



Grateful for multiple careers that started with MSHS

Dear fellow alumni and students:

When I began my career at Mayo Clinic in Rochester as a medical secretary for the Department of Neurology in 1990, I couldn't envision the multiple careers and opportunities to come.

But it didn't take long before I began considering change. As we passed through the Radiology Department on my new employee walking tour, I was intrigued. I knew right then and there, I wanted to work in Radiology someday.

Three years later, I was accepted in the Mayo School of Health Sciences (MSHS) Radiography Program. Upon graduation in 1995, I was fortunate to be hired by Mayo Clinic as a radiologic technologist. I thought I'd stay, but was wrong.

"Four careers and many opportunities later, I am very grateful for the education I received from MSHS and the seemingly endless possibilities it provided."

- VICKI PLACE

In 1998, I transferred to Mayo Clinic in Arizona to work as a radiologic technologist in the new hospital. One year later, I joined the MRI team.

Nine years passed, and it again seemed like the right time to make a move — to MRI supervisor. Now, I also have the privilege of serving as the MSHS Alumni Association president.

We are all constantly evolving in many ways, sometimes without even realizing it. The challenges we experience with our jobs, technology, future health care uncertainties and family responsibilities create stress. How we cope with that stress can make or break us.

I hope you can relate, as I did, to the advice of Amit Sood, MD, General Internal Medicine, a Mayo Clinic stress management and resiliency expert. He spoke at the April MSHS Alumni Association annual meeting.

Dr. Sood encouraged us to begin every day by taking a few moments to practice gratitude for our blessings rather than focusing on the challenges we will face or how we might fall short of others' expectations. As stressors stack up during the day, reflect back on those blessings and



the sense of peace they provided at the start of the day.

Four careers and many opportunities later, I am very grateful for the education I received from MSHS and the seemingly endless possibilities it provided.

Sincerely,

Vicki Place President

MSHS Alumni Association



Mayo School of Health Sciences

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MSHS alumna recognized for Outstanding Contribution

The Mayo School of Health Sciences (MSHS) Recognition of Outstanding Contribution honors alumni whose contributions are exceptional in one or more of the following areas: clinical care, research, mentoring and education, or humanitarian endeavors. The 2014 recipient is Sonya Irons, PT, DPT, CCS, Master of Physical Therapy, '03. Irons is a research and inpatient physical therapist at Madonna Rehabilitation Hospital in Lincoln, Nebraska.



Sonya Irons discovered physical therapy by accident — an ankle injury, to be specific.

"My first exposure to the field came after an injury in high school," says Irons. "I was already interested in the sciences. As I learned about physical therapy (PT), I was really drawn to the focus on health promotion and wellness."

As she was preparing to graduate from South Dakota State University in Brookings, Irons began researching graduate schools. MSHS topped her list.

"I was initially drawn to Mayo because of its proximity to where I was studying," she says. "Once I really looked at Mayo, I was sold. Back then the program had 46 weeks of clinical rotations, which is a big number even now in some doctorate programs. I also liked Mayo's small class size and that students were exposed to patient care in the first year. I'm a big believer in trusting what you feel, and I had a good feeling about Mayo."

The feeling was mutual. Irons was accepted to the program and graduated in 2003.

Patient care, education, research

When she began her job hunt, Irons was looking for an opportunity that would allow her to combine patient care, education and research.

"At Mayo, cutting-edge research and high-caliber education enhance and accompany patient care," says Irons. "I wanted to pursue a career with opportunities in all three areas. I also knew I wanted to work in a team environment."

When she interviewed at Madonna Rehabilitation Hospital, she was reminded of Mayo Clinic. "They share the similar core values and a religious history. And I could tell it was a team environment."

Irons was hired to provide general PT services to hospitalized patients and develop a new cardiopulmonary PT program as a contract therapist at Nebraska Heart Hospital.

"When I took the job, I didn't fully understand the importance of cardiovascular and pulmonary physical therapy," says Irons. That didn't last long. Today, she's one of just 187 physical therapists board-certified in cardiovascular and pulmonary PT by the American Board of Physical Therapy Specialties.

"I enjoy the medical complexity of the field," she says. "I'm always challenged, and I enjoy learning about new surgeries and new diagnoses."

Three years ago, Irons took on a new challenge when she became a research physical therapist in the Movement and Neurosciences Center at Madonna. Some of her early work involved exploring the impact of Intelligently Controlled Assistive Rehabilitation Elliptical (ICARE), a modified elliptical trainer, on improving function and fitness of adults with neurologic disorders.

Irons is collaborating on a grant funded through the National Institute on Disability and Rehabilitation Research. "We're developing a pediatric version, called Pedi-ICARE, to improve walking and fitness in children with physical disabilities and chronic conditions," says Irons.

Early results are promising. "It's wonderful to see the improvements patients are making," she says. "That's what I love about our research; it's driven by real patient problems and finding

solutions to those problems."

Giving back

In 2006, Irons signed up to help solve another problem: providing muchneeded PT services to underserved populations in the Dominican Republic. She was a therapist and supervising instructor to students participating in a program organized by Creighton University's Institute for Latin American Concern.

"I signed up thinking it would be a two-week adventure and a way to give back," says Irons. But, the experience proved to be much more.

"The trip pushed me outside of my comfort zone and made me a better clinician," she says. "It renewed my passion for the profession and opened doors for me professionally."

Those doors were opened by the program director, who also taught cardiopulmonary PT at Creighton. She invited Irons to be a guest lecturer in her class, and the role blossomed. She's now an assistant clinical professor of PT at Creighton, an adjunct faculty member at the University of South Dakota and teaches board preparation courses for Scorebuilders. Irons credits her Creighton experience with helping launch her teaching career.

