DEAR FRIENDS

Greetings from the College of Pharmacy and Allied Health Professions. It is with great enthusiasm that we distribute this issue of our publication with a new college name.

During its May 2016 meeting, the South Dakota Board of Regents approved South Dakota State University’s request to change the name of the College of Pharmacy to the College of Pharmacy and Allied Health Professions. The request was made to better reflect the college’s mission, which since July 2014, has included delivery of a B.S. degree in medical laboratory science as well as administrative support of programs such as the online Master of Public Health degree. This change will enhance our web presence and overall marketing efforts by better describing academic activity within the college, which is critical when communicating with prospective students and attracting those students into our academic programs. At the same time, we believe this name change maximizes alumni connection with the college, both those that recently joined the college family with the MLS program move in 2014 and those that have identified as college alumni throughout our history of greater than 125 years.

The recently completed 2015-16 academic year featured many highlights. The achievements of our students and faculty continue to be a tremendous source of pride. As you read the articles in this issue of our publication, you are sure to see why. Our students and faculty are high performing, actively involved in the health professions and committed to community service.

And finally, for those that may not be aware, I am currently serving South Dakota State University as interim provost and executive vice president for academic affairs. I am honored to fill this role for our university until a search is completed for a successor to former SDSU Provost Dr. Laurie Nichols. Jane Mort is acting dean of the college while I am serving as interim provost. As you know, she is an outstanding academician, and she is well-known throughout the academy of pharmacy educators. With her as acting dean, the college is certainly in great hands.

As always, if you are in the Brookings area, please stop by for a visit.

Warm regards,

Dennis D. Hedge, Pharm.D.
Dean and Professor
SDSU College of Pharmacy
The College of Pharmacy and Allied Health Professions honored 82 students at its White Coat Ceremony April 15. For more on the ceremony, see story on page 22.
Learning that Nobel Prize winner Randy Schekman was a childhood science nerd comes as no surprise, but the length to which he went as an 11-year-old to deepen his view of the microscopic world does grab the listener’s ear.

Schekman, the 2013 Nobel Prize winner for Physiology or Medicine, told the story of his career and his noted work to a nearly filled Performing Arts Center auditorium for the Hoch Family Lecture, organized by the College of Pharmacy and Allied Health Professions, April 13.

Growing up in Orange County, California, in the early 1960s, before all of nature had been transformed by concrete and asphalt, Schekman collected a sample of pond scum and made a slide for study under his toy microscope. “I was amazed to see the world suddenly explode in my face,” he said figuratively.

While the 10-year-old Schekman was captured by watching protozoa and ameba swim about, his father was rather dismissive of his son’s report.

“I rather doubt you can see all that with a toy microscope,” Schekman recalls his father saying.

Well, that motivated him to save the money he collected by babysitting, mowing lawns and delivering newspapers to buy a student professional microscope.

Police aid aspiring scientist

Growing up in a middle-class household, Schekman discovered his mother, Esther, was more interested in what she could see—cupboards in need of being restocked. As a result, Schekman kept his earnings in an envelope in his room and his mother would pilfer them to buy groceries, he shared.

Being an involuntary breadwinner in the family didn’t sit too well with Schekman. One day, after returning from mowing lawns and finding money missing again, he had had enough. He declared he was running away and was filing a police report. And that’s just what he did.

Schekman’s father was called to the police station while the would-be runaway was still there. When the elder Schekman came out of the closed-door meeting with police, he whisked his son to a secondhand store. Once there he bought his son a Bausch and Lomb student professional microscope that he would use throughout high school.

Microscope finds retirement home

When Schekman enrolled at the University of California-Los Angeles, the microscope stayed at home and he used the more powerful ones at UCLA.

While Schekman’s progression as a scientist continued—he disappointed his parents when he left the premed track—his old microscope collected dust at the folks; who eventually gave the microscope back to Schekman after he began his career at Cal-Berkley in 1976 at age 27.

Schekman’s own children had no interest in science, so the microscope found a resting place in his wine closet.

A call from Stockholm, Sweden, in the wee hours of Oct. 7, 2013, changed Schekman’s life and gave new life and meaning to the microscope. The call was from the head of the Nobel Prize committee, who, after assuring Schekman that he wasn’t the butt of a prank call, told him his subcellular studies had merited the world’s most acclaimed honor.

Schekman awakened his family with telephone calls to share the good news and then notified the public relations staff at his employer, Cal-Berkley.

They arrived within a half-hour to help prepare Schekman for television interviews. Film crews were at his home before dawn and the rest of the day was a blur, he said.

And that student microscope?

The Nobel Prize committee maintains a museum with artifacts and antidotes about the prize winners. Schekman’s space includes the microscope and a narrative explaining what it took for him to get the microscope.

Dave Graves
Visiting Japanese professor Mai Fujimoto got a firsthand look into American pharmacy education during a three-week visit to South Dakota in March.

A member of the clinical drug informatics department at the Kindai University School of Pharmacy in Osaka, Fujimoto arrived in Sioux Falls March 5 and departed March 26. Because she arrived at the start of spring break, Fujimoto spent her first week at Avera McKennan Hospital in Sioux Falls with her host, Kazu Kido, an assistant professor in pharmacy practice.

Her last two weeks were spent on the Brookings campus, where she twice had the opportunity to address SDSU faculty.

The exchange was facilitated by Kido, who joined the faculty in August 2015. Kido and Fujimoto shared a connection with a current Kindai faculty member.

Fujimoto said pharmacy education in the U.S. is more advanced than that of Japan.

In an interview after her March 23 presentation in Pugsley Hall and via satellite to Sioux Falls, Fujimoto said, “In Japan, in 2006 we changed pharmacy education. Before that time we had only a four-year program. “We have a lot of challenges to overcome such as keeping up with changes in drugs, research and drug innovation and examination, as well as new methods in teaching students how to be effective pharmacists in community and hospital pharmacies in Japan.

Among her observations:

- “Pharmacology and pharmaceutical science (at SDSU) are like a family, working as a team to achieve one big goal. They have high motivation to be effective educators.
- “At SDSU, to keep the classes interesting, the faculty plan to keep creating new situations and providing new information so that students do not get bored. I was so impressed with the professors’ passion for education. The classroom atmosphere was dynamic.”
- This was her second trip to the United States. “South Dakota, it’s so wonderful. The people are so kind and helpful. In South Dakota, people have a warm heart. I would like to express my gratitude to everyone for hosting me.”

In her PowerPoint presentation, Fujimoto shared:

- Japan, with an area the size of California and a population equivalent to half the United States, has had universal health care since 1961. Insurance covers 70 percent of medical expenses with private health insurance available to cover what is not paid for in the government plan.
- “Universal health care contributes to a long life span.” The average life span for females is 86.6; for males, it is 80.2. “Japan is the world’s fastest-aging country, even more so than the U.S.”
- Since 1988, pharmacists have been allowed to charge a fee for explaining the name, dose and side effects of prescribed medicines to hospitalized patients. Currently the fee is $29 per week for up to four times per month. Refills are not allowed in any cases in Japan; there are no technicians and most prescriptions are compounded by pharmacists.
- As a thank-you gift, Dean Dennis Hedge presented Fujimoto with an SDSU mortar and pestle.

Dave Graves
Cancer deaths nearly match heart disease as the No. 1 killer in the United States, but researcher Joseph Bertino is full of optimism. “I’m hopeful within a generation of these young people, we will cure most cancers,” Bertino said as he looked out on a crowd of mostly college students at the fourth annual Miller Family Lecture in the South Dakota Art Museum auditorium April 25. That has been a goal of Bertino’s for more than 60 years. He is the chief scientific officer at Rutgers Cancer Institute of New Jersey and a professor at the Rutgers-Robert Wood Johnson Medical School.

When he was a medical student at Downstate Medical Center in Brooklyn, New York, in the early 1950s, his brother’s 3-year-old son developed leukemia and died. “I was pretty impressed by that. Why couldn’t we do something to cure people with cancer, especially children?” Bertino asked in an earlier interview with this publication.

His work at Yale, Sloan-Kettering Institute and now Rutgers has elevated him to being one of the top cancer researchers in the United States.

Childhood cancer remains a tragedy, but the 85-year-old, New York-born Bertino said progress against cancer is snowballing. “Things are looking good, but we’ve got a ways to go,” the 1954 med school graduate said as he opened his remarks to a nearly full auditorium.

Death rates down, new treatments grow
A promising sign is cancer’s dropping mortality rates, which began to decline in 1991 and have done so precipitously this century.

Other reasons for optimism are the increased understanding of the cancer process and the effectiveness of new treatments, most notably immunotherapy. He called it the fourth pillar of cancer treatment, joining surgery, radiation and chemotherapy, a byproduct of mustard gas research during World War II.

“Immunotherapy is really exciting. It’s working to kill cancer cells and produce antibodies to protect us,” Bertino said.

Antibody-drug conjugates, unlike chemotherapy, are intended to target and kill only the cancer cells and spare healthy cells. The biopharmaceutical drugs are complex molecules composed of an antibody linked to a biologically active anticancer drug. Bertino called them “smart bombs.”

New drugs now in marketplace
Another exciting advancement is the development of antibodies that “pump up the tired lymphocyte T-cells to attack the cancer cells,” Bertino said.

“People are alive after five years of treatment. That’s the exciting part. Typically, cancer cells weaken the T-cell so it can’t attack the cancer cell. The antibody charges up the T-cell so it can again kill the cancer cell,” said Bertino, noting that patented and FDA-approved medications are now on the market.

Additionally, pharmaceutical giant Merck has 100 trials going on in an effort to increase response rate to this treatment, he said.

When a combination of antibodies is used, researchers see a 40 percent
response rate. “Some patients still don’t respond. We don’t understand that,” Bertino said. So that’s one area of research. Scientists also are trying to create antibodies that will be effective against more types of cancer.

Ipilimumab, known by its brand name Yervoy, has been approved for use against advanced melanoma and is being tested on other cancers.

“What’s amazing about this treatment is the duration and the size of the response. Considering the fact that most of these patients stay in remission, it’s really remarkable,” said Bertino.

Researchers are seeking to find why the treatment is effective for some people and some cancers, but not others, Bertino said.

Genetically modifying T-cells by producing special receptors on their surface is another promising research area, he said. “Leukemia patients are remaining in remission more than two years after receiving genetically engineered T-cells. Some patients are now out six to seven years and are probably cured.”

“It’s not an easy treatment” with some experiencing high fevers and sharp blood pressure drops, but the conditions are usually manageable, Bertino said.

In conclusion, he said, “We’re on our way. We’re curing more cancers now. Immunotherapy is great.”

