ECP Gazette is published by the University of Minnesota College of Pharmacy’s Department of Experimental and Clinical Pharmacology for faculty, staff, students, alumni, and friends of the department. Send correspondence to Becky Palapala, 7-115 Weaver-Densford Hall, 308 Harvard Street, SE, Minneapolis, MN 55455. This publication is available in alternative formats upon request. Contact 612-624-7639 for more information.
Dear Friends,

Since our fall 2020 newsletter, our professional and personal lives have weathered many challenges. Although we strive to continually advance our educational, research, service and practice missions, it becomes ever clearer that we must do so – not in a vacuum, but rather in the context of a myriad of challenges. These challenges test our resolve to innovate, discover, educate and disseminate new knowledge while simultaneously improving our collective commitment and actions towards diversity, equality and inclusion. Our State of Minnesota and local communities—and communities the world over—have been faced with significant challenges in the recent past. However, our department’s and college’s collective commitment to our shared responsibility and accountability for creating a healthy and caring organization that is dedicated to serving others through education, research, practice and service remains the cornerstone by which we collectively inspire the community around us to succeed even in the face of significant challenges. Our College’s “Living our Values” statement serves to ground us during these times.

As we conclude the spring semester, ECP continues to respond to these challenges. Our trainees are set to graduate or engage in summer internships and summer programs and our faculty step up their research agendas as we make plans for an evolving educational platform from which we both teach and learn. I am confident that we will adapt to address the remaining and unforeseen challenges we will face and with new resolve, and that we will act and openly pursue solutions to the challenges we will face this fall in our professional and personal lives.

Our commitment to effecting positive change in healthcare discovery, education and service directly compel us to have open discussions and speak up for what is true, right and just for all people of our society.

I have great pride for our faculty, students and staff who continue to support the generation of new knowledge and advancement of science in our respective fields. This edition of our newsletter features excellent examples of research, engagement in the community and discovery to which we have felt privileged to contribute.

I wish all alumni, donors and friends of the department a safe, healthy and productive spring and summer, and I invite you to review the stories within our newsletter.

Sincerely,

Robert Straka, PharmD
Professor and Department Head
Congratulations 2020–21 ECP Graduate Program Fellowship Recipients!

James C. Cloyd Neuropharmacology Fellowship
James C. Cloyd Neuropharmacology Fellowship - for PhD students in the Experimental and Clinical Pharmacology program. This provides funding to an outstanding graduate student with support to actively engage in research related to clinical neuropharmacology.

Siddhee Sahasrabudhe
(faculty advisors: Reena Kartha and James Cloyd)

Rui Zhong
(faculty advisor: Ling Li)

Coin Foundation Fellowship
Coin Foundation Fellowship - for PhD students in the Experimental and Clinical Pharmacology program. This provides funding to an outstanding graduate student with support to actively engage in research related to infectious diseases.

Morgan Bixby
(faculty advisor: Elizabeth Hirsch)
**ECP Fellowship**

ECP Fellowship - for students in the ECP program working toward a PhD degree. This fellowship is based upon student progress and quality of proposed research project.

**Charul Avachat**
(faculty advisor: Angela Birnbaum)

**Robert J. Straka Fellowship**

Robert J. Straka Fellowship – for Ph.D. students in the Experimental and Clinical Pharmacology program. This award provides funding to an outstanding graduate student with support to actively engage in research at the College of Pharmacy in the area of pharmacotherapy aimed to improve the management of patients with cardiovascular diseases.

**Ya-Feng (Jay) Wen**
(faculty advisor: Robert Straka)

**Rowell Fellowship**

The fellowship was established by the family of pharmaceutical industrialist Theodore H. Rowell to support graduate students in the pharmaceutical sciences with an emphasis on drug delivery systems.

**Sarah Kim**
(faculty advisor: Jeanine Jarnes)
Alumni Spotlight: Juki Ng

Grad Year: 2005

What is your current position title, name of organization? Briefly describe your professional path to this point.

Scientific Director, Clinical Development, General Medicine and Infectious Diseases at AbbVie. Previously 12 years as a clinical pharmacologist.

I received my PhD in 2005, PharmD in 2000. My advisors were Dr. Jacobson and Dr. Remmel, Dr. Brundage was my DGS.

What is your primary role in your current position?

I support clinical development activities, which include study design and concept, protocol development, study execution and data analyses for Phase II to IV studies.

Have you had any major field or focus changes since beginning your career? How have your interests evolved?

