Fall 2008

Mayo School of Health Sciences

Connections

A publication for alumni, students, faculty and friends of Mayo School of Health Sciences

INSIDE:

4 Team Rewards: Bringing out the best
10 Mayo Clinic hospital in Jacksonville
16 Faculty Profile: Desiree Lanzino
Teamwork is sometimes a component of our work that is easily taken for granted. When you study and work in a health care environment, you automatically become part of a team of caregivers who work together to deliver the best patient care possible. As a nurse anesthetist, I am a part of a multidisciplinary team that focuses its attention on providing patients with a safe and comfortable environment during a situation in which they often feel totally out of control. This involves not only the surgical team, but includes the caregivers during the pre- and post-surgery as well.

Teams are the embodiment of what Dr. William Worrall Mayo meant when he said, “No one is big enough to be independent of others.” In this issue, in the article titled “Team rewards,” we take a deeper look into the concept of teamwork and the deliberate ways in which Mayo School of Health Sciences works to instill a sense of teamwork in its students and provide opportunities to fully understand what it means to be a member of a multidisciplinary team.

Another article, “Deliberate design yields an innovative learning environment,” takes a look at the new Mayo Clinic hospital in Jacksonville, which opened in April 2008. Design and construction of this facility with its many systems and features is certainly an example of teamwork at its best. For the many staff members who contributed to the opening of this new facility, the lessons and the rewards about collaboration are abundant.

Although the work of health sciences professionals and students has its solitary moments, some of the most challenging and satisfying are those we spend learning — shoulder to shoulder with one another. I hope this issue of Connections stimulates your thinking about the benefits of being a team member, and serves as an affirmation of your value as part of that team, wherever you practice your profession.

Lorrie Bennett
President, MSHS Alumni Association
Nurse Anesthesia 1991
(master’s of Nurse Anesthesia, 2000)
Team Rewards: Bringing out the best in individuals
There are many benefits to being a member of a team. But teamwork doesn’t just happen. In Mayo School of Health Sciences, it takes intentional, focused effort and planning on the part of faculty. The results are meaningful professional opportunities and personal growth.

Deliberate design yields an innovative learning environment
Mayo Clinic hospital in Jacksonville, Fla., features some of the newest innovations in patient care facility design. Its patient care areas also facilitate cross-disciplinary opportunities for students learning how to deliver the highest quality care.

Faculty Profile: Desiree Lanzino sees possibilities and opportunities
Desiree Lanzino, assistant professor in the MSHS Physical Therapy doctoral program, uses her observational and assessment skills to ignite new collaborations between health science disciplines and students.

MSHS Alumni Association Meeting
Plan to attend the next MSHS Alumni Association meeting on April 24–25, 2009. The event will focus on cross-cultural and cross-generational care and co-workers.

At Your Best
Looking to spice up your fitness routine? Try Zumba, or other ideas to enhance your professional effectiveness and incorporate fitness and socialization into your personal life.

Graduate Profiles
Connections highlights the professional and personal achievements of three MSHS alumni and information about their specific disciplines and experiences.

Distinguished Alumni Award Nominations
Submit your nominations to the Alumni Office by Dec. 30, 2008.

In the NEWS
Read about the latest research findings and medical advances. Stay current on MSHS news!
MSHS faculty and students 
spotlight professional benefits 
of teamwork

Teamwork is a Mayo Clinic hallmark. Collaboration and consensus-driven decision making are fundamental to the way things are done. The patient care benefits of this team-focused environment are clear. Patients are better served when they have a dedicated group of health care professionals working together to provide high-quality care.

But, what about the people on those teams? Do they benefit from being part of an organization that puts a premium on teamwork? How about students? How do they fare in a team-driven environment? A look inside three Mayo School of Health Sciences (MSHS) programs illustrates the benefits of being part of a team.

Throughout MSHS, teamwork helps students, faculty and staff build relationships and gain knowledge in a way that energizes their work and increases their capacity for professional and personal growth.

Forging long-distance ties
When Timothy Fuller got the news he had been accepted into the Echocardiography Program at Mayo Clinic in Arizona, he was excited, but a little puzzled, too. Even though he would be relocating from Illinois to the Phoenix area, he found out he would be spending his first month at MSHS in the Midwest at Mayo Clinic in Rochester, along with the other Arizona-based Echocardiography students.

“I wasn’t sure why we needed to go to Minnesota when we would be doing our course work in Arizona,” says Fuller. “It turned out to be a great way to start. We met and spent a lot of time with the students and faculty in the program who were based in Rochester. That face-to-face interaction helped us get to know each other and feel like we are all part of one class, rather than two separate groups.”

(Continued)
From left: Peggy Stupca, Steve Grinnell, Christopher Sattler, Jack Spurbeck (seated). These four faculty members routinely collaborate on curriculum development.
Infusing a sense of camaraderie and encouraging teamwork among everyone in the program is exactly what Joshua Finstuen, Echocardiography Program director, had in mind when he and his faculty agreed to have all the students together at the beginning of the program.

“Most of the time, the students in Arizona see their classroom instructors through a distance-learning system that allows them to participate in classes live from Rochester,” says Finstuen. “But, we don’t want them to feel like they are far-flung. A big part of education is being comfortable with the instructors and feeling at ease asking questions. Meeting the faculty in person and having a chance to see them outside the classroom goes a long way to breaking down the distance. This is truly one program. We want all involved to feel like we’re working together.”

That concerted effort to foster open working relationships between students and faculty has a positive impact on the way students interact with each other, as well as in their work with Mayo Clinic staff members. Students share interesting cases with one another and discuss them with their instructors. For example, the sonographers on Mayo’s staff demonstrate their techniques and skills, so students can learn different approaches and decide what will work best for them.

Teamwork: Mayo history

Mayo Clinic: An experiment in collective individualism

Mayo Clinic’s commitment to collaborative care isn’t a recent development. It is a tradition that dates to its founders.

When William Worrall Mayo, M.D., father of Drs. Will and Charlie, arrived in Rochester in 1863, Minnesota was part of America’s western frontier. Going it alone on the newly settled prairie wasn’t just ill-advised; it could be downright dangerous. Fortunately, he already knew the value of working with others.

Born in England in 1819, Dr. W.W. Mayo studied with John Dalton during his school days. Dalton, the famous chemist and physicist best known for developing the atomic theory, was a Quaker. In 1830s England, his religion excluded him from a teaching position in the English school system, which accepted only instructors who were members of the Church of England.

Instead, Dalton taught private classes and, unlike most English schools, he opened enrollment to all religions and, in a particularly unusual move for the time, he included women. That open environment of investigation and learning is where the elder Mayo’s sense of collaboration, as well as his social consciousness, began to take shape.

Those values carried over into his medical practice in Rochester. Dr. W.W. Mayo challenged those around him to think beyond the limits of their time and reach out to others. “No one is big enough to be independent of others,” was his oft-quoted phrase.

In the 1870s, Dr. Mayo supported Harriet Preston, M.D., for membership in the all-male Minnesota State Medical Society. He also invited Frederick Douglass, the famous abolitionist, to speak in Rochester, and Dr. Mayo was a supporter of the women’s suffrage movement.

Drs. Will and Charlie Mayo took note of their father’s dedication to collaboration. As they began their practice, welcoming new ideas and perspectives became routine. The Mayo brothers invited other physicians and surgeons to see what they were doing. They shared the new techniques and procedures they learned in their travels. This open-door policy stood in direct contrast to the standard medical practice of the day.

