Developing New Drug Therapies

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Dear Alumni and Friends,

Over the past several years, the total number of applicants to pharmacy schools across the country has decreased. This is a trend we have been watching with increasing concern.

Fortunately, our college has continued to successfully fill our classes with very bright students. We are in an enviable position among our peer schools in that we have an outstanding reputation (we’re currently ranked #3 among all U.S. pharmacy schools). We have an innovative new curriculum, a renowned academic health center, and a reputation for being a leader in interprofessional education. We also offer numerous global activities to enrich our students’ learning.

Another major draw is our students themselves — they have a history of receiving prestigious and competitive awards and playing prominent roles in national pharmacy student organizations. For example, Lindsay Kubina, a third year student, won the national patient counselling contest at APhA last April; a Minnesota team came in second in the country in a business plan competition at the NCPA meeting this fall; and recently our student team won the national ACCP Clinical Pharmacy Challenge. We are all very proud of them! (You can read more about our students’ latest achievements on page 26.)

Yet, we know inevitably we will be affected by the decreasing number of pharmacy school applicants nationwide. In addition to the demographics of our target age group, there could be a number of reasons for this decrease: the economy, the slowing down of pharmacist hires (especially in chains), numerous new pharmacy schools that have created increased competition for applicants, the availability of other primary care profession options such as physician assistants, osteopathic medicine, etc.

Unfortunately, we have no control over most of these circumstances. What we do have some control over is increasing awareness of the pharmacy profession for those interested in health care careers.

Historically, I believe that the pharmacy profession has not done as good of a job selling itself and competing for potential students as other professions. Anecdotal evidence tells us that when most high school and undergraduate students think of “health care careers” they tend to think of careers in medicine and nursing. Most of these students don’t consider pharmacy as an option.

That’s why our college has adapted a recruiting strategy to visit with high school and undergraduate students interested in science or health care careers and teach them about the many roles a pharmacist plays in today’s health care system.

We believe face-to-face interactions are crucial for this effort. In our most recent survey of applicants and prospective...
Alumni Linnea Forsell (BS 1978) and Agam Sheth (PhD 2004) were honored by the University of Minnesota Alumni Association Sept. 24 for their outstanding volunteer service and leadership to the University of Minnesota and the College of Pharmacy.

Forsell received the Alumni Service Award, which recognizes her service as a volunteer who has had a major impact on the University. Her nominator stated, “Linnea has provided exceptional volunteer service and leadership to the College of Pharmacy throughout the years. Her dedication to the college and its students, as well as the profession of pharmacy, is outstanding and inspiring to others.”

Sheth received the UMAA U40 Alumni Leader Award, which celebrates an exceptional individual age 40 or younger who has excelled in a career or public service. His nominator stated, “During a 90-day fellowship assignment, Agam went above and beyond in his efforts to identify core modifiable factors impacting maternal mortality among rural, illiterate women in India. As a scientist, he is passionate about his projects and is driven to identify root causes and resolve technical problems that can lead to successful development of novel medications that address significant unmet healthcare needs.”

students to our PharmD program, 44% indicated that a practicing pharmacist was the person who most influenced their decision to pursue pharmacy as a career. Additionally, many of our students and faculty say they had a pharmacist mentor who inspired them to enter the profession.

Knowing all this, I’d like to issue you a friendly challenge: in the near future, find at least one person who may be interested in a health care career and tell them about our wonderful profession of pharmacy.

Or, if you’re ready to make a bigger commitment, I invite you to sign up to be a Pharmacy Ambassador. As a Pharmacy Ambassador, you agree to either be willing to have pre-pharmacy students occasionally come job shadow you or participate in a recruiting event close to where you live or work (such as a school career fair).

If you would like to become a Pharmacy Ambassador or learn more about this program, please contact our student recruiter Sara Lofstrom at lofs0009@umn.edu.

The demand for pharmacists remains high in Minnesota. Please help us in filling our classes in order to serve the needs of Minnesota communities.

Thank you,

Marilyn K. Speedie, Ph.D.
Dean

pharm@umn.edu
Developing **New Drug Therapies** That Will Make Cancer Treatments More Effective

Faculty research leads to new startup company
A new St. Paul-based company that is developing drug therapies that will make cancer treatments more effective is based on scientific discoveries by Assistant Professor Daniel Harki. This startup company — one of a record 16 launched by the University of Minnesota over the past year — demonstrates the college’s commitment to bringing cutting-edge research beyond the lab and to the market, where it can benefit society on a larger scale.

“Licensing our technology to ApoGen allows us to dramatically accelerate the development of drugs and diagnostics to harness a novel source of tumor evolution and drug resistance in cancer,” said Harki. “I’m excited to watch our company grow and see what we can accomplish over the next couple of years.”

The company, ApoGen Biotechnologies, Inc., is developing a new class of drugs that will slow the evolution of cancer cells, as well as companion diagnostics to identify the patients likely to get the most benefit from these therapies. ApoGen’s drugs block the activity of an enzyme called APOBEC3B, and the companion diagnostic will identify tumors with high levels of this enzyme. This technology is broadly applicable to many cancer types, including breast, lung, ovarian, bladder, and head and neck cancers.

