

LETTER FROM THE PRESIDENT

The International Meeting in Berlin was a great success — the highest attendance we've ever had at an international meeting. The program was highlighted by quality scientific presentations and recognition of the relationship between Mayo Clinic and a German family (page 16) that epitomizes global collaboration. It was a pleasure to share that relationship with alumni in attendance, many of whom were able to tour Berlin and reflect on sites documenting what can happen when the world gets off-kilter. We're grateful to the members of the Mayo Clinic German Speaking Alumni Chapter for their enthusiastic assistance and participation.

This issue of *Mayo Clinic Alumni* includes a story about second opinions (page 28). Asking for and giving second opinions is an important part of quality improvement and continuous education. I'm excited when a patient asks me to get a second opinion, and I always learn something in the process. Mayo Clinic alumni recognize the value of second opinions. They trust our commitment to team-based care and recognize the value to their patients.

I think you'll also enjoy the story (page 38) about the marvelous teamwork involved in the oral and maxillofacial surgical group restoring patients with facial deformities to wholeness. And let me not forget to mention that the Department of Dentistry celebrates its centennial this year (page 41). Some of the details about how the early practitioners at Mayo Clinic operated are fascinating.

Finally, Mayo Clinic welcomes our new president and CEO (page 26). We're thankful to Dr. John Noseworthy for his leadership and service these past nine years. The next issue of this magazine will include a Q&A with him, reflecting on his time as president and CEO. I've known and worked with



ERIC EDELL, M.D. (THD '88)

- President, Mayo Clinic Alumni Association
- Division of Pulmonary and Critical Care Medicine
- The Connor Group Professor of Thoracic Diseases in Honor of Claude Deschamps, M.D., and Eric S. Edell, M.D.
- Mayo Clinic in Rochester

Gianrico Farrugia, M.D., since he was an internal medicine resident. Over the course of my career, I've admired his success, and I look forward to his leadership. I've always respected his humility and recognized that his talents would take him far. No one could have predicted back then that he'd become president and CEO, but many of us are not surprised.





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About the cover: At the Alumni Association International Meeting in Berlin, Germany, alumni were treated to a day of CME in the historic Horsaal Lecture Hall at the Kaiserin-Friedrich-Haus, which was built in the late 19th century to provide German physicians with a central place for extraoccupational training.



CONNECTING IN DAS LAND DER DICTHTER UND DENKER

(THE LAND OF POETS AND THINKERS)



Alumni Association International Meeting

In June, 123 alumni and 69 of their guests from six countries and 12 U.S. states gathered in Berlin, Germany, for the Mayo Clinic Alumni Association International Meeting. The iconic Hotel Adlon Kempinski, headquarters for the meeting, stands in the shadow of the historic Brandenburg Gate — a symbol of European unity and peace.

The meeting included a welcome reception, CME program and gala dinner. Guests not only enjoyed viewing an early-round German win in the FIFA World Cup at the end of the dinner but also shared the hotel with the Rolling Stones.

John Wilkinson, M.D. (MED '78, FM '81),
Department of Family Medicine at Mayo Clinic in
Rochester and course director of the meeting, said
the CME program was a nice blend of cutting-edge
Mayo Clinic programs and advances and practical
advice for use in the office or everyday life. "We had
excellent speakers from all three Mayo Clinic sites
and our German hosts. It's good to get away and
have time to share ideas with colleagues, even those
who may work just down the hall from you."











CME PROGRAM

Speaker highlights



Alumni Association Biennial Meeting in Jacksonville, Florida, and heard about the Berlin meeting there. We'd been thinking about going to Germany at some point, so the timing was good. I really enjoyed the scientific talks on HIV, longevity, vaccines and update on the new medical school in Arizona. We enjoyed meeting a lot of new people, and the Hotel Adlon was beautiful — first class. We also went on the post-conference tour, which was great."

Stephen Hogan, M.D. (PATH '90)Corvallis, Oregon

Steve G. Peters, M.D.

