Keystone National MD/PhD Conference
Katherine Hartmann

The 26th annual National MD/PhD Conference was held this past July in Keystone Colorado. The conference was an opportunity for MD/PhD students from different programs across the country to interact, present their work, and discuss problems unique to medical scientist training. In addition to student presentations and poster sessions there were several break out sessions covering a variety of topics ranging from grant writing to residency applications to conducting clinical trials. The agenda also included a number of keynote speakers: Dr. Anthony Atala, Wake Forest University Regenerative Medicine Director; Dr. Napoleone Ferrara, Genetech Inc. Fellow; Dr. Julie Gerberding, President of Merck Vaccine Division (former CDC director); Dr. Ramon Parsons, Herbert Irving Comprehensive Cancer Center Professor; and Dr. Thomas Waldmann, NCI Metabolism Branch Chief. Throughout the weekend, students were able to interact and network with each other as well as invited keynote speakers and faculty panelists.

Even with its strong scientific focus and thought-provoking dialogues, there was still time for attendees to enjoy the Rocky Mountains with Sunday morning activities including hiking, kayaking, rafting, mountain biking, and yoga.

Three of our students: Richard Price, Dylan Nielson, and Katherine Hartmann attended the conference. Richard was one of 18 students selected to give a talk and also presented a poster entitled: “Cytomegalovirus accelerates glioblastoma progression via STAT3 activation.” Katherine presented a poster “Testing genetic factors modulating splicing of cholesteryl ester transfer protein (CETP) mRNA – a potential cardiovascular biomarker.”

Alumni Spotlight
Steven Scoville

Continuing a feature begun in the previous newsletter, I had the pleasure of getting in touch with Ryan Roberts. Ryan graduated from the program in 2010 and is currently in his 2nd year of a 3-year research-oriented residency program at Nationwide Children’s Hospital here in Columbus. As part of his residency training, he has just begun a portion of protected research time, and is once again enjoying the thrill of discovery through research. He will be pursuing a fellowship in pediatric Hematology/Oncology upon completion of his 3rd year. I asked questions on issues I felt would be useful for all of us in the program. The following are excerpts from my conversation with Ryan:

Are you glad that you chose to do an MD/PhD?
I do this because I love it. We have all been given privilege beyond anything offered to most of humanity throughout the history of time. We all have to pick something we can devote our lives to, and the payout of this commitment we’ve made will only be seen over decades, but has the potential to significantly affect the lives of those we treat.

What advice/comments/suggestions do you have for us as we go through the program now?
Med1/2- Man, I can't stress how important all that bookwork is! This is the foundation for everything that comes later. The friendships I formed with my classmates over these years are some of my most cherished.

Grad school phase-Never in your life will you again have the opportunity to think and explore the different aspects of your discipline with such an innocent, unadulterated mind. Think about your work--don't just look for someone to tell you what to do. Explore new ideas. Read widely and deeply. Talk with other great minds and share your ideas.

Med 3/4- ASK QUESTIONS--this is one time when nobody expects you to know all the answers. Think about what you're doing and enjoy it. When you identify mentors, let them know how much you appreciate their feedback. Keep in touch with them.
What advice can you give for applying to residency programs?
1- Identify clinical mentors within your field of interest who can mediate for you throughout the application process. Figure out who knows people at your institutions of interest, let them know that you need their help, spend some time with them, then let them go to bat for you.
2- Identify potential research mentors before you apply to their programs. If there are you should contact them early in the application process and let them know so that they can contact the residency office to let them know they would love to have you in their lab.
3- After you've interviewed, make sure that the programs you like know it. This will require more than a thank-you note.
4- Find someone who has recently done this and ask them to help you through it all. There are many around you wishing to do this for you; you should let them. I include myself in this. Anyone needing some help through the process is MORE than welcome to contact me or stop by.

MSTP Retreat
Steven Scoville

August featured yet another successful and enjoyable program retreat for both students and leadership. We were entertained this year for a Thursday evening dinner at an outdoor venue provided by the Franklin Conservatory. This event was an excellent opportunity to officially welcome and introduce the entering class of students, but also to recognize all of the achievements and improvements of the students and program. With the numerous student publications, awards, and acquiring the MSTP status there was much to celebrate.

