

A Note From The Director

am extremely proud of our MSTP students' accomplishments this past year. During this period students have published over 80 papers, been awarded 7 new F30 grants (and more pending), successfully defended 17 PhD's, riveted audiences at regional, national and international talks, and put onto their shelves diverse travel, foundation and society awards. As of this fall, our MS4 class averaged 8.5 total and 4.2 first-authored accepted or published manuscripts/student, a new high. These measurable achievements warrant celebration! But they are only part of the picture of our vibrant student body. Each student in our program has unique strengths that will blossom as he or she successfully completes both degrees. I am equally impressed by the drive and curiosity of those who are en route to their first personal landmarks; by a student leadership that sustains our Pittsburgh program as a triumph of student-driven initiatives; by the commitment of our students to ensuring that health and wellness remains a priority of the program with many actionable points of access; and by the serious interest of scores of faculty who know the privilege of mentoring and learning from smart engaged students and stand ready to teach you.

2017 MATCH LIST

ALEXIS CHIDI General Surgery Johns Hopkins Hospital

MATTHEW HEDBERG Anatomic/Clinical Pathology Washington University (BJH)

NEIL KELLY Internal Medicine UPMC

Mark Langhans Orthopaedic Surgery Cornell University (HSS)

ELIZABETH OCZYPOK Internal Medicine UPMC

ROBERT RASMUSSEN Med-Prelim, UPMC Radiology, UTSW

DANIEL SIMMONDS Peds-Prelim/Child Neurology University of Maryland Medical Center

LAUREN SKVARCA Pathology UPMC

Јозниа Ѕтигм Otolaryngology Columbia & Cornell Universities (NYPH)

Adrienne Taren Emergency Medicine University of Oklahoma

sprands F30

Heather Acuff Matthew Amdahl Michael Chiang Miranda Culley Jared Kopelman Kevin Levine Zachary Yochum As a program, our responsibility is not just to help you build the skills and the biosketch, the research ethics and the academic scope to dilate the eyes of postgraduate academic programs that are the next step on your journey to promoting health and combatting disease. Our responsibility does not end with the handoff, with your momentum through the next career door as you grasp your degrees. It is our obligation as well to equip you with the transactional skillset to make the connections that you need to continue to master the clinician investigator role(1); to identify good and avoid bad mentors(2,3); to forge a comprehensive understanding of how to set up a lab, collaborate, garner regulatory advice and how/when to say no (or yes) while strategizing to achieve benchmarks for success(4). Building these skills and building resilience will not only help you to persist through challenges inherent in residency, fellowship, academia or industry transitions, but to continue to enjoy your work and draw satisfaction from it. To this end, I hope by the summer to have initial video profiles available for our curriculum of local physician scientists who not only portray their success and passion, but also instruct on particular challenges that they encountered and surmounted. I am delighted also by the increased involvement in our Research Basis of Medical Knowledge course of recent MSTP graduates who are presenting clinical cases along with pertinent science currently under development or in use for their care.

Over the next months we will continue to explore barriers and facilitators of short and long-term success, key questions worth considering in choosing and evaluating mentors and your own progress, and ways in which our program can continue to develop to serve you and your bright futures.

Warmest regards,

RICHARD **S**TEINMAN

PhD's Recently Awarded

ALYCE ANDERSON

Clinical and Translational Science Thesis Advisor: David Binion, MD

RACHAEL GORDON

Immunology Thesis Advisor: Mark Shlomchik, MD, PhD

Alexander Kikuchi

Cellular and Molecular Pathology Thesis Advisor: Satdarshan Monga, MD

ANNIE LIU

Neuroscience Thesis Advisor: Nathan Urban, PhD

J. RANDALL MCAULEY

Cellular and Molecular Pathology Thesis Advisor: Peter Lucas, MD, PhD

JARED MOREINES

Neuroscience Thesis Advisor: Anthony Grace, PhD

NOLAN PRIEDIGKEIT

Molecular Pharmacology Thesis Advisor: Adrian Lee, PhD

Eric Strobl

Biomedical Informatics Thesis: Shyam Visweswaran, MD, PhD

ERIC ZIMMERMAN

Neuroscience Thesis Advisor: Anthony Grace, PhD

4. Lee, L. S. et al. Clinical and translational scientist career success: metrics for evaluation. Clin Transl Sci 5, 400–407 (2012).