(I '82, THD '84, CCM-I '85) Division of Pulmonary and Critical Care Medicine

Department of Medicine

Mayo Clinic Rochester

"Plummer Project — An Investment in the Future"

Dr. Peters, Mayo Clinic's vice chief medical information officer, described Mayo's enterprisewide implementation of the Epic electronic health record and revenue cycle management system as the organization's biggest change in a generation. The catalyst for the multiyear project was a need for practice and system convergence in addition to rapid, sustainable diffusion of knowledge. More than 200 legacy computer systems were decommissioned in the process by a staff of 500 full-time employees dedicated to the endeavor.

Mayo's Plummer Project, Epic's largest single implementation, has resulted in Mayo Clinic Health System and Rochester employees working from a common electronic health record and revenue cycle management system for the first time. Project implementation concludes this fall.

Dr. Peters credits Mayo Clinic's practice convergence efforts well before Epic implementation and the full support of leadership as keys to the project's success.



Steve G. Peters, M.D.



Robert Bright, M.D.

Robert Bright, M.D.

(P '07)

Department of Psychiatry & Psychology Mayo Clinic Arizona

"Physician Distress and Impairment"

Liselotte Dyrbye, M.D.

(CIM '01)

Division of Community Internal Medicine Department of Medicine Mayo Clinic Rochester

"Enhancing Physician Well-Being and Preventing Burnout"

Drs. Bright and Dyrbye discussed related topics about physician wellness and burnout.

Fifty-five percent of medical students, 60 percent of residents and 51 percent of practicing physicians report experiencing burnout, which is described as emotional exhaustion, depersonalization (feeling detached from or callous toward patients) and a low sense of personal accomplishment. Burnout can lead to increased errors, malpractice litigation, diminished quality of care and motor vehicle accidents.



Liselotte Dyrbye, M.D.

Burnout is an independent predictor of substance abuse and suicidal ideation. Physicians' lifetime prevalence of depression is comparable to the general population, but physicians' risk for suicide is much higher. Physicians abuse alcohol at rates comparable to the general population but abuse opiates and benzodiazepines at five times the rate. A 2008 American College of Surgeons study showed that 1 in 16 responding physicians had experienced suicidal ideation in the past year. The suicide rate among physicians is higher than the general population — two times as high among males and four times as high among females. Each year 400 physicians in the U.S. die by suicide.

Dr. Dyrbye said burnout is more common when physicians:

- · Work more hours
- Are younger
- Are female
- Are paid based entirely on billings
- Are in private practice
- Are in particular specialties (in comparison to general internal medicine, emergency room physicians, neurologists, orthopedic surgeons, radiologists, PM&R physicians and urologists are at increased risk for burnout even after controlling for work hours, practice setting, gender and age)

Key drivers of physician burnout include problems with:

- Work load and job demands
- Control and flexibility
- Work-life integration
- Social support and community at work
- Organizational culture and values
- Efficiency and resources
- · Meaning in work

Dr. Dyrbye described steps individuals can take to protect against burnout:

- Exercise in accordance with CDC guidelines
- Build relationships
- Reduce work hours
- Avoid delayed gratification
- Engage in mindfulness activities
- Reclaim work-life balance
- Reduce work-home conflict; develop strategies to meet both work and home responsibilities when they occur
- Take vacation; cultivate the positive
- Self-assess and calibrate (Mayo Clinic-invented Well-Being Index, mededwebs.com/well-being-index)

Dr. Bright described the perception among many physicians that they're weak if they need time off, can't take call or need help from a colleague. "We're not used to being the ones who are sick. Illness belongs to our patients," he said, advocating for controlling the cognitive, emotional, physical and spiritual aspects of one's life. This may include practicing mindfulness — conscious effort to be completely present in the moment with acceptance of the moment as it is; practicing self-compassion, self-esteem, humility, optimism, humor, patience and tolerance; engaging in health-promoting behaviors such as exercise, a healthy diet and adequate sleep; and finding meaning, purpose and commitment through faith, altruism or core beliefs.