The following day’s session included talks by both Dr. Rebecca Jackson, Associate Dean for Clinical Research in the College of Medicine and director of the Center for Clinical and Translational Science (CCTS) at OSU, and Dr. Michael Becknell, a recent alumnus of the program and current pediatric resident at Nationwide Children’s Hospital. Dr. Jackson gave a very insightful discussion of the role of the CCTS with an emphasis on how we as students can utilize the center in our training. Dr. Becknell followed with both recollections of his training and wise advice for those of us in the program.

Friday’s event ended with the 3rd annual awarding of “The Larry.” This year Alison Boxwell and Soluman Culver showed their command of the Yiddish language by dominating the challenge and becoming the 2011-2012 co-recipients of the award.

Faculty Focus
Rebekah Browning

Dr. John C. Byrd, MD, Director of the Division of Hematology at Ohio State is a nationally-known researcher and clinician whose focus includes chronic lymphocytic leukemia (CLL) and other hematologic malignancies. Dr. Byrd received his MD from the University of Arkansas for Medical Sciences, and then completed his residency and hematology and oncology fellowship at the Walter Reed Army Medical Center in Washington, D.C. Although he was concentrating on clinical research during his fellowship, a mentor recognized his potential as a translational researcher and encouraged Dr. Byrd to pursue a laboratory experience. Consequently, Dr. Byrd did a postdoctoral fellowship with Dr. Michael Grever, who is now Chair of the Department of Internal Medicine at OSU. Dr. Byrd remained at Johns Hopkins as a laboratory faculty member and continued his clinical work at Walter Reed until 2001, when he joined the faculty at OSU.

As a physician scientist, Dr. Byrd’s goal is to cure CLL or make it a disease people can live with; while doing so, he also hopes to help build Ohio State’s hematology division into the best in the United States, and aims to increase diversity by fostering women and minorities in science. He has been instrumental in the identification of several effective therapeutic agents for CLL and other leukemias and lymphomas, including rituximab, alemtuzumab, and flavopiridol. Together with Dr. Grever, Dr. Byrd co-directs a laboratory consisting of over thirty individuals, including undergraduates, graduate and medical students, and postdoctoral fellows. The large size of the laboratory allows for in-depth study of several pertinent areas, including engineered immune-based therapies, epigenetic contributions to CLL pathogenesis, characterization of protein metabolism in tumor cells, and targeting of aberrant kinase signaling in B cell malignancies.

Dr. Byrd has authored or co-authored over 200 peer-reviewed articles and serves on editorial boards of several journals, including Blood and the Journal of Clinical Oncology. He is a member of the American Society of Clinical Investigation and a Fellow of the American Association for the Advancement of Science, as well as a cadre member of the NCI-sponsored Cancer and Leukemia Group B. He is a founding member of the National Heart, Lung, and Blood Institute Data Safety and Monitoring Committee.

Throughout his career, Dr. Byrd has maintained his original passion for patient care. In his words: “To a physician scientist there is nothing more satisfying than seeing a patient benefit from a therapy you have been part of developing.”
Welcome, Incoming Trainees!

Stephen Bergin
Although born in Dayton, I grew up in Albuquerque, New Mexico. I attended Duke University, graduating with a B.S. in Chemistry and with minors in Philosophy and Biology. I completed my honors thesis in the lab of Dr. Benjamin Wiley, where I researched the synthesis of silver nanowires and their application in transparent conducting films. While at Duke I had the opportunity to study Shakespeare abroad at New College of Oxford University. I spent my last undergraduate summer in Medellín, Colombia, working with city social workers to create documentary videos within the Medellín communities. I am passionate about science education, and in the last two years have participated and lead science camps designed for elementary school children. My undergraduate experiences helped me to realize a passion for medicine, and I am excited to begin my medical journey at The Ohio State University as an MSTP student. My current research interests include cancer biology, immunology and the mechanisms of diseases that afflict the mind. Beyond my professional interests, I enjoy reading, playing soccer and following college basketball.

