

THE PITT-CMU MSTP NEWSLETTER

University of Pittsburgh | Carnegie Mellon University

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2014 Retreat in Pittsburgh Highlights the Importance of Mentorship and Career Building in MSTP Training



Current MS4s at Phipps Conservatory during the retreat: Lolita Nidadavolu, Liang-I Kang, Jeff Wong, and John Kang

This year's retreat occurred on August 22-23, 2014. The retreat kicked off in the Scaife 11th floor Conference Center with a talk by recently appointed Assistant Professor of Psychiatry, **Susanne Ahmari, MD, PhD**, discussing the career trajectory of a successful physician scientist. We then heard an overview of the program by director, **Richard Steinman, MD, PhD**, where we learned of the outcomes of physician scientist trainees and the excellent record of achievement

*-Jared Moreines (G3) and Matthew Geramita (G3)
Retreat Chairs 2013-14*

of our program's students. This was followed by presentation of the annual awards. The S. Sutton Hamilton Award was given to **Brian Rosborough, PhD (MS4)** for his exceptional contributions to the field of immunology. The William E. Brown Mentor Award was given to **Jennifer Grandis, MD**, Distinguished Professor of Otolaryngology, for her tireless efforts serving as mentor and "Pittsburgh Mom" to graduate student, Matthew Hedberg (G3). In addition, a new award was created this year to recognize the substantial contributions students make to the day-to-day running of our program. **Liang-I Kang, PhD (MS4)** was awarded the inaugural presentation of the MSTP Student Service Award in recognition of her unparalleled dedication and commitment spearheading numerous student committees. We then transitioned into research presentations. Younger students presented posters, while more senior students gave brief talks on their work. Attendance by faculty members was excellent, and students reported numerous positive interactions and discussions about their work.

See Retreat, continued on page 3...

Dr. Kenneth Hallows and Dr. Russell Schwartz Become New MSTP Co-directors

*-Beth Oczypok (G3)
Correspondence Committee Chair 2014-15*

This summer, Dr. Nathan Urban announced that he would be stepping down as co-director of the MSTP in order to pursue a new position as the Interim Provost at Carnegie Mellon University (CMU). Dr. Urban also serves as Professor and Head of the Department of Biological Sciences and the Center for the Neural Basis of Cognition at CMU and as an Adjunct Professor of Neuroscience at the University of Pittsburgh. He was an outstanding co-director of our program since 2011 and will continue to be involved in our MSTP through mentoring current graduate students in his lab.

Dr. Steinman has recruited **Kenneth Hallows, MD, PhD**, an Associate Professor of Medicine in the Renal-

Electrolyte Division and an Associate Professor of Cell Biology and Physiology at the School of Medicine, and **Russell Schwartz, PhD**, Professor of Biological Sciences and the Lane Center for Computational Biology at CMU to replace Dr. Urban as co-director. Dr. Hallows, who is currently an investigator on several RO1s in addition to practicing medicine, will focus on mentoring students in the MS3/MS4 years of the program as they decide on their clinical specialties and work on incorporating research into their clinical work. Dr. Schwartz, a leader in the exciting, growing field of computational biology, will be a valuable contact at CMU for our students and will help to recruit graduate students into CMU labs.

Continued on page 4...

Welcome, Incoming Class of 2014!

- Patricia Castillo (MS2) & Jared Kopelman (MS2)
Welcoming Committee 2014-15

This summer, the incoming MSTP class was welcomed to the City of Pittsburgh with a variety of exciting activities. The first week, they attended the second annual Three Rivers Arts festival at the stunning Point State Park in Downtown Pittsburgh, where they sampled the local art and cuisine, explored the beautiful waterfront and fountain, and listened to the free and fantastic melodies of indie rock legend, Jeff Tweedy (of the band Wilco). Next up, they feasted at Noodlehead, a popular Shadyside eatery, where they experienced the most sumptuous and spicy Thai food Pittsburgh has to offer. A few weeks later, they bonded with their fellow MSTPs at a program-wide happy hour held at Hofbräuhaus, Southside's very own German Beer Hall. Lastly, they cavorted with fellow first year medical students at a social held at the Elbow Room, a classy Shadyside establishment. We hope these activities were a good introduction to the city they will be calling their home for the next several years, and we wish them all the best of luck in all of their Pittsburgh pursuits and adventures.