**Makes connection with community**

Earlier in the day, Bertino gave a scientific lecture to SDSU faculty and toured the university facilities, meeting with State researchers and students. But the evening lecture is designed to target the community and Bertino stayed true to the plan.

Among those from the community in attendance was Brookings High School sophomore Nolan Hesler, who attended with his father, Louis, as he is considering a career in medicine or cancer research.

“It was useful information, very interesting, very informative. I’m glad I went,” Nolan Hesler said.

Don Auger, a maize geneticist in the biology department, was drawn by both intellectual and personal interest.

He includes cancer in his teaching of genetics and cell biology to pre-health students. “I’m always trying to relate what I talk about to health,” he said. Auger, an SDSU faculty member since 2003, also is concerned about his own health. The associate professor was recently diagnosed with rectal cancer.

Auger said Bertino’s message was encouraging and useful, though he realizes that “many of these theories are still in the pipeline.”

**Funded by Johnny Miller**

The Francis Miller lectureship was established to bring leading cancer researchers to campus and to provide opportunity for faculty, students and the public to learn from these scientists. It is funded by an endowment created by the Francis J. “Johnny” Miller Trust.

Miller was a longtime pharmacist and drugstore owner in Redfield and Huron as well as his hometown of Gettysburg.

*Dave Graves*
A song and a dance
Med lab science students win national video contest

Medical Laboratory Science program director Pat Tille doesn’t ask students about their ability to sing and dance when they enter the program, but she may start.

This year’s MLS 1 class used student-penned lyrics and a few dance moves to produce a rap video that won a national contest sponsored by the American Society for Clinical Laboratory Science. Word was received while faculty and several students were attending the annual meeting of the South Dakota chapter of the society in Deadwood April 8.

The win means free registration to the society’s national annual meeting in Philadelphia July 31-Aug. 4, $200 for a pizza party, and some bragging points.

“I cannot even express the excitement in our MLS class right now,” Tille wrote in an email to Dean Dennis Hedge after getting the news. “We are going to announce it and play it tomorrow at the professional meeting.” She said laboratory professionals from around the state applauded the creativity of their future colleagues after viewing the video.

The purpose of the video was to promote the American Society for Clinical Laboratory Science in a creative way.

That’s exactly what scriptwriter Emily Young, president of the Medical Laboratory Science Club, achieved. The four-minute, 16-second video features Young and 10 classmates as well as cameo appearances by Tille and instructors Stacie Lansink and April Nelsen. It was all shot in MLS labs and classrooms in the Avera Health and Science Center.

Lyrics are dubbed onto the screen, including A-S-C-L-S, which pulses as the students call out each letter in a rap mode.

Scenes include students dancing in lab coats and rolling in their chairs from one side of the classroom to the other. There also are traditional scenes of students listening to a lecture, working with samples under a microscope and entering information on a computer, all while students rap Young’s lyrics.

One example: “Saturday night and we’re in the lab. Don’t believe me. Just watch.” The latter part is repeated often in the video.

Young, of Hutchinson, Minnesota, said the students sat down in January to “plan out when we were going to do the voice recording and filming. I spent a couple of days writing the lyrics and figuring out what I wanted to film during each part of the video. The voice recording took us a couple of hours to solidify. We probably spent about seven hours filming.”

Brittany Kramer of Hartington, Nebraska, spent five hours editing the video.

After the initial editing, codirectors Young and Kramer reviewed the work and Kramer did some final tweaking before it was submitted to the American Society of Clinical Laboratory Scientists Feb. 23. The society plans to use the video as a recruitment tool, said Tille, who said this is the third year for the contest.

However, it is the first year for an SDSU entry, which will premiere Aug. 3 at the national meeting.

Young said, “I think a lot of things went into helping us win. Personally, I think the quality of the video and the editing were really good. Also, the content was genuine. We are all very passionate about what we do and we really wanted this video to be fun, but also show others how cool this profession is.”

Tille added, “This class has continued to demonstrate a very high level of commitment and enthusiasm for all of their activities.”

Other class members participating were Ashley Clarke, Slayton, Minn., actor; Jade Ternus, Perham, Minn., vocalist; Haylee Erickson, Yankton, vocalist/actor; Katelyn Jennings, Rapid City, vocalist/actor; Ainiwaer Kaiwusaier, Urumqi, China, actor; Madison Groettum, Alexandria, Minn., actor; Brittany Rustad, Pipestone, Minn., actor; Erin Harms, Parker, actor; and Shelby Benson, Jackson, Minn., actor.

The video can be viewed at https://www.youtube.com/watch?v=SZviKtjoDN8.

Dave Graves

Opposite: The winning team was, front row, from left, Madison Groettum, Haylee Erickson and Brittany Rustad; second row, from left, Ashley Clarke, Shelby Benson and Brittany Kramer; third row, Katelyn Jennings, Emily Young and Ainiwaer Kaiwusaier; fourth row, Erin Harms and Jade Ternus; fifth row, Pat Tille and Stacie Lansink.
International rotation

Students learn international pharmacy practices during Europe, Honduras rotations

Whether they’re conducting citizen interviews in Europe, or playing soccer with children in rural Honduras, fourth-year pharmacy students are gaining an international perspective.

During their final year, students within the College of Pharmacy and Allied Health Professions complete eight 5-week experiential rotations, which may include internal medicine, home infusion, oncology, infectious disease, hospital, community or ambulatory, and several other possibilities.

As in years past, one group of students learned about pharmacy practices while traveling around Europe, and another group participated in a medical mission experience in Honduras.

In April, 11 students and one preceptor traveled to several European cities and countries. Their rotation began in Dublin and ended in Amsterdam. Before the trip, students researched and read about the Affordable Care Act in the U.S. in order to compare and contrast practices and cost references.

“We had several unique opportunities in Europe,” said Rachel Elsey, an assistant professor. “In Dublin, we visited the LEO Pharma, which is a company that sells topical agents like creams and ointments, as well as anticoagulants. There, we learned about common practices from their professionals.”

In England, the group visited the Royal Manchester Children’s Hospital and the National Institute for Health and Care Excellence in London. They spent time at Boots Pharmacy, where they met pharmacists and spoke with human relations professionals to learn pharmacist hiring processes. In Ireland, the group met with Pamela Logan of the Irish Pharmacy Union to learn about the job market and how the pharmaceutical industry is set up.

In Munich, students visited a hospital and observed. Students also conducted three citizen interviews throughout the rotation.

In each country, students were expected to attend a different pharmacy and document the similarities and differences. In addition, “They had to be brave and interview people on the streets, questioning the citizen’s interaction with the health-care system,” Elsey said. Students wrote a reflection paper upon their return to the U.S.

Students were encouraged to explore the culture of each city and country. “Cultural competency is very important in health care, and it was a main component of students’ pre-trip education,” Elsey said. “I went on a study-abroad trip as a student, and now, I love seeing students learn how other countries value health care.”

Student’s European experience

Alicia Christensen ’15 traveled to Europe with Elsey for a 2015 experiential rotation. She said it was amazing to see how health care is run in foreign countries. She traveled with 13 students and two preceptors. They left for Europe in March 2015 and returned two days before graduation in May. Christensen is currently a first-year pharmacy resident at Avera McKennan Hospital in Sioux Falls.

“European hospitals and pharmacies just practice a lot differently than what we’re used to in the United States,” Christensen said. “For example, in Manchester, we visited a hospital with four patients in each room—that is very uncommon here.”

Christensen said in the U.S., pharmacists typically prepare medications ahead of time, but in Manchester, the nurses make them at the bedside immediately before administering them to patients. “There wasn’t as much pharmacist oversight as there is in the United States,” Christensen said. “Also, many of the pharmacies and hospitals still use a paper chart, rather than charting electronically.”

Christensen said one of the main differences she learned was how much less European countries spend on health care than the U.S. “Because many of the countries only have national health insurance, there are restrictions on what medications they can get,” she said. “In the U.S., patients can get almost any medication they want. Also, in Europe, if an operation or surgery is not urgent, patients are put on a waiting list. Some people wait more than a year for an operation. But because of these differences, the countries spend a lot less on health care overall.”

Being immersed in the international health-care system opened Christensen’s eyes to the different options within pharmacy practice. “It was amazing to visit so many countries in such a short amount of time,” Christensen said. “It was a once-in-a-lifetime opportunity, and I was very fortunate to be able to take advantage of this unique experience.”

Honduras mission rotation

Rose Fitzgerald had a completely different international rotation experience when she spent the month of February in the rural villages of Honduras. Fitzgerald and seven professionals from the International Health System flew into San Pedro and traveled three hours by bus to La Ceiba, a large city on the Honduran coast, for orientation. “It was rainy and super hot and humid when we got there,” said Fitzgerald, a May graduate.

Fitzgerald stayed with a host family for the first few days but camped in a tent for the remainder. She brought a plastic shower contraption purchased at a camping store. “It was a big plastic bag-type thing that I filled with river water,” Fitzgerald said. “I left it set up by our tents during the day so the sun could heat the water. We roughed it for sure.”

The group of eight served various Honduran villages. Within the group were Fitzgerald, pharmacy student Kelsey Eneboe, a licensed dentist and doctors. “We were kind of on our own,” Fitzgerald said. “Most groups had a licensed pharmacist leading them, with students working under them. But in our case, we didn’t have enough licensed pharmacists to go with each group, so we were on our own.”

Fitzgerald said it was a steep learning curve, but the experience prepared her for the workforce upon her return to the U.S. Fitzgerald graduated in May and will complete a residency at the VA Hospital in Fort Meade. “I was ready for the responsibility, and it was good to organize and run our own little operation,” she said.

During the eight days, Fitzgerald and her group served families in the rural
village of Nombre de Jesus. They worked out of an elementary school and separated their services—dental, medical and pharmaceutical—into three rooms. The group had electricity at the school, though some of the other groups did not have electricity or running water for the whole trip. In total, the team served 2,300 people in eight days, and had to close a day early because they ran out of medicine.

“A little river ran through the town, and it was very jungle-like, with the mountains about 30 miles away,” Fitzgerald said. “The town has about 5,000 residents, but I didn’t know that by looking at it. It was in a small area and the houses were very small.”

Interspersed throughout those days, group members acclimated themselves with the people and village. On the weekend, the people of Nombre de Jesus took the group to a local banana plantation for a tour. “They hosted a cultural presentation for us, and the local children performed Honduran songs and dances,” Fitzgerald said. “Everyone in the town was so generous, which kind of struck a chord with me because we were the ones there to serve.”

Fitzgerald said families brought home-cooked meals to the clinic each day. “A lot of children came through our clinics,” she said. “We brought soccer balls and played soccer with the children each day after we were finished at the clinic. When we were leaving, they told us we had to return soon.”