Often, cancer therapies become less effective over time as tumor cells become resistant to treatment. Harki and ApoGen’s scientific cofounders discovered a primary cause of drug resistance and are now developing drugs to slow or even stop it. Their mission is to use these discoveries to break drug resistance in cancer.

Along with Harki, cofounders of ApoGen Biotechnologies include Reuben Harris, professor, Biochemistry, Molecular Biology and Biophysics and Howard Hughes Medical Institute Investigator; and John Santini, the company’s president and CEO. More information about ApoGen can be found at their website www.apogenbiotech.com

Parts of this story originally published by Kevin Coss in Inquiry, an online publication of the University of Minnesota’s Office of the Vice President for Research.
Can you talk about how your work on your PharmD IV paper influenced your public health work?

The focus of my PharmD IV paper was looking at the differences in health outcomes among Hispanic women with breast cancer. The paper gave me a deeper insight on health disparities and an understanding that the term “health disparities” encompasses more than just being able to afford healthcare. The research paper also caused me to think, how can pharmacists help address these health disparities? My research for the PharmD IV answered the question that there are gaps in breast cancer treatment outcomes, particularly among Hispanic women, and that there is potential for pharmacists to address these gaps. For my MPH research I wanted to expand upon what I learned in pharmacy school and focus more on how pharmacists can improve breast cancer outcomes among women.

Tell us about your research to help reduce health disparities in underserved populations and expand roles of pharmacists working in the community

The research I conducted was using the national publicly available data from the National Health Interview Survey (NHIS) to determine if women who are overdue for mammograms are likely to be taking chronic medications or have a chronic condition likely to be managed with chronic medications. The idea is that women who are on chronic medications are likely to be in consistent contact with pharmacists and, if so, there
is possibly an already existing relationship between women overdue for mammograms and pharmacists, where potential interventions can be developed. To my knowledge, there are no other studies that have explored the relationship between pharmacists, particularly community/retail pharmacists, and women overdue for mammograms.

**How did your experience at the College of Pharmacy, Duluth help you in your advanced studies?**

My experience at the College of Pharmacy, Duluth helped me develop personally and professionally. The diverse curriculum exposed me to different areas of pharmacy where I was able to find out what my interests were as well as determine my strengths and weaknesses as a pharmacist. The PharmD IV paper reminded me of my love for research and exposed me to an area of pharmacy I never considered, which was public health. I am grateful to all of the pharmacy faculty and mentors that listened to my crazy ideas and dreams and pushed me to keep going.

**What advice would you give to current students and recent graduates?**

My biggest advice to current students and recent graduates is not to be scared to go for the things that interest you and ignite the most passion in you. Even if it is something that no one else is doing or has not been done, that is okay.

One of my pharmacist mentors that I met while in Duluth once told me, “You have so much to offer the world with your crazy whims and ideas. It is okay to own them and put them out there.” At the end of the day, being a pharmacist is hard work so you should enjoy what you are doing. Also, having passion behind the work you’re doing ultimately results in better outcomes for the population you are serving.

For current students, take advantage of the time in school to explore different pharmacy career paths. The wonderful thing about the profession of pharmacy is that there are so many fields we can make a difference in, from the retail setting all the way to the public health sector.

**What did you enjoy most during your time at the College of Pharmacy, Duluth?**

What I enjoyed most during my time in Duluth were my rotations during my fourth year. It was exciting to put together everything we learned for the past three years into practice. I loved being able to see how our work as pharmacists actually impacts people just like my family and friends. During rotations, I learned a great deal about myself and the profession of pharmacy. Even the rotation sites that I may not have enjoyed as much, compared to other sites, I was able to learn things that drive me to be a better pharmacist.

**Now that you have completed your MPH, what are you doing now? What are your future career goals?**

Since graduating with my MPH in June, I have been working part time at Target pharmacy. It has been a big learning experience for me since I have never worked as a pharmacy intern in a pharmacy. All of my past work experience has been in research. What I have liked most about working at Target pharmacy so far is the relationships I am building with my patients. I enjoy the continuity of care and being able to follow up with them on their progress. In addition, I am currently in the process of getting my research project from the MPH program ready to submit for publication.

With the remainder of my time, when I am not working at Target, I have been looking for potential research opportunities in pharmacoepidemiology and/or cancer so that I can combine my MPH and pharmacy background. I do have a potential research that would be looking at resistant forms of prostate cancer and also partnering with a urology team to test new medications for the resistant forms of prostate cancer. I am excited about this possible opportunity because it combines my passion for cancer research and my pharmacy background.

My future career goal is to become a practicing faculty member of a pharmacy school. I personally love the academic setting and I don’t think I can ever steer away from it. I hope to continue doing research in areas that I am passionate about with an emphasis on public health. I also hope to expose future pharmacists to a career in public health. With the ongoing changes in healthcare, I think there will be a lot of exciting opportunities for pharmacists in public health in the years to come.
This spring, Professors Robert Straka and Ling Li, along with colleagues from U of Michigan and Ohio State U, visited five top pharmacy schools in the Chinese Pharmacy Schools Consortium, which includes China Pharmaceutical U (CPU) in Nanjing, Fudan U in Shanghai, Sichuan U in Chengdu, Shenyang Pharmaceutical U in Shenyang, and Beijing U.