"My teaching opportunities have grown out of my great relationship with Creighton," she says. The experience reinforced her belief in always saying yes to new opportunities. Irons recently said yes again, becoming an expert consultant on a National Institutes of Health grant.

"Finding new challenges keeps my career interesting," she says. "It helps

AT A GLANCE Sonya Irons, PT, DPT, CCS

- Research and inpatient physical therapist, Madonna Rehabilitation Hospital
- Student therapy program leader, Madonna Rehabilitation Hospital
- Adjunct faculty, University of South Dakota
- Assistant clinical professor of physical therapy, Creighton University
- Board of Directors, Nebraska Foundation for Physical Therapy
- Distinguished Young Alumna Award, South Dakota State University
- Emerging Leader Award, American Physical Therapy Association
- Angel Wings Award, Madonna Rehabilitation Hospital
- · Harry E. Settles Contributor of the Year Award, University of South Dakota

keep me passionate about what I'm doing. And, staying passionate helps ensure that I'm providing the best possible patient care."

Irons says she's honored — and humbled — to receive the alumni award for her contributions.

"I don't feel I'm doing more than other physical therapists," she says. "There are so many professionals out there excelling in education, research and patient care. I'm just lucky to receive recognition for it."

That's what I love about our research; it's driven by real patient problems and finding solutions to those problems." - SONYA IRONS

Alumni get together

Snapshots from the Annual Meeting

The annual Mayo School of Health Sciences Alumni Association meeting on April 25, 2014, drew a record crowd, more than 230 guests.

- **1.** Alumni Association President Todd Meyer passed the gavel to Vicki Place, new president.
- **2.** Keynote speaker Amit Sood, MD, Mayo Clinic specialist in stress management, offered tips to build resiliency.
- **3.** Graduates of the 2014 Radiography Program are, left to right: Amy Wilson, Lindsey Poppens, Tiffany Krause and Brianna Homan
- **4.** Kevin Seisler and his wife, Bernie, are Radiography Program alumni.
- **5.** Graduates of the Attention and Interpretation Professional Development Course are Virginia Klevorn, Debbie Fuehrer, Bobby Jean Tweed, Helen Raasch and Ernest Raasch.
- **6.** Hamming it for the camera are: Kim Edens, Tony Mick, Carter Lekatz, Heather Lekatz, Shawn Fokken, Wendy Sundt and Dan Sundt.
- **7.** Standing, Christine Abel, graduate of the Clinical Research Coordinator Program, with her fiancé, Darrel Oviatt, student, Clinical Research Coordinator Program. Seated is Dan Sundt.
- **8.** Ashley Lisson and Marissa Morris graduated from the Radiography Program in 2014.
- **9.** Guests ranged from current students to retirees.





















SAVE THE DATE!

MSHS Alumni Association **Annual Meeting** April 24, 2015



Prowse through the poster presentations at the Midwest Society of Diagnostic Ultrasound annual meeting, and you'll gain insight on the latest advances in the field. Look closer, however, and you'll find that not all of the researchers behind these expert presentations are professionals — yet. Each year, Mayo School of Health Sciences (MSHS) Echocardiography students participate in the poster gallery.

"Our posters involve reviews of the most recent literature available," says Joshua Finstuen, Echocardiography Program director.

Joshua Finstuen



"There's plenty for them to research: new guidelines, new protocols, new twists on existing topics. It's a great way for students to understand more about the profession and see how fast things are changing."

This is just one example of the wide range of student research conducted throughout the school each year. Delving into robust research projects gives MSHS students a rich opportunity to explore their fields in more depth, better understand the research process and learn about becoming discerning professionals as they launch into their careers.

A path to lifelong learning

MSHS is consistently well represented with scholarly publications and presentations from students in doctorate-level programs. But,

research is also a key component of learning for those in associate, certificate and bachelor's programs.

Michael Silber, MB, ChB, MSHS dean, sees research as valuable for all students, no matter what area of health science they pursue.

"Health sciences and medicine are progressing at such an amazing rate that whatever facts we teach the students now are going to be different in 10 years' time or perhaps even less," he says. "We have to train our students so they can competently read medical and health science literature and understand the validity of new approaches to their subjects. They need to be able to judge

whether new advances are valid for the work they do."

One of the most effective ways to gain that understanding is for students to have practical experience doing research projects on their own. They see what goes into new investigations and new discoveries. Then, they become better able to assess how advances are made in a field and what they mean.

A wealth of support

To properly learn the lessons of research, student projects must be conducted using thorough, reliable methods. MSHS students have a significant advantage in that arena because of their access to resources available through Mayo Clinic.

Jamila Russeau, coordinator of Florida's Pharmacy Residency, clearly sees the value of those resources. MSHS pharmacy residents at Mayo Clinic in Florida complete a comprehensive research project that spans the academic year.

"We have a research committee, statisticians, clinical informatics, physicians, nurses and other professionals all available to help our residents," says Russeau. "They do the work. But, there's a structure in place to help ensure what they do is meaningful, comprehensive, welldeveloped research that contributes to the existing literature in a substantive way."

An impact beyond the classroom

The findings from student research often have an impact on clinical practice inside and outside of Mayo Clinic. Histology students have



Jamila Russeau



Amy Seegmiller Renner

discovered a better way to decalcify a bone specimen. Employees have gleaned tips on the newest echocardiography techniques from students' exhaustive literature reviews. Pharmacy residents have teamed up with physicians to evaluate safe, effective ways to get patients ready for surgery.

For Amy Seegmiller Renner, an education specialist in Rochester's Division of Anatomic Pathology, that real-world application is key to truly valuable student research. The student research project ideas often come from lab employees. The topics focus on areas where more information is needed to improve lab processes.