While mission groups often serve villages in rural Honduras, Fitzgerald’s group was the first to serve Nombre de Jesus. “It was great to be able to help them,” she said. “I know we made a difference in their lives, but they made a difference in ours, too.”

After the clinical mission portion was over, the group returned to La Ceiba to sort supplies and take part in a farewell banquet. Part of the group flew back to the U.S., but Fitzgerald and friends stayed to explore Honduras for a week.

Fitzgerald and friends spent a few days in Copan, where they visited ancient Mayan ruins and a bird park. Her group then traveled to the island of Roatan where they snorkeled, kayaked, zip lined and went on a sunset cruise.

Fitzgerald said after the trip, she had an increased feeling of gratitude and understanding. “I realized the huge impact mission groups have on people’s health, especially those who don’t have access to care and medicine,” she said. “We are so lucky here, and I think we sometimes forget that.

“On the other hand, we can’t forget that we have people here in the U.S. and South Dakota who are in poverty and may not have access to hospitals or health care. Overall, the experience taught me to always give back where I am at.”
Five practicing pharmacists talked about their careers and offered insights at the college’s Spring Convocation April 20 in the Volstorff Ballroom.

About 300 P1-3 students as well as faculty members heard from:

- Amy Heiberger ’06, a clinical pharmacist with the intensive care unit at Sanford Children’s Hospital in Sioux Falls and an assistant professor in pharmacy practice at SDSU;
- Cheri Kraemer ’85, owner of the Sioux Falls compounding pharmacy, Pharmacy Specialties & Clinic Inc.;
- Jennifer Schut ’02, a pharmacy supervisor with Sanford Health’s anticoagulant clinic in Sioux Falls;
- Heather Storey, ’98 a clinical/consulting pharmacist with Lewis Drug based out of northwest Iowa; and
- Deidra Van Gilder ’02, clinical pharmacist at Brown Clinic in Watertown and an associate professor in pharmacy practice at State.

While many of the panelists knew by high school that pharmacy would be their career, none of them could have foreseen where their choice would lead them.

Heiberger said she envisioned pediatric pharmacy as recalculating adult doses to fit children and thought she could do more with her skill level. But after taking a pediatric rotation during her residency, she saw the wide variety of interactions pediatric pharmacists could have with other professionals, families and patients.

“You might think you know where you’re going, but sometimes an opportunity presents itself,” Heiberger advised.

Kraemer wanted to be a pharmacist as an eighth-grader. Following graduation, she started working at an independent pharmacy, Clinic Pharmacies, in Sioux Falls. She purchased the business in November 1998 and started Pharmacy Specialties in October 2001.

“I didn’t realize I would make independent pharmacy a career until I bought the pharmacy,” she said of Allen Pfeifle’s Clinic Pharmacy.

Schut moved up the ranks at Sanford and was attracted to the schedule and patient interaction that a pharmacist at an anticoagulant clinic could have. As she worked in the position, she appreciated the opportunity to oversee a staff of six registered pharmacists and provide medication management for patients in about a 100-mile radius both face-to-face and through distance monitoring.

Valuing variety in their career

Storey began her career as a staff pharmacist with Lewis Drug and soon began precepting students, which led to an education track. She spent five years as an assistant professor at SDSU. In 2009, she moved to Spencer, Iowa, and took a training position with Lewis working throughout the region.

Her duties include oversight of clinical programs, such as medication therapy management and automated monthly refill, as well as organizing staff education.

Looking back at her days as a retail pharmacist, she said she found the work to be “so rewarding. When people say ‘Is Heather here?’ you know you are connecting with patients. When you’re able to consult with them, help them understand what they are taking and perhaps realize that they can get rid of a couple prescriptions, that’s very rewarding.”

After graduation, Storey said she kept up with continuing education credits but learned a lot about patient counseling just by watching other pharmacists.

“Connect with patients on a personal level and pay attention to the customer,” she advised.

Van Gilder followed a high school chemistry teacher’s recommendation to go into pharmacy. “I wanted to have some type of clinical practice because I wanted to work with patients,” which she does three days a week while teaching the other two.

She considers herself a “jack-of-all-trades pharmacist” because she directs an anticoagulant clinic as well as handling Brown Clinic’s pharmacy management responsibilities such as drug contract negotiations and billing.

Developing trends

Panelists also were quizzed on how they see their sector of pharmacy evolving.
One topic that drew comments was achieving provider status. Becoming a “provider” in the Social Security Act means that pharmacists can participate in Part B of the Medicare program and bill Medicare for services that are within their state scope of practice to perform.

There is bipartisan support in the House and Senate for provider status in underserved areas, but it has yet to receive a hearing.

Storey and Van Gilder both noted that as margins shrink on the dispensing end, pharmacists must find other means to keep their businesses profitable. Gaining provider status addresses that issue while also giving pharmacists the incentive to serve at the level for which they were trained.

Expanding the circle of approved health-care providers isn’t without precedent. Nurse practitioners gained provider status in 1997.

Another major topic was medication therapy management, which is now billable in Medicare Part D and some insurance policies. However, an audience member asked how can medication therapy management be made profitable when the reimbursement rates are so low?

Storey said even though incentives aren’t great now, “we need to show we’re doing a good job at MTM. “We must find a way to be efficient with MTM. Techs can do prep work. While the first visits take longer, subsequent visits are quicker. We must be thorough and quick. The more you do it, the better you get at it. When we find drug-related problems and take those back to the doctor, they’re going to see our value. “The more we prove ourselves now, the better it’s going to get in time. Sometimes we have to stick our neck out there.”

Audience reactions

Kelsie Wahl, co-chair of the event with Shelby Vandriel, said switching the convocation format from a keynote speaker to a panel brought favorable reaction.

“This format had a good response from the students, some said it was the most interesting convocation they have been to and others thought it went very well. I thought the event was a nice change. I enjoyed hearing the responses from many pharmacists and liked the variety,” she said.

Austin Block was among the students who was highly impressed.

“One of the six convocations I have attended I thought this was by far the most enjoyable. It was engaging and interactive. It was great to hear from practitioners from five different areas. By including so many different speakers, everyone could learn something new about something they may have been interested in while also learning about areas they may not have thought much about,” she said.

Wahl added, “I enjoyed hearing about all the options out there for pharmacists and learning about how to take those next steps as I become closer to advancing in my career.”

Dave Graves

The following awards were presented at the spring convocation April 20:

Rho Chi
Fall Research Poster Presentations:
Undergraduate and professional students: First, tie, Austin Block and Brittany Bailey, and Nicole Vandenberg.
Junior graduate students: First, Somshuvra Bhattacharya; second, Metab Alharbi; third, Karly Ackerman.
Senior graduate students: First, Muzaffar Abbas; second, Yang Yang; third, Simon Newkirk.

Spelling bee champion: Hannah Packer, P3

American Association of Pharmaceutical Scientists
Member of the year: Saiful Islam, fourth year grad student

Phi Lambda Sigma
Member of the Year: Natalie Beiter, P3
Adviser of the Year: Dave Helgeland

Kappa Psi
P2 Brother of the Year: Cassidy Latusek

Kappa Epsilon
Member of the Year: Kara Benson, P2
Past President Award: Hannah Schmidt, P3

American Pharmaceutical Association-Academy of Student Pharmacists
Pre-Pharmacy member of the Year: Melanie Heeren
P1 Member of the Year: Kassie Friese
P2 Member of the Year: Elizabeth Murray
P3 Member of the Year: Nicole Heeren
P4 Member of the Year: Mollie Sloot
It comes as little surprise to those who know Tadd Hellwig that students chose him College of Pharmacy and Allied Health Professions Teacher of the Year again. He was first honored as Teacher of the Year in 2012.

As an associate professor, Hellwig provides didactic teaching for second- and third-year pharmacy students both on campus and at the University Center in Sioux Falls. Hellwig also serves as a preceptor for internal medicine rotations where student pharmacists learn how to interact with physicians and make medication recommendations in a health-system setting.

“Dr. Hellwig absolutely deserves to be recognized,” said Travis Van Ede, a P3 from Brandon. “He continues to be innovative with programs both inside and outside of the classroom. We respect his knowledge and honesty in lecture, as well as his dedication as an adviser for numerous pharmacy organizations. While he always keeps a lot on his plate, students are his number one priority.”

Hellwig’s list of honors and awards demonstrates his dedication to not only the pharmacy field, but also teaching. In 2011, Hellwig helped create SDSU’s student chapter of the American Society of Health System Pharmacists and was honored for teaching, receiving the Sioux Falls Family Medicine Residency Clinical Educator of the Year Award. In 2013, he was honored as the Sanford Health Residency Preceptor of the Year and in 2014, he was honored with the South Dakota Society of Health-System Pharmacist of the Year award. In 2015, Hellwig received the college’s Outstanding Scholar award at the Celebration of Faculty Excellence.

Hellwig graduated from the Texas Tech University College of Pharmacy in 2006. He went on to a pharmacy practice residency in Delaware and spent a year at the Mayo Clinic in Rochester, Minnesota, before coming to South Dakota to pursue a career teaching and practicing pharmacy with SDSU and Sanford Health.

Students noted their appreciation for Hellwig and his teaching methods in nomination letters.

“One P3 student wrote, “Dr. Hellwig goes above and beyond to ensure students get the most out of his rotation. This dedication ranges from setting aside time to provide topic refreshers of the students’ choice, to challenging students to broaden, practice and hone critical-thinking skills during interdisciplinary rounds. If a concept is difficult to grasp, he guides his students in an informational, yet entertaining way until they fully grasp the material.

“His passion for teaching also shines during rounding, where he demonstrates how much of a valuable resource he is to the whole team. If you are lucky enough to have him for a rotation, you will walk away knowing that he has set you up for success not only on rotations, but also for your career postgraduation.”

Karissa Kuhle
Pat Tille, director of the medical laboratory science program since 2009, was inducted as a fellow of the Association of Clinical Scientists at its May 4-7 meeting in Little Rock, Arkansas.

Inductees must be nominated by current members, of which there are 300, be doctoral scientists who are experts in the education of and/or application of laboratory methods for the diagnosis and treatment of human diseases, and have ongoing specialized professional activities.

In addition to this accomplishment, Tille has received a string of honors recently. Tille was elected to the board of the American Society of Clinical Laboratory Science in Atlanta at the annual meeting in 2015, so she oversees concerns and promotion of laboratory science in South Dakota, North Dakota, Minnesota and Wisconsin.

At the April 9 meeting of the South Dakota chapter in Deadwood, she received the national Omicron Sigma Award. Omicron Sigma is the honor roll for professional service to the society with national nominations coming from the national president.

Two of Tille’s co-workers also were honored at the Deadwood gathering. Stacie Lansink and Tiffany Montalvo both received the regional Omicron Sigma Award. Nominations for it must come from the regional president.