Miranda Culley

Hometown: Cincinnati, OH

Undergraduate Institution: Case Western Reserve University

Research interest: Pathology, Immunology

Clinical interest: Internal Medicine, Pediatrics

Hobbies: Spending time with my family, Netflix, dancing, eating

Unknown fun fact about yourself: I played the French horn for four years and could only play 8 notes, despite being the daughter of two classical musicians.

Favorite place/thing to do in Pittsburgh so far: Eating with and getting to know my new classmates

Stephanie Myal

Hometown: Hardy, AR

Undergraduate Institution: Arkansas State University

Research interest: Dysfunctional circuit dynamics in disorders of movement, cognition & impulse control

Clinical interest: Psychiatry, Neurosurgery

Hobbies: Reading, writing, hiking, urban exploration

Unknown fun fact about yourself: I'm a farm kid; homeschooled, grew up in a log cabin.

Favorite place/thing to do in Pittsburgh: People-watching in Schenley Plaza

Tara Pirnia

Hometown: Los Angeles, CA

Undergraduate Institution: UCLA

Research interest: Neuroimaging

Clinical interest: Neurology & Psychiatry

Hobbies: Traveling, baking, & binge watching TV

Unknown fun fact about yourself: Cilantro tastes like soap to me.

Favorite place/thing to do in Pittsburgh so far: Finding delicious places to eat.

Joshua Wesalo

Hometown: Baltimore, MD

Undergraduate Institution: Franklin & Marshall College

Research interest: Medicinal chemistry

Clinical interest: Radiology

Hobbies: Brazilian jiu-jitsu, running, amateur bartending

Favorite place/thing to do in Pittsburgh so far: Run with friends in Schenley Park



Above: New MS1 class members Josh Wesalo, Tara Pirnia, Miranda Culley, and Stephanie Myal. Middle: New MSTP and PSTP students explore the city. Below: New MSTP and PSTP students at their White Coat Ceremony on August 10, 2014.

RETREAT 2014

...Retreat, continued from page 1

This year we experimented with something new, keeping the remainder of the retreat within the city limits. The events continued Friday evening with a cocktail hour mixer and banquet dinner at the Phipps Conservatory. Dinner was followed by a series of short scientific talks from six up-and-coming scientists who included **Steven Chase, PhD (CMU Bioengineering)**, **Sandra Kuhlman, PhD (CMU Biology)**, **Mark Richardson, MD, PhD (Pitt Neurosurgery)**, **Carolyn Coyne, PhD (Pitt Microbiology)**, **Jacqueline Ho, MD (Children's Hospital)**, and **Christopher Bettinger, PhD (CMU Materials Science)**.

Saturday's programming built on the theme of physician scientist career development. Topics covered career development throughout all stages of the physician scientist's training process. We heard from returning alumni (**Dr. Zahida Khan ('08)**, **Dr. David Wang ('09)**, and **Dr. Anna Zemke ('09)**) discussing the transition to residency and maintaining a research presence. MS4 students shared their annual departing wisdom of how to succeed in the program. The mentorship segment was capped off with a presentation from **Clayton Wiley, MD, PhD** on how to navigate the job market when seeking your first job as a freshly minted physician scientist post-residency. The retreat concluded with a program-wide informed discussion about how to further improve important and sometimes controversial aspects of the MSTP, such as the implementation of an Individual Development Plan in compliance with new NIH training guidelines.

In sum, this year's retreat programming highlighted the greatest aspect of our MSTP: the mentorship and building of the careers of its students.



Members of the G2 class: Annie Liu, Josiah Radder, Alyce Anderson, Taylor Eddens, and Eric Zimmerman



MS2s: Patricia Castillo, Elliot Collins, Colleen Judge, Christopher David, Heejae Kang, Nicholas Siebenlist, and Lili Roldan-Hernandez



Retreat chairs Jared Moreines (G3) and Matt Geramita (G3)



Matt Amdahl (G1), Brian Liu (G1), Soma Jobbagy (G1), Kevin Levine (G1), Nolan Priedigkeit (G1), Uzoma Iheagwara (MS4), and Johannes Kutten (G2) enjoy dinner.