My career started as a clinical pharmacologist for 12 years focusing on Phase I studies, Exposure-response Modeling, and Biopharmaceutics. Then my current position became available to transition to Clinical Development, and I had the opportunity to work with cross functional teams to expand my clinical trial knowledge in later phase studies.

Since graduating from ECP’s grad program, what would you say are your most significant professional accomplishments? What particular achievement are you most proud of?

As a clinical pharmacologist, I had the opportunity to work on a assets from preclinical to Phase I and all the way to NDA submission and approval. These were years of efforts, working beyond my normal hours and with the best team to achieve this. Now as a Scientific Director, I have the opportunity to work with cross functional teams to design and execute late phase clinical trials; that is an eye-opening experience to me.

Reflecting on your experiences as an ECP Graduate Student, what are your fondest memories from that time? What advice can you give to current and/or prospective students in ECP?

[My fondest memories are] working with my staffs in
the lab. I was stuck on my experiment for months, but eventually I got help from them and my advisors, and I finally had a breakthrough. I saw that the end of the tunnel was coming!

I was the first PharmD student going into the ECP PhD program, and I took a few classes with SAPh students. At that time, I was so focused on clinical pharmacology classes and cared less(!) about my classes in Public Health and SAPh. But fast-forward 15 years, and what I learned in those classes suddenly became relevant in my current job. I hope that you will treasure all your experiences and knowledge that you gain in your classes; You never know when your career may take you in a different direction!

"I hope that you will treasure all your experiences and knowledge that you gain in your classes; you never know when your career may take you in a different direction!"

pharmacy.umn.edu
University of Minnesota Biennial Pharmacogenomics Conference 2020: Implementation of Pharmacogenomics into Clinical Care

The College of Pharmacy’s 2020 Pharmacogenomics Conference, titled “Implementation of Pharmacogenomics into Clinical Care,” took place virtually September 10-11, 2020. This biennial conference, executed in cooperation with the Institute for Personalized Medicine, educates pharmacy professionals on the latest developments in pharmacogenomics (PGx). The virtual conference featured 21 speakers, a live, virtual exhibit hall, and 25 pre-recorded poster presentations.

The physical iteration of the conference, originally scheduled for June 11 - 12, 2020, was cancelled due to COVID-19 restrictions and much of the original planning was terminated. A total of 373 participants included attendees, speakers, organizers, and exhibitors. 123 different organizations were represented, including 39 different schools and universities. Total attendance represented a nearly 25% increase compared to the 2018 conference, despite the challenges presented by COVID-19, in large part due to ease of access for out-of-state attendees for whom travel may have represented an obstacle. The conference was accredited for up to 12 continuing education (CE) credits for nurses, pharmacists and physicians.

In addition to the College of Pharmacy, seven vendors of pharmacogenomic services participated as exhibitors at the virtual conference, providing $3,000 in revenue towards conference expenses. OneOme, LLC. provided free RightMed genetic testing to conference attendees. The aggregated, de-identified results of 110 conference attendees were presented during the conference as a recorded poster presentation by David Stenehjem. Each attendee had at least one actionable variant and had access to their tests results privately.
215 people attended the 9th annual Rare Disease Day conference at the University of Minnesota on Friday, February 26. This virtual event was co-sponsored by the Center for Orphan Drug Research (CODR) and the Stem Cell Institute.

The program, “Telehealth in Rare Disease Clinical Practice and Research: The Silver Lining Now and Beyond COVID-19,” featured two keynote speakers and a panel discussion. University of Minnesota President, Joan TA Gabel, provided recorded remarks for the program, and the virtual format maintained great community engagement compared to previous years with 22 local and regional patient advocacy groups in attendance, 13 of which hosted virtual exhibit tables. Thank you to everyone who attended and to our event sponsors who made this important event a success!

**Keynotes:**

“Successes and Shortcomings of Telehealth for Rare Diseases from the Clinician Point of View” with Susan Berry, MD, Professor, Department of Pediatrics, University of Minnesota Medical School

“Policy, Patients, and Telehealth’s Post-Pandemic Potential” with Bobby Patrick, Vice President of Strategic Growth and Policy, Medical Alley Association

**Panel Discussion:**

“Telehealth: Implications for Care, Policy, and Research” moderated by Paul Orchard, MD, Professor, Department of Pediatrics, University of Minnesota Medical School

Panelists: Rene Pierpont, PhD, Assistant Professor, Department of Pediatrics, U of M; Robert McGovern, MD, Assistant Professor, Department of Neurosurgery, U of M; William (Bill) Betten, President, Betten Systems Solutions LLC; Stephanie Tomlinson, Parent, Patient Support Coordinator, MitoAction
Faculty Retirements

ECP would like to thank John Rotschafer and Shellina Scheiner for their combined 50 years of dedicated service to the College of Pharmacy and wish them all the best in their future adventures.

