

MSTP Newsletter

Spring/Summer 2021 Edition

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MSTP Directors' Statement

Spring is a great time of the year where we look forward to springtime flowers, greener scenery and warmer days! It is also a time that signals growth, renewal and anticipation. As your new Directors we look forward to working with students, faculty and staff to evaluate new opportunities for growth and build upon the existing strengths of the OSU MSTP. First though, we want to meet all of you and plans are underway to schedule a general "Meet and Greet" virtual event in June for students. There is much we want to learn about your experiences, your successes, and career aspirations. We also plan to hold a virtual event for the MSTP faculty to gain their insights about opportunities for program enhancement and innovations.

We would be thrilled to hear what Spring means to you? Do you plan to plant a garden, set a new goal, or start a new home improvement project? Send us a **Spring Creative Reflection** by **July 14th, 2021**. We will read/show our three favorites at an upcoming venue, on the MSTP website and/or in the next Newsletter.

-Ginny L. Bumgardner, MD PhD and Rama K. Mallampalli, MD



Student Articles

Medical Education in the Time of a Pandemic

My cohort is in the unique position of having started medical school normally only to have our M1 and M2 year shaken up by the COVID-19 pandemic. The first few months of M1 year were stressful but honestly some of the best times of my life. I felt like I had a happy balance of watching lectures online and going to class for interactive activities like anatomy lab and TBLs. The combination pushed me to be more engaged in the material because it would come back to haunt me otherwise, but also allowed me to make clear delineations in my schedule between school and leisure. The pandemic completely shifted this for me. Suddenly I was on my couch 12 hours out of my day. Lectures bled into studying which bled into all my meals, which bled into binge watching TV. Initially this was great since I personally love staying home, but quickly it got disorienting because beyond some deadlines time no longer mattered as much. What difference would it make if I stayed up until 2AM studying or watching Hulu since I didn't need to get up early to commute? Necessities like styling my hair, eating at reasonable times, and getting up and moving around all fell away. Beyond feeling disconnected from my basic self-regulating activities, I felt incredibly disconnected from medical school. While pre-pandemic I usually watched lectures online, alternative anatomy lab, small groups, and TBLs just did not work well initially in this virtual format. LP was my favorite part of the Part One curriculum and having that taken away from me really took away what was for me the most motivating and grounding part of the whole experience. On the upside, for the first time I did start

studying in groups over Zoom. This was a transformative experience in terms of how I studied, and I credit it as to why I started struggling a little less academically during the pandemic.

One of the best parts of the first few months of my Part One experience was making friends and memories within my MSTP cohort. My cohort enjoyed seeing each other on campus and (unintentionally) made it a point that we were always seen on campus as a group. We had traditions that included post-exam brunch, ping-pong in the student lounge, game nights, and Monday happy hour at Cosecha. I fully expected some of these activities to wind down as we progressed through Part One and became short on time, but I felt like we had created such a strong bond that even without the almost daily interactions we would still all be close friends. The pandemic tested this much earlier than I expected. The lockdown in March caught me off guard, and I never got the chance to say goodbye or have one last hurrah before our new reality set in. I had relied on my social schedule to help balance my life and suddenly everything was canceled with no indication as to how long this would last. I do not believe that I am alone in feeling this way and I believe that we can all relate to this feeling of sudden isolation, especially if you live alone like I do. Suddenly the only times I saw my friends were when their names popped up on Zoom calls since no one (myself included) leaves their camera on during class if we don't have to.

This lasted for months but we made do in new ways that I would have not thought of pre-pandemic. Our game nights became online games of Among Us or Scattergories played over Zoom. Brunch became socially distanced

picnics and trips to the farmers' market once it became clear that it was relatively safe to be outdoors. We got together when it mattered and went together to the Black Lives Matters protests on the capitol and the White Coats for Black Lives demonstration at OSU. I think as unpleasant as this past year and a half has been, one thing it has taught me is how to connect with my friends in new ways. It has shown me how the bond that I have formed with my MSTP cohort is stronger than ever.

-Aliyah Bennet, G1

Recruitment Chairs' Statement

We are excited to be serving as your recruitment co-chairs for the 2021-2022 application cycle! Our primary goal is to work with MSTP leadership to streamline the entire recruitment process, from application to matriculation. Currently, we are revising application documents, further refining the interview and evaluation process, and facilitating the transition of the incoming class of 2021. For the upcoming cycle, which will again be held virtually, we are exploring new ways to promote engaging interactions between prospective and current students. We have ideas for virtual student "hosts" and social events involving creative activities and/or pets – so stay tuned! In response to student feedback, we are also working to increase transparency and communicate information more promptly and efficiently, most likely in the form of a brief newsletter following each interview session. Please reach out to us if you have any comments or suggestions throughout the process. We look forward to working with you this year!