"We want the lab to be able to make a practice change based on the students' findings," Renner says. "But, the project truly helps students, too. They become integrated into the role of a tech and the work within a lab setting. Then, it goes beyond that. Students see how to identify areas in need of improvement and learn how to take the steps that make the improvement possible."

From Russeau's point of view, the benefits of student research are multilayered. "This is a safe place for students to learn the right way to do research. When they are out in their professional roles, they aren't going to have someone to walk them through the steps. They get to do that here,"

Russeau says the research also helps Mayo Clinic. "Students focus on projects the Pharmacy Department needs to have done. It's not just a grade on a paper. This work has real benefits for everyone involved." >>>

Research includes faculty, undergraduates

MSHS research involves many more people than just those enrolled in the school's programs. Mayo Clinic employees often lend expertise, perspective and time to assist student research. MSHS faculty members actively engage in research projects, too - their students' and their own.

"We strongly encourage faculty in our school to participate in research," says Michael Silber, MB, ChB, MSHS dean. "In some programs, like Physical Therapy, Nurse Anesthesia and Pharmacy, there is very much an association between faculty research and student research. Being involved in high-level research along with faculty can broaden students' experience and provide them with a better perspective on the longterm evolution of their field."

The school also reaches beyond its own student body to other undergraduates interested in developing research skills. For example, the Clinical Research Internship Study Program (CRISP) is a 10-week clinical research experience at Mayo Clinic in Florida. Students considering a career in health care or clinical research come from across the country to participate in CRISP.

CRISP has value for employees and students. It provides clinicians with assistance for their studies. while giving the undergraduates the opportunity to focus on clinical research, along with a mentor to help them through the process.

Daniel Harrington Medical Physics Residency, Arizona

Targeting radiation for photon therapy

When staff plan radiation therapy for a patient, the planning target volume (PTV) is the area they define to receive treatment. Within the PTV is the clinical target volume (CTV). That's the area that covers the tumor to be treated and any possible microscopic expansion of the tumor that might not be visible.

Daniel Harrington's research examined whether the PTV area was large enough to account for any shift in the patient during treatment. His investigation included 10 radiation therapy cases in the head and neck region.

What he found

The research showed that PTV does properly cover the area that needs treatment, even if a shift occurs.

Why it matters

PTV dictates the area of the body that will receive radiation treatment. PTV is at the core of effective therapy for these patients.

"This is not a controversial topic. PTV and CTV are fundamental in radiation treatment planning," says Harrington. "We all assume the concept researched here to be accurate. But, there is not much evidence for that assumption. The findings confirmed that it is true. That's important for the way radiation therapy is conducted."

Alissa Bahn, Jeffrey Lien, Jacquelyn Michalak, Erica Schumaker Histology Technician Program, Rochester

Determining optimal time with rapid decalcification solution

Employees in the Frozen Section Laboratory at Mayo Clinic in Rochester wanted to know the optimum amount of time to leave a bone specimen in rapid decalcification solution before it was cut. The four students worked together to analyze varying lengths of time and determine what worked best.

What they found

For ideal preparation, the specimen must be removed from the solution after five to six hours.

"We were surprised by the results," says Alissa Bahn. "We thought that, after a long time in the decalcification solution, it would be easier to cut the specimens. But, we never got a sample that was easy

to cut. Originally, our purpose was to find out where rapid decalcification was perfect — the point that we would never need to use surface decalcification at the microtome. In reality, we found that doesn't really exist."

Why it matters

Before this research, lab employees routinely left specimens in the solution overnight to decalcify. The students' research found that time can be reduced considerably, with better results.

Jerah Nordeen Pharmacy Residency, Florida

Studying effective dosing for clopidogrel before surgery

Patients receive clopidogrel before surgery to lower the risk of blood clots. Considerable research had been done to find the best way to administer clopidogrel before a cardiovascular procedure. But, little evidence on the topic was available for neuroendovascular surgery. The goal was to learn more about dosing for patients undergoing those procedures, particularly patients who did not respond to the first dose they received.

What she found

In a review of 81 patients, Jerah Nordeen found that 21 percent were resistant to the effects of clopidogrel after the first dose. The study showed an increased trend toward death when a complication occurred after surgery in the resistant group compared to the nonresistant group.

Why it matters

Based on these study findings, Mayo Clinic care providers changed the way they administered clopidogrel before neuroendovascular procedures. Future trials based on the findings will investigate the long-term risks and benefits associated with customized dosing in patients before neuroendovascular surgery.

"This study was completed when there was very little literature about this topic," says Nordeen. "After seeing our results, we determined that our processes benefitted our patients and

Presentation

American Association of Physicists in Medicine 56th Annual Meeting and Exhibition, July 2014 53rd Annual Conference of the Particle Therapy Co-operative Group, June 2014



Daniel Harrington prepares a measurement for verification.

"Working on this allowed us to see how much goes into a research project," says Erica Schumaker. "Even though the results were not what we expected, we still learned valuable information. This research made a difference. Based on what we found, the lab will be able to improve their processes."

Presentation

2015 MSHS poster event



Histology Program student researchers Erica Schumaker, Alissa Bahn, Jeffrey Lien, Jacquelyn Michalak.

were something other facilities could use, too. Since the study was published, I've had people from quite a few outside organizations contact me with questions about the research and our current practice."

Presentation and publication

Presentation, Neurocritical Care Society Ninth Annual Meeting, September 2011 Journal of Vascular and Interventional Neurology, June 2013 🖸



Jerah Nordeen is now a pharmacist on Mayo Clinic's Florida campus.



Beth Cloud is completing her thesis under the mentorship of Kai-Nan An, PhD, who directs the Orthopedic Biomechanics Laboratory and its studies on joint and soft tissue mechanics.

esearch training at Mayo School of Health Sciences (MSHS) propelled Beth Cloud, DPT, toward a career in research.