During their visit, Straka and Li attended the 2015 Symposium on Clinical Pharmacy Education in Nanjing hosted by CPU, and they visited all five pharmacy schools and affiliated hospitals to discuss issues concerning the ongoing PharmD program supported by the China Scholarship Council, as well as future collaborations between schools in the U.S.-China PharmD Education Consortium. They also met the two students in China who had been accepted into the U of M College of Pharmacy PharmD program for fall 2015.

In August, the college welcomed a Chinese pharmaceutical company leaders delegation, including 28 general managers and senior management from all across China. Their visit included a presentation by Straka and Li to learn more about the U.S.-China PharmD Education Consortium.

This fall the College of Pharmacy welcomed two students from China as part of the college’s agreement to accept Chinese students who meet admissions requirements to the PharmD program on the Twin Cities campus beginning fall 2015 and continuing for two more years. The students are Kerui Peng (left), a graduate of China Pharmaceutical U; and Siqian (Christina) Zheng (right), a graduate of Shenyang Pharmaceutical U.
Pharmacists Play A Prominent Role In Your Pet’s Care

While pharmacists are well known for helping people with their medications, it’s often overlooked that they play a primary role in animal healthcare. Veterinarians prescribe animal medications, but pharmacists have had an increased role in preparing and dispensing them.

A collaborative approach between pharmacists and veterinarians is important because it allows pharmacists to have a greater role in dispensing medications so veterinarians can focus on caring for animals.

Associate Professor Ann Philbrick teaches a one-of-a-kind course that focuses on choosing the best medication therapy for companion animals, like dogs and cats. While it’s not a requirement that pharmacists take a course that focuses on animal health, Philbrick says it’s important for pharmacists to understand how to dispense and select medications for animals.

“The public expects pharmacists to be drug experts,” Philbrick said. “Having this knowledge about animals ensures a pharmacist would know how to treat their pet.”

Your local pharmacist can dispense your pet’s medications. When you are looking at medications for your pet, it’s important to understand:

Human medications can often be given to animals.

Human medications may be safe for animals.

Also, certain medications deemed unsafe for humans can be considered safe for your pet. For example, a medication might be unsafe for humans because it increases the likelihood of a stroke, but in animals that have completely different cardiovascular systems and shorter life spans, the medication might be completely safe. It’s important for pharmacists to know which medications will work for animals, and identify safe amounts that are appropriate for pets.

But keep in mind: not all human medications are safe for your pet.

“Many things that are just fine for you to take could be harmful to your pet,” Philbrick said.

Always talk to a pharmacist before giving your pet medication.

If you’re unsure about your pet’s medications, just ask your veterinarian or pharmacist. Communicating with your pet’s care team will help them find the proper treatment for your furry friend.

“Pharmacists are drug experts and want to make sure that your pet’s medications are safe and effective.” Philbrick said. “Pharmacists want your pet to be healthy!”

Associate Professor Ann Philbrick
Students Learn About Pharmacy Practice in Portugal

This spring 10 students spent two weeks in Portugal as part of an elective course to identify best practices both there and in the U.S. to improve pharmacy practice and patient care.

Prior to the course, the students learned about pharmacy regulations, associations, advocacy, waste management and independent community settings in Minnesota and the United States so that they could better understand those same things once they learned about them in Portugal.

During their time in Portugal, the group visited numerous community pharmacies, a pharmaceutical company, a clinical laboratory, an oncology hospital and a cooperative wholesaling company. They also visited with Portuguese pharmacy students at the University of Lisbon, and met with representatives from the National Association of Pharmacies, the Portuguese Pharmaceutical Society, and Apifarma, an association that unifies pharmaceutical companies in Portugal.

“We visited so many places, met a lot of outstanding pharmacists, and learned about the numerous ways pharmacists in Portugal improve the health of patients,” said Sara Lofstrom, the course coordinator.
After returning from Portugal, the students completed reflection papers and final projects focused on one best practice element from Portugal they plan to implement in the United States to improve pharmacy practice.

To read more about the students experience in Portugal, visit their blog at http://pharm-practice-in-portugal.blogspot.com

**Students Look at National Health Policy in the U.S. and Germany**

This summer, eight students participated in the elective Advanced Pharmacy Practice Experience (APPE) “Comparative and International Perspectives in Pharmacy Patient Care” in Germany.

Though the APPE was based in a small city in western Germany called Velbert, the students traveled to other cities during the five-week APPE. The students met with the German Secretary of Health and board members of the German medical and pharmacy students associations at the Ministry of Health in Berlin, attended a pharmaceutical biology course at the University of Münster, and met with the Acting U.S. Consul General and German students in Duesseldorf.

This international experience is a unique way for students to learn about a different health care system.

“In Germany we had the opportunity to interact with peers and compare our pharmacy school experience,” said student Erin Weslander. “We learned about another healthcare system, and at the same time, learned more about our own. I would not have learned about the diverse world of pharmacy without this rotation in Germany.”

The goal of the APPE is to enhance the students’ ability to immerse themselves in a different culture while at the same time maintain the highest professional standards.

“This learning opportunity fosters the development of core competencies required from any graduate such as interprofessional cooperation and interacting with their peers,” said Jochen Pfeifer, one of the APPE preceptors and a native German who received his pharmacy degree in the United States. “Students are able to meet with the most senior German healthcare officials and politicians while at the same time learn how to implement international best practice elements into their own U.S. health care and pharmacy system.”