John Rotschafer

- UMN CoP graduate (1977)
- Since joining the CoP in 1978, he advanced to Professor including serving as ECP department head
- Research focus: antibiotic pharmacodynamics
- Dozens of funded research projects
- Trained over 20 fellows
- >150 peer reviewed publications, (>40) book chapters
- 40+ years of service to his community

Shellina Scheiner

- UMN CoP graduate (PharmD 2002)
- Board-certified practitioner in geriatric pharmacotherapy
- Joined CoP as Assistant Professor in 2011
- Active contributions to the University through:
  - public service at departmental, collegiate and University-wide levels
  - curriculum development, teaching (geriatrics specialty), publications and funded research/service
- Community service including clinical service in care centers and invited lectures in her field
Grants

Ling Li is a co-investigator on a new NIH/NIA grant R01 AG069895 entitled "Deep Learning with Neuroimaging Genetic Data for Alzheimer’s Disease" (PI: W. Pan), 09/30/2020 – 06/30/2025, with a total funding of $3,357,035.

R. Stephanie Huang’s lab received a Grant-in-Aid (GIA) capital equipment award from the Office of the Vice President for Research (OVPR) for the purchase of a BioSpa instrument.

Awards And Recognition

Dick Brundage was invited to deliver the plenary address to the Asian Pharmacometrics Network Symposium 2020. Remotely, of course!

Adjunct Associate Professor Stephen Le-Master Recently completed a 3-year cycle serving as President-Elect, President and Past President for the Northland Society of Toxicology (NLSOT), the local chapter of the Society of Toxicology (SOT).

Melanie Nicol was invited as a Guest Editor for the April 2021 issue of Clinical Pharmacology & Therapeutics. This themed issue was titled “Therapeutic Innovations in Infectious Diseases”

Beshay Zordoky received the Best Poster award for the K-R01 scholars category at the Center for Translational Science Institute (CTSI) virtual poster session on September 16, 2020.

Media And High-Impact Publications

Angela Birnbaum is co-author on the paper, “Changes in Seizure Frequency and Antiepileptic Therapy during Pregnancy,” published in the New England Journal of Medicine, Dec 24, 2020

Alex Ling and R. Stephanie Huang are authors on “Computationally predicting clinical drug combination efficacy with cancer cell line screens and independent drug action,” published in Nature Communications, 2020.

R. Stephanie Huang was interviewed by Oncology Tube (OncologyTube.com, the largest peer to peer oncology video network in the world), for her latest work published in Nature Communications.

Reena Kartha spoke at the NIH Rare Disease Day Virtual Conference about her Spring 2021 freshman seminar on rare diseases. Her talk, “Novel Rare Diseases Course for Undergraduate Freshmen — Successes and Lessons Learned” was on Monday, March 1 and was free and open to the public. To learn more and register, visit their website.

Service

R. Stephanie Huang served as abstracts and posters judge for the UMN CTSI 2020 virtual poster session. Dr. Huang also serves as a reviewer for the Dutch Research Council (NWO) Vici grant.

Melanie Nicol and Betsy Hirsch practice their IM injection technique as part of UMN Immunization Course. They have been volunteering with vaccination efforts through Medical Reserve Corps, Fairview, and the College of Pharmacy.

OncologyTube.com, the largest peer to peer oncology video network in the world), for her latest work published in Nature Communications.

Reena Kartha spoke at the NIH Rare Disease Day Virtual Conference about her Spring 2021 freshman seminar on rare diseases. Her talk, “Novel Rare Diseases Course for Undergraduate Freshmen — Successes and Lessons Learned” was on Monday, March 1 and was free and open to the public. To learn more and register, visit their website.
IBRAHIM ABDELGAWAD, PhD student in Dr. Zordoky Lab, received Student/Trainee Grant for the ASCPT 2021 Annual Meeting.

