The Pitt-CMU MSTP Program

The Medical Scientist Training Program (MSTP) of the University of Pittsburgh and Carnegie Mellon University was established in 1983 to offer exceptionally talented individuals the opportunity to undertake a physician-scientist training program tailored to their specific research interests. Our primary directive is to create future biomedical investigators by providing the highest quality of graduate medical training.
By: Dr. Richard Steinman

Director's Note

This past year has been one of landmarks for our MSTP program. Students have taken the leadership to drive a number of initiatives, broadening learning and professional development both within and beyond our curriculum. These include the formation of a new chapter of the American Physician Scientist Association (with terrific outreach to diverse pre-medical groups planned), the launch of our Women in Science and Medicine quarterly book club with sessions on “Getting to Yes” and “Grit”), and the full development of House meetings of multi-year students with outstanding and generous MSTP alumni. Within the curriculum, we benefited from expanded leadership of our grantwriting course, the establishment of the ungraded inpatient MSTP intensivist rotation and clinical reasoning sessions to augment the grad school-to-med school transition, and the initiation of individual Executive Coaching Sessions in G2 and MS4 to facilitate resiliency, time management skills and support trainees in managing transitions in view of their strengths and values.

As the reputation of our program, the schools, and Pittsburgh continues to build we had a high mark of 536 applicants this year, a 24% increase over our largest previous applicant pool. These candidates are uniformly excellent and will undoubtedly enrich investigative medicine for decades.

Those in the program continue to brighten the landscape of academic medicine. Current students have continued to do smart, innovative research and to share their findings in both top specialty journals and general journals including Cell, Molecular Cell, Science Advances, Journal of Clinical Investigation and PNAS. Our MS4 students already have a median of 6 total and 3 first-authored publications well in advance of graduation. We had 6 new F30 awards (with more awaiting the notice of award), 6 doctorates awarded, and numerous travel and other awards including Chateaubriand fellowships, a Mallinkrodt awardee and a Hertz finalist.

I congratulate and am impressed by each of our trainees and am deeply honored to work with each of you. I would underscore that the MSTP is not only a formative setting for your building your scientific and clinical acumen, but is a forge for meaningful relationships that extend far into the future. I am so pleased by the character that you bring to our program and the many long-lasting friendships that have sprung from this shared experience. Many of our graduates get together as residents, fellows, or after training, and several collaborative papers have come out between graduates who lie not share a scientific focus in medical school. Our alumni are increasingly committed, either as instructors in the MSTP curriculum, or as advisors as students consider their postgraduate trajectories. So you are expected to stay within the gravitational field of this program and to inspire new generations of trainees with your dazzle, your orbit.

Richard Steinman: A Biography

Richard Steinman M.D., Ph.D. has served as the Associate Dean of the Medical Scientist Training Program for 8 years, and as the Director of the Physician Scientist Training Program for 11 years. He earned his M.D. and Ph.D. at the University of Pennsylvania for Medicine and Biochemistry. As an Associate Professor of Medicine at the University of Pittsburgh, Dr. Steinman plays an active role in shaping the minds of the next generation of medical professionals.
Welcome Class of 2019

Christine Aburto  
Talia Adi  
Donald Bourne  
Hannah Butterfield  
Brittany Chamberlain  
Mona Chatrizeh  
Kevin Dowling  
Geyon Garcia  
Gabrielle Gilmer  
Jasmine Hect  
Jie Bin Liu  
Joseph Maggiore  
Jessica Medrano  
Marisa Millenson  
Kailyn Faye Witonsky
F-30 Awards: A Background

F-30 awards formally known as Ruth L. Kirschstein Individual Predoctoral NRSA for MD/PhD and other Dual Degree Fellowships. The purpose of this Kirschstein-NRSA program is to enhance the integrated research and clinical training of promising predoctoral students, who are matriculated in a combined MD/PhD or other dual-doctoral degree training program (e.g. DDS/PhD, AuD/PhD, DVM/PhD), and who intend careers as physician-scientists or other clinician-scientists.
The weekend of August 2, 2019, The MSTP held its annual Scientific Retreat. As always, the retreat reunited the student body, affiliated faculty and alumni for scientific and professional development as well as some good fun. This year the on-campus segment of the retreat was moved to the University Club, where we took advantage of the ballrooms and conference rooms for poster presentations, graduate student talks, and a keynote presentation.

