Research Day
Amanda Harper

The OSUWMC’s 11th annual Research Day took place Thursday, April 19, 2012. To kick-off the event, the Center for Clinical and Translational Science sponsored a workshop titled “From Discovery to Innovation” led by Michael Bills, the Executive Director of the Innovation Initiative at The Ohio State University Fisher College of Business. His energetic discussion set the tone for what would surely be a vibrant and exciting event.

In addition to two poster sessions bursting with talented trainees, Research Day boasted excellent speakers this year. The keynote speaker was Dr. Louis J. Ptácek, MD, a John C. Coleman Distinguished Professor of Neurodegenerative Diseases at the University of California, San Francisco, where he is a Howard Hughes Medical Institute Investigator and leads the Division of Neurogenetics in the Department of Neurology. Dr. Ptácek’s intriguing talk was titled “Human genetics as a window into human sleep and clock: implications for human health and disease”. The Allan Yates Memorial Trainee Speaker Series followed, and MSTP trainee Adam Bevan was chosen to present his research on “An AAV-based approach to model the full spectrum of spinal muscular atrophy in mice”. To wrap up a day of excellent lectures, Dr. Matthew During and Dr. Brian Kaspar shared some of their groundbreaking work in the State of the Art Research Update Lecture Series.

As always, MSTP students were well-represented at Research Day. Behind the scenes Katherine Hartmann and Amanda Harper served as Co-Chairs for the Research Day Planning Committee, and Stephen Bergin, Daniel Clark, Richard Price, and Steven Scoville served on the committee as well. Fifteen MSTP trainees presented posters, and Patrick Grierson and Richard Price took home travel awards for their exemplary work.

SUCCESS Program
Meg Piasecki and Hannah Solomon

The inaugural application season for the SUCCESS Program has come and gone, and students, faculty, and staff are busily preparing for this exciting new offering from the MSTP. Over 180 completed applications were received, with more than 100 female applicants. The incoming class includes 14 females and 6 males hailing from across the country and Puerto Rico.

The SUCCESS Program will be a wonderful experience for the students and faculty members involved in the 9 week program. From June 11 to August 10, the 20 students will conduct research with faculty mentors as well as attend classes that will teach valuable skills for future biomedical scientists. In addition to providing a stimulating research experience, SUCCESS’ goal is to enhance diversity at Ohio State by encouraging underrepresented minorities and disadvantaged students to return to Columbus for their next stage of training. After their summer here, it is our hope that most of these students will eventually pursue MD/PhD or graduate training programs at OSU or other top-tier institutions of biomedical research and will become future leaders in the field.

SUCCESS owes a debt of gratitude to its Graduate Student Committee, which has worked diligently to plan the Journal Club course, coordinate Orientation week, and plan social events. MSTP trainees involved on the committee are Katherine Hartmann, Daniel Clark, Sankalp Malhotra, Stephen Bergin, Steven Scoville, and Obada Shamaa. The Admissions Committee reviewed 184 applications, offering 26 acceptances to fill the class of 20 students. Thanks go to the Admission Committee members for their help: Andrea Doseff, Dana McTigue, John Gunn, Amanda Toland, Dan Wozniak, Jill Rafael-Fortney, Steve Kolb, and SUCCESS Program Director Dr. Lawrence Kirschner.
Alumni Spotlight – Matthew Mendlik
Steven Scoville

Each issue we have the opportunity to spotlight an alumni of our program, and I had the privilege of getting in touch with Matt Mendlik. Matt graduated from the program in 2007, and moved on to Boston where he completed his residency at the Boston Medical Center in Neurology in 2011. Currently he serves as a fellow at the Boston VA Healthcare System in Geriatric Neurology and Palliative care. He will finish up his fellowship this next year at the Harvard Palliative Medicine Fellowship at Massachusetts General and Dana Farber.

Matt’s story of his progression from his previous years in the program here at OSU to the present lends great insight that could help any of us as we navigate the sometimes confusing path of a medical student. One of those gems of insight was the advice he shared to “follow your heart.” His original aspirations when he joined the MD/PhD program were in the field of drug design. However, through his many positive interactions with faculty at OSU like Drs. Joanne Lynn, Layne Moore, John Kissel, and Sheri Hart, he discovered his passion for neurology. In addition to that influence, while on his neurology rotation here at OSU he became interested in many of discussions that were led concerning end-of-life issues. Through the process of determining which direction to go concerning residency, he looked back on a palliative care rotation and remembered coming home with the feeling that it was something he could do every day for a long time and be truly happy. After some encouragement from an attending to follow his heart, he realized what he felt he should be doing and these realizations spring boarded him into his residency and career, wherein he continues to excel and feel the reassurance daily that he chose the right track.