Mayo Clinic Alumni covered the steps organizations can take to reduce physician burnout in 2017 links.mayo.edu/alumnimagazine1702.



Robert Jacobson, M.D.

(PD '89)

Division of Community Pediatric and Adolescent Medicine, Division of Pediatric Infectious Diseases Department of Pediatric and Adolescent Medicine Division of Health Care Policy and Research Department of Health Sciences Research Mayo Clinic Rochester

"How to be an Effective Advocate for Immunizations"

Dr. Jacobson recommends dropping what he calls the pamphlet approach to working with patients and parents who are resistant to immunization: "Let me give you some written information so you and your family can read more about the vaccine when you get home."

"Systematic reviews show that education doesn't work to change vaccine status and often backfires," says Dr. Jacobson. Instead, he advocates using presumptive language regardless if the patient is 1 year old, 13 years old or 60 years old.

He cited research that demonstrates physicians' recommendations about vaccines matter to patients and increase vaccine rates. Patients whose physicians strongly advocate for vaccines are four times more likely to receive the particular vaccine. In one study, parents were 17.5 times more likely to accept vaccine recommendations when physicians use presumptive language such as "The nurse will be in to do the shots

we need to do today," rather than participatory language, "What do you want to do about shots?"

Presumptive language presumes that the patient/parent will accept the recommendation to vaccine and includes:

- A brief statement
- A reasonable assumption that parent and patient are ready to vaccinate

Participatory language, on the other hand, presents the vaccine as optional and a choice the physician offers.

But what should physicians do when patients or parents express hesitation to a recommended vaccine? Dr. Jacobson advises physicians to use the shared CASE approach to vaccine recommendations:

- Corroborate: Ask for and acknowledge the person's concern, identify an underlying principle on which you both agree (e.g., you both want them protected from preventable disease), and set the tone for a respectful, successful talk.
- About me: Describe what you've done to build your knowledge base, and remind the patient why they've sought your advice and expertise for their or their family's health.
- **S**cience: Briefly relate what the science says, and link that to the concern and your shared principle.
- Explain your advice in terms of the shared principle and informed by the science.

Dr. Jacobson outlined a typical conversation and how to manage it using the CASE approach: **Patient:** "No, we won't be doing that vaccine today."

Physician: "Why not? Why don't you want to do that vaccine today?"

Patient: "He's too young; he just turned 11."

Physician: "I thought the same thing 12 years

Physician: "I thought the same thing 12 years ago when the vaccine first came out. And I completely agree we wouldn't want to do a vaccine too early. While we want to complete the vaccine series long before you're exposed, we don't want the immune response to wear off. As a primary care clinician, I had to learn about the timing of the vaccine series. I read the studies, listened to the experts and found the answer. With the HPV vaccine, the younger you are, the better you respond to it. Eleven-year-olds respond much better than 16-year-olds. The immune response doesn't wane, so you can't give it too

early. Starting young means only two doses. Older teens need three doses for the same immunity. So I strongly recommend the first dose today because your child is 11."

"Just as we tell a patient to take off his shirt so we can listen to his heart, we should tell a patient we're giving recommended vaccines during the visit," says Dr. Jacobson. "In this way, we signal a strong recommendation for routine vaccinations, which are critical for our patients' health."

I'm from Essen, Germany, but spent my entire professional career in the U.S. I met my wife, Joan (PATH '72, recently deceased), at Mayo Clinic when she trained in pathology and I trained in radiology. At the Berlin meeting, I wanted to reactivate my friendships and contacts from 40 years ago when I trained at Mayo Clinic and we took canoe trips to Lake of the **Woods in northern Minnesota** and had outings to the Guthrie Theater in Minneapolis. I got together with people I knew and brainstormed about whether I should move back to Germany. I studied in Berlin as a young medical student. It's a new Berlin now — exploding, growing and blossoming."