In addition to Weslander, other students who participated in the APPE included Martin Bloch, Brandi Gossard, Amrita Karia, Curtis Nelson, Thu Quach, Ben Reynolds and Rachel Rockwell.
Third year student Kristin Howlett found that the study of pharmacy would be a great opportunity to continue her education because it combined a variety of her interests.

“I chose pharmacy because it had the perfect blend of the scientific, intellectual knowledge and the personal connections you can build with patients while providing a valued, respected and needed service in the community,” said Howlett.

Howlett chose to study at the University of Minnesota because she was moved by one of the college’s “A Day in the Life of a Pharmacist” videos that features alumna Christina Cipolle, who practices at the Community-University Health Care Center.

“Christina inspired my vision for pharmacy practice, combining evidence-based medicine with an understanding of a patient’s background and life experience,” said Howlett.

Howlett is also a Leadership Emphasis Area Student (LEA). The LEA program prepares students to become effective leaders in their community in the future. Howlett aspires to be a primary care pharmaceutical care provider.

“Knowing that I may need to develop my own position, I highly value how the LEA teaches me strategies to communicate a vision, generate support, keep motivation, navigate challenges, and most importantly, provides a network of support with peers, faculty and pharmacists that will last far beyond graduation,” said Howlett.

A recipient of the Samuel W. Melendy/William & Mildred Peters Summer Research Scholarship grant, Howlett participates in research with Assistant Professor Oscar Garza.

The research project’s goal is to attain better knowledge of the health needs of migrant and seasonal farmers in Minnesota, while bridging the gap of any disparities for providing care in rural Minnesota. Howlett uses her knowledge gained from the LEA program through her role in the research project.

“My role as an LEA student is to work with the team to collaboratively design and implement a community-engaged learning experience. To do this, we are interviewing community members and conducting community asset mapping of several small Minnesota towns to understand the network of existing community resources,” said Howlett.

To view the “Day in the Life of a Pharmacist” video, visit www.youtube.com/PharmacyUMN
Each fall, the college offers an interactive leadership development retreat to assist students in developing leadership skills. This year’s Fall Student Leadership Retreat took place Sept. 26-27 at Ruttgers Resort in the Brainerd Lakes Area.

The Student Leadership Retreat is made possible from a gift by Walmart. For more information, visit www.pharmacy.umn.edu/clhc/emerging/retreats

“The amount of inspiration and motivation I left with after a weekend at the leadership retreat was incredible. The activities, discussions, and interactions I had with the professors, the residents, and my peers got me very excited about the field of pharmacy and my place in it.” — Annette Do

“Attending this retreat changed my perspective on the challenges we face in life. It allowed me to view myself as who I am, and as who I want to be as a leader.” — Megan Neuberg

“The leadership retreat gave me the opportunity to learn about myself and what drives me. It was very empowering to establish what is truly important to me and how that should shape my leadership style and how I approach life as a whole.” — Margaux Jensen

Thank you so much for the Marvin L. & Joanell M. Dyrstad Scholarship! I am a first generation college student and have been dreaming of attending pharmacy school since I was in high school. Your very generous scholarship will certainly make my first year of pharmacy school less stressful. Again, thank you! This scholarship is such a blessing.

Sincerely,
Emily Harder
On Sept. 25, reunion class members went back to school and attended a seminar at Weaver-Densford Hall. They also toured the newly renovated Northrop Auditorium, visited the bookstore in Coffman Union, and cheered on their friends in the Homecoming Parade. On Saturday, Sept. 26, alumni, faculty, staff and students attended a pre-game reception at the McNamara Alumni Center prior to the football game.
Here’s an excerpt from a recent blog by Hilary, a second year student on the Twin Cities campus:

**Things that I did in the past 100 days that made me ridiculously excited:**

- Gaining some community pharmacy experience at the Allina Ritchie Pharmacy in St. Paul – I had a great three weeks at my community IPPE rotation. Along with the fantastic and dedicated preceptors I had, I was lucky to be at a pharmacy that had so many interesting specialty drugs for me to learn about. The pharmacy also served a large portion of hospice patients, who required some unique dosage forms of various drugs that I got to compound! Never thought I would actually have to make suppositories, but I was wrong.

**Things that I will do in the next 100 days that make me ridiculously excited:**

- Meeting the first years! I can’t wait to get to know the first years and welcome them to the College of Pharmacy. The upperclassman had so much knowledge and tips for us first years and I hope to be just as great of a resource for the new first years.

- Learning! – I love learning about how drugs work in the body and how they are optimally used to treat patients (looks like I’m in the right place!). I learned so much last semester and know that I will continue to grow and develop as a future pharmacist during this next semester.
Bob Brix grew up in a large family of pharmacists on the northside of Minneapolis. After graduating from the University of Minnesota College of Pharmacy in 1952, he pursued his dream of buying a pharmacy in a small town. After purchasing his Clara City pharmacy, he subsequently purchased stores in other Minnesota towns of Tracy, Sleepy Eye, Redwood and Glenwood.

Throughout his career, he invested his time in leadership roles in the community and church.

“A pharmacist needs to enjoy the people they serve and collaborate with the other health care professionals in the community,” Brix said.