Also at Deadwood, Montalvo was elected to the chapter’s board and instructor Stephanie Jacobson was re-elected to the nominating committee.

Tille served as president of the South Dakota chapter of the American Society for Clinical Laboratory Science from 2006-2008 and 2014-15. In summer 2015 she was listed as one of the “20 Professors of Clinical Laboratory Science You Should Know” on MedicalTechnologySchools.com’s blog and was one of three finalists for Cardinal Health urEssential Award.


Teresa Seefeldt, associate professor of pharmacology, received the faculty award at SDSU’s Women’s History Month observance March 29.

Based on open nominations, the Women’s Studies Committee awards Woman of Distinction honors in four categories—administrative and professional, faculty, civil service employee and student.

Seefeldt, a 2004 Pharm.D. graduate and a faculty member since 2005, received the 2014 Edward Patrick Hogan Award for Excellence in Teaching.

She received the Board of Regents Excellence in E-Learning Award in 2007 for work in piloting two computer programs for online education.

She serves as a faculty adviser for three of the six student organizations within the College of Pharmacy and Allied Health Professions. Since becoming an adviser in 2007 for the American Pharmacists Association—Academy of Student Pharmacists, Seefeldt has been an integral part of its success.

Colleagues noted that Seefeldt has dedicated countless hours to the organization and has been a role model for students and for other pharmacists through her outreach and promotion of rural health.

Twice in the past two years, Seefeldt has traveled to western South Dakota, where she and students visited several county fairs, providing blood pressure, blood glucose and cholesterol screenings.

Colleagues said Seefeldt empowers women to take risks and encourages students to try new projects and activities, and supports those ideas by providing thoughtful and constructive feedback.
Faculty of Excellence awards

Two faculty members were honored at the university’s Celebration of Faculty Excellence Feb. 16 at the Volstorff Ballroom.

Om Perumal, head of pharmaceutical sciences, received the Pat and Jo Cannon Intellectual Property Commercialization Award for his work in bringing Tranzderm, a drug delivery system, to market.

Wenfeng An, an associate professor in pharmaceutical sciences, was named the college’s outstanding researcher for his work with the L1 section of the human genome and the section’s movement within DNA strands.

Jayarama Gunaje, an assistant professor in pharmaceutical sciences, gave one of the Sewrey lectures preceding the evening banquet. His topic was “Aspirin and Cancer Prevention: A New Use for an Old Drug.”

Dean’s Awards

With selection assistance from an external committee of College of Pharmacy and Allied Health Professions alumni and stakeholders, the following awards were presented at the Spring Convocation and Awards Program April 20:

Jayarama Gunaje: Excellence in Research and Scholarly Activity Award

He was cited for his many research collaborations within and outside of SDSU. He published three research papers this past year as a corresponding author and one as a collaborator. Gunaje gave four invited presentations this past year, including at the 20th World Congress on Advances in Oncology in Athens, Greece. He also showed growth in grantsmanship.

Bill Hayes: Excellence in Teaching Award

He was cited for innovative approaches in the classroom and excellence in teaching at his clinical practice site. Hayes added groundbreaking video Telehealth services to the patients’ home, providing new opportunities for clinical clerkship students. He has also led classroom teaching efforts in the areas of team-based learning and utilization of novel technology.

Vickie Prussman: College of Pharmacy and Allied Health Professions Staff Award

She was cited for her cross-coverage of other staff positions during times of employee transition. She took on duties related to finance and various department-level functions so the college could continue to function smoothly.

Alex Middendorf: Community Engagement Award

He was cited for his work with community pharmacies, patients and other health-care providers. He led a “transitions of care program” for patients recently discharged from the Brookings Hospital and has been involved in establishing a wide range of patient care services at the Milbank residency program site. He has also worked with both of South Dakota’s major pharmacy organizations to advance pharmacy practice.
Strain named Pharmacist of Year by South Dakota group

Joe Strain, professor of pharmacy practice and Rapid City Regional pharmacist, was selected as Pharmacist of the Year by the South Dakota Society of Health-Systems Pharmacists at its 40th annual meeting April 9 in Rapid City.

With this year’s gathering in Rapid, a large turnout of family and co-workers were on hand, including his nominators—Dana Darger, director of pharmacy; Janeen Bucholz, inpatient pharmacy manager; and Veronica Lesselyoung, pharmacy clinical coordinator.

In their nomination, they cited Strain’s “strength as a leader in the organization, his dedication to the profession, his insight in the practice of pharmacy, his excellent stewardship of pharmaceutical resources and his ability to change the pharmacy paradigm in the hospital.”

They also noted, “He is very involved with pharmaceutical staff and also willing to help them learn new skills. His commitment to lifelong learning is second to none.”

Strain’s learning at SDSU culminated in 2002 with his graduation. He joined the faculty the next year.

Strain was honored by Dean Dennis Hedge April 9, 2014, at spring convocation with the college’s Excellence in Research and Scholarly Activity Award for his productivity in scholarship and his time commitment to strengthening his skills.

Former faculty member selected for the Fulbright Specialist Program

Rajendra Aparasu, now chair of the pharmaceutical health outcomes and policy department at the University of Houston, has a five-year term on the Fulbright Specialist Roster, ending in 2021. The program promotes international engagement of academic scholarship and builds links between the U.S. and overseas institutions.

Originally of India, Aparasu served at SDSU from July 1, 1995, to Dec. 31, 2005, when he went to the University of Texas.

Teacher of the year

Also, based on a vote of College of Pharmacy and Allied Health Professions students, Tadd Hellwig was chosen as Students’ Association College of Pharmacy and Allied Health Professions Teacher of the Year. (See separate story P. 12.)

Others nominated by the students were: Hesham Fahmy, Bill Hayes, David Helgeland, Jayarama Gunaje, Tarryn Jansen, Stacie Lansink, Teresa Seefeldt and Pat Tille.

Years of service:

David Helgeland: 40 years
Debra Farver, Janet Fischer, Jane Mort and Michelle Parker: 30 years
Mike Niles, Annette Johnson: 15 years
Deidra Van Gilder: 10 years
Andrea Hogie

Organic chemistry, as it has done for many would-be pharmacy students, sent Andrea (Odenbrett) Hogie, of Fulda, Minnesota, looking for another major. She discovered commercial economics, and now nearly 30 years later, is back in the college as its budget coordinator.

Hogie, who earned her degree in commercial economics at State with a minor in accounting in 1992, had been in a similar post at the Swiftel Center in Brookings before returning to SDSU March 22.

She no longer has to worry about macromolecules and carbon chains but busts a few pencils projecting annual budgets and tracking expenses and revenues. Predecessors in the position were Rita Schulz and Christine Amert. In the interim, secretaries Vickie Prussman and Jolene Landmark assumed the duties.

Hogie said she is excited to have made the “full circle” back to the college and also likes the regular hours and retirement benefits the position provides.

She has about 15 years prior experience at SDSU having worked in finance positions with the colleges of Agriculture and Biological Sciences and Family and Consumer Sciences as well as the Office of Finance and Business.

After the birth of her third daughter, she wanted to spend more time at home by doing part-time finance work, later going full time.

While an SDSU student, Hogie met her husband, Steve, originally of Astoria. It resulted in a marriage in which both are capable of balancing the checkbook. He is head of the commercial business loan department at First Bank and Trust in Brookings.

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Hogie, originally of Humboldt, majored in music merchandising with a minor in business. While it may not directly correlate to her new position, which she started March 28, it does help at home, where she is the informal manager for her husband’s band—The Chocolate Cowboy.

The band also has a couple other SDSU connections, including medical laboratory science student Nick Schaeuble, so it might net a booking at the college’s Christmas party.

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The Brookings couple has three daughters—Anastasia, 26, of Portland, Oregon; Chantel, 20, a nursing student at Presentation College in Aberdeen; and Brittany, 16, a junior at Brookings High School.

The Hogies’ hobbies are camping, spending time at their lake cabin, watching NASCAR on TV or in person, and visiting their daughters.

Emily Trias

Joining the Department of Pharmaceutical Sciences as its program assistant is Emily Trias, who earned her degree from SDSU in a field far removed from pharmacy.

The 2004 grad, originally of Humboldt, majored in music merchandising with a minor in business. While it may not directly correlate to her new position, which she started March 28, it does help at home, where she is the informal manager for her husband’s band—The Chocolate Cowboy.

The band also has a couple other SDSU connections, including medical laboratory science student Nick Schaeuble, so it might net a booking at the college’s Christmas party.

Trias said she has enjoyed getting to know the various faculty members and learning about their native cultures.

As program assistant, she works with pharmaceutical science graduate students and the department’s 10 faculty members to provide secretarial support and assist with paperwork related to grants.

For a number of years, the Triases lived in Estelline, where her husband, Rudy, has relatives. On May 1, they moved to Brookings.

Before her current position, Trias was a substitute teacher in the Estelline and Deubrook school districts and she gave private music lessons. They also owned the Red Carpet Bar and Grill in Estelline and a resort at Lake Poinsett between 2012 and 2015. Her husband also is a freelance photographer and graphic designer.

Trias’ hobbies are music, working out, spending time with children and traveling. Their children are Alex, 14; Mitchell, 9; Portia, 9; Axel, 3; and Montego, 6 months.
Tiffany Montalvo

Less than a year after graduating from the medical laboratory science program, Tiffany Montalvo is back at SDSU as an employee.

She began April 4 as the laboratory support specialist, a new position that assists in setting up labs and maintaining instruments, doing quality control and maintenance. She also does some instrument calibration and maintenance for the pharmaceutical science department and helps faculty during the medical laboratory science labs.

“The program is expanding, so it’s nice to have more than two people to help answer questions during the labs,” Montalvo said.

The former Dickinson, North Dakota, resident began her college career at the University of Toledo (Ohio) as a pharmacy major. After a year, she transferred to the pharmacy program at State, but switched her major midyear to medical laboratory science. “I decided this field was a good fit for me,” she said.

Montalvo said she enjoys the hands-on aspect of examining and analyzing of blood, tissue and other body fluids.

She took quickly to her new academic pursuit and became involved in the South Dakota chapter of the American Society for Clinical Laboratory Science. As a student, she was elected to the society’s board as its new professional representative. “To be able to draw a younger generation into the field is very important to me,” the 23-year-old said.

On the same week Montalvo started her position at SDSU she was elected as board member at-large at the society’s annual meeting.

She also received the regional Omicron Sigma Award after being nominated by the regional president. Omicron Sigma is the honor roll for professional service to the society. “I definitely believe in the cause. Our profession is underrecognized and I want more of today’s students to be aware of this opportunity,” Montalvo said.

Montalvo, now of Brookings, is the youngest of three sisters. Her parents are Greg and Donna Montalvo of Brandon, Minnesota.