As Mayo Clinic evolved from a small frontier medical practice into one of the most successful health care organizations in the world, teamwork remained at its core. What began as an experiment in collective individualism has become a long-standing testament to the power of collaboration.

— Tracy Reed Will

Seated at left: Dr. Charles H. Mayo
and Dr. William J. Mayo.
In addition, faculty in Arizona and Rochester work together to ensure a consistent program between the two sites.

“The emphasis on teamwork has been noticeable from the second we stepped into the classroom,” says Fuller. “You can tell everyone wants us to succeed. There’s a sense of collaboration, rather than competition, which helps us learn and makes us want to learn more. It’s energizing. It gets you excited to share what you know with others.”

**Putting individual expertise to work**

Although working in teams may seem to come naturally at Mayo Clinic, Steve Grinnell, a faculty member in the MSHS Cytogenetic Technology Program, is quick to point out that it takes focused effort.

“Teamwork is intentional. To work well as a team takes a specific agreement, understanding and willingness between the members,” he says.

Grinnell and his colleagues Peggy Stupca, program director for the Cytogenetic Technology Program, Christopher Sattler and Jack Spurbeck, Cytogenetic faculty members, have experience with successful teamwork. In 2007, they won the Mayo Clinic Excellence Through Teamwork Award for their work finding a new source of specimens for fluorescence in situ hybridization (FISH), a critical component of Cytogenetic students’ course work.

But, working as a team wasn’t new to the group. They regularly participate in each other’s lectures and presentations to students, as well as collaborate on the overall program curriculum.

(Continued)
“Each of us has a specific area of expertise, and we interact with the students during each other’s sections,” says Grinnell. “That’s a big deal because it promotes cooperation between us, and the students see the process of working together. We bring in different perspectives and that enhances students’ learning.”

In the past, the Cytogenetic Technology Program had obtained specimens for FISH testing technique from unused samples in the Mayo Clinic laboratories. In December 2006, the Cytogenetic faculty learned that source of specimens would no longer be available beginning in April 2007. The group needed to work together, fast, to come up with a plan.

Through their collaboration, they hit on the ideal solution: purchase cell lines that could be used consistently in the classrooms, with enough supply to last long term. Although it sounds straightforward, landing on this answer was hardly simple. It involved deciding which cell lines to purchase, securing funding, coordinating the purchase, incorporating the new lines into the curriculum, culturing the cell lines and preparing them for the students. But, with each team member performing a key function, they accomplished the goal.

“Throughout the process, we each played our role, specializing in a certain area of expertise, and yet, we worked well in the areas where we...
needed to come together to make a decision,” says Grinnell. “We enjoyed good communication and cooperation as we handed off the project from one step to the next.”

He continues, “It’s rewarding to be part of a team that relies on you to do what you do best, but also looks to all members to enhance the process together wherever they can. Working together this way helps us all to grow — as professionals and as people.”

**Stepping up to responsibility**

For Carrie Trower, Pathologists’ Assistant Program director, teamwork is part of the job — all day, every day. Although patients don’t see them, Trower, her students and colleagues, are an integral part of Mayo’s patient care team.

Mayo Clinic’s frozen section pathology laboratories at Saint Marys Hospital and Methodist Hospital in Rochester are unique for their ability to provide pathology reports to surgeons while patients are still in the operating room. That means if a report shows, for example, a tumor at the margin of a specimen, the surgeon can take additional tissue at that time, rather than requiring a second surgery later.

The pathologists’ assistant dissects the specimen received from the surgeon and prepares slides for a pathologist to examine under the microscope in order to make a diagnosis.

“We all work together in the lab, and we have direct interaction at all levels. The surgeons come in, and they know and trust us. We develop a working relationship with them and with the other members of the team,” says Trower. “That’s what’s unique about our practice compared to other health care organizations. Here, the students see that what we’re doing has a direct, immediate impact on patient care.”

Trower views the team experience that students gain in their two-month rotation at MSHS as key to developing skills necessary for the work of a pathologists’ assistant.

“The way we work at Mayo gives students a chance to develop their communication skills at all levels. They interact with researchers, lab assistants, surgeons, pathologists and technicians,” she says. “It allows them to gain an appreciation for the different types of service staff provide, too. They see the importance of the person who goes to the operating room to pick up the tissue, as well as the pathologist who’s making the diagnosis. In addition, their work here helps develop confidence. People rely on them to do their job and do it well, so the patient can be best served.”

**Preparing for the work ahead**

As with all of Mayo Clinic, teamwork is infused throughout MSHS. For those willing to work collaboratively, there are plenty of benefits to go around, particularly for students who carry the team mentality on into their careers.

“Mayo’s emphasis on teamwork has reinforced for me that if I have knowledge and I can share it with someone, by all means, I should do it,” says Fuller. “I will definitely implement the same kind of approach wherever I end up. In every work environment, there’s going to be people with different experiences and knowledge. It makes everyone on the team better when you open yourself to the ideas and input of the people around you.”

— Tracy Reed Will
With the opening of the Mayo Clinic hospital in Florida on April 12, 2008, more than the driving time changed. The new 650,000-square-foot hospital, located at the heart of the Jacksonville campus, is a Mayo Clinic-designed and built facility, with creation of an environment for learning at the core of its technology, space design and decor.

Health care providers were an integral part of the planning process that made this possible. “The logistics and work flow have changed because of our new physical layout,” explains Robinson. “There is teaching space in every patient care area.”

“Students and faculty no longer have to move between inpatient and outpatient practices that were once miles apart,” says Robinson.

Not long ago, faculty and students of Mayo School of Health Sciences (MSHS) traveled about 10 miles between Mayo Clinic in Florida outpatient facilities and its inpatient facility, St. Luke’s Hospital. “The commute took about 30 minutes … a full half hour away from education activities and patient care,” says Nell Robinson, MSHS administrator in Florida. “Going back and forth between the hospital and clinic was total downtime.”
“There’s more time to learn, everyone is more productive, and with the fluctuations and unknowns involved with gas prices, eliminating these trips saves our students money as well.”

Making the transition
Since 1987, Mayo Clinic in Florida had operated St. Luke’s Hospital, which served Mayo patients who needed inpatient services. As an open facility, St. Luke’s Hospital included physicians from Mayo Clinic, as well as physicians in the community who had practicing privileges there.

As plans for construction of a new hospital progressed, another provider purchased St. Luke’s Hospital. Mayo Clinic continued to lease and manage the facility until the new Mayo Clinic hospital was ready.

Physically transitioning from St. Luke’s Hospital to the new facility was a complicated logistical challenge; in particular, the coordination of when and how to move patients from St. Luke’s to the new hospital.

“Our MSHS students had a once-in-a-career opportunity to be part of the process of bringing patients to the new facility,” Robinson says. On move day, patients admitted by a Mayo Clinic physician were transported by ambulance to Mayo Clinic hospital, while community patients remained at St. Luke’s Hospital.

“Command centers at St. Luke’s and the Mayo Clinic hospital stayed in constant communication as patients were transferred,” adds Robinson. “Our MSHS students were able to be part of this transition and I’m certain they learned things that aren’t part of our regular curriculum.”

A new and improved layout
The new hospital features a physical design that translates into important benefits for patients, caregivers and students.