After completing the Physical Therapy Doctoral Program at MSHS in Minnesota in 2010, Cloud was accepted into Mayo Graduate School's Clinical and Translational Science (CTS) PhD Program.

"The PT program prepared me really well," Cloud says. "The faculty did a great job of incorporating aspects of research into the curriculum."

Cloud, who grew up in suburban Chicago, got hooked on physical therapy when shadowing medical professionals at a pediatric clinic, where therapy turned into playtime for kids with motor function delays. She graduated with degrees in biology and psychology from Augustana College in Rock Island, Illinois, before enrolling in MSHS.

Introduction to research

As part of the course work, Physical Therapy students scoured research articles and occasionally presented articles in class. In her second year, Cloud tested ankle movement in a group research project that provided experience in how to prepare a research proposal, analyze data and submit a manuscript.

In her third year, Cloud's twomonth rotation in a research lab was devoted to neuroscience and the molecular mechanisms involved in the immune system's role in spinal cord injury and multiple sclerosis. In search of potential treatments, she studied the effect of various agents on immune cells in mice.

"I had never worked at that level of biology before and seen cells respond to what you're testing," Cloud says. "I learned about the execution of well-structured research."

Studies in physical therapy

Cloud entered the CTS program to learn how to design and execute interdisciplinary studies and translate the resulting discoveries into better health treatments. "Clinical training keeps me grounded," she says. "It helps me really focus on keeping my research as practical as possible and using the needs of patients to guide what I choose for research projects."

For her thesis project, Cloud is working with a group interested in ways to prevent shoulder pain in manual wheelchair users. Based on the hypothesis that a more upright seated posture will improve the quality of shoulder movement, she plans to measure and compare spine and shoulder movement in different seat positions.

Now in year four of the fiveyear PhD program, Cloud wants to maintain a clinical practice as she finishes her degree and dreams of a faculty position and conducting research related to physical therapy.

"I'd love to teach students and help them prepare for a career," Cloud says. "I also see myself staying within the realm of physical therapy in research."

Cloud says she appreciates the continued support of the MSHS Physical Therapy faculty, who guided her to the PhD program, helped her land a part-time job in inpatient rehabilitation at Mayo Clinic Hospital Rochester, Saint Marys Campus. She joined the MSHS Alumni Association Board of Directors in 2013 as a way to give back to MSHS. C



elly Nelson, MS, MT, an instructor in the Medical Laboratory Science (MLS) Program, was awarded one of the 2014 MSHS Outstanding Educator Awards. She has taught hematology courses for seven years.

As the daughter of a teacher, Nelson didn't think education was her path due to the long hours. In college, Nelson began to reconsider teaching, only to be told by a professor that her voice didn't project well enough to lecture.

"I've had a lot of people tell me I'd never do a lot of things," she says. And, then, Nelson's proved them all wrong.

Nelson was diagnosed with systemic lupus erythematosus at 15 and was told she'd have a hard time finishing high school due to complications. She earned a college degree, a master's degree and has influenced almost 150 MLS students.

Sue Lehman, MA, MT (ASCP) SM, Medical Laboratory Science Program director, says Nelson is one of the most beloved instructors in the

MLS program. "Kelly offers weekly tutorials outside of class for interested students, and she created a self-study course in hematology for fellows in Cytogenetics," she says. "She puts her heart and soul into teaching and is known for her patience and commitment to our students."

After graduating from MSHS, Nelson started her career as a generalist at a small lab in Iowa. "When I was diagnosed with lupus, I saw how important lab test results were in my own diagnosis and treatment. I was motivated to pursue a career in medical lab science. I loved working the bench."

Then, MSHS offered the opportunity to teach the subjects she loved. When Nelson started teaching in the MLS Program, she had never given a lecture. "I'm a very shy person. I've become more confident, and it gets easier every year," says Nelson.

She says she's grateful to Mayo and her mentors "for inspiring me to teach" those critical laboratory skills.

Kelly Nelson and her husband, Stan, at the faculty recognition event.

Rochester MSHS faculty award winners announced

Each year, MSHS honors faculty and staff members who have excelled in service to MSHS students and the school. Here the other 2014 honorees from the Rochester campus:

Outstanding Educator

- Donna Heinle, OTD, OTR/L, BCPR, clinical educator, Occupational Therapy
- · Corey Woxland, RT(R), clinical coordinator, Radiography Program

Outstanding Physician/ Scientist

- · Geoffrey Johnson, MD, PhD, Radiology; instructor on topics including oncology, endocrinology and neurology; medical director, Nuclear Medicine Technology Program
- · Robert Miller, MD, Radiation Oncology; instructor, "Cancers of the gastrointestinal system," Radiation Therapy Program

Outstanding Service

- · Nancy Gray, MSHS administrator
- Holly Renn, program manager, University of Minnesota, Bachelor of Science in Health Professions program manager



he 10 students in this fall's first class of the Emergency Medicine Paramedic Program are already in demand.

"We now have a shortage of paramedics in our area," says Program Coordinator Dan Anger. "People retire and move on to new positions. Through attrition, there is a constant need for new paramedics."

The new program benefits from the expertise and experience of leaders from Gold Cross Ambulance, part of Mayo Clinic Medical Transport. Anger has been a paramedic for 27 years. Program Director Matt Will has worked for Gold Cross in a variety of patient care and leadership roles for 24 years.

Gold Cross took the lead in developing the program and collaborated with Mayo School of Health Sciences (MSHS) and Rochester Community and Technical College (RCTC) to create a program

that supplements paramedic training with a minimum of two years of college education, which is preferred by most employers.