Hans Jüttner, M.D. (R-D '71)
 Sheboygan, Wisconsin



Stephen Cassivi, M.D.

(TS '02) Division of General Thoracic Surgery Department of Surgery Mayo Clinic Rochester

"Mayo Clinic and Oxford University — A New Transatlantic Partnership"

Mayo Clinic's strategy for 2020 and beyond is to have a greater international presence, building on already successful efforts including programs and services for international patients at Mayo Clinic locations, the Recognized Referral Facilitator program, Mayo Clinic International Advisory Services and the Mayo Clinic Care Network.

Several years ago, the University of Oxford, one of the world's most famous research and education institutions, sought out Mayo Clinic to discuss a joint venture, Dr. Cassivi explained. The result: Mayo Clinic, the University of Oxford and the Oxford University Hospitals Trust formed a strategic relationship to drive advances in medical research, education and patient care. Mayo Clinic and Oxford University Clinic have formed a joint venture to operate a medical facility in central London, opening in early 2019. The partnership's flagship facility will provide leading-edge screening and diagnostic medical services based on Mayo Clinic's Model of Care and many years of experience with patients at U.S. locations.

The Mayo Clinic Healthcare in partnership with Oxford University Clinic will include onsite advanced CT and MRI imaging along with other key, innovative diagnostic testing, including a state-of-the-art endoscopy suite. The facility will be furnished with an executive lounge and concierge services. Internal medicine specialists will provide direct care and use technology to offer seamless access to subspecialist consultation from Mayo Clinic sites in North America and Oxford University.

Internal medicine specialists from Mayo Clinic in Arizona and Rochester, respectively, Robert Orford, M.D. (I '75), and Kevin Fleming, M.D. (I '90, GERI '92), will bring Mayo Clinic expertise and culture to the facility located in the heart of London's medical community on Portland Place.

"This new clinic will differentiate itself by featuring proactive care to provide the right insights the first time and delivering elevated coordination of care from this world-renowned partnership," says Dr. Cassivi. "Dr. William J. Mayo said, 'Science knows no country.' We believe this extension of the Mayo Clinic Model of Care with an unparalleled partner such as Oxford is right in line with Dr. Will's vision."

I have attended Alumni Association International Meetings in Ireland, Italy and Greece, and attended this one with my wife, Janet. The meeting included a wide range of topics, and the social gatherings were well run. Having done a rotation in neurosurgery at Oxford, I was very interested in the presentation about this partnership with Mayo."

Robert Kazan, M.D. (S '74, NS '78)
 West Suburban Neurosurgical Associates
 Oakbrook, Illinois

Stacey Rizza, M.D.

(MED '95, I '98, INFD '01) Division of Infectious Diseases Department of Medicine Mayo Clinic Rochester

"HIV 2018: From Fatal Illness to Chronic Disease"

Dr. Rizza calls HIV a worldwide infectious disease epidemic and public health crisis; the number of people diagnosed with it is increasing. Thirteen percent of people in the U.S. and 15 percent of people in Western Europe have HIV and don't know it.

"If you fail to diagnose it, your patient will die and so will the people they expose to it," says Dr. Rizza.

- After gay men, the group most commonly contracting HIV is heterosexual women.
- One-quarter of new AIDS diagnoses are women.
- One in 139 U.S. women will be diagnosed with HIV in her lifetime, 1 in 32 black women and 1 in 106 Hispanic/Latina women.
- Fifty percent of people with HIV are older than 50, and they comprise 15 percent of new diagnoses.
 Older people progress faster from HIV to AIDS due to reduced immune systems. They're less aware of HIV, less likely to use condoms and less likely to get tested for HIV.



Stacey Rizza, M.D.

Dr. Rizza described current, effective antiretroviral therapy as a single combination pill taken once a day. Today's therapy is easier to take, less toxic and more potent. It's important for diagnosed patients to begin therapy immediately regardless of their T-cell count, and for therapy to include three active drugs from at least two classes of available drugs. However, compliance with the treatment regimen is essential. Missing even a single dose can result in the body becoming immune to the therapy.