Patient rooms were enlarged to facilitate the highest quality care, efficiency, safety, teamwork and teaching opportunities. “Most patient rooms are 350 square feet, which is double an average hospital room,” says Robinson. “There are three zones — caregiver’s, patient’s and family’s — that enhance work flow and teamwork.”

In the caregiver zone of each patient room is a computer workstation that enables caregivers to

(Continued)
update records, review results and access education materials, all at the patient’s bedside. The larger patient rooms accommodate mobile monitoring equipment and multiple levels of care. All of these design considerations are meant to keep caregivers close to patients.

With teamwork in mind, spacious areas for team meetings were constructed on each patient floor. “Care can be discussed with all caregivers present and with all the attention on the patient,” explains Robinson. “Decisions can be made by the entire team in a comfortable and confidential setting.”

Studies show that a team approach to patient care results in better communication and more learning among team members and higher quality care for patients. “This environment facilitates checking in and checking out with one another,” notes Robinson. “We learn to talk comfortably and safely with each other in an environment that supports collaboration and teamwork.”

Hallways were also widened by about two feet. The 10-feet-wide patient floor hallways are a major benefit for teaching rounds, easing the flow of physician-led teams of residents, medical students, nursing students and allied health students from various disciplines. (See sidebar page 14.)

Broad corridors are also conducive to multidisciplinary rounds, which bring together physicians, nurses and allied health staff. “There’s really no physical separation of team members anymore,” says Robinson. “We all have room to work together and share expertise as a team.”

“The new hospital is a major step in providing fully integrated health care and has already allowed for improved collaboration and communication among team members,” says Galen Perdikis, M.D., associate dean for MSHS in Florida.
Room to learn

“We’ve always been a learning organization, but we have traditionally learned in silos — especially in the health sciences,” says Robinson. In support of Mayo’s education mission, the new Mayo Clinic hospital made room to encourage planned and spontaneous learning opportunities with health sciences colleagues in other disciplines.

Team rooms are strategically located on each patient floor. Additional meeting room space allows faculty meetings to be held face to face instead of by video conference.

“A lot of great things happen when you’re sitting next to someone before, during and after meetings,” says Robinson. “Sometimes, that’s where the real team building happens.”

Being integrated on one campus also encourages cross-disciplinary education opportunities. “We educate everyone

Did you know?

Here are some interesting facts about Mayo Clinic’s new hospital:

• 3,883 tons of steel was used in the building — the equivalent of 2,454 Toyota Camrys.

• 28,028 cubic yards of concrete was delivered in approximately 3,116 mixing trucks. If delivered all at once, the backup would have been nearly 19 miles long.

• The length of piping in the building would extend from the door of the new hospital to Daytona Beach (more than 94 miles away).

• 245,000 square feet of metal panels was installed. If laid flat, end to end, they would cover more than four football fields.

• 71,327 square feet of glass was used. That would cover more than 1.5 acres.

• 4,430 light switches were required; enough for 221 single-family homes.

• 4.19 million feet of wire was needed to complete the project. If laid end to end, it would stretch from Jacksonville’s Mayo Building to Key West, Fla., and back.

(Continued)
Continuing growth on the horizon

Mayo School of Health Sciences (MSHS) was officially established in Jacksonville in 2001 with a radiography program. The school now offers 29 programs, some of which include clinical rotations with affiliated schools.

“In 2007, there were 235 students enrolled in MSHS programs in Florida. Forty-six were in our core programs and 189 students completed clinical rotations,” says Robinson.

Several programs are combined with Rochester, including diagnostic medical sonography. In this program, lectures are delivered via distance learning using the Tandberg system with students completing their clinical and laboratory experience in Jacksonville. In another program, nurse anesthesia students from Rochester travel to Jacksonville to complete their regional anesthesia rotations.

As Mayo Clinic grows, so does the demand for health sciences professionals.

“The establishment of Mayo Medical Laboratories in Florida means that we will need an additional 156 clinical laboratory scientists by the year 2015,” explains Robinson. “We put some plans for MSHS on hold in order to accomplish the move to the new hospital. Now that we’re settled, we see opportunities for expansion and growth. As our practice changes, MSHS will provide the necessary programs to educate individuals, expanding our pool of qualified health sciences professionals to support the needs of the practice.”

Because it is a major transplant referral center, surgeons at Mayo Clinic hospital perform approximately 350 solid-organ transplants each year. “Many MSHS-educated health professionals provide care for one of our transplant patients,” Robinson says. “The team environment of the new hospital is going to make a positive difference.”

Consider the health sciences professionals who are members of the team caring for a typical heart or lung transplant patient:

- Sonographer
- Radiographer
- Radiation therapist
- Pharmacy resident
- Pharmacy technologist
- Dietitian
- Nurse anesthetist
- Physician assistant
- Respiratory therapist
- Physical therapist
- Social worker
- Cardiovascular technologist
- Surgical technologist
- Clinical laboratory scientist
- Nurse practitioner

Transplant patients are usually quite ill when they are admitted to the hospital and they have a relatively long stay, which means MSHS-educated professionals have a significant impact on patient care.

“Learning to operate at our optimum team potential is so important,” says Robinson. “Our new environment has been planned to make that possible.”
separately by function and then bring them together to serve our patients,” says Robinson. “Somewhere along the line, we need to teach them how to work together. Being on one campus will certainly strengthen team building.”

The new hospital was built to withstand a Category 5 hurricane, since evacuating patients isn’t an option when severe weather threatens. Among the building’s less visible strengths is its capacity to provide new learning opportunities for future health care providers. “Giving the building physical resiliency required tons of cement underground,” says Robinson. “But the real glue is what happens above ground in the patient care areas.”

— Lisa Muenkel

Adorning the lobby of the new hospital is this blown-glass chandelier by Dale Chihuly. The piece is a gift from A. Dano Davis and Dorothy Davis in honor of their mother, Florence Davis. The Davis family donated the land for the Mayo Clinic campus in Florida.

Each patient floor hallway is 10 feet wide. The extra room facilitates teaching rounds, easing the flow of physician- and instructor-led teams.

Dr. Galen Perdikis collaborates with the patient care team, Katie Ross, RN, and Imelda Grieser, RN, in the hospital’s spacious hallways.
Desiree Lanzino, P.T., Ph.D., is a woman of insight and vision. When she noticed there weren’t any birds for sale in local pet stores, she surmised something must be amiss in the avian world. While most people would not have noticed this unless they were shopping for a bird, Dr. Lanzino made the observation right away. A short time later, her pet canary died of psittacosis or “parrot fever,” confirming her instincts that some infectious disease was taking its toll in the bird world.

“I’ve learned to look for clues from my training and my teaching,” says Dr. Lanzino, an assistant professor in Mayo School of Health Sciences’ (MSHS) Physical Therapy Doctoral Program in Rochester, Minn. “Assessing the environment and identifying opportunities is an integral component of teaching, research and practice.”

When Dr. Lanzino joined the MSHS team in October 2007, she immediately noticed the teaching environment at Mayo differed greatly from traditional academic settings. Doctorate of Physical Therapy (DPT) programs are usually one small part of a university setting that may include business, liberal arts, or education programs, Lanzino explains. “Mayo is all medical and that’s a big benefit for our students,” she says.

Throughout her career, Dr. Lanzino has cultivated her talents for connecting resources and people. While working at a hospital in Pittsburgh, she was rehabilitating an Italian woman who had surgery to remove a brain tumor.

“When you open your mind to possibilities, you’ll find them”
– Desiree Lanzino, P.T., Ph.D.