*-Megan Pino and
Ilse Hernandez-Aguirre*

Oh the Places You'll Go: Graduating M4 Destinations



Alecia Blaszczyk

Preliminary, Amita Health, Chicago; Dermatology, Northwestern University

What was your favorite memory from your time in the MSTP?

By far the best part of the MSTP program is the people. I have so many special memories and moments with my cohort. I found some of my best friends in my classmates. So thankful for Michael and Kristina. My greatest memory together is them reading at my wedding ceremony!

How did you figure out what clinical specialty you wanted to go into?

I went into every rotation with an open mind. I really fell in love with dermatology. It was a good mix of inpatient/outpatient medicine and procedures. There are a ton of opportunities to pursue research in residency and beyond. My goal is to specialize in the cutaneous manifestations of autoimmune diseases.



Christopher Bobba

Thoracic Surgery, University of Florida

Share your thoughts about the residency application process.

It is imperfect, but remember that it is the culmination of all of your

training and accomplishments to date, so do everything you can do. Put your best foot forward, don't go somewhere based on a US news ranking, but rather make sure you are comfortable with the specific faculty there that you meet.

What advice do you have for the rest of the MSTP students?

Take advantage of graduate school personally and professionally:

1. You can take a vacation and go wherever/whenever you want.
2. If you have a crazy idea in lab, go for it (I would use Friday's in lab to do an experiment my PI didn't necessarily know I was doing until it was done).

The opportunity for both personal and professional independence during graduate school set you apart from your peers stuck on the treadmill of medical school. It can make you a more mature and thoughtful person and physician, but only if you take advantage of it.



Luxi Chen

Internal Medicine (PSTP), Cedars-Sinai Medical Center

What was your thesis research?

My thesis project focused on elucidating the development of human innate lymphoid cells and their roles in combating hematologic malignancies.

How do you see yourself using your training in your career?

I hope to become a physician scientist who provides compassionate care to patients while working to produce innovative discoveries in cancer

treatments through translational research.



J. Daniel Fenn

Neurology, OSU Wexner Medical Center



Michael Koenig

Internal Medicine, University of Maryland Medical Center

What was your favorite memory from your time in the MSTP?

Meeting my partner, Kristina. I met her in my cohort in the MSTP, and I can't imagine going through this without her.

What advice do you have for the rest of the MSTP students?

Keep your blinders on. Don't worry about what other people are doing, just focus on your own goals and getting where you need to be.



Ellen Lubbers

Internal Medicine-Pediatrics, OSU Wexner Medical Center & Nationwide Children's Hospital

(Oh the Places You'll Go: Graduating M4 Destinations, cont.)
How did you figure out what clinical specialty you wanted to go into?

It was so hard for me! I loved every rotation and didn't really settle on something until the last minute. Ultimately I chose med/peds because it has good variety, lots of subspecialty options, lots of patient contact time, and an emphasis on evidence-based medicine and education.

Share your thoughts about the residency application process.

Call me crazy but I thought it was kind of fun! Stressful, but fun. It was cool to put all of my accomplishments from the last 8 years in one place and see how far I've come and ponder where I'd like to go. Talking about what I hope to accomplish during residencies while doing interviews made me really excited to get started!



Nathaniel Murphy

Internal Medicine/Cardiology (PSTP), Northwestern University

What advice do you have for the rest of the MSTP students?

I think the most important thing to remember is that the MSTP is a marathon. It has multiple stages of training that require different skills to be successful. The strategies to be successful in graduate school are much different than those of medical school. It takes time to figure all of this out and try not to be too hard on yourself in the process.

How did you figure out what clinical specialty you wanted to go into?

I came into medical school wanting to pursue a career in cardiology. I

had been involved in cardiac research as an undergraduate. Throughout graduate school and the clinical years of medical school my interest in cardiology was confirmed. I was drawn to the breadth of pathology and the massive extent of research possibilities, especially from a genetic perspective on disease.



Giancarlo Valiente

Internal Medicine, University of Wisconsin Hospital and Clinics (Madison)

What was your favorite memory from your time in the MSTP?