Heather Acuff (MS2), Shinjini Kundu (G2), Rachael Gordon (G3), Beth Oczypok (G3), & Alexis Chidi (G2)



Allison Bean (MS4), Jeff Wong (MS4), Ricardo Londono (G5), Lolita Nidadavolu (MS4), John Kang (MS4), Brian Rosborough (MS4), and Gil Hoftman (MS4) enjoy catching up at the retreat.

Photos taken by Beth Oczypok (G3)

GETTING TO KNOW OUR NEW CO-DIRECTORS

Current Position(s):

-Associate Professor of Medicine
-Associate Professor of Cell Biology & Physiology
-Director, Cellular Physiology Core, O'Brien Pittsburgh Center for Kidney Research

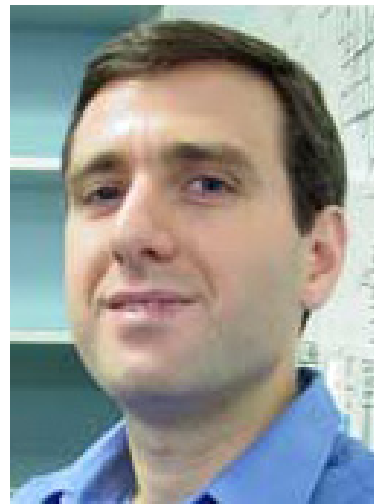
Education/Training:

-Brown University (BS, 1987)
-University of Rochester (MD/PhD, 1995)
-University of Pennsylvania (Internship, Residency, 1997; Nephrology Fellowship, 2001)

Research Interests: Epithelial ion transport



Kenneth Hallows, MD, PhD



Russell Schwartz, PhD

Current Position(s):

Professor of Biological Sciences and the Lane Center for Computational Biology (with additional appointments in the Computer Science Department and Machine Learning Department)

Education/Training:

-MIT (BS, 1996; MS, Electrical Engineering and Computer Science, 1996; PhD, Computer Science, 2000; Postdoc, 2000)
-Celera Genomics (Informatics Research Scientist, 2000-02)

Research Interests: Computational biology

1. What would you like to contribute to the MSTP as you take on a co-director position?

KH: At the outset as a newcomer to the Pitt-CMU MSTP, I would like to focus on providing guidance and mentorship to the more senior MSTP students as they explore their clinical interests during their Longitudinal Clinical Clerkships and transition from their PhD training years back into their clinical training years. I also hope to assist MSTP students in planning for post-graduate clinical and research training as well as longer term career goals. I feel that advance planning, understanding the opportunities and potential pitfalls, and acquiring the tools needed for success are all critical for career development and will help emerging physician-scientists successfully navigate the changing and challenging environment of academic medicine.

RS: As the new Carnegie Mellon co-director, part of what I see as my mission is increasing awareness among both students and faculty of opportunities for MSTP students to do thesis research at CMU. I believe the strengths of the two universities are very complementary and would like to help the program take advantage of that. I also have a particular interest in educational issues, especially with respect to quantitative and computational training of biomedical students, and hope that working with the MSTP will be a chance to help drive improvements in education of MSTP students that can later be brought to the broader community of MD and PhD students in biomedical areas.

2. What motivated you to become involved with the MSTP?

KH: I have been involved in the PSTP and SOM Admissions Committee at Pitt for a number of years and have enjoyed the leadership and administrative roles in these programs. As I myself am a graduate of an MSTP (at the University of Rochester), I have felt the desire to get involved in the MSTP and give back to the program. Looking back on my own MSTP training, I feel that I could have definitely benefited from more guidance and mentorship about career issues from more senior physician-scientist mentors and role models. I am very impressed with the current organization and structure of the Pitt-CMU MSTP and look forward to contributing my experience and insights to the program.