In her free time, Montalvo likes to read, cook and tackle about any do-it-yourself craft project.

Rachel Chamblin

After five years of organizing gardeners, bird feeders and children’s workers at the Outdoor Campus in Sioux Falls, Rachel Chamblin now is helping P3 and P4 students coordinate their class schedules and providing secretarial support for students and faculty members in the Department of Pharmacy Practice in Sioux Falls.

The Fargo, North Dakota, native began her new position April 4 after working as a volunteer coordinator for the South Dakota Game, Fish and Parks at its learning center. Prior to that, she was at Shoe Carnival in Sioux Falls.

Chamblin earned a bachelor’s degree in environmental science from Southwest Minnesota State University in Marshall in December 2008.

Chamblin and her husband, Cody, the pullet supervisor at Dakota Layers in Flandreau, live in Egan with their daughter, Brinley, 3 ½ years. In her free time, she enjoys outdoor activities, particularly hunting and fishing.

Longtime university employee Connie Colwill, who had retired from the position in 2008, returned Aug. 31, 2015, to fill the post on a temporary basis.
Pharmacy major tabbed as student body president

Allyson Helms, a junior pharmacy major from Waseca, was elected president of the SDSU Students’ Association in balloting March 22-23 by the student body. Helms and her vice-presidential running mate Lane Speirs, a sophomore agricultural communications major from Spearfish, received 1,012 votes to top Nathaniel Condelli, a senior sports management major, and Robert McLean, a sophomore ag ed major, by 211 votes.

Fourteen percent of the student body voted. They took office April 11.

Helms served as an administrative assistant to the SA executive board and represented the College of Pharmacy and Allied Health Professions on the Student Senate.

Her campaign goals included creating a connection between students and the new university administration and helping administrators understand the campus climate. She also wants to see an improved relationship between student senators and their constituents.

“I can’t thank students enough for getting out there and voting,” Helms said. “This is what I want to invest my senior year into.”

It might not be the only thing Helms invests herself in during her senior year. She was a contestant in the Miss Minnesota contest June 18. In the talent portion at the local level, she performed “For Good” from the musical “Wicked.” She has studied music for almost 10 years, has been in dance classes for 15 years, and portrayed Maria in “The Sound of Music” in high school.

The 2013 graduate of Waseca High School was class valedictorian and was on the straight A honor roll since seventh grade. At SDSU she completed the honors program and made the college’s dean’s list in fall 2015 and spring 2016.

Helms’ pageant platform is More Than Pink: Be Bold, Be Beautiful and is based around the program she has been running for three years in the summer for girls in grades 4-8. More Than Pink focuses on highlighting both inner beauty and physical fitness. Half of the two-hour class is devoted to inner beauty subjects such as healthy relationships and nutrition while the second half is about having fun while staying active.

At the end of the summer, all of the girls run a 5K in Waseca to show off all their hard work throughout the summer.

Efforts to aid Sierra Leone earns honor for APhA-ASP chapter

The SDSU chapter of the American Pharmacists Association-Academy of Student Pharmacists received the 2014-15 Innovative Programming Award at the American Pharmacists Association’s annual meeting in Baltimore March 6.

The chapter was recognized for its educational and fundraising efforts for the Ebola outbreak in Sierra Leone, according to co-adviser Brittney Meyer.

The effort was in response to a desire from pharmaceutical sciences doctor of philosophy student Christophina Lynch to help her home country. The chapter conducted three fundraisers and collaborated with Global Links, which sends protective medical equipment to help healthcare workers treat patients with Ebola.

A November 2014 ice-skating night at the Brookings rink raised more than $600 with more than 150 people in attendance. African music was played and social media was used to promote the night with the slogan “Ice skate to eradicate Ebola.” It caught the attention of KDLT television news in Sioux Falls.

The second fundraiser was in collaboration with the SDSU music department. Music majors volunteered to provide musical selections at a benefit concert.

In April 2015, the chapter hosted the Project Ebola Benefit in collaboration with the Avera McKennan Hospital and University Health Center in Sioux Falls. The event was promoted to pharmacists throughout the state and featured three speakers, including a physician who had recently returned from Sierra Leone, where he treated patients with Ebola.

Through the three fundraisers, more than $1,000 was raised to send protective equipment to health-care workers in Sierra Leone, according to Teresa Seefeldt, chapter co-adviser and Christophina’s graduate study adviser.

In addition, the chapter worked through APhA-ASP’s International Standing Committee to help spread the Project Ebola campaign to all chapters throughout the nation. A flyer was created and the standing committee developed a competition to encourage participation and raise awareness.

The award, a first for the chapter, was presented to Traci Eilers, chapter president. This was the first time the chapter launched an international effort and the work was instrumental in the chapter receiving the South Dakota Board of Regents Award for Organizational Leadership at its April 1, 2015, meeting in Vermillion.

Chapter members and faculty members, from left, Surachat Ngorsuraches, Alex Middendorf, Traci Eilers, Elizabeth Murray, Jade Kutzke, and Nicole Heeren pose with the certificate the SDSU group received for Innovative Programming. The award was presented at the American Pharmacists Association annual meeting in Baltimore March 6.
Pharmacy group wins top SDSU award

The student chapter of American Association of Pharmaceutical Sciences was awarded the Outstanding Program Award at the SDSU student organization awards presentation April 14.

The chapter was cited for a scientific and professional development workshop in August 2015 that included talks on scientific integrity, scientific writing, curiosity leading to scientific discoveries and interview skills. The event served as a platform for graduate students and faculty to discuss their perspectives on present-day science and research.

The chapter advisers are Teresa Seefeldt and Josh Reineke.

Medical Lab science students honored at state meeting

Alissa Neigel and Amanda Horn, both MLS 2 students, received the Keys to the Future Award and the state Omicron Sigma Award at the April 9 meeting of the South Dakota chapter of the American Society for Clinical Laboratory Science in Deadwood.

Omicron Sigma is the honor roll for professional service to the society with nominations coming from the state president. In addition, Horn received the group’s scholarship and Neigel was elected to the board as its new professional representative.

Also, Ashley Clarke, a MLS 1 student, was appointed to the board as student forum representative.
Jenna Heyen admits her path to South Dakota State University and the College of Pharmacy and Allied Health Professions has a lot of curves in it but she loves it.

Heyen, a P3 student, is originally from Wahoo, Nebraska, but now calls Sioux Falls home. Her route to State includes stops at two other colleges and a full-time teaching position.

After graduating from Bishop Neumann High School in Wahoo, she had her sights set on a pre-medicine degree. However, after a year at the College of St. Mary in Omaha, she transferred to Nebraska Wesleyan. She stayed in the sciences, graduating with bachelor’s degrees in biology and natural sciences. Heyen taught chemistry for two years at Lincoln Pius X High School but wasn’t satisfied with her career.

“I just felt like I wanted to further my education and further it in ways that incorporated my desire, understanding and love for health and wellness, and my love for chemistry, too, by exploring something I put aside my junior/senior years in college. I never felt like I fully explored that thought when I was finishing the education part of my bachelor’s degree,” she said. “It was not an easy decision as I left a full-time job to go back to school.”

When exploring her next stop on her career path, her now husband, Patrick, said she should take a look at SDSU. He had started at State but later transferred.

“When I got serious about doing it, I compared SDSU to other schools. I ended up thinking ‘Am I really going to go four hours north?’ So I drove up here one day and met with Teresa Delfinis to learn what I was potentially getting myself into, what it all entailed,” Heyen said.

It was a perfect match.

“I loved the atmosphere. Even though I was kind of an outsider and not necessarily a nontraditional student, everyone was still really welcoming and willing to talk to me about what the program involved,” Heyen recalled. “I walked out saying this is where I need to be.”

One thing that helped recently is she was named the first recipient of the Laurilyn D. Helmers Helping Hands Pharmacy Scholarship. The recently created endowed scholarship is in honor of Helmers, a 1979 graduate from the college. Helmers later graduated from the University of Iowa’s College of Medicine and held a clinical faculty position at the University of Iowa Hospitals and Clinics and an academic appointment at Iowa’s College of Medicine.

“With Lauri knowing her time was limited, she was looking to leave something behind and try to make a difference in someone else’s life,” said her husband Kirk Manske. Helmers died in February 2016. “Hopefully, it’s one of those things where you give a person a helping hand that gets them a step closer to their goal. And maybe they can go forth and return the favor down the line.”

Heyen said she is grateful for the scholarship.

“Initially, I was ‘Oh My Gosh.’ I was honored, but really thankful. I’m still very thankful,” she said. “It’s allowed me to work (at a retail pharmacy in Sioux Falls) one night less a week and use that time to study a little bit more or cook a meal for my husband.

“I have such a passion for science and health,” Heyen continued, noting she has served as a tutor and helped with orientation of first-year pharmacy students. “The education piece of it falls in when I try to help others understand and appreciate it as much as I do. There are things you learn when teaching you can apply no matter where you go.”

Matt Schmidt

ENDOWMENTS

The College of Pharmacy and Allied Health Professions offers 84 endowed scholarships.

“Endowments are our lifeline for sustainability, and they strengthen scholarship programs, which allows the College of Pharmacy and Allied Health Professions to better recruit and retain students, knowing that funding is in place,” said Mike Birgen, development director for the college. “An endowment also permanently preserves a donor’s legacy of giving back to the university.”

Jenna Heyen received a helping hand to career path
A new approach to fundraising has shown immediate returns for all parties involved with the College of Pharmacy and Allied Health Professions phonathon this spring semester. Similar to other SDSU colleges, students contacted the alumni to raise funds for various programs and projects. The college had several second-year students make the calls in this trial.

“We found that our alums enjoyed having the chance to talk with students enrolled in our professional program, ask them about life as a pharmacy student and about their experiences in the field, and our students enjoyed having the chance to talk to our alums about their experiences within the field of pharmacy and their experiences at SDSU,” said Dan Hansen, assistant dean for student services and associate professor of pharmacy practice. “Our hope was that this change would allow us to make those interactions happen again. In the feedback we have received from the students making the calls and our alumni, it sounds like the change has been successful.”

According to Hansen, the funds are 100 percent invested in faculty development, student scholarships and student organizations. “The phonathon has been a great experience. Although it has been a little difficult to juggle studying, extracurriculars and working two to three times a week, I feel very honored to be able to represent the College of Pharmacy and Allied Health Professions in our annual fundraiser,” said Nicole Stenzel, who is from St. Peter, Minnesota. “Being able to speak with each alumnus one-on-one and hear about their experiences at SDSU and in the field of pharmacy has been an experience I will never forget.