Dr. Richard Steinman kicked off the retreat with his annual “State of the Program Address”, in which he discussed changes occurring to the program and its continued growth and achievements and then highlighted several student successes. He also presented most of the MSTP awards for students and faculty. Kevin Levine presented the William E. Brown Outstanding Mentor Award to Dr. Steffi Osterreich, his mentor. After Dr. Steinman’s address the MS1, MS2, and G2 students presented posters in two waves as faculty, MSTP students, and graduate students came to see the exciting research. In order to provide feedback and guidance to students this year the posters were judged by affiliated MSTP faculty.

Pitt-CMU Annual Retreat 2019

Elliott Collins, PhD was awarded the Drs. S. Sutton Hamilton MSTP Scholar Award.

Aaron Sun, PhD received the Drs. S. Sutton Hamilton Translational Science Award.

The Carol and S. Sutton MD Outstanding Service award went to Joshua Wesalo.
After the awards ceremony Dr. Umamaheswar Duvvuri, Associate Professor of Otolaryngology and Director of the Center for Advanced Robotics training at UPMC, gave a talk on becoming a Physician Scientist: Pitfalls and Pearls. He gave insights into his career progression as an MD PhD surgeon-scientist including choosing how to manage work-life balance, applying for funding and pursuing surgery as an MSTP student.

After Dr. Duvvuri’s keynote the upper level graduate students broke off into satellite sessions to give short talks on their current research progress and exciting new developments. Then the retreat moved to Seven Springs Mountain Resort for the remainder of the event. Stormy weather and traffic delayed many students from arriving on time, but thanks to Kathleen Hansell-Prigg and the staff at Seven Springs we were able to push cocktail hour into dinner. Following dinner the new incoming students had the opportunity to introduce themselves, which they did this year Predictions of Superlatives. The MS4s gave us sage advice on successfully completing the MSTP program, something which is always a highlight of retreat.
We started Saturday's agenda at 10:00 am, which was a well received change, with discussion of the annual survey results and suggestions from students to the MSTP administration. Then Oyin Dosunmu-Ogunbi gave a brief presentation on student achievements outside of the MSTP. After, the students broke off into small workshops which included the Grad school to Medical school transition, How to write an F30, Machine learning applied to clinical data and sexual harassment & bystander training. After enjoying lunch, we departed for Seven Springs mountain top to play capture the flag.

Judson Englert was the Alumni Keynote Speaker and gave a presentation entitled Bench to Bedside: A Drug Development Journey from Academia to Industry. Judd discussed his journey beginning with his time in the Pitt MSTP where he met his wife and fellow Pitt MSTP alumni Dr. Corrine Kliment, who was also in attendance with their son and daughter. Judd obtained his PhD from the Cellular and Molecular Pharmacology program and matched into residency at Brigham and Women’s Hospital. After residency, Judd went on to an oncology fellowship at Johns Hopkins. From here Judd explained how his career interests progressed to industry as he began working at MedImmune as the Associate Director then Director of Clinical Development before moving on to UPMC Enterprises where he became the Senior Director of Translational Science in February 2019.

The retreat was made possible thanks to the hard work from Kathleen Hansell-Prigg and Justin Markuss as well as other members of the MSTP administrative leadership team.
The MSTP Houses had a fantastic year! MSTP students belong to one of three houses led by student coordinators, as well as residents/fellows and faculty who are alums of our MSTP. Each House started the year with food and fun, at a dinner hosted by the House faculty member. Throughout the year, house events including potlucks, a game night, a hike, scoping out a local food festival, painting, and more. The events also allowed students to gain mentorship from others at every stage of the MSTP (and beyond) on topics from work-life balance, coursework, F30s, choosing mentors, and deciding specialities. The student house coordinators are looking forward to another fun year of events!

**MSTP Mentoring Program**

We are excited to announce the creation of our new MSTP House System! Our goal is to encourage students from all the years to connect and support one another over the course of the MSTP journey. This is also an opportunity for older students to pass on their wisdom and offer mentorship to younger students in the program. All first and second year students are assigned to a family, along with 3-4 students in the graduate school years, and 2-3 students in MS3 and MS4. Our houses are currently led by MS2s Michael Granovetter, Helene Altmann, and Alison Butler, who have spearheaded this initiative.