We are all aware of the many possibilities concerning our career pathways that will be available to us, especially those with respect to the clinical and research aspects, but Matt suggested one of the most valuable things we can take with us in the end from the experience, regardless of our profession, is perspective. Matt currently has no immediate plans to utilize research, however, he cannot deny the deep impression it made on him about how to do a thorough job. He feels that his experiences in the lab have led to a degree of maturity and professionalism that he would not have been able to cultivate otherwise. He also realizes the value of having an additional skill set and degree that enables flexibility should he encounter new opportunities.

Matt enjoys living in New England and takes advantage of the many local musical festivals and concerts, as well as the proximity of other exciting cities such as New York. He has also been able to expand his interests in history by attending the many patriotic and historical features of the area, including an annual reading of the Declaration of Independence from the original building where it was read to the citizens of Boston in 1776.

Matt loved his time at OSU building strong relationships with faculty and staff and fellow students and mentions how much he now realizes he enjoyed the pretty campus surroundings. He considers himself lucky that he was able to have the experience that he does and feels his time spent here was definitely without regrets. His final reminder is for us each to remember, despite the constant bustle and commotion that surrounds our daily life, to listen to our heart and follow it.

American Physician Scientist Association’s Annual Meeting
Susan McClory

The American Physician Scientist Association (APSA) held its annual meeting during the weekend of April 27-29 in Chicago, IL. OSU was fortunate enough to send seven MSTP students, as well as MSTP Associate Director Lawrence Kirschner to the conference. Each year, the annual meeting is held jointly with the American Society of Clinical Investigators (ASCI) and the American Academy of Physicians (AAP), offering the trainees valuable opportunities to interact with leading physician scientists from all over the world.

APSA is a national organization that strives to promote the development of physician scientists at all stages of their career pathways. The 2012 Annual Meeting offered trainees the opportunity to attend lectures by leading scientists in a wide variety of fields, to participate in mentoring workshops, and to attend panel discussions with faculty from institutions across the country. Specifically, attendees participated in a Women in Medicine panel and in workshops on post-graduate opportunities, the grant review process, and writing a scientific paper. On Sunday, trainees enjoyed lunch with representatives from high caliber residency programs, including OSU’s own American Board of Internal Medicine Research Pathway, during the APSA Residency Luncheon. Finally, two of our MSTP students were elected to the APSA Executive Council. Kate Hartmann was elected as the in-coming chair of the 2013 APSA Annual Meeting, and Dylan Nielson was elected as the in-coming chair of the APSA Public Relations Committee.

Dylan Nielson, John Frater, Marilyn, and Stephen Bergin
Recruitment Recap
Dylan Nielson

With the deadline for applicants to select a single school just passed, this year’s recruitment season is coming to a close. This has been the Ohio State MD-PhD program’s biggest recruitment effort to date. We interviewed 36 students across 3 weekends, our applicant pool increased 19% from last year, and we had 14 students return for second-look weekend. One fifth of our applicants were from Ohio, with the remainder applying from around the country.

This year was also our earliest recruitment season with interviews the first weekends in November, December, and January.

In total, current students and faculty conducted 211 formal interviews, and applicants had many more with potential research mentors. Our ability to conduct this many interviews is thanks to the support our program enjoys from faculty and students. At least 35 faculty members participated directly in recruitment, attending dinner with applicants and conducting 141 interviews. Approximately 90% of our students participated in recruitment, conducting student question-and-answer panels, joining applicants at meals, taking them out to Jeni’s Splendid Ice Creams, giving campus tours, and conducting 68 interviews. Applicants consistently say that they see the level of involvement of our students as a major strength of the program, and it is hard not to agree with them.

The 14 applicants who returned for second-look weekend saw our research on display at the 11th annual OSU Wexner Medical Center Trainee Research Day. The breadth of research on display at Research Day was a good match for the returning applicants; nine of the applicants were interested in the Integrated Biomedical Graduate Program, 4 were interested in the Neuroscience Graduate Studies Program, and 1 was interested in Biomedical engineering. After research day, applicants were treated to dinner with Dr. Schlesinger and Dr. Kirschner at Z Cucina di Spirito in Grandview. As part of the College of Medicine’s second look weekend, applicants had the chance to meet any of the college’s leadership who had not had a chance to stop by at our interview weekends. The Columbus Chamber of Commerce gave applicants a virtual tour of Columbus and the applicants were taken on tours of Nationwide Children’s Hospital, Ross Heart Hospital, and Med Flight. Applicants had dinner with leadership and faculty from the College of Medicine at the State House on Friday night. On Saturday they had the opportunity to attend either the OSU Buckeyes Spring football game or an OSU fine arts performance. Second look was again a key part of recruitment, and the MSTP anticipates an incoming class of 10 students (five females, five males).