“I was her physical therapist, but the woman didn’t speak English and needed an interpreter,” she explains. “At the hospital, there was a neurosurgery research fellow from Italy. It seemed like fate, and it was. The patient received language services, and the research fellow is now my husband, Giuseppe Lanzino, M.D., a neurosurgeon here at Mayo Clinic.”

Beginnings: Career and family

“I led a fairly sheltered life in northern West Virginia,” says Dr. Lanzino. “But that all changed after meeting Giuseppe. He returned to Italy after completing his internship and I went there to visit him. I came back engaged.”

After marrying in 1992, she worked at Woodrow Wilson Rehabilitation Hospital in Virginia, where she was the senior physical therapist in the Brain Injury Program. In 1994,
she returned to school to pursue a doctorate in anatomy from Virginia Commonwealth University in Richmond. During that time, she had her first daughter, Roberta.

“As a consequence of my neonatal research project, I had to feed a few litters of ferrets every four hours,” she recalls. “Luckily, my advisor helped by taking the day shift. I took the night shift, sleeping in the lab for six weeks. Roberta slept there, as well, in a playpen.”

After her research project was complete, Desiree and Roberta joined Giuseppe in New York, where he was completing an endovascular fellowship. There, Franco, their son, was born.

“Following the fellowship, we were off to Plymouth, England, where Giuseppe completed a year abroad as part of his neurosurgical residency training,” says Dr. Lanzino. During that time, the couple had their third child, Maria. “All three of our children were born in different places and at different stages in our careers.”

Making Rochester home
In late 2007, the two Lanzino doctors made a decision to move to Rochester. “I joined the physical therapy faculty, teaching neuroanatomy,” she says. “I had a wonderful professor in school who was a neuro-physical therapist and I always wanted to emulate her. I’m able to do that here.”

Desiree Lanzino: Quick Notes

Person who influenced you most professionally:
Mary Beth Mandich, P.T., Ph.D.,
Division of Physical Therapy, West Virginia University

What your mentor inspired in you:
A passion for treating patients with neurologic injury and for teaching physical therapy students.

Best advice you’ve received about your profession:
“Mediocrity is not an option.” — Giuseppe Lanzino

Memorable moment in the classroom:
When 100 percent of my students answer correctly using the audience response system — priceless!

Best part about teaching in MSHS:
Being part of the Mayo PT family and having access to a wonderful anatomical laboratory and staff.

Most important lesson students should remember:
Serving patients is a privilege.

Best advice you’ve given a student:
If all you want to know is what is on the exam, you’re in the wrong profession.

Someday, you’d like to:
Author a text on neuroanatomy for physical therapists.

It’s all worth it when:
I hear from students who are out in the clinic treating neurologic clients and they are excited to apply what they have learned in the classroom.

What’s next?
Hopefully, a downtown parking space!
Dr. Lanzino says the most impressive aspect of Mayo’s DPT Program is the caliber of students it recruits. As a member of the MSHS Physical Therapy Admissions Committee, she meets all applicants. “The students are so worldly,” she says. “They’ve traveled. They’ve done mission work. They’re athletes. The students are extremely well-rounded even before their education here, and that amazes me.”

She sees the environment of Mayo as an endless source of opportunity and collaboration. “All facets of physical therapy are available as a practice setting right here at Mayo,” she says. “Additionally, if you have a research interest, most likely someone on campus has a similar interest and is more than willing to collaborate. I feel very blessed to be working in this type of environment.”

Among her first impressions was how quickly patients have conditions or complaints diagnosed and treated at Mayo.

“Friends of mine have been seen here for medical treatment,” she says. “The communication among physicians is remarkable, and I wish this model of care could be transferred to all health care facilities.”

“There’s a real passion here. Mayo opens up opportunity … and the possibilities are endless for those who want a world-class education, research and practice environment.”

Dr. Lanzino hopes to find more opportunities to teach and practice at Mayo in her future. “For now, I’m observing the students and the environment,” she says. “As I’ve witnessed in my own life — when you open your mind to possibilities, you’ll find them.”

— Lisa Muenkel
April 24-25, 2009
MSHSAA Meeting
Fourth Biennial Conference

Mark April 24-25, 2009, on your calendar and register now to attend the MSHSAA meeting, from 2:30 to 6 p.m. Friday and 8 a.m. to 1 p.m. Saturday.

Through Different Eyes
A conference on cross-cultural and cross-generational care for, and communication with, our patients and our co-workers.
In addition to a day filled with presenters, Friday evening will include a reception and dinner in Geffen Auditorium, Gonda Building.

Please RSVP by mail, fax, or e-mail:
Mayo Alumni Center
Siebens 5
200 First St SW
Rochester, MN 55905
Phone: 507-538-1663
FAX: 507-538-7442

Questions?
Contact Debbie Oscarson at 507-538-1663 or E-mail Oscarson.Deborah@mayo.edu
Zumba for fitness and fun

Zumba, a Spanish slang term meaning “to move fast and have fun,” is also the latest fitness craze gripping the nation. Zumba is just one of the many new dance-inspired workouts becoming popular in fitness clubs.

In Zumba classes, participants move fast and, equally importantly, have fun as they learn basic dance moves inspired by Latin dances like the salsa and merengue.

Combining these moves with great, pulsating music leads to an aerobic workout that is a cardio fat burner and an energizing component of any fitness routine. Adding a little dance flare to the moves makes the workout fresh, and it can also promote flexibility for people of all ages. Changing the line up of music ensures the class is always new and exciting.

There’s little preparation to get started. A good pair of athletic shoes, comfortable attire and a willingness to set aside some inhibition is all that is needed to become a Zumba dancer. Class participants follow along with instructors.

When everyone in the room is performing the same moves to a pounding, infectious rhythm, energy soars and the workout feels like a party. Time flies and soon the class is over and the workout is done.

Dance-inspired fitness classes are not too different from the old style Hi/Low classes of the early 1980s. Dance styles like hip-hop, country line-dancing, Irish clogging, and belly dancing are also being taught as a way to get fit. With the popularity of TV shows like “Dancing with the Stars” and “So You Think You Can Dance”, it’s easy to see why fitness clubs are seeing high attendance numbers in their studios.

The newness of each class and the opportunity to socialize with classmates motivate people to return. This creates adherence to a fitness plan and is what developing a healthy lifestyle is all about. Fun and fitness combined — a winning combination!

To find a Zumba class in your area, visit your local athletic club or YMCA/YWCA.

— Lori Casey and Kimberly Van Rooy, Dan Abraham Healthy Living Center staff, Mayo Clinic, Rochester, Minn.
Advice: Should you take it?

Everywhere you turn, people are willing to hand you some advice. However, not all advice is good advice. Use the following pointers as you decide which advice to take and which to leave on the table.

Is the person giving advice qualified to do so? If you respect the person giving the advice, you may not question whether the advice is good or bad. Yet, even people who care about your success can offer bad advice in some situations. Key: Question the adviser’s expertise in that particular area, not only general integrity or good intentions.

Is the advice universally accepted? Is the person recommending something that works for everyone, something that works sometimes for some people or something that just happened to work for the person giving the advice? Rely on your common sense. If the recommendation doesn’t sound right, don’t follow it.

Is the advice timely? Some advice is timeless, especially when the topic is a perennial concern like personal fulfillment. But beware of advice based on outdated information. Someone who succeeded at door-to-door sales, for example, may have little wisdom to offer if you are selling over the Internet.