Brix’s dedication to serving his communities earned him the WCCO Good Neighbor Award when he was in his 80s.

His career spanned 29 years practicing pharmacy which included compounding and veterinary medicines.

In addition to his entrepreneurial endeavors, over the years Brix has combined his love of music and travel. He is a classical pianist, and he and his wife of 57 years, Carolyn, have attended operas throughout Europe.

Today, Brix spends part of every day with Carolyn in her nursing facility, where she is treated for her Alzheimer’s disease. Together they share three daughters and one son. He is known for his close involvement with his family, and for setting examples of compassion, kindness and hard work.

Brix and Carolyn support Alzheimer’s research through their bequest to the college’s Institute for Therapeutics Discovery and Development. This support will continue to make a difference in the battle against this disease at the College of Pharmacy.
The College of Pharmacy is a collaborator on a $2.4 million grant awarded by the American College of Clinical Pharmacy (ACCP) and the ACCP Research Institute to study the impact of implementing comprehensive medication management (CMM) in contemporary primary care medical practices. The college will partner with several Minnesota health care organizations, including Essentia Health, Fairview Health Services, HealthPartners, Hennepin County Medical Center, Park Nicollet Health Services, and University of Minnesota Physicians.

The study involves the delivery of CMM services provided by trained clinical pharmacists integrated with an interprofessional team of health care practitioners. This is the first study to look at consistent CMM practice across such a diverse mix of real-world practice settings.

It is widely recognized that strategies to address the safe, effective and affordable use of medications in primary care are critical to enhance patients’ health, improve care transitions, increase value, and control costs.

In this study, researchers aim to add to existing evidence demonstrating the impact of CMM on patient care, as well as define how CMM achieves this impact, how to incorporate it into busy medical practices, and how to finance it. The project will employ a rapid dissemination process that quickly brings successes from study sites to a national practice community for adoption and scale.

“In Minnesota we have a great deal of experience impacting patient health and health care costs through integration of pharmacists within primary care teams,” said Professor Todd Sorensen, one of the principal investigators of the study. “The local health care organizations we are partnering with are recognized innovators with respect to clinical programs that optimize medication use. We will study how these organizations are producing success and how the success they’ve achieved can be replicated across the country. Each of these organizations have produced and measured important successes locally—through this project we have an important opportunity to influence primary care practice nationally.”

The University of North Carolina Eshelman School of Pharmacy is the coordinating institution on this project, which also includes the American Academy of Family Medicine and the Alliance for Integrated Medication Management as collaborators.
NEW FACULTY PROFILE

Sunil David Joins the Department of Medicinal Chemistry

Professor Sunil David joined the College of Pharmacy’s Department of Medicinal Chemistry in August 2015. An expert in the design and development of vaccine adjuvants, David’s research focuses on the discovery and development of endotoxin-sequestering molecules as potential anti-sepsis agents, modulation of innate immune pathways, and host responses to infectious agents.

David was drawn to the University of Minnesota and the College of Pharmacy because of the breadth of research spanning from the basic sciences through translation, and all the way to clinical trials. “The opportunities for cross-disciplinary and translational research at the U of M are extraordinary,” said David. “The Center for Immunology, the Center for Infectious Disease Research and Policy, the Clinical and Translational Science Institute, the Center for Infectious Diseases and Microbiology Translational Research, the Institute for Therapeutics Discovery and Development, and the College of Veterinary Medicine are some of the numerous world-class resources and strengths at the U. My team and I are very excited to have the opportunity to contribute to the College of Pharmacy and to the Academic Health Center.”

David received his MD and PhD degrees from the Christian Medical College in Vellore, India. He completed postdoctoral training at the Forschungszentrum in Borstel, Germany; at the Indian Institute of Science in Bangalore; and at the University of Kansas Medical Center. Prior to joining the College of Pharmacy, he served on the faculty at the University of Kansas since 2005.

Save the Dates

Dec. 4, 2015
Alumni Awards Celebration
Held from 4-6 p.m. at Northrup Auditorium on the Twin Cities campus. More information will be available soon at www.pharmacy.umn.edu/news

June 20, 2016
Pharmacogenomics: Research to Implementation
This conference on precision medicine will be held from 8 a.m. to 4 p.m. at the Cancer and Cardiovascular Research Building on the Twin Cities campus. More information at www.pharmacy.umn.edu/puma-ipm

Early 2016
Pharmacy Gala
The 11th Annual Pharmacy Gala benefits the Michelle Mentzer Scholarship Fund at the College of Pharmacy. The evening includes food, cash bar, music, dancing and fun with students, faculty, alumni and friends. More information will be available soon at www.pharmacy.umn.edu/news
Board of Advisors Holds Annual Meeting

The annual College of Pharmacy National Board of Advisors meeting was held Sept. 25. The board provided college faculty and administration with perspectives from industry and practice and what they felt would most affect the profession and the college.

This year, observations by board members ranged from drug pricing and drug shortages, to the opportunities pharmacists have in the areas of biosimilars and personalized medicine. Another hot topic was pharmacists achieving provider status and the need for a sustainable payment model for medication therapy management and pharmaceutical care. Board members agreed that pharmacists need to promote their outcomes and demonstrate that they improve health care quality and reduce health care costs. They concluded that it is more important than ever that our graduates continue to expand the role of pharmacists on the health care team and help shape future models of care.

