**Faculty**

Robert J. Straka, PharmD  
Department Head; Professor  

Mahmoud Al-Kofahi, DDS, PhD  
Assistant Professor  

Angela K. Birnbaum, PhD  
Professor; Director of Graduate Studies  

Jeffrey Bishop, PharmD, MS  
Associate Professor  

Richard C. Brundage, PhD, PharmD  
Professor  

Scott A. Chapman, PharmD  
Associate Professor  

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Professor; Weaver Endowed Chair; Director, Center for Orphan Drug Research  

Lisa Coles, PhD  
Assistant Professor  

Jeannine M. Conway, PharmD  
Associate Professor; Assistant Dean for Professional Education  

Esam El-Fakahany, PhD  
Professor; Associate Dean for Faculty Affairs and Graduate Education  

Elizabeth Hirsch, PharmD  
Assistant Professor  

R. Stephanie Huang, PhD  
Associate Professor  

Pamala A. Jacobson, PharmD  
Professor; Director, Institute of Personalized Medicine  

L’Aurelle A. Johnson, PhD  
Assistant Professor; Associate Director of Graduate Studies  

Reena Kartha, PhD  
Assistant Professor  

Mark N. Kirstein, PharmD  
Associate Professor  

Michael Kotlyar, PharmD  
Associate Professor  

Ilo E. Leppik, MD  
Professor  

Ling Li, PhD  
Professor; VFW Endowed Chair  

Susan E. Marino, PhD  
Associate Professor; Director, Center for Clinical and Cognitive Neuropharmacology  

Melanie R. Nicol, PhD, PharmD  
Assistant Professor  

William S. Oetting, PhD  
Professor  

Swayam Prabha, PhD, MBA  
Assistant Professor  

John C. Rotschafer, PharmD  
Professor  

Shellina Scheiner, PharmD  
Assistant Professor  

Leo Sioris, PharmD  
Professor  

Debra J. Skaar, PharmD  
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Lynda Welage, PharmD  
Professor; Dean, College of Pharmacy  

Beshay Zordoky, MSc, PhD  
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Dear Friends,

Over the summer, faculty and staff in ECP focus on taking concrete steps towards strategic goals for the department and also take time to connect with each other as colleagues and friends with a common purpose. Maintaining community within the department makes us all better in our work, just as maintaining community in research and care sectors advances the impact of our research.

ECP strives to be a leader in its translational mission. Education, collaboration, and outreach are immensely important to this task, and in 2019-20 ECP is co-hosting several unique conferences and workshops aimed at connecting researchers and members of the clinical and scientific community. These are opportunities to share ideas, information, and emerging applications for the discoveries generated by our research.

In these pages, you will read about two recent events: the Rare Disease Day conference and the Pharmacometrics Summer School. Planning has also begun in earnest for the 3rd biennial Precision Medicine Conference (PGx). The success and popularity of this conference across research, care, industry, and advocacy sectors speaks to the importance of precision medicine fields. For the first time, this conference will take place over two days, from June 11-12, 2020. Please plan for it, as we are excited about our invited speaker list.

Katherine Goffin has joined the department in the role of front desk associate and will provide support for PGx in this landmark year, as well as provide assistance with many other critical operations in ECP going forward. This year, we say goodbye to PhD graduates Samuel Callisto and Irene Vuu, as well as postdoctoral associate Aritro Nath, who has accepted a position at City of Hope in California. As always, I wish the best of luck to all our colleagues on their paths! We are confident they will represent our department and college well in their careers.

I hope you have a productive and satisfying fall, and I look forward to updating you on our progress in the spring.

Sincerely,

Robert J. Straka, Pharm.D.
Department Head
On March 1, 2019, the Center for Orphan Drug Research and Stem Cell Institute sponsored the University of Minnesota’s seventh annual Rare Disease Day event to connect researchers with patient advocacy groups. More than 220 University of Minnesota students, staff, and faculty, as well as individuals from health care organizations, patient advocacy groups, and the biomedical industry, attended.

The keynote speaker was Dr. James Wilson from the Orphan Disease Center, University of Pennsylvania. Dr. Wilson shared a summary of his research and the state of gene therapy as a whole. There was also a patient panel which featured patients and caregivers from several rare disease communities who shared their thoughts, hopes and concerns regarding gene therapy.

Local KSTP video news coverage of the event is available online under the title, “Marking Rare Disease Day, U of M researchers team up with affected families.”

Thank you to all who attended and helped to make the day a success!
2019 Rare Disease Day Research Award Winners


Rare Disease Day Panel

Left to right: Patti Engel (at podium, not pictured), moderator, President & CEO of Engage Health; Pam Mertz, parent of a son diagnosed with Cystic Fibrosis; Mohamed Duklef, person affected by Epidermolysis Bullosa; Ashanthi De Silva, person affected by SCID ADA; Dr. James Wilson, keynote speaker; Jack Keimel, parent of two sons diagnosed with Late Onset Tay Sachs Disease; Approach to Estimate FOS, LEV and VPA Exposures in Children.”
Keynote speaker Dr. James Wilson
CP’s pharmacometrics group, with the support of the College of Pharmacy, hosted 20 local, national, and international pharmacometrics students and trainees for the first annual Minnesota Pharmacometrics Summer School (MPSS) from July 15 - 26, 2019. The event was based on the format of the highly successful Uppsala Pharmacometrics Summer School (UPSS) at Uppsala University in Sweden.