"If we could identify everyone infected with HIV and get them on therapy with the virus suppressed, we could eliminate HIV in one generation," says Dr. Rizza. "We advocate for universal HIV screening for everyone age 13 to 64 at least once in their life and annual screening for persons with known risks.

"Health care workers are bad at determining who should be screened. All physicians should make sure their patients have a lifetime screening for HIV."

Several years ago, my wife, Kathy, and I noticed that the **Alumni Association was hosting** a trip to the Holy Land — a part of the world my wife always wanted to see. Our experience on that trip was so positive that we didn't hesitate to join the Alumni **Association again this year when** it hosted a trip to Berlin. Once again, our expectations were exceeded in the quality of the trip and camaraderie of fellow alumni. The scientific meeting was expertly crafted to have pertinence to virtually everyone in attendance independent of their specialty."

– Michael Gross, M.D. (OR '77)Omaha, Nebraska



Amit Shah, M.D.

(I '14)

Division of Community Internal Medicine
Department of Internal Medicine
Mayo Clinic Arizona

"Healthy Aging: Lessons from Long-Lived Individuals and Societies"

As people's longevity has increased, are we simply adding years without quality? Is it possible to compress morbidity into the later years of life and increase the "healthspan"? Dr. Shah says studies show disability can be postponed about seven years by not smoking, maintaining a healthy weight and exercising.

He explained that longevity is affected by genetics (about 70 percent), development or epigenetic factors, and environment. And there's great variation among individuals, individuals within the same family, and families within populations, so there is no sure thing when it comes to increasing high-quality years to one's lifespan.

Dr. Shah cited the work of Dan Buettner and his book "Blue Zones," which finds common themes in several long-lived communities around the world: Seventh Day Adventists in Loma Linda, California (average life expectancy 10 years more than U.S. average); Nicoya Peninsula, Costa Rica (lowest middle-age mortality, most physically fit in old age); Sardinia, Italy (highest percentage of men reaching 100); Okinawa, Japan (longest-living women); and

Icaria, Greece (highest percentage of people who live to 90, 20 percent lower cancer rate, 50 percent lower heart disease rate, rare dementia).

Dr. Shah discussed nine lessons to be learned from these communities.

- 1. Move naturally: Moderate, regular physical activity
- 2. Hara Hachi Bu: Stop eating when 80 percent full
- 3. **Plant slant:** Plant-based diet with limited (if any) meat
- 4. **Grapes of life:** Moderate red wine intake
- 5. **Purpose now:** "Have a reason to get up in the morning"
- 6. **Downshift:** Stress reduction
- 7. **Belong:** Engagement in spirituality or religion
- 8. **Loved ones first:** Family first
- 9. **Right tribe:** Social connectedness

Dr. Shah addressed whether these habits can be replicated in other communities with success, pointing out a community in Finland that had the highest heart disease rate in the world 40 years ago. The community moved to a low-fat, high-vegetable diet, reduced smoking and, over three decades, reduced heart attack death rates by 25 percent in middle-aged men, lung cancer deaths by 20 percent and all cancer deaths by 10 percent. The community also increased average longevity by 10 years.

Three-year efforts in one California community resulted in a 14 percent reduction in obesity, 50 percent reduction in childhood obesity, 28 percent decrease in smoking and 8 percent increase in life satisfaction. Over a six-year period "Blue Zones" initiatives in Albert Lea, Minnesota, resulted in a 30 percent reduction in smoking, \$7.5 million savings in health care costs and an estimated 2.9-year increase in lifespan.

Dr. Shah summarized that healthy aging with compression of morbidity is possible by following the examples of long-lived populations. His advice for the fountain of youth, based on this research, can be summarized as simply "eat less, move more and have a reason to get up in the morning."

















HISTORIC HORSAAL LECTURE HALL

Empress Friedrich Kaiserin-Friedrich-Haus

Alumni attending the Berlin meeting were treated to a day of CME activity at the historic Horsaal Lecture Hall at the Kaiserin-Friedrich-Haus.