“I will never forget the conversations I’ve had in which I’ve laughed. Hearing some of the stories our alumni have regarding classes, professors and the college social life are things I will probably remember forever,” Stenzel continued, noting all secrets are safe with her. “Some of the most fun I’ve had has been talking to alumni who went to school with our professors, or those who have children or grandchildren who are my classmates.”

While Lauren Wilde, who calls Grafton, Iowa, home, has also had her share of laughs making the calls, it has also been a learning experience. “I think what I’ve learned most from my phone calls with alumni is the numerous opportunities pharmacists have after graduation,” she said. “From long-term care facility consulting to insurance to neonatal ICU pharmacy, there is such a wide array of opportunities available in pharmacy. I’ve also been able to learn a lot about residencies and received advice going into my P3 year of school. Whether it be to my small town back in north central Iowa or a connection with certain internships and introductory pharmacy practice experiences, it has been a lot of fun.”

In fact, the semesterlong project has inspired Shelby Young to think about what it will be like when she gets one of the calls after graduation. “I’ve learned a lot about how to connect with people I don’t know. It is really easy to talk to pharmacy alumni since we have so much in common and have shared experiences to talk about,” said Young, who is from Brookings. “I am so thankful for such amazing alumni support. The strong alumni support has inspired me to give just as generously when I graduate one day. As a student, it means so much to have so many alumni backing the college and its students.”

Nicole Stenzel, Lauren Wilde and Shelby Young spent the spring semester calling alumni to help raise funds for the college. All three felt the experience went well and state “all secrets are safe.”

“I will never forget the conversations I’ve had in which I’ve laughed. Hearing some of the stories our alumni have regarding classes, professors and the college social life are things I will probably remember forever.”

Nicole Stenzel, student, St. Peter, Minnesota

phonathon
Despite receiving his doctorate in pharmacy from State in 2004, Scott Bergman admitted there was not a White Coat Ceremony for his class. He purchased his coat from a salesman. In fact, he was not sure why the college held a ceremony.

“I used to think, ‘What’s the big deal? It’s just a lab coat,’” said Bergman, who was the keynote speaker at the 2016 White Coat Ceremony held in the University Student Union’s Volstorff Ballroom. “Now I realize it’s more than that. It’s a formal welcome to the profession of pharmacy and a not-so-subtle reminder to always act professionally.”

Bergman, who now works as an associate professor in Southern Illinois University-Edwardsville’s Department of Pharmacy Practice, identified several items that make South Dakota State pharmacy students stand out from the competition.

True, Jackrabbits lead the nation with a 100 percent pass rate on the NAPLEX (North American Pharmacist Licensure Exam), but Bergman cited other reasons. At SDSU, there is a strong work ethic,” he said. “Growing up on the prairie does that to you. It also means you’re going to be that one who works late to take care of that last sick patient or the one who answers the phone to help a doctor or nurse with a question even when your shift is over. It is you who literally will go that extra mile to drop off a prescription on your way home from work. That is what you do and what makes us proud to be Jackrabbits.

“The professors and preceptors whom you will meet on your rotations care about their students and patients and will continue to push us to keep striving for excellence,” Bergman continued. “You cannot hide and settle on being mediocre. They will not let you.”

While Bergman has tried to instill a little of that work ethic and desire in his students at SIUE, he said not many outside of the region know of the quality of State graduates.

“Oftentimes, students like myself are attracted to the program because it is well-known in the region,” said Allyson Helms, who received her white coat at the event. Helms, who is from Waseca, Minnesota, was recently elected the Students’ Association president. “SDSU students are known to be successful and continuously are on the forefront of our field.

“That being said, I appreciated Dr. Bergman’s comments about the nature of the SDSU brand,” she continued. “He mentioned several times that the SDSU brand is not as
well-known across the nation and is only as good as the hard-working individuals that SDSU graduates. Overall, the main point that I took from him was that we, as a class, need to continue to strive to be the best and represent the SDSU name that prior classes built for us.”

Christian Kroll, a P1 student from Oronoco, Minnesota, is unsure of what career path he’ll take following graduation but is glad he chose pharmacy.

“I got the feeling from Bergman that the field of pharmacy is really open, it’s really wide and there are a lot of opportunities, especially for SDSU students,” he said.

While Bergman said the ceremony was a formal welcome to the pharmacy profession, it is a little bit more to Helms.

“To me, tonight’s ceremony is a promise of things to come,” Helms said. “Today solidified our place in the College of Pharmacy and Allied Health Professions and the belief of our faculty and staff that we will succeed. As you heard in our professional oath, this is the first day of many where we will truly be held to the standard of a pharmacist. From here on, we will be called upon to give the best patient care, be innovative and be leaders in our field.”

*Matt Schmidt*
Seventy-six Success stories

Meet our 19th class of six-year Doctor of Pharmacy graduates

Tyler Aldren
Walmart
Pharmacist

Stacy Anderson
Walmart
Pharmacist

William Anderson
Rapid City Regional
Pharmacist

Cody Baker
Hy-Vee
Pharmacist

Laura Bakker
Thifty White Pharmacy
Pharmacy Manager

Cynthia Bartha
West Texas VA Healthcare System
PGY-1 Pharmacy Resident

Colton Bass
Lewis Drug
Pharmacist

Tyler Bertsch
Safeway
Pharmacist

Kaitlin Bottelberge
Shopko
Pharmacist

Bryan Bower
King Soopers
Pharmacist

Haylee Brodersen
Avera McKennan Hospital
and University Health Center
PGY-1 Pharmacy Resident

Nicholas Buschette
Meeker Memorial Hospital
Pharmacist

Mackenzie Byron
Sioux Falls VA Health Care System
PGY-1 Pharmacy Resident

Rachel Eddy-Byrum
Walgreens
Pharmacist

Catherine Creech
Walgreens
Pharmacist

Sarah Dady
Family Pharmacy
Pharmacist

Brittney Dandurand
Walmart
Pharmacist

Lauren Dartois
Poudre Valley Hospital
PGY-1 Pharmacy Resident

Cassandra Dirks
CareTrends Pharmacy
Pharmacist

Leah Eckstein
New Ulm Medical Center
PGY-1 Pharmacy Resident

Eddy Ekobena
Walgreens
Pharmacist

Kelsey Eneboe

Amanda Felten
Walmart
Pharmacist

Rose Fitzgerald
VA Black Hills Health Care System
PGY-1 Pharmacy Resident

Andrea Flanagan
VA Health Care System
PGY-1 Pharmacy Resident

Jared Gilliland
Lewis Drug
Pharmacist

Kassandra Grimes
Thifty White Pharmacy
Pharmacist

Keith Gunn
King Soopers
Pharmacist

Mindy Hanten
Avera McKennan Hospital
and University Health Center
PGY-1 Pharmacy Resident

24 South Dakota State University
New pharmacy graduates

Hilary Schilla  
Coatesville VA Medical Center  
PGY-1 Pharmacy Resident

Angela Schultz  
Shopko  
Pharmacy Manager

Dawn Schuster  
Lewis Drug  
Pharmacist

Alyson Schwebach  
Avera McKennan Hospital and University Health Center  
PGY-1 Pharmacy Resident

Stacy Senske  
Lewis Drug  
Pharmacist

Mollie Stoot  
William S. Middleton VA Hospital  
PGY-1 Pharmacy Resident

Mikaela Smedsrud  
Shopko  
Pharmacy Manager

Mindy Stewart  
Shopko  
Pharmacy Manager

Dylan Stoebner  
Lewis Drug  
Pharmacist

Emily Swanson  
Lori’s Pharmacy  
Pharmacist

Jacquelyn Thomas  
Lewis Drug  
Pharmacist

Katherine Tierney  
Unity Point Health Trinity Regional Medical Center  
Pharmacist

Briana Van Noort  
Lewis Drug  
Pharmacy Manager

Chance Wachholtz  
Greenville Health System  
PGY-1 Pharmacy Resident

Kyle Weiss  
Indian Health Services  
Pharmacist

Brittany Williams  
Lewis Drug  
Pharmacist

GRADUATE AWARDS PRESENTED AT HOODING CEREMONY • May 6, 2016

APhA-ASP Senior Recognition Certificate and Clock:  
Leah Eckstein, New Ulm, Minnesota

Avera Behavioral Health Center Award for Outstanding Achievement in Behavioral Health Pharmacy:  
Haylee Brodersen, De Smet

Facts and Comparisons-Award of Excellence in Clinical Communication:  
Alyson Schwebach, Egan

Lilly Achievement Award:  
Brittany Williams, Madison

Merck Award:  
Lauren Dartois, Las Vegas; Laura Martin, Minot, North Dakota

Natural Medicines Graduation Award:  
Kiley Hyland, Winnebago, Minn.

SDSU College of Pharmacy Patient Care Award:  
Jacquelyn Thomas, Tea

Mylan Excellence in Pharmacy Award:  
Claire Larson, Plymouth, Minn.

Teva Pharmaceuticals USA—Outstanding Student Award:  
Mackenzie Byron, Waseca, Minnesota

Distinguished Graduate:  
Brandon Hubert, Gretna, Nebraska
That was basically my life for four years, traveling over the weekend during the pharmacy class, especially with all of the seasons. It was either football or studying. Where his mother was an independent pharmacist and his father was a teacher and a coach. So it’s not surprising that he enrolled at State as a pharmacy major and always in that order.

Hubert always maintained good grades—his 3.65 GPA was consistent throughout college—but the time requirements of football never left much time for pharmaceutical extracurriculars.

He joined ASP (American Pharmacists Association—Academy of Student Pharmacists), but never had time to attend meetings or do much socializing with his pharmacy classmates.

“It was tough to really have time outside of class to hang around with people in my pharmacy class, especially with all of the traveling over the weekends during the season. It was either football or studying. That was basically my life for four years,” said Hubert, who was one of four team captains his senior year in 2013, when the team reached the second round of the playoffs for the second-straight season.

Hubert took the standard pre-pharmacy courses his first two years while earning a starting role at wide receiver, not necessarily always in that order.

An extra year of schooling

During his sophomore year, he debated whether to apply for pharmacy school then. He did and was accepted, but if Hubert enrolled in pharmacy school, he wouldn’t be able to play football as a senior. He elected to defer enrollment for a year and took chemistry and biology courses, earning minors in both.

Hubert played football as a P1 and P2 student and had completed his gridiron life when he became a P3 student. The loss of football took a lot of structure out of Hubert’s life, which required “a little bit of adjustment,” he said. However, the time-management skills he learned during football prevailed.

“Going through rotations (those skills) helped me establish priorities. I had such a strong foundation that it was able to help me,” he said.

Without football, he found time for golf, recreational basketball, a personal workout and a bike ride with his wife, whom he married just before the start of his P3 year. Hubert and Courtney Higgins ’14, an exercise science major and Jackrabbits soccer player, began dating in spring 2010.