The inspiration for MPSS stems from the reality that while there are many programs across the United States in which pharmacometric data analyses are performed, these programs are often small, and graduate students and post-docs, while they become experts in their specific projects, may not always get an adequate opportunity to see a broad range of pharmacometric applications. Students may lack exposure to novel pharmacometric strategies in practice, or they may simply find themselves isolated with no obvious access to a scholarly community using similar tools with whom they can discuss issues and problems in their work. The MPSS planning committee, consisting of six ECP faculty, students, and alumni, believed there was enough need and interest locally, nationally, and internationally to support an additional summer school in Minnesota based on the Uppsala model.
The planning committee received 27 applications from announcements on various pharmacometrics user groups, and after screening applicants to determine those who stood to benefit the most from the opportunity—and those who would have the most to contribute themselves—arrived at a roster of 20 participants of varying experience levels, 8 of whom were from outside the U.S. MPSS attracted graduate students and post-docs from universities in Egypt, Montreal, Denmark, Jordan, China, Korea, the Netherlands, and Ontario, as well as SUNY Buffalo, UCSF, Mayo, Iowa, and Nebraska.

Planners identified relevant topics to which students working in pharmacometrics wouldn’t necessarily be exposed in the course of their specific projects. For each topic, a short lecture/discussion format was followed by a hands-on exercise. Participants brought in their current data and were able to apply what they had learned on their own projects. Planners also allowed time for presentations of projects during which participants could discuss specific problems and issues they were facing in their work.

MPSS was well-received by participants, who responded positively to everything from the difficulty of the topics and tasks to the experience levels of other participants and professional and personal connections they were making with other researchers.

Planning committee member Richard Brundage indicated the event was a success, and that they had hit on a winning size and format for the workshop right out of the gate.

“The MPSS was well received; it was highly rewarding, but it also was an extraordinary amount of work. We don’t envision expanding it in terms of attendees. Twenty was a good number for providing the personalized tutoring we wanted to give.”

Organizers hope to offer another session of the MPSS in summer 2020.
MPSS Participant Feedback

“Many thanks for putting together and executing a truly outstanding course! I can fully appreciate how challenging it is to develop and lead such a course, taking time away from your regular work commitments. Your efforts were highly worthwhile -- I added knowledge to my current toolbox while making terrific friends and lasting memories.”

“All the instructors and the students were really exceptional and those 2 weeks have promoted a lot of logical thinking and opened many sources for learning more about pharmacometrics.”

“I truly enjoyed the course and would highly recommend it to others. The format was very conducive to learning and teaching. The workload was adequate (not too strenuous, not too light). The topics were stimulating and broad. The teachers were exceptional. The hospitality was warm and welcoming.”

“Exercises were challenging but very well thought through. The results (and the discussion afterwards) are very instructive on why the exercise/analysis is useful.”

“Our group was a terrific balance of advanced/intermediate/beginner-type individuals. We learned from each other by working together and teaching each other.”
Faculty News

Grants and Recognition

**Jeannine Conway** was appointed Associate Dean for Professional Education in the College of Pharmacy and was selected 2019 PharmD Teacher of the Year by College of Pharmacy PharmD students.

**Elizabeth Hirsch** received an additional $71,484 on the budget of her existing grant from Merck entitled, “A Retrospective Multi-center Study to Assess Patient Outcomes Following Treatment with Ceftolozane/Tazobactam.” She also was named Professor of the Year by 3rd-year PharmD students on the Twin Cities campus.

**Stephanie Huang** received a 2-year, $200,000 Faculty Research Development Grant from the Office of Academic Clinical Affairs for her project, “Computational Drug Repositioning to Treat Prostate Cancer Driven by Androgen Receptor Variants.”

**Ling Li** was appointed a regular member of the Chronic Dysfunction and Integrative Neurodegeneration (CDIN) Study Section of the National Institutes of Health (NIH).

**Melanie Nicol** was appointed to the Editorial Board of the Journal of Clinical Pharmacology.

**Shellina Scheiner** is Co-I representing pharmacy on a new 5-year Geriatrics Workforce Enhancement Program award from the U.S. Health Resources and Services Administration (HRSA).

**Beshay Zordoky** received a 1 year, $99,862 Childhood Cancer Research Grant from the St. Baldrick’s Foundation for his project “Combating Cellular Senescence to Prevent Anthracycline Cardiotoxicity.” He was named one of three Reviewers of the Year by the Canadian Journal of Physiology and Pharmacology.

Media

**Elizabeth Hirsch** and UMN PharmD student **Melanie Mahoney** were interviewed by Contagion Live for a feature titled, “Escherichia coli ST131: Prevalence, Resistance, and Virulence in Boston vs Minneapolis.”