Is the advice based on theory or practice? Theoretical advice can be valuable. Yet, advice based on actual experience is often more credible. Ask this question: “Have you ever done that?” The most valuable advice comes from in-the-trenches experience.

(Adapted from Year to Success, Bo Bennett, cited in Communications Briefings)

Lessons from an Indy pit crew

If speed matters in your industry — or if staying one step ahead of the competition is the only thing keeping you in the game — take a peek at these nuggets of wisdom common to pit crews.

The faster you go, the more you need to talk. Constant communication is a non-negotiable element of successful teams. Everyone needs to know what is going to happen when and who is responsible for completing a task.

Expect to lose ground sometimes. If someone overtakes you, don’t panic. Sticking with what you know will work to keep you in the game. Of course you will need to adjust and adapt as you go along, but the basics stay the same.

Stay in the race. Don’t give up. Keep moving and fix problems on the fly whenever possible.

Make the most of downtime. No matter how intense the race is, occasional moments of downtime — however brief — are inevitable. Use that time to make necessary adjustments and also to celebrate achievements. Those “repairs” will energize your team for the rest of the race.

(Adapted from The Rules of Business, Fast Company’s Editors and Writers, Currency Books, cited in Communications Briefings)
Denise Ring

Denise Ring’s husband describes her as a “type Z perfectionist” — laid back, but also prone to unrelenting attention to detail. Ring, a family nurse practitioner in the Department of Preventive, Occupational and Aerospace Medicine at Mayo Clinic, admits she’s probably guilty as charged. And while it may seem an odd combination of qualities, Ring’s patients benefit from the mix.

“Denise’s patients are very fond of her,” says Claudia Swanton, one of Ring’s colleagues. “She is personable, dedicated and spends a significant amount of time coordinating treatment for her patients.”

“I have an opportunity to educate patients and help them make good decisions about their health.”

It’s time well spent, according to Ring. “It’s an honor to care for patients and rewarding to empower them to take care of their health,” she says. “I really enjoy working on the prevention side of medicine.” Ring began her career caring for an entirely different group of patients, spending several years working in critical and intensive care units throughout the Midwest. Then her husband — Roger Ring, a chaplain and director of Mayo School of Health Sciences’ Clinical Pastoral Education Program — was offered a job at Mayo Clinic. “We planned to stay in Rochester for a couple of years,” says Ring. “We’ve been here 25 years. Needless to say, our plans changed.”

Mayo proved to be a good fit for Ring. When her two daughters were young, she worked as a float and private duty nurse, flexible positions that allowed her to work during the times her husband was home to care for their children.

When the girls were older, Ring took a staff position in urgent care. She also went back to school, earning a bachelor’s degree in nursing from Viterbo University and later a master’s degree in nursing from Winona State University. In 2000, she completed the Nurse Practitioner Clinical Residency Program through Mayo School of Health Sciences.

“I love my job,” says Ring, who recently completed a term as president of the Association of Southeastern Minnesota Nurse Practitioners. “I have an opportunity to educate patients and help them make good decisions about their health. I work with an incredibly supportive team. I can’t imagine ever leaving this position.”

— Nicole Brekke Sisk
Jeff Goihl

By anyone’s standards, Jeff Goihl’s career path has been a winding one. After graduating from the University of St. Thomas with a degree in economics, Goihl returned to his hometown of Lake City, Minn., to work with his father and brother on the family’s dairy farm. For 10 years, he embraced the seven-days-a-week life of a farmer. But when the dairy business began to slow, Goihl knew he had to find another line of work. His sister, a physical therapist at Saint Marys Hospital in Rochester, Minn., suggested he enter the other family business: health care.

“My mom was a head nurse at Saint Marys and my brother is a chiropractor,” says Goihl. “I looked at the different types of health careers, and realized I wanted to do something that had to do with the brain.”

“It’s overwhelming to be faced with a health issue, so part of our job is to do whatever we can to make things easier on patients.”

Goihl entered the Mayo School of Health Sciences Clinical Neurophysiology Technology Program in 2001.

“I was so impressed with the program,” he says. “The instructors were excellent, and the opportunity to get hands-on experience early on really helped prepare me for practice.”

Goihl must have impressed his instructors: he’s recently been invited to join them on the other side of the classroom as an instructor.

“I’m looking forward to teaching,” says Goihl. “It wasn’t that long ago that I was a student, so I think I’ll bring a unique perspective to the job.”

He may also bring a unique delivery style. Goihl’s off-hours pursuits include acting in comedies staged by a theater company, Theater Du Jour, he started with his wife and several friends. The troupe’s Web site describes him as a “man of a hundred faces, and all of them funny.”

While he’s quick to make a joke, Goihl is serious about his work. He’s already thinking about the lessons he wants to impart to his students.

“It’s important to know your craft, and also to listen to your patients,” he says. “It’s overwhelming to be faced with a health issue, so part of our job is to do whatever we can to make things easier on patients.”

— Nicole Brekke Sisk
Lori Davis

As a child, Lori Davis had an unusual reaction to doctor’s appointments. She liked them.

“I was sick a couple of times as a kid, and enjoyed the visits to the doctor’s office,” says Davis.

With her interest in health care piqued, Davis joined a Medical Explorer program in high school. The program provided students with opportunities to learn about health professions through weekly meetings with medical staff at hospitals and clinics.

“One week we learned about physician assistants, and I was intrigued,” says Davis. “I liked that physician assistants seemed to have more balanced lives and careers.”

“The preceptors were very experienced, and being at Mayo meant I had exposure to unique and challenging cases.”

The intrigue never faded. After high school, Davis earned a pre-med degree from Bob Jones University in Greenville, S.C., followed by a master of science-medicine: physician assistant degree from Trevecca Nazarene University in Nashville, Tenn.

“In P.A. school, I learned quickly that I was very hands on and drawn to surgical procedures,” says Davis. That discovery led her to apply for a Physician Assistant Fellowship in Otolaryngology at Mayo School of Health Sciences (MSHS), the only ENT P.A. fellowship in the country. Davis was accepted as the program’s first student.

“It was exciting to be the first fellow. I felt like a pioneer,” she says. “Even though it was the program’s first year of operation, the quality was excellent. The preceptors were very experienced, and being at Mayo meant I had exposure to unique and challenging cases.”

Davis was offered a staff position at Mayo Clinic immediately after graduation. Today, she serves as co-director of the fellowship program, and also serves on the board of the Physician Assistant/Nurse Practitioner Society at Mayo Clinic in Arizona.

“ENT is a great field for people who enjoy seeing a diverse group of patients and procedures,” she says. “And Mayo is a wonderful place to come for your education. We tailor the curriculum to each fellow’s specific interests. It’s a great place to learn.”

— Nicole Brekke Sisk

Lori Davis
Physician Assistant Fellowship (Otolaryngology), 2006
Physician Assistant, Mayo Clinic Arizona
Mayo School of Health Sciences:  
Distinguished Alumni Award

Nomination Information  
Submissions are due at the Alumni Office by Dec. 30, 2008

**Purpose**
The Mayo School of Health Sciences (MSHS) Distinguished Alumni Award acknowledges an alumnus or alumna of MSHS programs whose contributions are exceptional in one or more of the following areas:

- clinical care of patients  
- research in their field  
- provide mentoring and education to young professionals  
- humanitarian endeavors

**The Award**
The award is presented at the annual meeting of the MSHS Alumni Association. Travel and lodging expenses are provided.