Hubert said he didn’t devote additional free time to studying. “There’s only so much time you can spend studying or you drive yourself crazy.”

He and his wife moved to Sioux Falls prior to his P3 year and began participating in the Big Brother Big Sister program and visiting residents at Good Samaritan Nursing Home. In May 2014, he began working as an intern at the HyVee Pharmacy at 10th and Kiwanis. It was five to 10 hours during the school year, 15 to 20 hours otherwise.

Hubert said his P4 year “was such a blur. I was in Sioux Falls the entire year. I honestly can say I didn’t have one rotation I didn’t enjoy.”

Two medical careers in one household

He hopes his current assignment, a one-year residency at Borgess Medical Center in Kalamazoo, Michigan, will give him career direction. “I’m thinking I want to work more in ambulatory care or internal medicine versus being a central hospital pharmacist, but I’m not ruling out anything, including retail pharmacy, if I find hospital pharmacy isn’t what I enjoy.

“I also enjoy the teaching role because of the many great faculty members that I had as preceptors this year. I will be getting my teaching certificate during my PGY-1.”

He may have two years to decide because his wife is enrolling in the physician assistant program at Western Michigan University.

As an undergraduate, Hubert got research experience working with Hemachand Tummala, an associate professor in pharmaceutical sciences, on a project targeting drug delivery to cancer cells. He spent summer 2012 with Tummala as a Joseph F. Nelson Undergraduate Research Scholar.

That “really valuable experience” may have played a role in his selection as Distinguished Graduate, Hubert said.

“What Brandon has accomplished is very impressive,” according to Tarryn Jansen, a clinical pharmacist at the Sioux Falls VA and an assistant professor. “He was a student-athlete and excelled in both the classroom and on the field. It was his accomplishments and, more importantly, his character that got him selected.

“The easiest way to say it is that Brandon has it figured out. Likely from juggling sports, school and family life, Brandon knows what is important to him and seems to have found a way to create balance among all the things he has going on.

“He is willing to go outside his comfort zone because he knows that is the fastest way to learn and grow. From his work with fellow students and his interactions with our veteran patients, I know Brandon to be a team player, an engaging personality and a kind heart.”

Dave Graves

Classmates applaud Brandon Hubert, above, as he receives a mortar and pestle from Dean Dennis Hedge as the 2016 Distinguished Graduate at the May 6 hooding ceremony.
I would want to own my own. I sought him out (as a preceptor) because he was a guest speaker in one of our management classes.” That was in fall 2013, when Wullstein’s startup Brandon Pharmacy was just 3 years old.

During Moe’s rotation, Wullstein was “really open with everything in his business, starting with his business plan to get the bank loan. He went in-depth with the steps he had to do to start his own store, build a customer base and get established in the community. Anything I wanted to know, he was willing to go over and explain how he got to where he was,” Moe said.

Dispensing enthusiasm

Other students commented on Wullstein’s passion and enthusiasm for independent pharmacies.

Those qualities are evident from talking to Wullstein.

“I really love pharmacy, and I think independent pharmacy is the best representation of retail pharmacy. I’d like to perpetuate that more. I think people get better outcomes when you know your pharmacist. Instead of one chain pharmacy filling 300 prescriptions at a time, it may be much better to have three independent pharmacies filling 150 a day.

“I just want to get that word out as much as possible. I want to give other people the opportunity to be exposed to that aspect of pharmacy,” he said.

Moe adds, “He definitely encourages students who want to go into community pharmacy that it cannot only be a good business for yourself but you also can be an impactful member of the community. He tried to really stress the benefits of what an independent pharmacist can do, including great customer service.”

Impressed with Reilly’s life

It was a community pharmacy rotation under Vince Reilly at Medicap Pharmacy in Hartford that steered Wullstein toward independent practice. In college, he worked in a chain pharmacy. “I was used to the high-pace, high-volume. I did a rotation at Hartford and saw it doesn’t have to be crazy busy. I liked that. The busier I got, the more I thought about owning a business,” he said.

He continued with that chain pharmacy after his 2006 graduation and managed a store for several years before opening Brandon Pharmacy in 2010.

Speaking of his time with Reilly, Wullstein said, “The biggest thing is I had the realization of how many prescriptions you need to fill to make a living. I was used to filling 500 (per day). As an independent, you could fill 100 and do just fine. And that’s still giving you plenty of time to spend with your customers.”

Moe adds that Wullstein also offered counsel to him as he transitioned from working with a chain pharmacy in California to independent ownership.

Precepting continues after graduation

“I was able to call him anytime about what I needed to consider while I was looking to purchase the pharmacy. He has also been available for me to pick his brain about issues that arise with independent pharmacies, such as insurance reimbursement,” said Moe.

Wullstein said he doesn’t have time for fishing or any other recreation since he spends at least 53 hours per week at Brandon Pharmacy.

However, he doesn’t resent it. “It’s not at all stressful. When you love what you do, it doesn’t seem like work. It’s less stressful than working at a big chain pharmacy even though I’m working lots more hours,” said Wullstein, who works six days a week as the store’s only pharmacist. He does have a technician.

He enjoys precepting students, which he has done for the past four years, working with about 20 total.

“It’s been exciting to see all the students come through. It’s good for me as much as it is for them. They’re in training for the NAPLEX. I like to read along with their quizzes. It helps them and keeps me sharp, too,” said Wullstein.

Dave Graves
Assessment report
Integrating Skill-Based Outcomes into the Curriculum through Threads

The curriculum is based on 15 outcomes that students must achieve by the end of the program, including seven skill-based outcomes of self-awareness, leadership, innovation and entrepreneurship, professionalism, interprofessional collaboration, education and cultural sensitivity. The college has employed the learning progression model to operationalize the incorporation of these outcomes in a system we have titled, thread design. The learning progression model focuses on the longitudinal development of knowledge and skills. In order to achieve this longitudinal development, the model considers several components of curriculum design including the students’ abilities at the beginning, students’ skills at completion, design of instructional approaches, and assessment measures used to ensure competency. These principles are applied to the 39 learning objectives that further define these seven skill-based outcomes.

Our thread-design approach includes two key documents to ensure adherence to the learning-progression model, thereby fostering instructional design and helping faculty and students understand the curriculum construction. First, a blueprint is created that contains students’ typical characteristics (skills/knowledge) at the beginning of the program (lower anchor) and desired abilities at the end of the program (upper anchor), along with the methods (instruction, activities, assessments) that help the student achieve this end. (See Figure below)

Jane Mort, Pharm.D.

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**LEADERSHIP BLUEPRINT**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>4.2.1. Identify characteristics that reflect leadership versus management.</th>
<th>4.2.2. Identify the history (e.g., successes and challenges) of a team before implementing changes.</th>
<th>4.2.3. Develop relationships, value diverse opinions, and understand individual strengths and weaknesses to promote teamwork.</th>
<th>4.2.4. Persuasively communicate goals to the team to help build consensus.</th>
<th>4.2.5. Empower team members by actively listening, gathering input or feedback, and fostering collaboration.</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPPER ANCHOR EXPECTATIONS Knowledge, Skills, Abilities</td>
<td>- Identifies the difference between management and leadership activities</td>
<td>- Evaluate a team’s outcomes</td>
<td>- Know yourself</td>
<td>- Set goals</td>
<td>- Use active listening; - Get group to work together - Share responsibility</td>
</tr>
<tr>
<td>Assessment</td>
<td>- Identify contributing factors to outcomes</td>
<td>- Know your team</td>
<td>- Be open minded</td>
<td>- Know how to establish relationships</td>
<td>- State ways to build consensus</td>
</tr>
<tr>
<td>Shared Activity</td>
<td>- Utilize interpersonal communications.</td>
<td>- Set goals</td>
<td>- Effectively share a goal</td>
<td>- State ways to build consensus</td>
<td></td>
</tr>
<tr>
<td>Activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instruction</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>LOWER ANCHOR LEVEL: Assumptions/ Knowledge of Entering Students</td>
<td>- Point of confusion based on past reflections</td>
<td>- Background varies dramatically depending on previous experience</td>
<td>- Few have had leadership training</td>
<td>- Experience has been gained from trial and error</td>
<td>- Few people force themselves to systematically evaluate what did and did not work</td>
</tr>
</tbody>
</table>

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Figure 1. Blueprint Example
Instruction to focus more on active and team-based learning

Providing a high-quality pharmacy education requires faculty to continually update and revise their instructional materials and approaches in order to keep pace with contemporary pharmacy practice. This is not just an update of course content, but also alterations in the course’s instructional delivery methods. This is an area that the department has focused on this past year and will continue this next year.

There is evidence demonstrating that the utilization of active-learning approaches improves student learning and teaching effectiveness. The variety of approaches for active learning range from the simple and easily incorporated to the quite complex.

One major area that we have been recently addressing collectively within the department is incorporating newer and more effective instructional approaches in laboratory sections and in the classroom. It is important for us to address this as an entire department since many of the courses use a team-taught approach.

Numerous faculty in the department have already incorporated some active-learning strategies in some of their classroom lectures or laboratory activities. Historically, the most common active-learning approaches utilized have consisted of polling questions for classroom response via clickers and case-based learning.

Team-based learning, interdepartmental teaching

Additional approaches that have been incorporated into classroom on a more limited basis have consisted of team-based learning. There are a host of additional approaches to active learning that faculty have been evaluating and discussing for incorporation.

By discussing these approaches as a department, we hope to enhance some of the approaches already being utilized and have demonstrated a positive impact on student learning as well as adding additional strategies. At the summer department retreat, we also will work on developing additional approaches to incorporate in the next academic year.

An interdepartmental teaching project was kicked off in fall 2015. In the professional pharmacy program, faculty from the Department of Pharmaceutical Sciences to come up with an idea to incorporate in an interdepartmental teaching project. Faculty developed their ideas and then implemented them during the last academic year. The plan moving forward is to continue and enhance these approaches as we develop new ones. The projects were a positive experience for faculty and students.

Using health technology in instruction

Another addition to classroom and lab instruction was the utilization of electronic health records to carry out patient cases instead of the traditional way of paper cases. This has benefited the students as they get familiar with real-world navigation of an electronic health record to identify and resolve medication problems. We plan to continue using this approach to patient cases as we move forward.

In addition to looking at new instructional approaches, we continue to move toward utilizing newer pharmacy technology within our laboratory and classroom instruction. We continue to build more activities with the health technology that we currently have, such as the high-definition simulation mannequins, the dispensing robot and the sterile products compounding area.

We are working toward developing innovative experiences in the pharmacy practice lab utilizing some of these technologies, specifically the simulation mannequin. As technology advances are made in real-world pharmacy practice, we will continue to add those technologies to our practice lab as we are able, so that our students will have a better understanding of these advances before their practice experiences.