"Mayo Clinic should be the leader in training paramedics," Anger says, "and not only will Gold Cross benefit from hiring these new graduating students, wherever these medical professionals go from here, patients will benefit from this quality education and training."

Anger says two emerging trends ensure a growing market for program graduates:

- Community paramedicine: Paramedics may eventually provide nonemergency, in-home care — an economical alternative to transporting patients to and from a medical facility for routine care.
- **Emergency Department (ED)** paramedics: Some facilities are adding paramedics to the emergency department, taking advantage of their skills in

managing emergency situations and working in a team environment with nurses and physicians.

Clinical and field internships

The Paramedic Program offers students hands-on skill building through clinical and field internships.

Students will assist with treatment at Mayo Clinic hospitals, working in labor and delivery, intensive care, trauma and medical units.

Emergency Medicine Paramedic Program

Certificate track: 40 credits a minimum of 1,350 hours - of competency-based paramedic training at MSHS Associate degree track: 35 credits of general studies at RCTC Program length: 18 months Class size: 10 students

The field internship features rotations with:

- · Gold Cross Ambulance, which provides emergency medical care at the scene of medical emergencies and during transport to and between medical facilities.
- Mayo One, Mayo Clinic's emergency medical helicopter service that provides high-level critical care and rapid transportation within a 150-mile radius of bases in Rochester, Minnesota, Eau Claire, Wisconsin and Mankato, Minnesota

Graduating students are eligible to take the National Registry of **Emergency Medical Technicians-**Paramedic exam, which certifies them to establish advanced airways, perform cardiac monitoring, defibrillation and other electrical therapies for cardiac emergencies, start intravenous lines, and administer medications.

The incoming class

All 10 students in the first class have attended college, and eight have at least an associate degree. They range in age from 20 to 49. Most were drawn to the profession by personal experience.

"People who become paramedics want to help people. They usually have a history — some type of event that steers them into this," Anger says. "Either someone close was saved by a paramedic or there was an emergency, and no one was able to help."

Anger says real life medical emergencies requires confident, resilient people who can handle bad things happening to good people.

"By the time they're done with the program, they'll be past the excitement of sirens and urgency," Anger says. "Paramedics are medical professionals. They are trained to see and treat the worst. They excel in critical situations. They think beyond the chaos to strategically care for the patient."

Living proof of the need for paramedics

Dan Anger was torn. Should he stay with Mayo Clinic Medical Transport, where he had spent his entire career as a paramedic? Or, should he switch to a full-time role as educator with the Emergency Medicine Paramedic Program at MSHS?

Then the telephone rang. His best friend, Rick Schacht, a 53-year-old national racquetball champion from Rochester, had collapsed from cardiac arrest during a tournament match in suburban Minneapolis. Three shocks from a defibrillator and six minutes of cardiopulmonary resuscitation revived his friend before an ambulance rushed him to a hospital.

"I took that as a sign," Anger says. "Someone trained those paramedics to do what they did."

In December 2013, Anger resigned as flight paramedic manager, his position with Mayo One helicopters and Mayo MedAir fixed-wing aircraft since 2004, to become coordinator of the new program.

The son of an emergency department nurse, who also trained emergency medical technicians (EMTs) in the local community, Anger became an EMT in 1986 shortly after graduating from high school in Galena, Illinois. After completing paramedic training at Mercy Health Center in Dubuque, Iowa, he moved to Rochester in 1987 to be a paramedic with Gold Cross Ambulance and flight paramedic with Mayo One — both part of Mayo Clinic Medical Transport.

In addition to assisting in ongoing training for Gold Cross Ambulance and Mayo One paramedics and nurses, Anger is active in judging and writing scenarios for international aeromedical transport competitions.

For the first day of class in the new paramedic program, Anger plans to present a real-life scenario and introduce a friend who owes his life to well-trained paramedics.



Rick Schacht, left, and Dan Anger, coordinator for the Emergency Medicine Paramedic Program, have been friends for 13 years.



few years ago, Stacey Rizza, MD, helped develop online education programs that allow doctors and nurses throughout the U.S. and developing countries to stay up to date on best practices for the care of patients with HIV, tuberculosis and hepatitis C. The experience gave her a new appreciation for the power of education.

"I loved that I could impact not just one patient, but hundreds and thousands of doctors all over the world, who could then impact thousands of patients," says Dr. Rizza, an infectious disease specialist.

That experience helped shift the focus of Dr. Rizza's career from her first love, basic science, to education. She began to look for ways to contribute to Mayo's Education shield.

She taught graduate students within Mayo Graduate School's Virology and Gene Therapy Program, organized educational initiatives as the associate director of the Mayo Clinic Center for Tuberculosis and

worked with residents and fellows within the Department of Internal Medicine and Division of Infectious Diseases.

In addition, she was named co-director of the Mayo Clinic Global HIV Education Initiative and chair of the Mayo HIV Clinic, a role that sparked her interest in MSHS.

"In the HIV Clinic, we truly have a multidisciplinary approach," she says. "We see patients individually. Then we discuss each patient as a care team to make sure we're covering each patient's needs." The team includes the patient's nurses and a case manager, as well as social workers, pharmacists and clinical assistants.

"It would be impossible for a physician to do this alone," she says. "MSHS plays an important role in preparing the team our patients need." In 2014, Dr. Rizza was named MSHS associate dean for student and faculty affairs.

Dr. Rizza's new role will enable her to become even more deeply

involved with education efforts. She savs one of her first areas of focus will be working to ensure MSHS is a diverse and accepting place.

"We want a broad and diverse student body, and a school that is welcoming for all students and faculty," she says. "We're assessing where we are now in terms of diversity in all areas. Then, we'll develop new programs to make improvements where we need to."