RS: I was very reluctant at first because I am not myself an MD and was not sure what I could contribute, but I was persuaded that I could make a unique impact. My research is very interdisciplinary, so I have had a chance to interact with a diverse group of researchers from many programs at CMU and Pitt and feel I could help make new connections among students, faculty, and programs. Furthermore, one of my major missions as an educator has been to raise the standard of quantitative and computational training for biomedical trainees. I think that is needed for both MD and PhD training and working with MSTP students was a natural way to start working with a pool of exceptionally capable students who need a broader array of training. Finally, as co-director of another cross-university graduate program also supported by an NIH training grant, the Carnegie Mellon/University of Pittsburgh Joint Ph.D. Program in Computational Biology, I believed I had administrative experience that might be particularly helpful in navigating some of the special issues the MSTP program faces.

3. What do you feel are the most difficult challenges for current MD/PhD students or recent graduates, and how will you help students navigate these challenges as a co-director?

KH: I feel that the current research funding climate represents a significant challenge for all scientists, but especially for those in the early career stages. For NIH funding it is becoming increasingly important for us as physician-scientists to ensure that the science we are doing is relevant to disease processes with an eye toward improving patient lives. Also, the clinical landscape is changing quickly these days with the implementation of the Affordable Care Act. These changes represent not only a challenge, but also an opportunity for students who understand them and are well prepared for them. I hope to do my part in sharing my own experience and insights and helping to direct students to mentors and role models in their chosen fields.

RS: I am still learning myself about the particular challenges for MD/PhD students and recent graduates, but have some preliminary thoughts. I believe one challenge with which I can help is that graduates today are entering a research world very different from that in which most of their advisors trained, where the scientific enterprise is much more interdisciplinary, team-based, and data-driven than was the case just a few years ago. As someone deeply embedded in that kind of research, I hope to be able to offer some advice and perspective on how students can better prepare themselves to be a part of the modern research enterprise.

4. What do you like to do for fun in your free time?

KH: I am an avid long-distance runner. I enjoy running for both its physical and meditative benefits. Back when I was an MSTP student in Rochester in the 1990s, I managed to finish one step behind the legendary Frank Shorter in a local 5-K race, which was a thrill for me (of course, I was in my late 20's and he was in his mid-40's by then!). More recently, I have enjoyed running in numerous races both in the Pittsburgh area and afar from 5K to ultra-marathon distance. To date, I have completed five different marathons and still often wonder why I put myself through that in the latter stages of them...

RS: If I find any free time, I'll let you know.

MSTP WELCOMES ACCEPTED APPLICANTS AND RECOGNIZES GRADUATES DURING SECOND LOOK

-Colin Beckwitt (MS2)
Second Look Committee Chair 2013-14

Twelve accepted applicants attended the Pitt-CMU MSTP Second Look Visit from April 9-11, 2014. The applicants were hosted at the Wyndham Hotel in Oakland. They arrived in time for a lunch in Scaife Hall, and then met with several faculty to seek potential research mentors. The evening activities included a coffee and cookie social (organized by the WSMA), a dinner at a current MSTP's house, and a night out exploring Southside. Thursday morning, the co-directors of the MSTP program, Drs. Steinman and Urban, and the Student Committee Chairs, Rachael Gordon and Beth Oczypok, gave presentations to the applicants. These presentations were followed by a Q&A session with a panel of current students and a lunch with faculty from various graduate programs. The morning's events were intended to provide more information on the program and the opportunity for the applicants to ask questions of both current students and faculty. The afternoon consisted of more faculty meetings. Thursday night activities included the Senior Recognition Dinner (detailed more below) and a night out at the Elbow Room in Shadyside. The final morning entailed a breakfast and wrap up session followed by a Ducky Tour of downtown Pittsburgh. Friday afternoon also included optional housing tours of the Darragh apartments and current students' homes in Shadyside, Squirrel Hill, and North Oakland.