**Nomination Process**
To be considered for this award, the following must be completed: nomination form, nomination letter, copy of CV, and support letters (two or more) should be submitted. The nomination should include specific examples of their contributions.

A selection committee chaired by the President-Elect and comprised of the three Executive Committee members, two Ex-Officio members of the Executive Committee, and the Mayo Clinic Alumni Center director will review the applications and select the recipient.

**Criteria**
- Nominee must have completed an MSHS program  
- Recipient must attend the MSHSAA annual meeting to accept the award

**Criteria to consider as you select your nominee:**
- Demonstrates dedicated service to patients  
- Promotes the art and science of medicine through the education of students — by providing learning experiences in a clinical or academic setting  
- Participates in and/or encourages research in a clinical or academic setting  
- Exercises leadership in their field  
- Performs community service  
- Contributes to under served populations or provides services in challenging situations  
- Personifies integrity  
- Shows involvement in MSHSAA

Please complete the nomination form on page 26.
Nominee Information

Name _____________________________________________________________
Title _______________________________________________________________
Address ___________________________________________________________
Phone number _______________________________________________________
Fax number _________________________________________________________
E-mail address _______________________________________________________

Nominator Information (Your name here)

Name _____________________________________________________________
Title _______________________________________________________________
Address ___________________________________________________________
Phone number _______________________________________________________
Fax number _________________________________________________________
E-mail address _______________________________________________________

Each nomination packet must include:
• Completed Nomination Form
• Letter of nomination (Please describe in detail how this nominee meets the criteria)
• Copy of curriculum vitae
• Supporting letters (two or more)

Supporting letters from:

1. _________________________________________________________
2. _________________________________________________________
3. _________________________________________________________
4. _________________________________________________________
5. _________________________________________________________
6. _________________________________________________________

Send nomination to:
Deborah Oscarson
Mayo Clinic Alumni Center, Siebens 5
200 First Street SW
Rochester, MN 55905
Tel: (507) 538-1663
FAX: (507) 538-7442
E-mail: oscarson.deborah@mayo.edu
Mayo School of Health Sciences:
Resource Central

Resources to help you stay connected with Mayo Clinic, Mayo School of Health Sciences and professional organizations.

Mayo Clinic
For information about patient care at Mayo Clinic’s three campuses, visit: www.mayoclinic.org and for information on Mayo’s biomedical research and education programs, visit: www.mayo.edu.

Mayo Health System
For information about patient care within this network of hospitals and clinics, visit: www.mayohealthsystem.org.

Health Information from Mayo Clinic
For reliable health information and interactive health management tools, visit: www.mayoclinic.com.

Employment Opportunities
Mayo Clinic Human Resources
For information about employment opportunities at Mayo Clinic sites, visit: www.mayoclinic.org, or e-mail: careers@mayo.edu
You will be asked to specify Minnesota, Florida or Arizona for employment opportunities.

Mayo School of Health Sciences Program Listing
http://www.mayo.edu/mshs/

- Athletic Training
- Audiology
- Cardiovascular Invasive Specialist
- Cardiovascular Perfusionist
- Central Service Technician
- Child Life Specialist
- Clinical Laboratory Sciences
- Clinical Neurophysiology Technology
- Clinical Pastoral Education
- Clinical Research Coordinator
- Cytogenetic Technology
- Cytotechnology
- Dietetics
- Echocardiography
- Endoscopy Nurse
- Endoscopy Technician
- Genetic Counseling
- Hemodialysis Patient Care Technician
- Histology Technician
- Medical Social Services
- Molecular Genetics Technology
- Nuclear Medicine Technology
- Nurse Anesthesia
- Nurse Practitioner
- Nursing Clinical Education
- Occupational Therapy
- Pathologists’ Assistant
- Perioperative Nurse
- Pharmacy
- Physical Therapy
- Physician Assistant
- Radiation Therapy
- Radiography
- Recreational Therapy
- Respiratory Care
- Sonography
- Speech Pathology
- Surgical Technology

For current program director contacts and e-mail addresses, please see our regularly updated listing at http://www.mayo.edu/mshs/.

Mayo School of Health Sciences
Mayo Clinic
200 First Street S.W.
Rochester, MN  55905

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

Enrollment and Student Services:
Contact: Troy Tynsky
mshsenrollment@mayo.edu

For more information about any programs of Mayo School of Health Sciences, please write or call and ask to speak to a program contact person.
The Mayo School of Health Sciences Alumni Association Nominating Committee is requesting nominations for its board of directors. The board of directors is a 25-member board with representation from various health sciences professions and geographic locations. (See the current 2008/2009 Board Member list, page 29.)

The following criteria will be considered in board of director appointments:
- Graduate of a Mayo School of Health Sciences program
- Health sciences profession representation
- Geographic location
- Leadership roles in a health sciences profession
- Commitment to represent alumni interests
- Interest in promoting Mayo School of Health Sciences and the Mayo School of Health Sciences Alumni Association

Questions may be directed to Deborah Oscarson, Mayo Alumni Center, by e-mail at oscarson.deborah@mayo.edu or phone 507-538-1663.
Mayo School of Health Sciences
2008/2009 Alumni Association
Officers and Board

Officers
Lorrie Bennett, Rochester, Minn.
President
Brian V. Schreck, Liberty Lake, Wash.
President-Elect
Mark E. Longacre, Omaha, Neb.
Vice President
Marlea A. Judd, Rochester, Minn.
Secretary/Treasurer
Steven J. Hust, Scottsdale, Ariz.
Past-President
Karen D. Herman, Rochester, Minn.
Administrator
Deborah Oscarson, Rochester, Minn.
Alumni Relations Coordinator

Executive Committee
Firas Abdul-Hadi, Scottsdale, Ariz.
Ex-Officio Member
David C. Agerter, M.D., Kasson, Minn.
Associate Dean, MSHS, Ex-Officio Member
Lynn S. Borkenhagen, Rochester, Minn.
Robert M. Hauptman, Rochester, Minn.
MSHS Representative, Ex-Officio Member
Ruth L. Holloran, Rochester, Minn.
MSHS Representative, Ex-Officio Member
Bradley D. Johnson, Phoenix, Ariz.
Nell E. Robinson, Jacksonville, Fla.
Ex-Officio Member
Jamila C. Russeau, Jacksonville, Fla.
Ex-Officio Member
Troy Tynsky, Rochester, Minn.
Ex-Officio Member
Virginia Wright-Peterson, Rochester, Minn.
Ex-Officio Member

Board of Directors
Patricio Aleman, Rochester, Minn.
Ginny Brown, Rochester, Minn.
Diane M. Davis, Chicago, Ill.
Amy Froemming, Neptune Beach, Fla.
Sandra L. Hanson, Rochester, Minn.
Jack Kless, Perry, Ohio
Todd A. Meyer, Rochester, Minn.
Mark A. Murphy, St. Michael, Minn.
Rae M. Parker, Rochester, Minn.
Jim Pringnitz, Rochester, Minn.
Tiffani Schilling, Colorado Springs, Colo.
Vanessa Scifres, Phoenix, Ariz.
Sarah A. Sydlowski, Fountain Hills, Ariz.
Grace W. Tivnan, Lake Forest, Ill.
Elwood Wilkins, Fowler, Mich.

