences Program, where she completed her thesis, "Consequences of differential macrophage activation after spinal cord trauma" with her advisor, Dr. Phillip G. Popovich. Dr. Longbrake is currently a PGY-4 Neurology resident at Washington University in St. Louis. Her research interests include contributions of glia to neurologic diseases and interactions between the immune and nervous systems, particularly multiple sclerosis. Dr. Longbrake is motivated to advance MS research. "I believe that the future of medicine and research lies in the ability of scientists and physicians to think broadly, engaging relevant problems with the tools of multiple disciplines." This spring she received a $195,000 grant from the National Multiple Sclerosis Society. "Today, I remain motivated and intrigued by the many unknowns that populate the field of MS research. I am also motivated by the patients I care for to try and find more tolerable and more effective treatment regimens for them."

Dr. Longbrake joined OSU's combined program because she valued the intellectual challenge, and found both medicine and basic neuroscience and immunology fascinating. She was one of the original students recruited by Allan Yates to pilot the IBGP/MSP combined program. During her time at OSU, Dr. Longbrake achieved in her academics as well as in her personal life. She received Honors in her Med 1 & 2 years and several clinical internships, the Dean's Distinguished University Fellowship, the MD/PhD Leadership and Academic Achievement Scholarship and was inducted into the Alpha Omega Alpha Honor Society. She received a financial award from the PEO Sisterhood and the AAN Medical Student Prize for Excellence in Neurology in 2009. In addition to financial support, she credits Dr. Yates and administrators Ashley Bertran and Christine Kerr in encouraging her throughout the process. "For students going through the dual degree program - it's a marathon, not a sprint. There's no reason for you to stop doing other things you love just because you're in a dual degree program." While she attended OSU, Dr. Longbrake earned her black belt in taekwondo, sang with MedNotes, and was involved in the Intervarsity Christian Graduate Student Alliance.

She also met and married her husband who was an economics PhD candidate at the time.

Currently, Dr. Longbrake works at the John L. Trotter Multiple Sclerosis Center at Washington University as a fellow in neuroimmunology. "As a fellow, I am intimately involved in many clinical trials and am also pursuing several translational research projects in multiple sclerosis. Specifically, I am interested in identifying biomarkers that would predict individual patients’ response to a given therapeutic agent as well as studying the sphingosine-1 phosphate receptor system as it pertains to multiple sclerosis." For residency applicants, Dr. Longbrake offers advice for students, "In most cases, you're interviewing the program at least as much as they are interviewing you. Find a place where you fit in, in a location where you’d like to live and go there. You want to be happy as a resident, so don’t choose to go somewhere that you aren’t comfortable just because it’s a highly ranked program."

Dr. Longbrake forsees continuing in academic medicine, but has not yet decided how strenuous a course of research she wishes to pursue. "For the immediate future, I will remain at Wash U as a fellow; my funding through the NMSS will continue for the next 3 years." She recognizes that keeping your priorities straight as a physician scientist can be challenging and finds her balance with her family. We congratulate Dr. Longbrake on all that she has accomplished professionally and personally and look forward to her success in future endeavors!

Alumni Update:

Matthew Mendlik
Class of 2007

We congratulate Dr. Mendlik on his new position as Assistant Professor of Neurology and Palliative Care at the University of Pennsylvania.
Publications


APSA Regional Meeting

Dylan Nielson
OSU will be hosting the American Physician Scientist Association (APSA) 2013 Midwest Regional Meeting on Saturday, November 9th and I hope you can attend. Thanks to the generous support of the OSU College of Medicine, registration is free for OSU students. APSA is a national student-run organization dedicated to supporting the training of physician-scientists. This year’s regional meeting will focus on private-public partnerships in biomedical research, a topic of increasing importance in the current funding climate. In addition to being a great chance to present your work to colleagues and faculty from around the region, we will be offering several travel awards, so be sure to submit a poster. Our keynote speakers from OSU, Dr. Michael Caligiuri and Dr. Wolfgang Sadée will present work facilitated by private-public partnerships. Our third keynote will be Dr. Penny Heaton, current Director of Vaccine Development for the Bill and Melinda Gates Foundation and former Global Director of Novartis’s Vaccine Development Program. We will also have breakout sessions addressing a range of applicable topics, including technology transfer, networking, and career options for MD-PhD students. You can find out more and register at goo.gl/v6Bcaz. Again registration is free, so we hope to see you there!