Perhaps the most memorable event from the Second Look weekend was the Senior Recognition Dinner. This year, the dinner was held at the Carnegie Science Center. Current students and faculty as well as the visiting applicants spent an hour mingling over cocktails and bacon-wrapped scallops on the patio of the Science Center overlooking the Ohio River and with a beautiful view of Downtown Pittsburgh. After a delicious dinner, while dessert was being served, each of the members of the graduating class was immortalized through a PowerPoint

that depicted some of the most unique moments of their MSTP experience through words and photographs. After many personal and touching presentations by friends of the graduates, Dr. Steinman concluded the evening with a sonnet he composed, a witty verse dedicated to each graduating member. The Senior Recognition Dinner has received very positive feedback from current students and applicants because it demonstrates both the productivity and closeness of our MSTP community.

This year's second look was organized primarily by the current MS1 class. The class-wide planning model was a change from the two-person organizational structure that had been used in recent years in an attempt to promote committee involvement among current students. MS1s Heather Acuff and Colin Beckwitt chaired the event and oversaw three of the six sub-committees dedicated to a specific second look task: 1) housing, 2) transportation, 3) faculty meetings, 4) senior recognition dinner, 5) faculty speakers, and 6) social events. Two members from the MS1 class were assigned to each of the committees. With the help of the administration and student volunteers from other classes, the 2014 Second Look was a great success and a wonderful showcase of our MSTP.

***Match Day 2015 will be
Friday, March 20th***

***MSTP Second Look
will take place in Spring 2015***

MSTP MATCH LIST 2014

Amin Afrazi – General Surgery, University of Wisconsin, Madison, WI

Max Horowitz – Obstetrics-Gynecology, University of Pittsburgh, Pittsburgh, PA

Jeffrey Koenitzer – Internal Medicine, Washington Univ in St. Louis (BJH), St. Louis, MO

Hannah Lee – Orthopaedic Surgery, University of Pittsburgh, Pittsburgh, PA

Jean Lin – Internal Medicine, Yale University, New Haven, CT

Pavle Milutinovic – Medicine-Pediatrics, Duke University, Durham, NC

Vivek Patel – Radiology-Diagnostic, Stanford University, Stanford, CA

Jason Sanders – Emergency Medicine, Harvard University (BWH), Boston, MA

Deepak Soneji – Neurology, University of Pittsburgh, Pittsburgh, PA

David Svilar – Pediatrics, Washington Univ in St. Louis (Children's Hosp), St. Louis, MO

R. Margaret Whelan – Peds/Psych/Child Psych, Tulane University, New Orleans, LA

SPOTLIGHT ON ALUMNI IN INDUSTRY:

MEET DR. PEDRAM AFSHAR

-Alexis Chidi (G2)
Alumni Committee Chair 2014-15



Pedram Afshar, MD, PhD graduated from the MSTP in 2008 after obtaining a PhD in robotics and biomedical engineering at Carnegie Mellon. He went on to complete the Stanford Biodesign Fellowship and found a medical technology startup company, before spending four years at Medtronic, a Fortune 500 medical device company. He is now at Element Science, a Bay area medical technology startup.

1. How did you decide to embark on a career in industry?

This was the single most difficult decision in my professional career. It required taking careful stock of my personal goals, skill set and interests, and macro-economic direction. To vet my thinking, I spoke with advisers from a broad range of backgrounds, many of whom were outside of academia.

2. Did you complete a traditional clinical residency before going into industry? If not, what post-graduate training, did you need to complete to be successful in your current position?

I did not do a clinical residency, but I feel both paths are well-justified. However, I did complete the Biodesign Fellowship at Stanford, which was absolutely essential to my career. The first 1-2 months of the program are a crash course in business education, focusing on medical technology. Teams work to identify potential problems in the hospital, build a solution prototype and form a business plan. Throughout the fellowship, the teams meet with one of the directors weekly for mentorship and get connected with Silicon Valley entrepreneurs and other Stanford faculty. One month of the Fellowship is scheduled for an externship in which students work at a startup or venture capital firm.

3. What were some of the most valuable skills you gained from the MSTP and how have they helped you in your career?

PhD training provided concrete skill sets, which were essential for my career. MD and MSTP provided a unique lens through which to apply these skills: how to be a professional, how to communicate with physicians, how physicians approach and solve problems, general approaches to diagnosis and treatment, and major "pain points" in the delivery of healthcare.