Dr. Rizza says a focus on diversity is important not only for those who study and work at Mayo Clinic, but also for patients, too.

"Having a diverse student body will hopefully translate into more diverse employees," says Dr. Rizza. "Our patients come to us from all over, with a variety of backgrounds and experiences. We want a workforce that reflects our patients."

Dr. Rizza also plans to focus on improving learning for students and faculty. "Instead of just offering lecture-based courses, MSHS is beginning to offer courses that blend an online component with face-toface time."

In the future, education may be provided in even more ways, such as through online modules, webinars or YouTube videos. "We'll be working to figure out how to create programs that best serve our students and faculty," says Dr. Rizza. C

"I loved that I could impact not just one patient, but hundreds and thousands of doctors all over the world, who could then impact thousands of patients."

- STACEY RIZZA, MD



ltru Health System in Grand AForks, North Dakota, was the first member of Mayo Clinic Care Network and Brad Wehe, chief operating officer and graduate of the Mayo School of Health Sciences (MSHS) Physical Therapy Program, couldn't be prouder of this more formal relationship with Mayo Clinic.

Altru provides care in 24 locations in eastern North Dakota and northern Minnesota. The practice includes 45 physician specialists. About 492,000 outpatients and 13,000 inpatients were treated last year.

"Altru Health System and our region have had a long-standing relationship with Mayo," says Wehe. "When patients have needed a higher level of care, we've recommended Mayo."

Now, some of those patients can easily benefit from Mayo Clinic expertise without the 400-mile drive.

Started in 2011, the Mayo Clinic Care Network is a collaboration between Mayo Clinic and independent, like-minded health care organizations that are interested in working together to improve the delivery of health care. Members of the Mayo Clinic Care Network

use technology to access Mayo knowledge and connect with Mayo specialists. Now, some patients who may otherwise have traveled to Mayo Clinic can benefit from its expertise at no extra cost to them, while receiving care from trusted local physicians.

Tools that help network members include:

- AskMayoExpert. This online resource offers the latest Mayovetted information at the point of care. Care providers can access Mayo's significant breadth and depth of clinical expertise on disease management, care guidelines, treatment recommendations and reference materials for a wide variety of conditions.
- eConsults. Member physicians ask Mayo Clinic specialists a focused question about a patient's diagnosis, therapy or care management plan through a secure online portal. The Mayo specialist reviews the patient's medical record, imaging studies and laboratory tests and responds to the question within two to three business days. Care and treatment remain local.

"Anytime you figure out a way to share information and come together for the benefit of the patient, that's very powerful. That's what we see in the care network."

- BRAD WEHE

- Health care consulting. Member organizations have access to Mayo staff and expertise related to quality, safety, scheduling, patient flow, patient satisfaction and professionalism.
- eTumor Boards. Through advanced videoconferencing technology, physicians from across the network can present and discuss the care and management of complex cancer cases with a Mayo Clinic multidisciplinary panel.

Wehe, who still treats physical therapy patients once a week, says the information and benefits of the care network influence many aspects of a patient's care plan. "For example, a neurologist treating a patient with a movement disorder will tap into an eConsult," says Wehe. "Those results will affect the physical therapy treatment plan that we put in place."

Twenty-eight other health care organizations have followed Altru's lead in joining the network.

"Anytime you figure out a way to share information and come together for the benefit of the patient, that's very powerful," says Wehe. "That's what we see in the care network."

Learn more at mayoclinic.org/ about-mayo-clinic/care-network.

Meet members of the MSHS Alumni **Association Board of Directors**

Alumni from a mix of programs and at all career stages make up the MSHS Alumni Association Board of Directors. Board members serve for three years and provide direction for the alumni association.

Danicia Asberry

RDMS (RVT), ARRT RT(R) **Executive Committee Board Member**

Current position: Sonographer, Mayo Clinic in Florida

Certification: Sonography Program, Radiography Program, MSHS

Academic degree: Associate degree, radiologic technology,

Florida State College at Jacksonville Resides in: Jacksonville, Florida

Danicia Asberry answers questions about her career, Mayo Clinic and health care.



Q How did you decide on your career?

A My interest was sparked while watching my sister's obstetric ultrasound. I did some research and learned about the various types of radiology.

What advice would you give to students considering health care careers?

A It's rewarding because you get to touch so many lives. I would encourage students to explore the many fields in medicine and to take advantage of programs such as boot camp and job shadowing to get a better grasp on different jobs.

What valuable lesson did you learn at Mayo Clinic?

A My clinical instructors taught me the standard of care I practice. Each instructor instilled professionalism, the priority of patient care and the importance of education.

• What occupies your time outside of work?

A I love basketball. I am an Oklahoma City Thunder (NBA) fan. I enjoy watching them. I'm close to my family and enjoy spending time with my nieces and nephews.

• What would you like to change in health care?

As a medical professional, I want to help heal everyone. Unfortunately, not everyone makes a full recovery. As much as I would like to change that, I take comfort in knowing that I helped each patient in his or her journey no matter what the outcome.

GET INVOLVED

Applications for board membership are always welcome. Submit a letter indicating interest by March 1, 2015. For information

Visit: www.mayo.edu/alumni Email: mshsaa@mayo.edu

Stephen Klinkhammer

CRNA, DNP Board Member

Current positions: Simulation instructor, lecturer, School of Nurse Anesthesia, Rosalind Franklin University, North Chicago; certified registered nurse anesthetist (CRNA), Aurora Sinai Medical Center, Milwaukee; CRNA contractor, Wisconsin and Illinois Academic degrees: Doctor of Nursing Practice, Anesthesia Nursing, Rush University, Chicago; Master of Nurse Anesthesia, MSHS; MBA and bachelor degree, Cardinal Stritch University, Milwaukee Military: Major, retired, U.S. Army Reserve, Nurse Corps; Hospital Corpsman, Second Class, U.S. Navy, 1972–1978 Resides in: Racine, Wisconsin

Connections asked Stephen Klinkhammer to answer questions about MSHS, education and the MSHS Alumni Association.