Upcoming Dates

Oct 10-12, 2013 – MSTP Recruitment Session
Oct 31-Nov 2, 2013 – MSTP Recruitment Session
Nov 9, 2013 – APSA Regional Conference
Jan 9-11, 2014 – MSTP Recruitment Session
Feb 6-8, 2014 – MSTP Recruitment Session
April 9-10, 2014 – OSUWMC Trainee Research Day
Welcome, New Trainees!

Alecia Blaszscak
I was born in Mayfield Heights, OH and grew up about an hour east of Cleveland in Hambden, OH. For my undergraduate coursework, I attended Case Western Reserve University where I received a BA in nutritional biochemistry and metabolism and a minor in chemistry. While attending Case, I worked in a research lab at the Cleveland Clinic under Dr. John Kirwan that focused primarily on metabolic diseases and diet and exercise interventions. In this lab, I was exposed to a wide array of research from patient care to grant development to basic science training. Throughout high school and undergrad, I was also heavily involved in Special Olympics as a basketball and soccer coach for our local county team. After graduating in December of 2012, I worked full-time in the research lab at the Cleveland Clinic. From the time that I began research during my undergraduate years, I knew that an MD/PhD would be a great option that would provide both long-term and short-term career satisfaction. I chose OSU because of the breadth of research that occurs here. My future research interests lie in autoimmune related research or rheumatic diseases and exercise. I became interested in this field after my older sister was diagnosed with a rare autoimmune disease. It is my goal to find a more effective treatment plan for future patients. After shadowing a rheumatologist, I knew that I would enjoy working in this field. I am extremely grateful for the opportunity to become part of the MSTP program here at Ohio State and look forward to contributing to this expanding program over the next 8 years. When I am not doing things related to medicine, I enjoy hanging out with my family, baking, running and shopping.

Christopher Bobba
I grew up in Portsmouth, Rhode Island and graduated in 2013 from the University of Rhode Island in Chemical Engineering. Since I can remember, I have been interested in a career in medicine. But it wasn't until my undergraduate years when I started doing lab work (mostly as a med school application booster) that I realized I wanted a career in research, too. After months to years of weighing pros and cons, someone finally told me about combined degree programs. At that point, the choice to pursue an MD/PhD was a no-brainer. My undergraduate degree is in Chemical Engineering and research at URI involved nanoparticle-lipid interaction studies; using model cell membranes to figure out how nanoparticles would alter cell integrity. At Ohio State, I'll be in the BME program with research interests in the realm of tissue engineering and regenerative medicine. I chose OSU because a) I got in, b) it was not in Rhode Island (thank god!) and c) I knew that I would love Columbus after living here in summer 2012 for the SUCCESS program. Whenever I’m not in lab or studying, you can probably find me snowboarding, working out, brewing beer or getting lost in the countryside on my motorcycle.
Luxi Chen
I was born in Tianjin, China and grew up in Ottawa, Canada before my family settled down in San Jose, CA. As a daughter of a physician, I spent most of my childhood in the playroom of hospitals and listening to stories around the dinner table. I attended college at UCLA, where I received my BS degree in Biochemistry. The summer after my freshman year, I had the opportunity to do research in Dr. Zhen Cheng’s lab at Stanford University’s Department of Radiology. There, I worked on several projects to design and test nucleotide-based molecular probes that can detect cancer at its earliest stages. While at UCLA, I also volunteered at the Ronald Reagan Medical Center, where I took part in creating a hospitable and supportive environment for patients and their families. These experiences, along with my childhood fascination with medicine, prompted me to pursue a career as a physician scientist. After graduating from college, I worked as a summer intern at Genentech Inc. to evaluate the effects of a small molecule inhibitor on human colon tumor growth and survival. I then went on to conduct translational research at Stanford to study oncogenic networks in primary organoid cultures. When I came to visit OSU, I was not only impressed with the myriad of opportunities in cancer research but also touched by the warmth and friendliness of the community. I am interested in cancer biology and studying the underlying mechanisms in the development of cancer. Outside of school, I enjoy playing piano, singing, hiking, swimming, watching indie movies, and screenwriting.