4. Do you have any other advice for current students?

Take the time to understand career options and implications. Make sure to test your thinking by gaining exposure to a broad array of options.

Dr. Afshar is happy to connect with MSTP students interested in careers in industry. Feel free to email him at pedram.afshar@gmail.com.

FACULTY FEATURE: DR. KARL KANDLER

-Joshua Sturm (G2)
Student in Dr. Kandler's Lab

Dr. Kandler serves as Professor in the departments of Otolaryngology and Neurobiology at the University of Pittsburgh School of Medicine, where he also acts as the Director of Auditory Research. Dr. Kandler's laboratory investigates the cellular and synaptic mechanisms underlying the plasticity and development of auditory brain circuits, and examines how these mechanisms are disturbed in hearing-related pathology. His work has consistently been featured in the most respected neuroscience journals, including *Nature Neuroscience* and *Neuron*. Among Dr. Kandler's many professional accomplishments are receiving the Presidential Early Career Award for Scientists and Engineers in 2000 and the institutional nomination for the Howard Hughes Medical Institute competition in 2004 as well as serving as the Chair of the NIH Auditory Study Section from 2011-2012.

Dr. Kandler is a superb scientist and a phenomenal MSTP mentor. Since I first joined his laboratory as a rotation student in June 2012, he has consistently challenged me to integrate my basic research interests

with my longitudinal career goal of becoming an Otolaryngologist scientist. Though not a physician himself, Dr. Kandler challenges me to think both critically and practically about my future career goals. To this end, in addition to my normal laboratory book, Dr. Kandler has encouraged me to maintain a 'career journal,' where I keep track of how the skills (both technical and conceptual) that I am learning in the lab may be applied in my independent career. This exercise has helped me to begin to form a more concrete vision of my future work as a physician scientist, and to consider facets of laboratory organization such as laboratory size, trainee balance (e.g. graduate students, post-docs, residents and technicians), technique choices and funding mechanisms. Such a focus has also helped me to more clearly identify the unique challenges that face physician scientists with surgical training.

Dr. Kandler embodies a number of qualities that make him an inspiration to me as both a mentor and an independent investigator. As a mentor, Dr. Kandler prioritizes the professional development of his graduate students and post-doctoral fellows. He perceives, acknowledges and addresses the

individual needs, strengths and weaknesses of each of his trainees. To this end, Dr. Kandler makes great efforts to place students on projects that accentuate and reward their strengths, while also bolstering skills that they might be lacking.

As a scientist, Dr. Kandler holds himself to the highest standards of ethical practice and scientific rigor. I have been extremely impressed by the patience and focus with which Dr. Kandler approaches analysis and writing. He gives great attention to each and every piece of data in a manuscript, no matter how important or statistically significant it might seem at first glance. He is also extremely careful to ensure that his writing is representative of the data, as it was collected, and is not colored by his expectations for what the narrative should be. Perhaps the most impressive quality about Dr. Kandler's scientific approach, however, is his fearless appreciation for unexpected results. He never dismisses an outlying data point as "a mistake," but rather emphasizes that biology is extraordinarily complex, and that if a data point seems "wrong," it is probably just because we don't understand it yet. Many of Dr. Kandler's major scientific breakthroughs have come because of this commitment to the unexpected.

WSMA Hosts “DOCTORAL DIRECTIONS” PROGRAM

-Julie Boiko (MS4), Rachael Gordon (G3),
& Alyce Anderson (G2)
WSMA Committee Chairs 2014-15