Getting a chance to travel during my PhD years. I was able to submit abstracts and attend conferences in Boston, Chicago, San Diego, DC, San Francisco, Atlanta and Tokyo during my time as a grad student.

How do you see yourself using your training in your career?

Rheumatologist-immunologist. If I am successful in my research endeavors, I intend to work 100% as a PI.



Kristina Witcher

OB/GYN, University of Maryland Medical Center

Share your thoughts about the residency application process.

Residency applications were grueling, particularly as a couple. I both loved getting to meet so

many interesting people at different programs and also struggled with some of the tougher rejections. We successfully matched as a couple in the same city and program, and I am excited to get started in July. Your value and potential aren't dependent on the number or type of interviews you receive – this can be hard to remember in the thick of things, but it is important!

What advice do you have for the rest of the MSTP students?

Your journey through MD/PhD training is unique: no other person will have an identical set of experiences and expertise that you have. Be confident in what you have to offer the world and be humble when it's time to learn.



Nicole Zalles

Pathology (AP/CP track), Cleveland Clinic

What was your favorite memory from your time in the MSTP?

I would say overall the camaraderie between all the students in my year. It was nice to have a group of people going through a similar experience to talk/hang out with.

How do you see yourself using your training in your career?

Most likely being part of a research team, going to meetings, and contributing to changes in practice—possibly in the realm of molecular diagnostics. I don't see myself having my own lab or going back to bench research, but who knows! The future is full of possibilities.

Congratulations, all!
We're so excited to see what you will accomplish!

Awards and Honors

Publications

Krishna SG, Chu BK, **Blaszczak AM**, Balasubramanian G, Hussan H, Stanich PP, Mumtaz K, Hinton A, Conwell DL. Hospital outcomes and early readmission for the most common gastrointestinal and liver diseases in the United States: Implications for healthcare delivery. *World J Gastrointest Surg.* 2021 Feb 27; 13(2): 141-152. doi: 10.4240/wjgs.v13.i2.141. PMID: 33643534. Free PMC article.

Patel SH, Saito YD, Li Z, Ramaswamy B, **Stiff A**, Kassem M, Wesolowski R. A solitary brain metastasis as the only site of recurrence of HR positive, HER2 negative breast cancer: a case report and review of the literature. *J Med Case Rep.* 2021 Jan 7; 15(1):4. Doi: 10.1186/s13256-020-021615-2. PMID:33407851.

Morelli C, Castaldi L, Brown S, Streich L, Websdale A, Taberner F, Barengi A, **Blum KM**, Sawitzke J, Frank T, Steffens, Doleschall, Serrao J, Lechner S, Prevedel R, Heppenstall P. (2021) "Identification of a novel population of peripheral sensory neuron that regulates blood pressure". *Cell Reports*.

Blum KM, Mirhaidari G, Breuer CK (2021). Tissue Engineering: Relevance to Neonatal Congenital Heart Disease. *Semin Fetal Neonatal Med.*

Blum KM, Virtual Lightning Talk Speaker. Tamoxifen and Sex Confound Cardiovascular Tissue Engineering. Single Ventricle Investigator Meeting. March 2021.

Blum KM, Roby LC, Zbinden JC, Mirhaidari GJM, Reinhardt JW, Yi T, Barker JC, Breuer CK (2021). Sex and Tamoxifen Confound Murine Experimental Studies in Cardiovascular Tissue Engineering. *Nat Sci Rep.*

Erica Schwarz, John Kelly, **Kevin Blum**, Kan Hor, Andrew Yates, Jacob Zbinden, Aekaansh Verma, Stephanie Lindsey, Abhay Ramachandra, Jason Szafron, Jay Humphrey, Toshiharu Shinoka, Alison Marsden, Christopher Breuer "Hemodynamic Performance of Tissue-Engineered Vascular Grafts in Fontan Patients" *Nature Regenerative Medicine*

Schalkoff, C.A., Richard, E.L., Piscalko, H.M., Sibley, A.L., **Brook, D.L.**, Lancaster, K.E., Miller, W.C., & Go, V.F. (2021). Now We Are Seeing the Tides Wash In: Trauma and the Opioid Epidemic in Rural Appalachian Ohio. *Substance Use & Misuse.*

Rachel Brown, Fatima Barbar-Smiley, MD, MPH; Cagri Yildirim-Toruner, MD; Monica I. Ardua, DO, MSCS; Stacy P. Ardoin, MD; Shoghik Akoghlianian, MD. Reintroduction of Immunosuppressive Medications in Pediatric Rheumatology Patients with Histoplasmosis: A Case Series. *Pediatric Rheumatology.* 2021.