New members to the Board of Advisors this year include Richard Lalonde, vice president and global head of clinical pharmacology at Pfizer; Stephen Byrn, professor at Purdue University; Elliott Sogol, vice president of professional relations at Pharmacy Quality Solutions, Inc.; Ed Hedblom, director of clinical research at 3M; Robert Narveson, president and CEO of Thrifty White Pharmacy; Brian Bullock, founder and CEO of the Bullock Group; and Mark Trumm of Trumm Drug.

College of Pharmacy Board of Advisors

Lowell Anderson  Don Gerhardt  Chengseng Lo  Bonnie Senst
Robert Beacher  Ed Hedblom  James Marttila  Steve Simenson
William T. Beck  Judith Jacobi  Marsha Millonig  Wendy Simenson
Mary Ann Blade  Ronald B. Johnson  Robert Narveson  Elliott Sogol
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Stephen Byrn  Kuker  Rory L. Rickert  Bruce Thompson
Elizabeth  Richard Lalonde  Jeanette C. Roberts  Mark Trumm
Cinqueonce  Crystal Lennartz  Gary Schneider  Dianne Witten
Chris Dimos  Jeff Lindoo

The annual College of Pharmacy National Board of Advisors meeting was held Sept. 25. The board provided college faculty and administration with perspectives from industry and practice and what they felt would most affect the profession and the college.
The 2015 White Coat Ceremony was held Sept. 3 on the Duluth campus and Sept. 4 on the Twin Cities campus. A traditional rite of passage in many health care professions, this event recognizes students in their first year of professional education. During the ceremony, students recited the Oath of a Pharmacist and received their white lab coats, attire that evokes the trust and respect of patients. The college’s Century Mortar Club sponsors the white coats for the annual ceremony.
Grants

Courtney Aldrich received a $200,000 AHC Faculty Development grant for the project, “Reinvigorating the Antibacterial Action of Anti-Folate Drugs.”

Angela Birnbaum is a co-investigator on a $317,748 grant from NIH/NIDA for the project, “Vaccines for prescription opioid and heroin abuse.”

Jim Cloyd will serve as one of two PIs on the project “Auto-Injectable Diazepam Formulation for Rapid Treatment of Uncontrolled Seizures” which received a $514,129 award from the National Institute of Neurological Disorders and Stroke of the National Institutes of Health. He also received a $200,000 AHC Faculty Development grant for the project, “Development and Application of MRI Methods to Quantify Brain Energy.” He and Reena Kartha received a $44,285 Grants Award Program award for their project, “MicroRNAs as Novel Biomarkers in Complex Febrile Seizures: Potential for Early Identification of Epilepsy.”

Carolyn Fairbanks received a $1,489,477 Neurosensory and Rehabilitation Research Award from the Department of Defense for her study, “Controlling Neuropathic Pain by Novel Non-opioid Pharmacological and Gene Therapeutic Approaches.”

Oscar Garza received a $64,942 Community Health Collaborative Grant from the Office of Community Engagement of the CTSI for his project, “Keeping our Food Supply Healthy: A Pilot Evaluation of Health Care Access and Bilateral Community Health Education for the Rural Latino Agricultural Worker in Minnesota.”

Gunda Georg received a $200,000 AHC Faculty Development grant for the project, “Identification of small molecule probes against Mcm10.”

Vadim Gurvich is co-investigator on a DOD Prostate Cancer Research Program Laboratory-Clinical Transition Award for the project, “Inhibiting Prostate Cancer Cell Motility.” The U of M portion of the award is $129K.

Brian Isetts received a $3,965 2015 Dissemination and Implementation award from the Clinical and Translational Science Institute for his project, “Disseminating the Science of Accountable Medication Use.”

Kristin Janke and Claire Kolar received $800 from the University of Minnesota Women’s Center for their project, “Leading by Doing: Advancing Women in Pharmacy through Action Research.”

Karunya Kandimalla received a $240,743 grant from the National Institute for Pharmaceutical Technology and Education for his project, “Transdermal Drug Delivery Systems – Scopolamine.”

Ling Li received a $45,000 Grants Award Program award for her project, “HDL mimetic peptides, neurovascular function and cerebral amyloid angiopathy.”

Venkatram Mereddy received a $200,000 AHC Faculty Development grant for the project, “New Treatment Options for Therapy-Resistant Breast Cancers.”

Olihe Okoro received a $7,000 Institute on Diversity, Equity and Advocacy multicultural research award for her study “Patient-satisfaction with Health Care: Experiences and perceptions of low-income African American women.”
Laura Palombi received a 2015 Dissemination and Implementation award in the amount of $4,000 from the Clinical and Translational Science Institute for her project, “Carlton County Community Forum Addressing Heroin and Opioid Abuse.” She also received a $3,000 Operation Round Up grant from Lake Country Power to help fund the 2015 Carlton County Operation Community Connect.

Marnie Peterson received a Department of Defense grant for the project, “Biofilm Prevention initiatives.” It’s a $1,000,000 partnership grant with 3M, with the U of M receiving $700,000 over two years.

Wendy St. Peter received a Kam/Chen Research Advancement Grant for Clinical Practice Faculty of $70,000 over two years for her project, “Refining Population Management Criteria to Optimize Return on Investment of Medication Management Services in Care Transitions.”