Let us know what you’ve been doing …
We want to recognize your achievements. Let us know about your professional activities, recent honors, books or articles written, etc., for publication in an upcoming MSHS Connections.

Tell us what you’d like to read …
Suggest the topics you’d be interested in reading about in MSHS Connections.

We’re looking for future Alumni!
If you know of an MSHS student prospect(s) whom the Office of Enrollment and Student Services should contact, please let us hear from you. Include the name and full address of the prospective student, and programs of potential interest. (See listing of programs in Resource Central on page 27.)

Thank you on behalf of Mayo School of Health Sciences.

Contact us!
Send us news about yourself or suggestions for articles by e-mail, FAX or U.S. Postal Service. Please address your submissions and/or correspondence to:

Mayo Clinic MSHS Connections
Attn: Managing Editor
Ozmun East 6
200 First Street S.W.
Rochester, MN  55905

FAX: 507-284-8713
E-mail: connectionsmageditor@mayo.edu

Please note:
2009/2010 Alumni Association Officers and Board will be elected at the April 2009 meeting.
New premedical program between ASU and Mayo Clinic opens
Program allows students to shadow doctors and give back to the community

The growing relationship between Mayo Clinic and Arizona State University (ASU) has resulted in a new collaborative effort: The ASU Barrett Honors College Premedical Scholars Program.

The program, sponsored by Mayo Clinic for students at Barrett Honors College, will teach premedical students about the wide variety of interests and career opportunities available in the practice of medicine, and also encourage them to take an active role in community and humanitarian programs.

The initiative pairs each student with a Mayo Clinic physician mentor and provides a number of active learning and growth opportunities, including:

• Shadowing Mayo Clinic physicians from a variety of medical and surgical specialties
• Hands-on laboratory experiences, including suturing, applying a cast, CPR, performing a simulated colonoscopy and operating in the surgical simulation center
• Research assignments on Mayo Clinic-sponsored projects that complement those already available through ASU
• Help in preparing a strong medical school application

Students will also be encouraged to participate in a number of human-interest community programs, including:

• Shadowing medical directors and home nurses at Hospice of the Valley
• Observing a variety of clinical treatments at St. Vincent de Paul Free Clinic
• Participating in an ambulance ride-a-long with Scottsdale Emergency Medical Services
• Training as a support group facilitator at the New Song Center, which provides grief support and education for children, young adults, and their families

Future lectures include a wide variety of topics, such as “The Life of a Neurosurgeon,” “What it’s Like to Take Care of the President of the United States” and “Astronaut Medicine.”

“I am delighted about this connection with our ASU colleagues and the opportunity to proactively encourage premed students to become involved in diverse areas of medicine that will help them to provide support to those in need,” says Victor F. Trastek, CEO, Mayo Clinic.

“For more information:

Mark Jacobs, Dean, Barrett, The Honors College. “We are extremely grateful that the Mayo Clinic so generously and creatively devised this program for our students.”
Mayo Clinic physicians estimate new, tiny, super-sensitive probe could cut colon polyp removal time in half

Based on results of a landmark study, researchers at Mayo Clinic’s Florida campus see a future in which virtual biopsies will eliminate the need to remove colon polyps that are not cancerous or will not morph into the disease.

Currently one-third to one-half of the polyps removed during colonoscopies end up being harmless, but they need to be examined by pathologists, and this increases time, expense and the potential for complications to the beneficial screening.

At the Oct. 7, 2008, annual meeting of the American College of Gastroenterology, Mayo Clinic gastroenterologists presented final details of a study testing a probe so sensitive that it can tell if a cell in the colon is becoming cancerous or not.

They specifically found that the system, known as probe-based confocal laser endomicroscopy (pCLE), was 90 percent accurate in identifying benign or harmless polyps in patients. With further tweaking, the researchers believe pCLE can reach about 100 percent accuracy.

“Our goal is to remove only cancerous or precancerous polyps from patients during a colonoscopy, and I think we are close to that,” says the study’s lead investigator, Michael Wallace, M.D., M.P.H., professor of medicine at Mayo Clinic.

Mayo Clinic has been the U.S. leader in testing pCLE, among other endoscopic imaging technologies, and is one of three international institutions to have tested it in colon polyps. The system has been used under a research protocol for several years at Mayo. Now, physicians are starting to use it more broadly, especially to re-examine the colon in patients who previously had large, precancerous polyps removed and in pre-cancerous conditions elsewhere in the GI tract, such as Barrett’s esophagus, Dr. Wallace says.

In this study, the researchers tested two different new imaging systems against the gold standard, which is examination of a removed polyp by a pathologist.

“Using the expertise of a pathologist has been a great way to determine if a polyp is dangerous, but because half of these growths are not dangerous, we are seeking an equally effective and more efficient way to determine who is at risk of colon cancer,” says the study’s lead research fellow, Anna Buchner, M.D.

The pCLE system is a fiber-optic probe 2 millimeters in diameter that can be passed through a normal endoscope and can see structures as small as 1 micron, such as single cells or the nucleus within a cell.

“This is essentially a miniaturized microscope that can be placed inside the body, so the tissue doesn’t need to be removed and placed under a traditional microscope,” Dr. Wallace says.

The pCLE system, which was developed by Mauna Kea Technologies (Paris, France), was tested against the Fujinon color enhancement system (FICE), which uses optical filters to look at a larger area of tissue.

“This is like looking at the forest using FICE or the trees with pCLE,” Dr. Wallace says.

A total of 57 polyps from 38 patients were examined. The FICE technique correctly diagnosed 41 of 57 polyps as benign, whereas pCLE picked up 51 of the benign lesions.

The researchers believe that the best use of these advanced technologies is to use FICE to provide a first look at suspicious areas of a colon during a colonoscopy and then to use pCLE to zero in on polyps in question.

“These new probes will change how colonoscopies and other procedures using endoscopes will be done in the future,” says Dr. Buchner. “We will be able to perform real-time virtual biopsies, which will be more efficient in every way.” One major advantage is that the pCLE system allows doctors to make a specific diagnosis at the time of the procedure and thus go directly to treatment instead of waiting two to three days for biopsy results to return. This should allow patients to avoid repeat procedures, Dr. Wallace says.

For more information:
Researchers identify when brain aneurysms most likely to rupture

A new international collaborative study led by Mayo Clinic found that the risk of a brain aneurysm rupturing over time depends on the location and size of the aneurysm. This study was presented in September at the Sixth World Stroke Congress meeting in Vienna, Austria.

A brain aneurysm, also known as an intracranial or cerebral aneurysm, is an abnormal sac or tiny balloon on a blood vessel to the brain. Aneurysms can rupture and bleed into the area between the brain and the surrounding membrane, leading to stroke and death. An estimated 2 percent of Americans, approximately 6 million people, have brain aneurysms. These aneurysms rupture in about 25,000 people each year.

“This study provides us with very useful information that will allow us to better guide our patients with unruptured aneurysms regarding the risk of aneurysm rupture during a very long period of follow-up,” says Robert Brown, M.D., a Mayo Clinic neurologist and the study’s lead investigator.

The study was part of the International Study of Unruptured Intracranial Aneurysms, which includes 4,059 patients with unruptured brain aneurysms at 61 different medical centers in North America and Europe. These patients have been followed for an average of more than nine years.

Dr. Brown and his team found that rupture risk was somewhat higher among patients with aneurysms in the back of the brain or in the posterior communicating artery, also in the back of the brain, compared to those in the front of the brain. Additionally, patients whose aneurysms were more than 13 millimeters (mm) in diameter were at least twice as likely to experience rupture, compared to those whose aneurysms were 7–12 mm in diameter.