^{1.} Robinson, G. F. W. B., Schwartz, L. S., DiMeglio, L. A., Ahluwalia, J. S. & Gabrilove, J. L. Understanding career success and its contributing factors for clinical and translational investigators. Acad Med 91, 570–582 (2016).

^{2.} Straus, S. E., Johnson, M. O., Marquez, C. & Feldman, M. D. Characteristics of successful and failed mentoring relationships: a qualitative study across two academic health centers. Acad Med 88, 82–89 (2013).

^{3.} Chopra, V., Edelson, D. P. & Saint, S. A PIECE OF MY MIND. mentorship malpractice. JAMA 315, 1453–1454 (2016).

Pitt-CMU MSTP Annual Retreat August 2017

rom August 25–27, the MSTP held its annual Scientific Retreat. The event brought together the entire student body and numerous affiliated faculty as well as alumni for a weekend of scientific discussion, professional development, and recreation. The retreat began with the "State of the Program Address" from our Director, Dr. Richard Steinman, during which he highlighted the various accomplishments of students as well as the continued success of the program in recruiting new talent through the admissions process. Next, we had the pleasure of hearing presentations from some of our affiliated faculty members across the institution: Kara Bernstein, PhD; Timothy Burns, MD, PhD; Erin Kershaw, MD; and alumnus David Levinthal, MD, PhD. These 10-minute talks showcased the breadth of cutting-edge translational research taking place at Pitt; the speakers highlighted their work on DNA repair, therapeutics for lung cancer, fat metabolism genetics, and neural regulation of autonomic dysfunction, respectively. Next, students who recently completed their dissertation defenses gave three-minute summaries of their work. Drs. Nolan Priedigkeit, Alyce Anderson, and Eric Zimmerman discussed acquired mutations in breast cancer, optimizing timing for melanoma and inflammatory bowel disease (IBD) screening, and mapping dopaminergic pathways in rodent schizophrenia models, respectively. The morning ended with poster presentations by our MS1, MS2, and a few graduate students. These

posters updated the MSTP about their research, giving them the opportunity to receive feedback and advice from older students as well as meet new faculty. After lunch, upper level graduate students gave 5-minute talks on their most exciting research to round out a morning of scientific conversation.

Students then set out for scenic Seven Springs Mountain Resort for the remainder of the retreat. Following cocktail hour and dinner, senior students entering their final year of the program each recounted their personal experiences, shared memories, and imparted advice – a highlight of the retreat! Next, following creative first-year student introductions, Mentorship Committee Chairs announced the new MSTP House System, and students spent the remainder of the evening mingling with their house members.

Saturday's events focused primarily on professional development with a morning of different sessions ranging from applying for F30s to personal finance and home-buying. We were lucky to be joined by our two keynote speakers for a panel discussion focused on career advice.

Together, both keynotes brought a unique perspective on potential career trajectories for MSTPs. We greatly appreciate their willingness to share advice during their keynote address as well as one-on-one







Our first keynote speaker, Pedram Afshar, MD, PhD, graduated from our MSTP in 2008. After completing the Stanford Biodesign Fellowship, he took on several high positions in industry and founded multiple companies. He develops new tools for treating neurological disease with closedloop electrical stimulators, and also developed a minimally-invasive technology for treating chronic venous insufficiency.

Our second keynote speaker, Stewart Wang, MD, PhD, is an alumnus of the University of Pittsburgh as well. Dr. Wang is an Endowed Professor of Surgery at the University of Michigan and the Founding Director of the International Center for Automotive Medicine and Morphomic Analysis Group. He directs a large multidisciplinary team of physicians, biomedical engineers, and software programmers that use high-throughput computational techniques to distill clinically useful markers and insights out of medical imaging data and the directly translating them to improve patient care and injury prevention. Drs. Afshar and Wang are leaders in their fields who offered unique perspective to students on the innumerable opportunities available to MD/PhDs and prompted MSTP students to think in new ways about their career path.





with students throughout the retreat! Between the keynotes, students had several hours to chat with the speakers, enjoy a hike at nearby Ohiopyle State Park, play some golf, and sample some local wines and enjoy live music at the Seven Springs Wine Festival. Afterwards, students had more time to mingle and enjoy a crisp summer night on the mountain around two fire pits.