The approach to providing a strong pharmacy practice education relies on the faculty to continuously evaluate and refine the approaches they utilize for student instruction. In doing so, it sets the students up for the most optimal learning experience when they get to the experiential component of their education.

We are dedicated to providing our students with the best possible academic experience to set the stage for a successful pharmacy career.

James Clem, Pharm.D.
Department head and professor
Department of Pharmacy Practice
Innovative teaching approaches in pharmaceutical sciences

I'm excited to share the innovative teaching approaches used by our pharmaceutical sciences faculty. These faculty teach pathophysiology, biochemistry, medicinal chemistry, pharmacology and toxicology, biomedical sciences, pharmacokinetics and pharmaceutics. These teaching pedagogies and instructional technologies integrate the basic pharmaceutical/biomedical concepts with pharmacy practice skills.

High-fidelity simulations

Pharmacology is one of the core science courses. Given the complex nature of this course, innovative teaching approaches can facilitate students’ application of pharmacology principles to solve clinical problems. Teresa Seefeldt successfully utilized SimMan 3G, a high-fidelity patient simulator, in an interprofessional education simulation in pharmacology. This simulation allows pharmacy and nursing students to observe the impact medications have on the patient and how the two professions can work together to solve medication problems. Seefeldt also uses SimMan in toxicology to simulate the symptoms and management of opioid overdose. This new teaching pedagogy has been well-received by students and her teaching method has received national recognition. She has presented at the annual meeting of the American Colleges of Pharmacy and the international meeting for Society for Simulation in Healthcare. Seefeldt was the 2014 recipient of the Edward Patrick Hogan Award for Excellence in Teaching for her innovative teaching approaches.

Active-learning Methods

Pharmaceutics course/lab draws concepts from various pharmacy disciplines to formulate or compound safe and stable medications. Recently, Hemachand Tummala led the redesign of the pharmaceutics lab from a “product-based, cookbook model” to a complete “active-learning” approach that requires students to use a variety of skills. In addition, Tummala is leading the compounding and sterile product initiative to explore the educational and research needs in this area. He organized a compounding and sterile product safety workshop for the first-year professional pharmacy students involving pharmacy practice faculty and practicing compounding pharmacists. Tummala was voted as the 2014 Teacher of the Year and received the College of Pharmacy’s Excellence in Teaching Award in 2015 for his innovative teaching approach.

Another active-learning strategy, problem-based learning, used patient cases as the foundation for the teaching approach. In this strategy, students are challenged to reflect on what information they have previously learned that they can apply to the case and what information they do not already know and need to look up. This teaching strategy was successfully piloted in toxicology by Seefeldt during the spring semester, and the goal is to expand the use.

Interdepartmental Teaching Initiative

This academic year, the college piloted an interdepartmental teaching initiative to enhance student learning and promote collaborative teaching among the departments. Teams consisted of three to four faculty from the departments (pharmaceutical sciences and pharmacy practice) who developed teaching activities focused on integration of basic pharmaceutical/biomedical concepts and clinical application in pharmacy practice.

The interdepartmental activity involved a variety of teaching approaches such as case studies and classroom discussion, with the effectiveness assessed through short quizzes, surveys and qualitative feedback from the students. It was well received by students. Several of these projects have been accepted for presentation at the annual meeting of American Colleges of Pharmacy.

New Pharmacogenomics Elective

Pharmacogenomics is a rapidly evolving discipline that has a significant impact on drug therapy and drug response. This is multidisciplinary topic integrating several disciplines (genetics, molecular biology, pharmacokinetics, drug metabolism and pharmacology) to deliver optimal pharmacotherapy to patients. Various aspects of pharmacogenomics are emphasized throughout the curriculum including in biomedical sciences, pharmacokinetics and pharmacology courses. This spring, Wenfeng An developed a new pharmacogenomics elective that was offered to the third-year professional students. This course included lectures from practicing pharmacists and scientists on the applications of pharmacogenomics in various therapeutic areas. We continue to strengthen this area and prepare our students for future advances in this area of pharmacy practice.

In summary, in addition to actively doing bench research, the department faculty are active in the scholarship of learning and teaching as evidenced by innovative approaches, grants, presentations and awards.

Om Perumal, Ph.D.
Professor and Head
Department of Pharmaceutical Sciences
Thank you

Jan. 1, 2015, to May 19, 2016

32 South Dakota State University
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>Aug. 22</td>
<td>P1 Orientation – SDSU Student Union</td>
<td>Brookings</td>
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<td>Aug. 25</td>
<td>Kappa Psi Picnic – Kappa Psi House</td>
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<td>Aug. 30</td>
<td>Student Organization Fair and ASP Welcome Back Picnic</td>
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<td>Sept. 1</td>
<td>Student Organization Meetings – Brookings</td>
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<td>Sept. 16-17</td>
<td>South Dakota Pharmacists Association Annual Convention – Brookings</td>
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<td>Sept. 17</td>
<td>College of Pharmacy and Allied Health Professions</td>
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<td>Oct. 11-13</td>
<td>Pharmacy Days 2016 – SDSU Student Union</td>
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<td>MLS White Coat Ceremony – SDSU Student Union</td>
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<td>Research Day/Keo Glidgen Smith Fall Convocation – SDSU Student Union</td>
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<td>Oct. 28-30</td>
<td>APhA-ASP Region V Midyear Regional Meeting – Sioux Falls</td>
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<td>Nov. 3</td>
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<td>Nov. 4-6</td>
<td>Kappa Psi Conclave – Iowa City, Iowa</td>
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<tr>
<td>Dec. 4-8</td>
<td>American Society of Health-System Pharmacists Midyear</td>
<td>Las Vegas</td>
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<td>Jan. 24-25</td>
<td>Legislative Days – Pierre</td>
<td>Brookings</td>
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<td>March 24-27</td>
<td>American Pharmacists Association/Academy of Student Pharmacists Annual Meeting – San Francisco</td>
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<td>Kappa Psi Conclave – Brookings</td>
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<td>Apr. 7-8</td>
<td>South Dakota Society of Health-System Pharmacists Annual Meeting – Sioux Falls</td>
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<td>May 5</td>
<td>Pharm.D. Hooding Ceremony – SDSU Performing Arts Center</td>
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<tr>
<td>May 6</td>
<td>Graduation</td>
<td>Brookings</td>
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Cheri Kraemer ’85, owner of Pharmacy Specialties of Sioux Falls, has been named to the board of directors of International Academy of Compounding Pharmacists.

A practicing pharmacist for 30 years and business owner for 18 years, Kraemer established her compounding-only practice in 2001. She achieved Pharmacy Compounding Accreditation Board accreditation in 2011. She has held numerous local and state association positions, including president of the South Dakota Pharmacists Association in 2000.

Kraemer received the SDSU Outstanding Alumni Award in 2010 and in 2014 the Pharmaceutical Compounding Centers of America Timmons Award for Advocacy.

Cole Davidson ’96 was chosen this spring to join the executive staff as a pharmacy supervisor for the northeast region for Hy-Vee.

He had been pharmacy manager at the Watertown Hy-Vee since March 1999 and began his career at that location in January 1998. His move comes as Hy-Vee is expanding its pharmacy supervisory team.

A scholarship is one of the most meaningful ways to help a student. It not only provides important financial support; it shows them that someone wants to help them succeed.

That impact can be sustained forever. Consider an endowment that ensures support in perpetuity. Beyond that, consider a planned gift that increases its impact and safeguards against future inflation. Best of all, planning a gift through your estate can be done without diminishing what is intended for your heirs.

Let’s Talk!

If you would like to learn how a planned estate gift can benefit scholarships at South Dakota State University, please call:

Mike Birgen, Development Director
Marc Littlecott, Director of Gift Planning
Toll-Free: (888) 747-SDSU
www.SDStateFoundation.org
Thank you
Jan 1, 2015-May 17, 2016

Dean’s club membership consists of alumni and friends who have contributed $500 or more annually to the College of Pharmacy and Allied Health Professions. Dean’s Club members are recognized as devoted friends of the college who make significant impact on the college’s future. Member names will be listed in the SDSU Honor Roll and the college newsletters. They also will receive invitations to special college and university functions and updates from the college dean.

3M - Matching Gifts
Steven M. and Robbie D. Aamot
Abbott Laboratories Fund
Aberdeen District Pharmaceutical Assn.
Advanced Instruments Inc.
Carrie R. Allex
Wenfeng An and Ping Ye
Anderson Pharmacy Inc.
Anderson Pharmacy Inc.—dba Alcester Drug
Susan K. Andrews
James A. Armbuster
Avera Health
Becky and Bob Baer
Glady’s Bahnsen
John C. and Patricia Bartholomew
Ruth A. Bassett
Thomas L. and Robin Beranek
Scott J. and Jessie L. Bergman
Bill P. Bernhard II
Darrel C. and Peggy Bjornson
Black Hills District Pharmacist Association
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Boeing
Bill G. and Marilyn M. BradfieIdt
James D. Bregel
Heather C. Brost
Perry W. and Jolene A. Brown
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Sustainable Investment

In this issue, you were introduced to Jenna Heyen, who was the beneficiary of an idea by Dr. Laurilyn Helmers, our featured alumnae who died Feb. 6, 2016. I had the pleasure of getting to know Lauri—as she liked to be referred to by her friends during her 35-year class reunion in 2014. That same year, Lauri began the “Helping Hands Scholarship” to provide financial support to P3 and P4 pharmacy students who would represent the next generation of industry members and leaders. Even though it began as an annual gift, her goal was to provide sustainable scholarship support for future pharmacists. Lauri made this possible by naming the College of Pharmacy and Allied Health Professions as a beneficiary to a life insurance policy. Through this simple action, Lauri supports the “Helping Hands Scholarship” and future pharmacists long after her life here on this earth.

Sustainable investment in the college is easily defined as an endowment—the gift that truly keeps on giving. Endowments are our lifeline for sustainability. They strengthen our scholarship programs and allow the College of Pharmacy and Allied Health Professions to better recruit and retain students—knowing that funding is in place. An endowment also permanently preserves a donor’s legacy. Although Lauri is no longer with us, she will live on in the “Dr. Laurilyn Helmers Helping Hands Scholarship,” and we couldn’t be more honored by her presence here.

We value and appreciate each and every one of you who contribute your time, talent and treasure to cultivate the next generation. Thank you for enabling us to do what we do.

Kindly,

Mike Birgen

Sustainable Investment

Have you moved, accepted a new position, gotten married, given talks in your community, received an advanced degree, had an addition to your family? Everyone at the College of Pharmacy and Allied Health Professions and your classmates want to know what has been happening with you.

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