Howard ZM, **Dorn LE**, Lowe J, Gertzen MD, Ciccone PC, Rastogi N, Odom GL, Accornero F, Chamberlain JS, Rafael-Fortney JA. Micro-dystrophin gene therapy prevents heart failure in an improved Duchenne muscular dystrophy cardiomyopathy mouse model. *JCI Insight.* 2021 Mar 2:146511. Doi: 10.1172/jci.insight.146511. Online ahead of print. PMID: 33651713.

Dorn LE, Lawrence WR, Petrosion J, Xu X, Hund TJ, Whitson BA, Stratton MS, Janssen PM, Mohler PJ, Schlosser A, Sorensen FL, Accornero F. Microfibrillar-Associated Protein 4 Regulates Stress-Induced Cardiac Remodeling. *Circ Res.* 2021. Feb 3. doi:10.1161/CIRCRESAHA.120.317146. Online ahead of print. PMID: 33530700.

Ronald C. Inglehart, Ryan Nash, **Quais N Hassan**, Judith Schwartzbaum. Attitudes towards Euthanasia: A Longitudinal Analysis of the Role of Economic, Cultural, and Health-related Factors. 2021. *Journal of Pain and Symptom Management.* PMID: **33493587**. DOI: [10.1016/j.jpainsymman.2021.01.009](https://doi.org/10.1016/j.jpainsymman.2021.01.009)

Lordo, M.R., Scoville, S.D., Goel, A., Yu, J, Freud, A.G., Caligiuri, M.A., Mundy-Bosse, B.L. Unraveling the Role of Innate Lymphoid Cells in Acute Myeloid Leukemia. *Cancers* 2021, 13, 320. <https://doi.org/10.3390/cancers13020320>.

Wolfe AR, Siedow M, **Nalin A**, DiConstanzo D, Miller ED, Diaz DA, Arnett A, Cloyd JM, Dillhoff M, Ejaz A, Tsung A, Williams TM. Increasing neutrophil-to-lymphocyte ratio following radiation is a poor prognostic factor and directly correlates with splenic radiation dose in pancreatic cancer. *Radiother Oncol.* 2021 Mar 2: S0167-8140(21)06109-0. doi: 10.1016/j.radonc.2021.02.035. Online ahead of print. PMID: 33667588.

Awards and Honors

Awards

Daniel Brook – NIDA Young Investigator Award & poster accepted at American Society of Addiction Medicine Annual Meeting
Kylene Daily – American Association of Immunologists Conference travel award & oral/poster presentation
Kylene Daily and Sabrina Mackey-Alfonso (along with others) – LSI Part 3 AMRCC Outstanding Educator Award
Sydney Fobare – Pelatonia Fellowship
Rebecca Glowinski – Pre-Doctoral Trainee Award from the NCH Infectious Diseases Consortium
Tamar Gur, MD, PhD – LSI INSPIRE Award
Ken Okoye – Presidential Fellowship (Graduate School)
Akila Venkataramany – 2021-2022 Center for RNA Biology Fellowship
Akila Venkataramany - CancerFree Kids Grant
Han-Yin (Seraph) Lin – University Fellowship (Graduate Enrichment)

Hayes Graduate Research Forum

Kylene Daily – Biological Sciences Oral Presentation, 1st place
Alex Campbell – Biological Sciences Oral Presentation, 3rd place
Zheng Tan – Engineering Oral Presentation, 3rd place
Helen Chen – Health Sciences Oral Presentation, 1st place
Max Yano – Health Sciences Oral Presentation, 2nd place
Matthew Lordo – Health Sciences Oral Presentation, 3rd place

Impact Factor Award (MSTP peer nominated award for compassion and service to other students/the community)

Ariunaa Bayanjargal
Aliyah Bennett
Jack Hedberg
Matthew Lordo

MSTP Leadership and Academic Achievement Award

Brian Hansen
Jack Hedberg
Michael Koenig
Bella Lee
Ellen Lubbers
Alexia Martin
Branden Verosky

OSUWMC Trainee Research Day Winner

Rebecca Glowinski
Walter Wang
Wesley Wang

TL1 Fellowship

Aaren Kettelhut
Wesley Wang

2021-2022 APSA Executive Council

Ariunaa Bayanjargal – Co-Chair, Events Committee
Zheng Tan – Co-Chair, Fundraising Committee