**Ling Li**’s presentation of her research findings at the International Conference on Alzheimer’s and Parkinson’s Diseases 2019 in Lisbon, Portugal was featured in the AlzForum online article “Could Greasing the Wheels of Lipid Processing Treat Alzheimer’s?”

**Melanie Nicol** was interviewed by Contagion Live for a feature titled, “How Does Hormonal Contraception Affect a Woman’s HIV Risk?”

Service

**Beshay Zordoky** and Co-investigator **Karim Sadak** (UMN Pediatrics) visited the office of the Rally Foundation for Childhood Cancer Research in Atlanta, Georgia. For the past two years, the Rally foundation has supported their research on the prevention of long-term negative health effects due to cancer treatment.
Ramaiah Muthyala helped legislators and other rare disease advocates to develop state legislation to establish a Rare Diseases Advisory Council at the University of Minnesota. The legislation is the second of its kind in the country and is intended to improve communication between researchers, patients, and policymakers. Dr. Muthyala attended Governor Tim Walz’ signing of the legislation on July 18.

On behalf of the UMN College of Pharmacy (CoP), Ling Li hosted a bilateral symposium between UMN CoP and China Pharmaceutical University (CPU) on the Twin Cities campus. There were a total of nine faculty speakers, including UMN’s Amanda Klein, Nam Chul Kim, Hongbo Pang, Todd Doran, and ECP’s Beshay Zordoky, with topics covering Neuroscience, Pharmacology, Pharmaceutics, and Medicinal Chemistry. More than 47 faculty, postdocs and students attended the interdisciplinary symposium.
**Student News**

**Welcome New Graduate Students!**

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<tr>
<th>STUDENT</th>
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<tr>
<td>Charul Avachat</td>
<td>Angela Birnbaum</td>
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<td>Morgan Bixby</td>
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<td>Yingbo Huang</td>
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<td>Alyssa Lantz</td>
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<td>Takuto Takahashi</td>
<td>Mark Kirstein</td>
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**Samuel Callisto** and **Irene Vuu** walked in the Spring 2019 College of Pharmacy graduation.

**Angela Jeong** won the best poster presentation award at the College of Pharmacy’s Rho Chi Research Day event.

**Melanie Mahoney**, PD4 research-emphasis student in the lab of Elizabeth Hirsch, was awarded the Pharmacy Alumni Society Student Award in April 2019.

**Wenhui Qu**, 3rd year PhD student in the Neuroscience program in the lab of Ling Li, won 2nd place in the 3 Minute Thesis Talk (3MT) Competition in May at the Research Recognition Day for all the Biomedical Graduate Programs in the Medical School.

**Emily Smith** and **Melanie Mahoney**, PD4 research emphasis track students in the lab of Elizabeth Hirsch, presented research at the 28th European Congress of Clinical Microbiology and Infectious Diseases (ECCMID) in Amsterdam, Netherlands, April 2019.

**Takuto Takahashi** received a Top 15 Student Abstract award and travel grant for his project, “Prophylactic Voriconazole in Pediatric Hematopoietic Stem Cell Transplant Patients: A Pharmacokinetic Study and Therapeutic Drug Monitoring.” He presented his poster at the 2019 American College of Clinical Pharmacology (ACCP) annual meeting in September.
CONGRATULATIONS TO SUMMER RESEARCH SCHOLARSHIP AND INTERNSHIP Awardees!

CTSI Advanced Pathways to Research Program (APReP): Summer 2019

**STUDENT**  **Advisor**
Ibrahim Abdelgawad ......................... Beshay Zordoky
Andres (Andy) Lim (PD2) .................... Jeffrey Bishop
Jennifer Nelson .............................. Robert Straka
Siddhee Anand Sahasrabudhe .............. Reena Kartha
Yuting Shan (PD2) ......................... Stephanie Huang
Fan Wang .................................. Melanie Nichol

Melendy/Peters Summer Research Scholarships

**STUDENT**  **Advisor**
Josiah Allen (PD1) .......................... Jeffrey Bishop
Melanie Mahoney (PD3) ..................... Elizabeth Hirsch
Maryam Mohamud(PD3) .................. Mark Kirstein
Yuqi Zhou (PD1) ............................ Stephanie Huang

Health Disparities and Cancer Research Summer Internship

**STUDENT**  **Advisor**
Elise Moore (John Hopkins University) .................. Stephanie Huang

PhD Graduate Student Summer Internships

**STUDENT**  **Company**
Ashwin Karanam ................................ GlaxoSmithKlein
Abhishek Sathe ................................. AbbVie

ECP is pleased to welcome Katherine Goffin to the role of Front Desk Associate in the ECP main office at 7-115 Weaver-Densford Hall. Stop by and say hello!

Stephanie Huang has welcomed post-doc Dr. Siddhiya Pareek to her lab.

Aritro Nath was the grand prize winner of the poster presentation competition at the University of Minnesota’s Minnesota Supercomputing Institute (MSI) research symposium. Dr. Nath completed his post-doctoral training in the lab of Stephanie Huang in August and took a scientist position in the Department of Medical Oncology and Therapeutics Research at City of Hope in Duarte, California.
ECP Summer Outing

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