Q Why did you attend MSHS?

A I wanted to be a nurse anesthetist when I was an operating room technician in the Navy in the early 1970s and saw CRNAs in action. It took me many years of work to make it happen. When I interviewed at Mayo, it felt like home.

Q What advice would you give to students considering health care careers?

A In my 40 years as a nurse, I have grown from every experience in patient care. I have worked in ICU and home care and hospice and floated to almost every area in nursing. It is an honor and privilege to help others in need. Giving back is how we grow. Human touch is our most powerful gift. That moment we connect to patients and establish the healing process is priceless. It allows us to know and understand the rhythm of life.

How did your MSHS experience change you?

A I made great friends at Mayo and still keep in touch with them after 20 years. I had an outstanding educational experience and learned how to learn.

What valuable lesson did you learn at Mayo Clinic?

A The patient comes first. We're all part of the health care team, and everyone's input is important.

Why are you involved in the MSHS Alumni Association?

A It is important to give back so that future students will have the same great learning opportunities that I had. Serving on the board also allows me to stay current with what's happening at Mayo and offers the chance to see former classmates who reside in the Rochester area.

Q What would you like to change in health care education?

As nurse anesthesia moves toward the doctorate degree for entry into practice, I would like to see more business of health care courses in the curriculum. Nursing needs to be at the table in health care change, which requires understanding policy and the business aspects of health care.

• What keeps you enthused about vour career?

A I have become involved in the education of nurse anesthetists. I am on the faculty of the program at Rosalind Franklin University. Teaching forces me to stay sharp. Helping in the creation of the next generation of nurse anesthetists is extremely rewarding.

I also have a passion for health care simulation. I recently completed the instructor course in simulation at Mayo and plan to bring what I have learned into my classroom. This will allow me to bring more realism into the classroom.

• What occupies your time outside of work?

A I am a professional musician and have a recording studio in my basement. I play keyboards and guitar and have had a band for more than 30 years. Two of my sons play with the group. We play classic rock. We used to be on the road for more than 30 weekends a year and now play about 15 gigs per year, most of them benefits. I also use my music to raise money and food for our local food bank.

IN THE NEWS

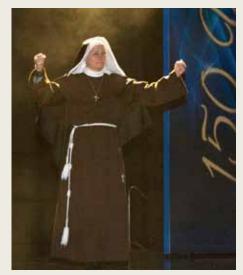


SCHOOL NEWS

Administrator stars as Mother Alfred Moes

ethany Krom, Mayo School of Health Sciences (MSHS) administrator, has a dramatic sideline. She plays the role of Mother Alfred Moes, founder of the Rochester Franciscans and the woman who talked her friend. William Worrall Mayo, MD, into partnering with the sisters to open Saint Marys Hospital.

Krom got her start playing the role for school groups, an offshoot project of her involvement in Toastmasters, a public speaking club. She's performed for functions for the Franciscan Sisters and, most recently, at Mayo Clinic's Sesquicentennial Signature Event on May 9 in Rochester.



Bethany Krom, MSHS administrator, plays Mother Alfred Moes at the Sesquicentennial Signature Event.

"It was a capstone for me, playing Mother Alfred in front of 5,000 people," says Krom, who has a habit on permanent loan from the Sisters of St. Francis. And, she got to be on stage with Tom Brokaw, renowned broadcast journalist and Mayo Clinic public trustee who hosted the evening.

The event opened with a dramatic aerial acrobatic re-enactment of the 1883 tornado in Rochester that killed 24 people and seriously injured 40 more. That tragic event showed the need for a local hospital. Initially, W.W. Mayo, MD, didn't think the project was feasible and only agreed to proceed due to Mother Alfred's persistence and persuasion.

At the event, Krom shared this quote from Mother Alfred: "With our faith, hope and energy, it will succeed."

In 1887, the sisters finally were able to purchase nine acres of land for the new facility at a cost of \$2,200. After assembling plans and suggestions from the Mayos, Mother Alfred initiated contracts for the new project in 1888. Saint Marys Hospital opened in 1889.

"Mother Alfred was an amazing woman," says Krom, who has delved into the history of Franciscan Sisters in Rochester. "Had the Sisters not provided a place for the hospital, Mayo Clinic's history might be very different. Mother Alfred was buying property when Sisters didn't do that, and opening a Catholic hospital with Protestant doctors when Catholics and Protestants simply did not partner with each other."

Check the Sesquicentennial website at http://150years.mayoclinic.org/ for details and information on other sesquicentennial events.

SCHOOL NEWS

New Positron Emission Tomography (PET) Program

The Positron Emission Tomography (PET) Program has been approved, and the first class started in August. As a specialty track of the Nuclear Medicine Technology Program, three students will be accepted each year.

"Advanced training in PET will be an asset to improving the quality of patient care through advanced practice of diagnostic imaging," says Kim Chandler, program director.

Learn more at www.mayo.edu/ mshs/careers/positron-emissiontomography.

SCHOOL NEWS

Dr. Zubair named new associate dean

bba Zubair, MD, PhD, has been named associate dean for Mayo School of Health Sciences in Florida.



Dr. Zubair is an associate professor of Laboratory Medicine and Pathology at Mayo Clinic in Florida and is the medical director of the Transfusion Medicine and Stem Cell Therapy service.

Dr. Zubair has been active in education, providing core didactic lectures for Mayo Clinic residents and fellows. He also has provided lectures and mentored allied health and medical students in the laboratory.