Carston Wagner received a $200,000 AHC Faculty Development grant for the project, “Tracking Modified T cells by SWIFT-MRI.”

Beshay Zordoky received a $50,000 2015 CTSI New Investigator Pre-K Career Development Grant for the project, “Preclinical Model of Juvenile Doxorubicin-induced Cardiotoxicity.”

Yusuf Abul-Hajj has been named an American Chemical Society (ACS) Fellow.

Jim Cloyd was selected to serve on the American Epilepsy Society Nominations Committee. He also received the CTSI 2015 Mentor of the Year Award.

Kristin Janke received the Minnesota Pharmacists Association Excellence in Innovation Award, sponsored by Upsher-Smith.

Michelle Johnson-Jennings was selected as a Spirit of EAGLES Cohort 3 Hampton Faculty Fellow.

Ling Li was selected as the recipient of the 2015-2016 Fesler-Lampert Chair in Aging Studies by the Center on Aging.

Jean Moon was awarded the Society of Teachers of Family Medicine Leading Change Fellowship: Interprofessional Transformational Leadership.

Amy Pittenger was selected as a 2015 inductee to the Academic Health Center Academy for Excellence in the Scholarship of Teaching and Learning.

Todd Sorensen was elected a Fellow of the American College of Clinical Pharmacy.

Wendy St. Peter was invited to join the Board of Directors of the Kidney Health Initiative, which is a partnership with the FDA, the American Society of Nephrology and the greater nephrology community.
Raj Suryanarayanan was selected as a recipient of the 2015 IPEC Foundation Ralph Shangraw Memorial Award, which recognizes outstanding research contributions in the study of excipients or excipient-related technology over a number of years.

L’Aurelle Johnson is the college’s new diversity liaison. In addition to her new appointment, she will maintain her faculty appointment in the Dept. of Experimental and Clinical Pharmacology at a 50 percent level.

Mary McGuiggan has joined the college as the preceptor development director.

Jeannine Conway has been named assistant dean of the Professional Education Division and director of Teaching, Learning, & Assessment. In this position, Conway will support the mission of the Professional Education Division (PED) by implementing the delivery of the new curriculum, administering the college’s teaching efforts for professional education, working with faculty committees, supervising PED staff, and collaborating with the directors of the Office of Student Services, Applied and Experiential Education, and the Pharmacy Learning Collaborative.

Jayanth Panyam has been named head of the Pharmaceutics Department. In this role, Panyam will lead all faculty, staff, students and trainees of the department and have a primary role in managing departmental planning, communications, faculty development and operations.

Michael Swanoski and Sarah Westberg have been named co-associate deans of clinical affairs. In their shared position, Swanoski and Westberg will lead the way in developing patient care practices, ensuring the quality of existing faculty practices, bridging clinical scholarship needs with faculty expertise, explore other revenue sources, and more.
Beshay Zordoky joined the college as a tenure-track assistant professor in the Dept. of Experimental and Clinical Pharmacology. His research interests include cardiovascular pharmacology and cardiotoxicity.

**Student News**

**Mariam Ahmed**, an Experimental and Clinical Pharmacology graduate student, received the $16,000 Translational Research Development Program award from CTSI for her project, “A Model-based Approach to Optimize Lorenzo’s Oil Therapy in X-Linked Adrenoleukodystrophy.”

**Ben Aronson**, a Social & Administrative Pharmacy graduate student, was awarded an AHRQ dissertation fellowship for his project, “Understanding Diabetes Self-Management Behaviors Among Indigenous Adults.”

**Claire Kolar**, a Social & Administrative Pharmacy graduate student, is the 2015-2016 Recipient of the Wertheimer Leadership Fellowship.

**Sampada Koranne**, a Pharmaceutics graduate student, received a 2015 Graduate Student Research Award in Analysis and Pharmaceutical Quality section of AAPS for her work, “Salt Disproportionation in the Solid state - Characterization by Thermal, Spectroscopic and Diffractometric techniques.”

**Kimberly Maize**, a Medicinal Chemistry graduate student, is one of 10 recipients nationally of the Eli Lilly/WCC Travel Award.

**Mehak Mehta**, a Pharmaceutics graduate student, received a travelship from the Physical Pharmacy and Biopharmaceutics Section of AAPS for her poster abstract, “Correlation between molecular mobility and physical stability in glassy pharmaceuticals.”

**Pinal Mistry**, a Pharmaceutics graduate student, received a 2015 Graduate Student Award in the Physical Pharmacy and Biopharmaceutics Section of AAPS for her work, “Strength of drug-polymer interactions: Implications on the molecular mobility, physical stability and dissolution behavior of amorphous solid dispersions.”

**Deeter Neumann** was appointed to serve as a Member-At-Large with the ACCP National Student Network Advisory Committee for the 2015-16 year.

**Sirikan Rojanasarot**, a Social & Administrative Pharmacy graduate student, is the 2015-2016 Recipient of the St. Peter and Leiner Family Outcomes Research Fellowship.

**SyHui Tang** and **Julia Chernyakov** were student leaders on the abstract “Managed Care Peer-Led Teaching: An Innovative Learning Approach Outside the College of Pharmacy Core Curriculum” which has been accepted for presentation as a poster during AMCP Nexus 2015.