Kavin Fatehchand
I was born in Chennai, India but grew up primarily in Rochester, NY. I completed my B.S. in Biology at Emory University in Atlanta, GA. At Emory, I was involved heavily in Club Tennis and Volunteer Emory. I spent a lot of my time going to underprivileged children’s daycares around the area to help teach. I became interested in the MD/PhD program after I started doing research at the Ohio State University three years ago in Dr. Susheela Tridandapani’s lab. The research focused primarily on different ways to enhance monoclonal antibody therapy, specifically looking at Fc gamma receptors on monocytes. I decided on Ohio State University because I would love to continue my research and eventually be able to see the therapeutics we look at in my lab be used on my own patients. As far as my personal life, I love hanging out with my family, friends, playing music, and most importantly keeping up my tennis game.
Eileen Hu
I grew up in Milpitas, California where I spent most of my life until high school when my parents decided to relocate to Shanghai, China. I was a biochemistry major at UCLA, and it really was not until college that I decided to pursue a medical oriented career. The summer after my freshman year, I went back home and decided to volunteer at a local hospital in a southern Chinese city. That volunteering experience is what created my current passion for medicine. At first, the administration was very reluctant to allow any volunteers into the hospital, especially a foreign one, and after I began, I could see why it was so. I had never seen more crowded conditions and patient privacy as well as physician attention was something that only came with money and bribes. Although initially turned away from the experience the more time I spent with the patients, the more determined I was to be able to change this in the future. In terms of research, I worked in various labs while at UCLA but the most influential experience came from the lab of Dr. Jing Huang who worked on small molecule anti-aging therapies. The work in this lab showed me the more applicable facet to the basic sciences and while in the lab I studied the mechanism of a promising small molecule that extended the lifespan of C. elegans by more than 50%. My research interests still lie in the area of small molecule/target therapeutics and currently I am interested in the application of targeted therapies in cancer. I love hiking, cooking, playing video games, and I hope to be able to enjoy my time here at OSU!

Michael Koenig
I was born and grew up in Los Angeles, California. I stayed in Southern California for my undergraduate education, attending Pomona College. While at Pomona, I majored in molecular biology; I completed a research thesis on homing endonuclease genes with Professor Lenny Seligman and completed a mathematics minor as well. Outside of class, I spent three years as a teammate on the Pomona College mock trial team (often portraying an expert witness, or cross-examining one). I also edited a monthly politics and opinion magazine called The Claremont Independent and picked up an interest in pottery and ceramics. After graduating, I spent a year performing clinical research on pediatric inflammatory bowel disease with Dr. Marla Dubinsky at Cedars-Sinai Medical Center; I also worked part-time on an electron microscopy study of collagen networks in the vitreous humor with Dr. John-Pierre Hubschman at UCLA. During that time, I picked up some new hobbies: I started baking, helped my dad set up a pottery studio and refurbished an old vinyl turntable, I am going to continue doing these things in Columbus. I am really interested in cancer genetics research right now, and I’m excited by work that uses genetic data acquired from the clinic to develop new therapeutic targets or learn more about how cancer works. I hope to someday pursue that interest both in the lab and as a clinician.
Ellen Lubbers
I grew up in Columbus, Ohio with my five siblings and family. I was a very active kid, involved in any sport my parents would let me play, including five varsity sports in high school. I spent a lot of time in Appalachian Ohio, where my mom worked with the Amish population and in medical clinics. Due to this exposure to undeserved populations in Ohio and after several trips to volunteer at Montana de Luz, a home for children with HIV/AIDS, I decided I wanted to pursue a career in medicine. While I was in college at Ohio University in Athens, Ohio majoring in Biological Sciences, I became involved with the rowing team and in research on the role of adipose tissue as an endocrine organ and it’s impact on diabetes and aging. While I initially thought I would only be involved in research briefly to fulfill the requirements of my program, I quickly fell in love with it! After much inner turmoil about whether to pursue an MD or PhD, a mentor suggested I consider a dual degree. As I learned more about the dual degree programs, I became sure it was the best way for me to combine my loves of research and medicine. While here, I hope to be involved with service organizations working to provide adequate medical care to undeserved populations. I am excited to be a part of the OSU MSTP and can’t wait to see what the next 8 (or 9) years have to offer!