The MSTP Houses had a fantastic year! MSTP students belong to one of three houses led by student coordinators, as well as residents/fellows and faculty who are alums of our MSTP. Each House started the year with food and fun, at a dinner hosted by the House faculty member. Throughout the year, house events including potlucks, a game night, a hike, scoping out a local food festival, painting, and more. The events also allowed students to gain mentorship from others at every stage of the MSTP (and beyond) on topics from work-life balance, coursework, F30s, choosing mentors, and deciding specialities. The student house coordinators are looking forward to another fun year of events!

**House I**  
Stephanie Myal, Melanie Grubisha, David Levinthal

**House II**  
Maryanna Owoc, Paolo Vignali, Elizabeth Oczypok, Kenneth Urish

**House III**  
Miranda Culley, Josh Wesalo, Amir Faraji, Anna Zemke
The MSTP Student Committee

It’s been a busy year for the student committee chairs. Aside from our monthly meetings with the administration, where we acted as liaisons to represent student interests, our major project has been completing the first draft of the MSTP SARC (Student Academic Resource Consortium) Manual, as a 65-page student-to-student guide about how to navigate the MSTP. This guide builds off of the excellent work outlining and drafting the manual by Heather Acuff, who chaired the student committee (alongside Elliot Collins) last year. The guide features input from dozens of students and contains advice relevant for all stages of the program, covering the first summer lab rotation to the match. Notable contributions include a growing collection of “info-sheets” about each graduate program from too many students to list here, and a 6-page data-rich housing guide put together in large part by BaDoi Phan. We’d like to thank all of the contributors to this project and we look forward to its continued growth.

We recently completed our selection process for next year, and are excited to leave the MSTP Student Committee in Gaelen Dwyer’s and Laura Molina’s very capable hands. In filling the rest of the positions, we were thrilled with the high level of enthusiasm from the dozens of volunteers who stepped up to fill the committee positions. We are excited for another strong year of student-driven MSTP programming. It has been an honor to serve the MSTP this year, and we enjoyed our chance to “pay it forward” for the hard work that all of the student volunteers who came before us did to make the program what it is today.
The Welcome Committee is dedicated to bringing together incoming students from the Physician and Medical Scientist Training Programs here at Pitt Med. As a group led by second-year MSTP students, we aim to: 1) foster bonding among incoming students through group events and activities throughout their first transitional summer, and 2) aid in their transition by providing them with knowledge, resources, and advice about the training program, Pitt Med, and life in Pittsburgh. This summer, we welcomed the entering MSTP and PSTP classes of 2019 with a big welcome barbecue, a group tour of the Strip District, a 4th of July picnic and game night with upperclass students, and many other events!
The mission of the Women in Science and Medicine Association (WSMA) is to: 1) Provide educational and supportive resources to women in medicine and the sciences in all stages of training. 2) Recruit students to pursue a physician scientist career path and retain current trainees already committed to this path. 3) Empower advocates to aid and support women in medicine and the sciences to obtain leadership roles. We encourage all students to partake in our many events and developmental activities throughout the year!

So far this year we’ve enjoyed the continuation of our monthly “Coffee Hour” series, where we invite faculty members to come discuss important topics such as training, the search for a faculty position, and navigating negotiations. These informal discussions provide a great opportunity to hear from faculty members about the ups and downs of their career in science and medicine and encourage networking between students and faculty members. A good suggested read recommended during our first coffee hour led to the development of the WSMA book club. In the fall we read, “Getting to Yes” a best-seller on negotiation and conflict resolution. Recently, we finished reading “Grit - The Power of Passion and Perseverance” a compelling collection of Angela Duckworth’s research suggesting that the secret to achievement is a special blend of passion and persistence she calls “grit.” These book club discussions have been a huge success, stimulating thoughtful conversation. Recently, we held our annual “Balancing Act” panel. We invited faculty and student couples from the School of Medicine to discuss their secrets to success and how they juggle a demanding job, relationships, and a family.

Your WSMA coordinators:
Ansen Burr (Burr.Ansen@medstudent.pitt.edu)
Gaelen Dwyer (Dwyer.Gaelen@medstudent.pitt.edu)
Maryanna Owoc (Owoc.Maryanna@medstudent.pitt.edu)
Jorna Sojati (Sojati.Jorna@medstudent.pitt.edu)
MSTP-PSTP Staff 2019-20
Left to Right: Kathleen Hansell-Prigg, Taro Dawan, Ragini Devala, Blair Douglass, Justin Markuss