The following Social & Administrative Pharmacy graduate students received a $4,000 2015 Summer Graduate Research Internship award: **Trung Nguyen, Sirikan Rojanasarot** and **Rebecca St. Germaine**.
Student News

The college’s student team placed second runner-up at the 12th annual Good Neighbor Pharmacy NCPA Pruitt-Schutte Student Business Plan Competition. The U’s plan was presented by Kelci Marzahn, Marzahn, Max Thompson, Wilson Lau and Derek Borkowski on behalf of their entire team. Other team members included Candy Houng, Ena Wei, Amanda Wurderman, Kailene Perry, David Vermulem, Jake Heggem, Ben Dresow Jonathan Pin, Peter Nguyen, Joe Vuicich and Daniel Lau.

Alumni & Friends News

L. Peter Bast, former faculty member, passed away July 3, 2015.

Richard (Dick) Bertin (PhD 1976) has been selected to receive the U’s Outstanding Achievement Award, which is the U’s highest non-degree honor. A celebration will be planned for a later date; look for more information soon.

Deborah Dean Davis (BS 1988) passed away June 12, 2015.

Francis Ndemo (PharmD 1986) received the Hampton University Excellence Academic Faculty Award.

William Rost (BS 1948, PhD 1952) passed away May 25, 2015.

Dan Schaber (PharmD 1982) was inducted into the Medtronic Bakken Society.

Harold Seim (BS 1963) passed away Sept. 12, 2015.

Calling all new moms, dads and grandparents! Have you recently had a little bundle of joy arrive at your home? The College of Pharmacy wants to know! Please send an email with news about your baby or grandchild, along with your mailing address, to pharm@umn.edu to receive a “Future Pharmacist” baby shirt (available in 12 months size). In exchange, we ask that you send a photo of your new “Future Pharmacist” to include in the next issue of The Record.

Allison (Close) Sleem ’09, and her husband Mike welcomed Cecilia Dawn (right) on April 20, 2015.

Michelle Anderson, ’15, and her husband Hoen introduce Freja Elise (far right), born in June 2014.
Duane Engebretson, Class of 1943, passed away Aug. 23, 2015 of natural causes at his home in Sun City West, Arizona. He was 94.

Duane and his twin brother Glenn have been longtime supporters of the college’s drug discovery efforts.

Previously, they supported research and educational initiatives involving drug design and development, including research symposia which brought together top researchers to share ideas and expertise on new drug therapies. Their Engebretson Drug Design and Development Grants have supported a number of faculty’s drug discovery work in areas such as Alzheimer’s and cancer.

“Duane and Glenn’s generosity over the years has been crucial to our faculty’s ongoing work in drug discovery research. Even more importantly, they have been great friends to many of us in the college, and have supported the college in many ways, including representing our pharmacy alumni at President Kaler’s inauguration in 2011,” said Dean Marilyn Speedie. “All of us at the college are saddened by Duane’s passing. He and Glenn have left a legacy of giving at the college that will be appreciated for years to come.”

Duane grew up in Devils Lake, N.D., where his father, Elmer, owned and operated Devils Lake Drug. Elmer employed his sons at the soda fountain beginning when they were age 13.

Duane and Glenn followed in their father’s pharmacy footsteps, enrolling in the College of Pharmacy in 1939. After graduating in 1943, the twins entered the armed services and were separated for the first and only time: Duane enlisted in the Coast Guard and served in the North Atlantic, and Glenn enlisted in the Navy and served in the Pacific. Upon their return to Devils Lake in 1946, Duane and Glenn went back to work for their dad. In 1949 they purchased their father’s interest in the business and continued to run a successful pharmacy until selling it and retiring in 1972.

In 2009, Duane and Glenn received the prestigious University of Minnesota Alumni Service Award, which recognized their service as benefactors who have had a major impact on the University.

Duane is survived by his brother Glenn.
This summer, Assistant Professor Kylee Funk began practicing at the University of Minnesota Health Nurse Practitioners Clinic in downtown Minneapolis, just steps from the entrance to the new Vikings Stadium. One of the only nurse practitioner-led clinics in the region, this new clinic aims to improve people’s access to qualified care providers in a diverse and growing community.

Funk provides comprehensive medication management services at the clinic three days a week. She meets with patients to review and optimize their medications, and works to make sure their medications are appropriate, working well, safe and convenient.

“To our knowledge, this is the first time pharmacists have partnered with nurse practitioners to provide primary care in a nurse-managed clinic,” said Funk.

Starting next summer, pharmacy students will be able to complete their clinical rotations at the clinic, which will allow them to work in a unique interprofessional setting and learn about and from nurse practitioners and nurse practitioner students.

“We are looking forward to fostering a climate that promotes a collaborative approach to care, and we hope to demonstrate the positive impacts that a nurse practitioner and clinical pharmacist provide for patients,” said Funk. “We are confident that demonstration of this team-based care model will inspire our learners to offer similar services as they transition into provider roles.”

Offering primary care to adults, children and families, the clinic opened April 6 after recent legislation passed that allows highly educated clinical nurses to practice independently from physicians. The clinic is operated by the University of Minnesota School of Nursing. For more information, visit www.umnhealth.org/np