Best poster award for ALEXA CARRERA (SUMMER STUDENT, ZORDOKY LAB), PREP SCHOLARS category - CTSI virtual poster session 09/16/2020

SHEN CHENG PRESENTED A WEBINAR THAT WAS SUPPORTED BY BOTH THE UNIVERSITY OF MINNESOTA AND CERTARA TITLED “APPLICATION OF A TARGET MEDIATED DRUG DISPOSITION (TMDD) MODEL FOR WARFARIN PHARMACOKINETICS - TRANSLATION FROM NONMEM TO PHOENIX NLME” ON NOVEMBER 16, 2020.

ANGELA JEONG, A 5TH YEAR GRADUATE STUDENT IN DR. LING LI’S lab, has received an offer from the University of North Carolina for the PK/PD postdoctoral fellowship sponsored by the Pharmaceutical Consulting Company Nuventra, starting July 1, 2021.

ASHWIN KARANAM received an ACoP Trainee Communication Challenge Award held November 13, 2020.

CODR graduate student SIDDHEE SAHASRABUDHE received an invitation for a platform presentation at WORLD symposium. She will present her work on modeling potential interactions between oral Gaucher Disease treatment and potential COVID-19 therapies. Ms. SAHASRABUDHE, will also be interviewed by CheckRare regarding her presentation, “Modeling potential interactions between oral Gaucher disease treatment and investigational COVID-19 therapies,” at this year’s WORLDsymposium conference. CheckRare is a website and social media platform focused on rare genetic diseases whose content is viewed and shared by physicians, patients, and the rare disease community.

WEIJIE ZHANG, a first year BICB (Bioinformatics & Computational Biology) PhD student has joined the Huang lab.

RUI ZHONG, a 3rd year graduate student in LING LI’S lab, won both second place and the people’s choice award in the University of Minnesota’s 3M competition. RUI ZHONG also won the Best Poster Presentation Award (1st place) at the Virtual Rho Chi Research Day 2021 in the College of Pharmacy UMN. The title of his winning poster was “The HDL Mimetic Peptide 4F Attenuates Neuropathology and Cognitive Deficits in a Transgenic Mouse around the Department

ASHWIN KARANAM, PhD
Dissertation title: Quantitative Pharmacological Approaches for Characterizing Lamotrigine Pharmacokinetics in Special Populations of Pregnancy, Postpartum and Breastfeeding Infants to Prospectively Optimize Dosing

SCOTT LUISI, MS
Thesis: Topiramate Induced Alteration in Frontal Lobe eLORETA-ICA Resting State Network Activity is Associated with Baseline Semantic Fluency Performance

ABHISHEK SATHE, PhD
Dissertation title: Clinical Pharmacology of First- and Second-Line Treatments of Convulsive Status Epilepticus
HUNTER BRIGMAN (Laboratory manager in the Hirsch lab) and his wife welcomed their first child--a healthy baby girl named Eleanor, into their family on September 25.

ECP alumnus and Adjunct Assistant Professor SAMUEL CALLISTO and his wife Samantha welcomed their daughter Hazel to the world this January.

MUTAZ JABER has been invited to deliver the keynote address at a dedicated ACCP/ISoP Clinical Pharmacometrics SIG-sponsored event. He will be speaking on and demonstrating his Shiny App platform designed for the precision dosing of hydrocortisone in children with congenital adrenal hyperplasia.

SILVIA M. ILLAMOLA is Principal Investigator on a “Clinical Pilot and Feasibility Award” from the Cystic Fibrosis Foundation entitled “Optimal vancomycin exposure target for pulmonary exacerbations in Cystic Fibrosis”, with a total funding of $160,000. DR. ILLAMOLA also gave an invited lecture on “Principles of Pharmacokinetics & Developmental Changes in Pharmacokinetics in Pediatrics” at the NICU Fellows Conference (Department of Pediatrics, University of Minnesota) on Dec 3rd, 2020.

DANIELLE MAESER, a second year BICB (Bioinformatics & Computational Biology) PhD student has joined the Huang lab.

ECP Administrative Manager LINDSAY BORK NICHOLS and her partner, Dan, welcomed their baby, Natalie Marie Nichols, born February 25 at 11:23am. 4lb 2oz and 18 inches long.

Members of MELANIE NICOL’s lab took advantage of the nice Fall weather to do some Covid-friendly outdoor activities and explored the Twin Cities Corn Maze on October 30. It was great to see each others’ faces (or at least half of them) somewhere other than Zoom!

AMY PAULSON, a first year Pharmacology MS student has joined the Huang lab.

SAI KAUSHIK SHANKAR, a second year Biostatistics MS student has joined the Huang lab.