John Frater
I grew up in San Diego, staying in East County until I went off to Arizona State University for my undergraduate studies, earning degrees in Molecular Biosciences and Biotechnology and Biochemistry. My laboratory work is somewhat scattered, having spent my time at ASU attempting to develop a plant-based vaccine against HIV, while my time at The Scripps Research Institute in San Diego was spent studying the structure of the human multisynthetase complex and associated proteins. My reasons for choosing to pursue an MD/PhD derive at least in part from these experiences: I find that the closer my research is to actually helping a patient, the happier I am. My current interests primarily focus on the interface between pathogen and host immune systems in infectious diseases, and I am excited to continue exploring this field at Ohio State. My hobbies include hiking, photography, fiddling around with electronics, baking, collecting useless trivia, and generally exploring what life has to offer.

Sankalp Malhotra
I was born in New Delhi, India but my family moved abroad when I was just two years old. Since then, I have lived in three different countries, including Papua New Guinea, Australia, and the United States. My family finally settled down in the suburbs of Chicago in 1998. I received my undergraduate degree from Miami University (OH) in 2011, majoring in microbiology with a minor in communication. As a student at Miami, I spent three years doing research in a laboratory focused on the immunobiology of Chlamydia infections. I also pursued summer research internships in both the private sector and academia. These experiences cultivated my passion for biomedical research and solidified my resolve to become a physician-scientist. Currently, my research interests include innate immunity and psychoneuroimmunology. I enjoy spending my free time watching movies, playing racquet sports, and listening to music.

Frater, Sankalp Malhotra

Sean Reiff
Having been born and raised in Cincinnati I can say that I am a true Buckeye. As an undergraduate student I left Ohio for Tennessee where I majored in both Biology and Chemistry while minoring in Theology at Lee University. In college I had the privilege to work on several research projects led by my professors and found that I was most interested in those which dealt with medicine and biological function. My growing interest in medicine motivated me to spend a summer in Huehuetenango, Guatemala where I was part of a traveling clinic which offered free medical services to impoverished villagers. It was this experience which solidified my decision to apply to medical school. However, because I have always enjoyed the challenge

Student Awards

Adam Bevan
Center for Clinical and Translational Research Fellowship
OSU Center for Clinical and Translational Science TL1 Fellowship

Patrick Grierson
AACR Travel Award
"Frontiers of Basic Science Research."

Susan Schmidt
Ohio State University Graduate School Presidential Fellowship

Upcoming Events

October 10, 2011: Graduate and Professional Student Recruitment Initiative

November 3-5, 2011: MSTP Interview Session

November 30, 2011: MSTP Faculty Forum with Dr. Lockwood: 165 Heart and Lung

December 1-3, 2011: MSTP Interview Session

January 5-7, 2012: MSTP Interview Session
Michael Sharpnack
I grew up nearby in Cincinnati, the child of two OSU alumni. Although my love for OSU started early, my introduction to medicine didn’t begin until I began taking courses and volunteering during my undergrad at New York University. I majored in math and found a passion for applying quantitative methods in medicine. My honors thesis, advised by Charles Peskin, explored the potential of mathematical approaches to better understand Prion diseases. Mathematics is the science of structure, and I found myself drawn to the potential of elucidating complex structures, such as gene-protein networks. OSU is the ideal place for a student with diverse interests like me, as there is an enormous diversity of faculty, including the famous mathematical biosciences institute. While here, I also hope to take advantage of the various athletic opportunities and to experience Columbus as much as possible.

Aaron Victor
I received my undergraduate training at Case Western Reserve University as a Biochemistry major with minors in Medical Anthropology and Economics. During these undergraduate years, I performed research in hematopoietic stem cell biology and angiogenesis in the Hematology/Oncology laboratory of Mary Laughlin, MD, and developed a strong interest in scientific research, particularly in the fields of immunology, stem cell biology, and cancer biology. My laboratory experience, combined with my coursework and extracurricular activities, motivated me to pursue a career that incorporated clinical medicine and laboratory research. As an MSTP student, I am excited and motivated by the incredible opportunities provided by the Ohio State University. I enjoy triathlon, the outdoors, and reading books that make me think.