“When one compares the risk of rupture determined in this study to the risk of treatment for an aneurysm, it appears that these risks are similar for small aneurysms less than 10-12 mm in size. It is unclear whether these aneurysms need to be treated in all patients, and this will be clarified with further research,” says Dr. Brown.

For more information: http://www.mayoclinic.org/news2008-rst/4992.html

Potential new therapeutic target for progressive multiple sclerosis

A Mayo Clinic study has found that two particular enzymes were elevated in patients with progressive multiple sclerosis (MS). The levels of these enzymes also were associated with the patients’ levels of disability. These findings give researchers new hope in developing a therapy for patients with progressive MS.

Approximately 330,000 people in the United States have MS. Symptoms include loss of muscle coordination, strength, vision, balance and cognition. In patients with progressive MS, these symptoms do not decrease in intensity, while patients with relapsing/remitting MS may experience partial or total recovery from symptoms.

This study was presented at the American Neurological Association annual meeting in Salt Lake City on Sept. 23, 2008.

Mayo Clinic provides care for nearly 2,500 patients with MS each year. MS is a disease of the central nervous system that includes the brain, spinal cord and nerves. It is called a demyelinating disease because it results from damage to myelin, the insulating covering of nerves. It occurs most commonly in those between the ages of 20 and 40, and is the most frequent neurological disorder in young adults in North America and Europe.

“Current therapies are most effective for relapsing/remitting MS, with fewer options for progressive MS,” says Isobel Scarisbrick, Ph.D., a Mayo Clinic neuroscientist and a lead author of this study. “It’s also sometimes difficult to diagnose which type of MS a patient has, and it’s important to treat these patients differently.”

To help distinguish between the types of MS and identify a therapeutic target for progressive MS, Dr. Scarisbrick and a team of Mayo Clinic researchers studied five different Kallikreins, or secreted enzymes, in patients with MS. The team tested the level of each Kallikrein in the blood of 35 patients with MS and 62 healthy patients.

“We will continue to study how Kallikrein 1 and Kallikrein 6, either separately or together, play roles in neuron injury and how it occurs in patients with progressive MS,” says Dr. Scarisbrick. “Eventually, we hope to determine a way to target these enzymes with therapies that will benefit patients with progressive MS.”

For more information: http://www.mayoclinic.org/news2008-rst/4988.html
MSHS honors Luci Contois, retiring program director

In June, MSHS’s Cytogenetics Program honored Luci Contois, retiring program director for the Diagnostic Genetics Program of Northern Michigan University (NMU), for her efforts in establishing and maintaining a collaborative relationship between the university’s cytogenetics students and Mayo Clinic.

Contois had been instrumental in the collaborative program since October 1999, when Mayo Clinic received the first university students to participate in the Cytogenetics and the Molecular Genetics Clinical Laboratory Practicum. NMU students participated in an eight-month education program within the Mayo’s Cytogenetic Laboratory or a 25-week practicum in the Molecular Genetics Laboratory.

Five NMU students graduated from the Cytogenetics Program in 2008. To date, 13 students have successfully completed the 25-week practicum in the Molecular Genetics Laboratory, and many have been hired by Mayo Clinic.

Partnership with Mayo Clinic gives high school students experience in health care careers

In August, nine students from Rochester’s Century High School took part in a four-week program at Mayo Clinic designed to expose them to health careers.

Program faculty members encouraged students to set career goals, and consider the practical aspects of knowing how to dress and conduct themselves professionally. There were also hands-on experiences in Mayo Clinic’s Simulation Center, including the chance to do cardiopulmonary resuscitation in an emergency exercise and practice gallbladder surgery on a video game.

Plans are to expand the experience next year with students from each of Rochester’s public high schools.
Student & Alumni News

■ MSHS, Mayo Medical School Students Win CLARION Competition

What do fish bones and health care education have in common? A fishbone diagram, also called a cause-and-effect diagram, shows all the possible causes of a certain event. It is considered one of seven basic tools of quality management and was used by Mayo Clinic students to win the national CLARION case study competition, hosted April 11 & 12 on the University of Minnesota, Minneapolis campus.

Mayo Clinic students on the winning team included:

• Marla Hall, MSHS Nurse Practitioner Program
• Debra Coy, MSHS Nurse Practitioner Program
• Peter Conrad, Mayo Medical School
• Brian Wilhemi, Mayo Medical School

MSHS has participated for the past three years in this national competition. Students gain valuable interdisciplinary problem-solving skills and are awarded a cash prize. In addition, participating students share what they’ve learned with others in Mayo’s education programs.

Clinician Administrator Relationship Improvement Organization (CLARION) is a University of Minnesota student-led organization dedicated to improving health care through interprofessional collaboration.

The sentinel event competition included entrants from 10 schools from across the United States, represented by teams of four students from different disciplines. Team members collaborated to determine the possible causes of a sentinel case and develop recommendations on how to avoid it in the future.

Participants collaborate with other students, apply their real-life practice experiences and obtain new knowledge in the principles of quality improvement and financial management. Students in the competition attest to a greater appreciation of the complexity of health care processes, the role of different professions in creating quality and safe outcomes for patients, and the depth and breadth of the curriculum of their schools.

Since 2002, CLARION has hosted the national competition, offering students a 360-degree perspective on patient safety in today’s health care system.

— Lisa Muenkel

■ Diagnostic Medical Sonography Poster Winner

Sonography Program senior student Michelle Mrozek (pictured at right) won second place in the student poster competition at the 2008 Society of Diagnostic Medical Sonography (SDMS) National Conference in Mashantucket, Conn., in October.

Her poster was titled “Catch a Wave: Effects of a Left Ventricular Assist Device.”

For more information on the 2009 SDMS conference, see http://www.sdms.org/meetings/default.asp

■ Let us know what you have been doing.

We want to recognize your achievements. Please e-mail or write the Mayo School of Health Sciences (addresses on page 35). Tell us about your professional activities, recent honors, books or articles you have written, for publication in this section in an upcoming issue of MSHS Connections.
**Oatis receives 2008 Program Appreciation Award**

Kristina Oatis, MSHS student coordinator, Mayo Clinic Arizona, was named the recipient of the 2008 Program Appreciation Award given by the Midwestern University Physician Assistant Program in Glendale, Ariz. The award recognizes the outstanding efforts of physician and physician assistant preceptors and their staffs. Students of the university’s program spend time with faculty at Mayo Clinic. Oatis was honored for her coordination of educational opportunities for students. She was recognized at a banquet in June.

**Kickball Tournament**

A multi-school picnic and kickball tournament was held on Saturday, Sept. 23. Approximately 70 students and family members from Mayo Graduate School, Mayo Medical School, and MSHS enjoyed a beautiful day at Bear Creek Park in Rochester.

**MSHS election luncheon**

On Nov. 4, Rochester MSHS students were invited to an all-school luncheon. An election theme was used, and students participated in fun activities such as “pin the tail on the donkey” and an “elephant cake walk”. This was part of the Allied Health Professions Week Celebrations.

**MSHS open house success**

On Nov. 6, more than 80 prospective students attended the MSHS Open House in the Siebens Building. There were opportunities for prospective students to talk with current students, to get a behind-the-scenes tour of classrooms and student areas, and to meet experts representing the school’s many programs.