Pitt's Women in Science and Medicine Association (WSMA) was excited to collaborate with the Biomedical Graduate Student Association to sponsor its second annual conference: "Doctoral Directions: Innovating in Your Biomedical Career." This forward-looking program, held April 4-5, 2014, opened on Friday with a dynamic dialogue between invited keynote speakers, **Ann Bonham, PhD** (Chief Scientific Officer, Association of American Medical Colleges) and **Roberta Ness, MD, MPH** (Dean of University of Texas School of Public Health, Chief Innovation Officer of UT-Houston). This discussion was followed by an equally stimulating, trainee-driven Pittsburgh Biomedical Thought Leaders Panel, featuring **Dr. Nancy Davidson**, (Director, University of Pittsburgh Cancer Institute), **Dr. Donald DeFranco** (Professor of Pharmacology & Vice Chair of Medical Education), **Dr. Karen Hacker** (Director, Allegheny County Health Department), **Dr. David Lewis** (Chair of Psychiatry), and **Dr. Mark Redfern** (Professor of Bioengineering & Vice Provost for Research). Throughout the evening, additional faculty-led table discussions focused on networking and skills pertinent to the attending trainees.

Saturday morning's plenary sessions featured presentations on key topics including, "So You Think You Can Innovate" by Dr. Ness and "Biomedical Career Mapping" by Dr. Bonham. Concluding our program, we offered three skills-based breakout workshops led by Pitt faculty: "Science and Medicine Communication" (**Dr. Judy Cameron**), "Biomedical Entrepreneurship Skills" (**Dr. Pratap Khanwilkar**), "Managing Up, Down and Across as a Medical/Scientific Trainee" (**Dr. Doris Rubio**). Altogether, Doctoral Directions facilitated a trainee-focused experience for long-term career accomplishment and satisfaction.

WSMA seeks to enhance the professional development of Pitt's graduate and medical students, male and female alike. Keep posted of our goings-on at <http://students.medschool.pitt.edu/wsma/>. Want to suggest a seminar? Email us at wsma.pitt@gmail.com.

An important part of MSTP training is the mastery of narrative. Weaving compelling scientific stories from the skeins of reported knowledge. Capturing the attention of the uninitiated and of experts with a charismatic protein, a mysterious pathway, a surprising intervention that stretches the familiar landscape of science. Challenges include where to start, whether to branch off a prescribed path, whether to develop surprises or doors opened by mistake. It is easy to lose oneself in fractal inquiry, branching our curiosity into paper after paper, our experiments into alleys that dead or dying end. So pruning of ambition in the interest of coherence can help in building your scientific story, a focus helped by your mentor, advisor, thesis committee audiences and friends. This can maximize the intersection of passion and success and prevent burnout.

Here is the other story: it is all about you. I have been highly impressed by the narrative of scientific growth and smart aspirations that many of our students have put together in their Self-Assessment forms, F30 Training Goals and NIH personal statements. While preparing materials for recommendation letters and institutional portions of grants,



Director's Corner RICHARD STEINMAN, MD, PhD

it is immediately evident and gratifying when students have grounded their plans in the momentum of the present and past accomplishments. This is a period in which institutional integument offers some buffer against the rougher sides of academia while keeping you exposed to a surface microbiome that is rich in scientific diversity and constant evolution. When students have capitalized on mentors and resources in Pittsburgh and connected with outside expertise, it is clear that momentum will continue into the next chapters of their personal book. I personally delight in keeping on reading these stories.

NEUROSCIENCE GRADUATE STUDENTS SPREAD AWARENESS IN COMMUNITY

Dani Simmonds (G5, Neuroscience) is exploring developmental trajectories in brain connectivity and their relation to behavioral changes for his thesis project. Through his work, he was inspired to write an article about these developmental changes that actual kids could read and understand. He recently published an article in the journal *Frontiers in Neuroscience for Young Minds* titled "Building the Roads in the City of Your Brain." The article was co-authored by Dani's wife, Margot Goldberg, a high school biology teacher in Pittsburgh, and his thesis advisor, Dr. Beatriz Luna. The paper describes the physiology of neurons, how the brain changes as we grow from children to adults, and the anatomy of the brain itself, all at a level easy for elementary, middle, and high school students to understand. According to their website, *Frontiers in Neuroscience for Young Minds* states that it "includes young people (from 8 to 15) in the review of articles. This has the double benefit of bringing kids into the world of scientific research – many of them for the first time – and offering active scientists a platform for reaching out to the broadest of all publics."