STUDENT NEWS

Kally Marquardt selected for student leadership program

ally Marquardt, a senior in the Mayo School of Health Sciences Radiography Program, was selected to participate in the 2014 American Society of Radiologic Technologists (ASRT) Student Leadership Development Program.

Now in its fourth year, the program enables students to learn about the ASRT and its governance process, attend educational sessions and network with medical imaging and radiation therapy leaders. Marquardt attended the ASRT Educational Symposium and Annual Governance and House of Delegates Meeting June 26-29 in Orlando, Florida.

Marquardt is president of the Radiography Class of 2015.

STUDENT NEWS

Michelle Brown a winner at **Academic Excellence Day**

ichelle Brown, RN, NP-C, Mayo School of Health Sciences (MSHS) Cardiology Nurse Practitioner fellow, won accolades at the 2014 Academic Excellence Day in the spring at Mayo Clinic in Arizona. She won first place for her oral presentation case report, "Radiation-Induced Carotid Stenosis."

The event included 28 oral presentations and 52 poster presentations. It was open to Mayo School of Graduate Medical Education residents and fellows, MSHS students, nurses, nurse practitioners, physician assistants and Mayo Graduate School students.



Michelle Brown

STUDENT NEWS

Nuclear Medicine students are Quiz Bowl champions

team of four Mayo School of Health Sciences Nuclear Medicine Technology students won the Central Chapter Society of Nuclear Medicine and Molecular Imaging Student Quiz Bowl.

It was a debut for a Mayo team. Students Sarah Rasmussen, Lisa Fernholz, Allison Woodwick and Katie Murphy beat the 2013 defending champions, Aurora St. Luke's Medical Center of Milwaukee, in the first round and three-time champions, Beaumont Health System of Royal Oak, Michigan, in the final round.



Kim Chandler, Nuclear Medicine Program director; Sarah Rasmussen, Lisa Fernholz, Allison Woodwick, Katie Murphy, students; and Matt Ugorowski, team advisor

STUDENT NEWS

Pharmacy residents take top honors

very year, the Minnesota Society of Health-System Pharmacist (MSHP) awards honors to two pharmacy resident research projects. In 2014, both winners and three of four finalists were from MSHS.

The MSHP received nearly 30 submissions from programs across the state for the MSHP Resident Research Awards.

MSHS Pharmacy residents recognized were:

Lauren Rupp, PharmD

- 2014 MSHP Residency Research PGY-1 Award
- Project: "Relationship of Sulfamethoxazole Therapeutic Drug Monitoring to Clinical Efficacy and Toxicity: A Retrospective Cohort Study."
- · Research mentor: Jason Barreto, PharmD

Kirstin Kooda, PharmD

- 2014 MSHP Residency Research PGY-2 Research Award
- Project: "Correlation of CHADS2 With the Incidence of New Onset Postoperative Atrial Fibrillation in a Noncardiac Major Vascular and Thoracic Surgical Population"
- · Research mentor: Ben Dreesman, PharmD



Lauren Rupp, PharmD; Prasanna Narayanan, PharmD; Kirstin Kooda, PharmD

Prasanna Narayanan, PharmD

- Finalist for the 2014 MSHP Residency Research PGY-1 Award
- Project: "Risk Benefit Analysis of Empiric Antibiotic Choice for the Treatment of Gram-Negative Bacilli Bloodstream Infections in Patients With a Beta-Lactam Allergy"
- Research mentor: Garrett Schramm, PharmD

Board of Directors, thank you for your service!

hank you to the 2013-2014 MSHS Alumni Association Board of Directors for their service and dedication.

Front row:

Ruthann (Randy) Roesch, Vicki Place, Todd Meyer, Joan Hunziker-Dean, Caren Hughes

Second row:

Ruth Bello, Judy Anderson, Pamela Lovett, Carrlene Donald, Danicia Asberry, Tiffany Mainella

Third row: Chad Hanis,



Beth Cloud, Anthony Mendez, Jill Knutson, Kimberly Bishop, Ashley Mroczenski

Back row: Stephen Klinkhammer, Tim Fedje, Manpreet Bains, William (Patricio) Aleman, Vanessa Scifres Not Pictured: Sarah Oakley, Tamara Redden, Stacey Rizza, MD, Nell Robinson, Linsey Scheibler



WE WELCOME ALUMNI AND STUDENT NEWS

Your comments, academic and career news, and story ideas are welcome. Send to: Editor, *Connections / Mayo Clinic / Siebens 5 / 200 First St. S.W. / Rochester, MN 55905 / Email: connectionsmageditor@mayo.edu*

About Connections and MSHS

Connections is published three times a year and mailed free of charge to alumni, students and friends of Mayo School of Health Sciences (MSHS).

MSHS has a distinguished history of preparing students for successful careers in the health sciences. Mayo Clinic has been training allied health professionals for more than 100 years.

About 1,700 students are enrolled in more than 128 MSHS programs representing more than 60 health sciences careers. Programs are available at Mayo Clinic campuses in Arizona, Florida and Rochester.

Enrollment information

www.mayo.edu/mshs 507-284-3678 or 1-800-626-9041 (toll-free) Fax: 507-284-0656

Email: mshsenrollment@mayo.edu

Alumni information

www.mayo.edu/alumni (Select "Mayo School of Health Sciences Alumni Association") Deborah Oscarson, Alumni Relations Coordinator 507-284-2317

Email: mshsaa@mayo.edu

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Stay in touch

You can update your address at the MSHS alumni website www.mayo.edu/alumni or by emailing mshsaa@mayo.edu or by calling 507-284-2317.

2014-15 MSHS Alumni Association officers and board members

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