Nathaniel Murphy
I grew up in Bloomington, Illinois and attended Illinois Wesleyan University, where I received my degree in chemistry. Throughout college I was involved in various types of research, including the SUCCESS program at OSU. I studied organic and inorganic synthesis at my undergraduate institution and worked with Dr. Mohler at Ohio State, investigating heart failure and sudden cardiac death. I am incredibly excited to start this journey in the MSTP. I am joining the IBGP, and am interested in studying cardiac physiology. Outside of school I enjoy swimming, reading, and playing my trumpet.

Giancarlo Valiente
While growing up in Los Angeles and San Diego, I was gradually attracted to the field of medicine. Unlike many, I did not always know that medicine was right career choice. Rather, a mixture of circumstances led to the realization that medicine was the field for me. I majored in Biology at UNC Chapel Hill in North Carolina. I was fortunate to have lasting laboratory experiences in Dr. Ronald Falk’s and Dr. Gowthami Arepally’s lab. Both labs fostered my passion and interest in immunology and autoimmune disease. The immune system is an incredible bio-system with seemingly endless complexity. Within this complexity lies the potential for aberrances and irregularity which portend the onset of disease. I witnessed many illnesses through the example of my grandfather and to a lesser extent my childhood struggles with asthma. These personal experiences along with following physicians in their clinic and volunteering at Duke University’s Pediatric Bone Marrow Transplant unit, made me aware that medicine was a career that I could not turn my back on. It is its service to society and roots in science that attracted me the most; it was only proper for me to be inclined to dual MD/PhD training. I have to thank Dr. John Wooley and Dr. Arepally, my life-long mentors, and many others for guiding me along the pathway of entrance into The Ohio State University MSTP. In my free time I enjoy all things musical; in addition to playing the drums, guitar, bass guitar, and piano, I love making and mixing music on my turntables and keyboard.
Kristina Witcher
I grew up in Chapel Hill, North Carolina and moved to Ohio to attend Oberlin College. At Oberlin I majored in biochemistry and neuroscience and ran varsity cross country and track. I fell in love with research during my first summer research experience studying the effects of ethanol on adolescent learning and memory at Duke University. At Oberlin I worked in another behavioral neuroscience lab studying the effects of luteinizing hormone on the hippocampus. These experiences led me to decide to pursue not only a career in medicine but one as a physician scientist. I am excited to be starting my MD/PhD training here at Ohio State and look forward to contributing to the MSTP and medical school communities. In my spare time I enjoy running and spending time with friends and I look forward to exploring Columbus!

Nicole Zalles
My family lives in Miami, FL, but I've lived in a lot of places over the years. I'd have to say my favorite places I've lived were Connecticut and North Carolina. I went to UNC-Chapel Hill, and did a double major in Biology and Anthropology. Some of the bigger things I was involved in besides research was the Buckley Public Service Scholars program, where I did a lot of volunteering, from serving on a grant-awarding committee, walking dogs from the animal shelter, and working in a free women's clinic. I knew ever since I was little that I wanted to be a doctor, but it wasn't until I got interested in my mom's breast cancer research during my high school years that I realized how important and interesting clinical research was. I REALLY got hooked when I spent my summer after graduating high school working on her project in a cancer research laboratory at Yale. I quickly found that i was infatuated with both medicine and research!! To this day, oncological research is what interests me the most and most of my work (if not all) has been focused on breast cancer research. While at UNC, my research focused on the metastatic propensity of certain genetic subtypes of breast cancer. As to why I chose OSU, it wasn't until my mentor from Yale mentioned the program that I even looked into it. After reading more and more about it, and then coming to interview, I knew OSU was a place where I could achieve my professional goals while living in a great place, and meet wonderful people. I have a variety of hobbies, from drawing, fishing, running, reading and cooking.