Michelle Dail (G2, Neuroscience) studies neurodegenerative disorders in the lab and aspires to be an advocate for those suffering from Huntington's disease (HD), a hereditary, degenerative brain disorder that has affected members of her own family. "If you believe in a cause," she said, "fight for it." She was recently involved in the production of a documentary called "Rusty's Story," which focuses on a local Pittsburgh family with members suffering from HD and the ongoing search for a cure among physicians and researchers. The episode was produced by the Foundation for Biomedical Research and appeared in the second season of their series, *Bench to Bedside*, on WTAE on February 22, 2014. Notably, the documentary was nominated for a 2014 Mid-Atlantic Emmy Award in the health/science special category. Michelle was interviewed for the documentary and said, "Telling my story on camera to strangers was a new and difficult challenge...[But] being able to tell my story and bring awareness of HD to potentially millions of people across the world is extremely rewarding." The second season of *Bench to Bedside* is not yet publically available, but a trailer can be found at www.benchtobedside.tv.

CONGRATULATIONS TO ALL OF OUR MSTPS!

RECENTLY AWARDED PhDs

April 2014:

Karen Chiu

Mitochondrial allotropic gene therapy approaches using a drosophila model with an endogenous ATP6 mutation

Advisor: Michael Palladino, PhD
(Molecular Pharmacology, Pitt)

August 2014:

Andrey Finegersh

Epigenetic effects of ethanol

Advisor: Gregg Homanics, PhD
(Molecular Pharmacology, Pitt)

Niyathi Hegde Shah

Calcineurin-mediated signaling in ischemic preconditioning and neuronal cell death

Advisor: Elias Aizenman, PhD
(Neuroscience, Pitt)

NEWLY FUNDED FELLOWSHIPS

Alyce Anderson

Mentor: Mandy McGeachy, PhD

Defining the role of integrins in IL-23-dependent intestinal immunity (F30, NIDDK)

Lauren Brilli

Mentor: Neil Hukriede, PhD

Elucidating the Mechanisms of Kidney Regeneration and Therapeutic Augmentation (F30, NIDDK)

Taylor Eddens

Mentor: Jay Kolls, MD

Antigen discovery and validation in pneumocystis pneumonia (F30, NIAID)

Andrey Finegersh

Mentor: Gregg Homanics, PhD

Paternal preconception alcohol on epigenetics and offspring drinking (F30, NIAAA)

Matthew Hedberg

Mentor: Jennifer Grandis, MD

Phosphoinositol-3-Kinase Signaling and PIK3CA: Critical Mitogenic Drivers in Head and Neck Cancer (F30, NCI)

Elizabeth Oczypok

Mentor: Tim Oury, MD, PhD

RAGE as an upstream activator of the Th2 inflammatory immune response in asthma (F30, NIEHS)

Joshua Sturm

Mentor: Karl Kandler, PhD

Intrinsic Connectivity of the Auditory Midbrain in a Mouse Model of Tinnitus (F30, NIDCD)



< **Matthew Amdahl (G1)**
married **Ipek Sarioglu** on
April 12, 2014



Rachelle Stopczynski (MS4) >
married **Anoopum Gupta**
(MSTP '13) on **April 26, 2014** in
Lima, Peru



< **Gil Hoftman (MS4)**
married **Cecilia Huang**
on **June 8, 2014**

Ryan Williamson (MS2) >
and his wife, **Kendra,**
welcomed a daughter,
Alice Pearl, on **May 21, 2014**



< **Liang-I Kang (MS4),**
and her husband,
Michael Sung, welcomed
a daughter, **Elanor,** on
October 12, 2014

MSTP STUDENT PUBLICATIONS THROUGH SEPTEMBER 2014

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Upcoming Events

November 2014

26th-30th: Thanksgiving Recess - Pitt SOM

December 2014

4th: MSTP Interviews

10th: MSTP Workshop, 5pm (MS2)

22nd-Jan 4th: Winter Recess - Pitt SOM

January 2015

28th: MSTP Workshop, 5pm (G1)

February 2015

18th: MSTP Workshop, 5pm (G4+)

March 2015

11th: MSTP Workshop, 5pm (MS1)

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