Thanks go out to all of the faculty and students who contributed their time and energy to make this recruitment season a huge success. The entering class of 10 will increase the size of our program by almost a third. We were able to interview more applicants than we ever have before, and able to do so earlier than we ever have before. Recognition for these superlatives is due Ashley Bertran, MSTP Program Manager, Meg Piasecki, and Hannah Solomon whose organization and commitment made this possible.

2012 MSTP Leadership and Academic Achievement Award Winners

Eight MSTP trainees were awarded the MSTP Leadership and Academic Achievement Scholarships for 2012. These awards are given yearly to MSTP trainees who have performed exceptionally well academically and provided leadership and service to the Medical Scientist Training Program.

Congratulations to:
Stephen Bergin, Danny Clark, Ene Fairchild, John Frater, Amanda Harper, Katherine Hartmann, Sankalp Malhotra, and Steven Scoville!

MSTP Bids Farewell

Two students are graduating from the Medical Scientist Training Program this year. We wish them the best and continued success at their upcoming residencies!

Ene Fairchild, PhD
Began program: 2004
PhD Advisor: William Carson
Dissertation: “Differential Expression of MicroRNAs in Melanoma”
Residency: Nationwide Children’s Hospital for Pediatrics

Sanjida Saklayen, PhD
Began program: 2003
PhD Advisor: Howard Gu
Dissertation: "Effects of Propranolol on Cognition and Eye Contact in Autism Spectrum Disorders (ASD)"
Residency: SUNY Stonybrook for Pediatrics
Dustin Donnelly
Deficient CX3CR1 signaling recovery after mouse spinal cord injury by limiting the recruitment and activation of Ly6Clo/iNOS+ macrophages.
J Neurosci. 2011 Jul 6

Patrick Grierson
BLM Helicase Facilitates RNA Polymerase I-Mediated Ribosomal RNA Transcription.

Susan McClory
Evidence for a Stepwise Program of Extrathymic T Cell Development Within the Human Tonsil
J Clin Invest. 2012 Mar

Bin Ni
Mycobacterium Tuberculosis Lipomannan Blocks TNF Biosynthesis by Regulating Macrophage MAPK-Activated Protein Kinase 2 (MK2) and MicroRNA MIR-125B.

Richard Price
The Histone Deacetylase Inhibitor Valproic Acid Lessens NK Cell Action against Oncolytic Virus-Infected Glioblastoma Cells by Inhibition of STAT5/T-BET Signaling and Generation of Gamma Interferon.
J Virol. 2012 Apr

Sanjida Saklayen
Functional Connectivity During Language Processing in Acute Cocaine Withdrawal: A Pilot Study.

Christopher Alvarez-Breckenridge
The Histone Deacetylase Inhibitor Valproic Acid Lessens NK Cell Action against Oncolytic Virus-Infected Glioblastoma Cells by Inhibition of STAT5/T-BET Signaling and Generation of Gamma Interferon.
J Virol. 2012 Apr

Deciphering the Multifaceted Relationship Between Oncolytic Viruses and Natural Killer Cells

Stephen Bergin
The Histone Deacetylase Inhibitor Valproic Acid Lessens NK Cell Action against Oncolytic Virus-Infected Glioblastoma Cells by Inhibition of STAT5/T-BET Signaling and Generation of Gamma Interferon.
J Virol. 2012 Apr

Adam Bevan
A Single Administration of Morpholino Antisense Oligomer Resuces Spinal Muscular Atrophy in the Mouse.

Edward Briercheck
Evidence for a Stepwise Program of Extrathymic T Cell Development Within the Human Tonsil
J Clin Invest. 2012 Mar

Hui Zi Chen
Atypical E2F Repressors and Activators Coordinate Placental Development. Dev Cell. 2012 April

MSTP Leadership

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Larry Schlesinger, MD

MSTP Associate Director
Lawrence Kirschner, MD, PhD

MSTP Program Manager
Ashley Bertran, MLHR

MSTP Program Assistant
Meg Plasecki

Student Editor
Steven Scoville

Student Office Assistant
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Archived Copies can be found on the MSTP website:
www.biomed.osu.edu/mdphd

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University Fellowship Awardees
Amanda Harper, Katherine Hartmann, and Steven Scoville

2012 Trainee Research Day Travel Awards
Patrick Grierson and Richard Price

MSTP Students Awarded Pelotonia Fellowships

Edward Briercheck
Project: The role of PTEN in human natural killer cell function

Huizi Chen
Project: Atypical mammalian repressors E2F7 & E2F8 link hepatocyte endocycle regulation with tumor suppression

Upcoming Events

May 19, 2012: MSTP Summer BBQ
June 7, 2012: College of Medicine Honors Convocation (Ohio Union)
June 18, 2012: MSTP Start Date for incoming students
June 27, 2012: MSTP Faculty Forum: MSTP Welcomes Incoming Trainees and Introduces the new MSTP Curriculum
August 23/24, 2012: MSTP Annual Retreat

Look Ahead
Annual MSTP OSCE