The MSTP gave out several awards to students and faculty at the retreat. Anthony Grace, PhD received the William E. Brown Outstanding MSTP Mentor award by his two graduate students, Eric Zimmerman and Jared Moreines. Shinjini Kundu received the Drs. S. Sutton Hamilton MSTP Scholar and Nolan Priedigkeit received the Drs. S. Sutton Hamilton Award for Translational Science. Heather Acuff was awarded the Carol and S. Sutton MD Outstanding Service Award. Huge congratulations to our award-winners this year!

We would like to thank our hardworking and impeccably-organized administrators, Phuong Macadangdang and Justin Markuss, for all of their help and hard work in making the retreat a success! We look forward to hearing about cutting-edge scientific developments, listening to thought-provoking speakers, and mingling with friends at next year's retreat planned by Gaelen Dwyer and Maryanna Owoc from the G1 class.

- 2017 Retreat Coordinators, Josh Wesalo (G2) and Miranda Culley (G2)

Welcome Class of 2017



ALEXANDER SCHUYLER Washington and Lee University

Amy Sentis Stanford University

Megan Yates University of Pittsburgh

RAPHAEL CRUM University of Dayton

Jenna Gale Vassar College RUBY HOLLAND University of Pennsylvania

ВаDoi Рнам Johns Hopkins University

RAHILLA TARFA University of Maryland PhD in Neuroscience, Brown University and the NIH



University of Wisconsin

Philip Mannes Dartmouth College

JEFFREY (YONG JOON) KIM Emory University

Maxwell Wang Washington University

MSTP Peer Mentoring

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.

Michael (MS2)

Jenna Gale (MS1) Amy Sentis (MS1) Maxwell Wang (MS1) Rahila Tarfa (MS1) Sam Dienel (MS2) Bryan Hurtle (MS2) Bryan Hurtle (MS2) Ananya Mukundan (MS2) Hillary Wehry (G1) Stephanie Myal (G2) Elliot Collins (G3) Heather Acuff (G3) Annie Liu (MS3) Eric Zimmerman (MS3)

Ali (MS2)

Victoria Heinrich (MS1) BaDoi Phan (MS1) Alexander Schuyler (MS1) Ruby Holland (MS1) Ansen Burr (MS2) Eileen Nguyen (MS2) Paolo Vignali (MS2) Roger Tieu (MS2) Gaelen Dwyer (G1) Adriana Johnson (G1) Maryanna Owoc (G1) Colleen Judge (G3) Taylor Eddens (MS4)

Helene (MS2)

Raphael Crum (MS1) Jeffrey Kim (MS1) Philip Mannes (MS1) Megan Yates (MS1) Alex Layden (MS2) Andrew Gutierrez (MS2) Wes Brown (MS2) Oyin Dosunmu-Ogunbi (G1) Laura Molina (G1) Miranda Culley (G2) Josh Wesalo (G2) Alyce Anderson (MS3) Josiah Radder (MS4)

Healthy U Enitiatives

raining in a physician scientist program offers exciting opportunities to participate cutting edge research and patient care. This period is filled with several transitions, both personal and professional. During these years of active learning, trainees may find themselves in challenging periods facing stress or lapses in attention to their own needs. The MSTP is deeply committed to the health and well-being of all students throughout their years in the program. To support the success of its students, the MSTP wants to promote the resources available to all students, as they encounter challenges during their time in the program. Please visit our website at http://www.mdphd.pitt. edu/mstp-mental-wellness-resource for an extensive compilation of resources available to students. This list reflects the dedication of the MSTP administration to support students through these periods as they arise. No issue is too big or too small to warrant support from the University of Pittsburgh and Carnegie Mellon University.

On that note, we would like to introduce ourselves as your new MSTP SHARP representatives and help you better understand SHARP's purpose and our role in the program. SHARP stands for Student Health Advocacy Resource Program. Our role is to promote well-being among the student body. We are here to support you through any wellness issues including: stress, anxiety, depression, burnout, relationship issues, drug and alcohol problems, and anything else that may be weighing on your mind. Really, no issue is too small!

We are available to talk through any concerns you may have about issues of well-being in a fellow classmate. Sometimes, our peers can recognize changes in our behavior before we are aware of it ourselves. Even if you're not entirely sure how serious the issue might be, feel free to reach out to us and we will figure it out together. Everything brought to the SHARP committee is entirely confidential, so please feel free to approach us about anything without fear of any consequence. We are truly here to support you! When appropriate we will recommend to you available resources in the community.

Your MSTP SHARP Representatives,

Elliot Collins and Gaelen Dwyer



Correspondence Committee: Alison Butler, Gaelen Dwyer and Laura Molina

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