The Kaiserin-Friedrich-Haus was built with private donations in the late 19th century to provide German physicians with a central place for extraoccupational training. The Kaiserin-Friedrich-Haus is the offspring of the Empress Friedrich Foundation, which was founded in 1903 as a nonprofit institution devoted to the care and development of continuing medical education. The foundation is named for the eldest daughter of Queen Victoria and Albert of Saxe-Coburg and Gotha, Victoria Adelaide Mary Louisa, who took the name Empress Frederick after the death of her husband, Emperor Frederick III.

The Kaiserin-Friedrich-Haus survived World War II largely unscathed. After the war, the Soviet military command took over the house until 1949. In 1950, the East Berlin city council took control of the house, and it served as the German Academy of Arts. It was retransferred to the Empress Friedrich Foundation in 1992 and again serves its original purpose for the medical profession. Activities of the Empress Friedrich Foundation serve advanced medical training including conferences, seminars, courses and meetings.









GALA DINNER

Hotel Adlon

The Hotel Adlon originally opened in October 1907 on the Unter den Linden after Lorenz Adlon convinced Kaiser Willhelm II that Berlin needed a luxury hotel on par with those in other European capitals. Located in the heart of the government quarter next to the British embassy, across from the French and American embassies, and blocks from the Reich Chancellery and other government ministries, the hotel was one of the most famous in Europe and a gathering place for the upper class — the social center of Berlin. The hotel survived World War II without significant damage but was destroyed by a fire in 1945. The new Hotel Adlon was rebuilt based loosely on the designs of the original hotel and reopened in 1997 on the original site. \blacktriangle

The meeting was first class with superb presentations of relevant information at an excellent venue. The best part of the meeting was talking with alumni from all over the world and realizing how our common Mayo heritage has prepared us to succeed, whether practicing in the U.S. or aboard."

Daniel Stormont, M.D. (OR '85)
 Memorial Hospital of Lafayette County
 Darlington, Wisconsin
 Annette Stormont, M.D. (OPH '85)
 Monroe Clinic, Monroe, Wisconsin











THE MAYOS AND THE STRASSMANNS

AN INVALUABLE FRIENDSHIP





Dr. W. Paul Strassmann and family in 1907: Hellmuth, Antonie, Hedwig, Paul, Erwin and Gisela.

n the early 1900s the Mayo brothers were known as surgical travelers of the world. William J. Mayo, M.D. (Dr. Will), and Charles H. Mayo, M.D. (Dr. Charlie), enjoyed visiting Germany, which was considered a center of medical innovation.

On one trip to Germany, the brothers befriended the Strassmann family of Berlin. Generations of men in the Strassmann family were physicians, military veterans, and contributors to cultural and scientific life in Germany. The Strassmann clinic was internationally recognized.

The Mayo brothers believed that Mayo Clinic and the Strassmann clinic shared important values — private institutions trying to serve the public, help the poor and learn for the future. Both clinics featured art and gardens to create a soothing environment for patients. In its 27-year history, the Strassmann clinic delivered more than 15,000 babies. Patients at the clinic came from all walks of life and included the wife of Kaiser Wilhelm II, the last German emperor.

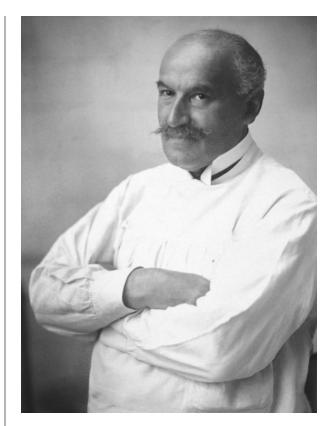
Dr. W. Paul Strassmann, the founder of the clinic, was a contemporary of the Mayo brothers. Dr. Will described him as "a fine human being, a great surgeon and teacher, a loyal friend. Dr. Charlie and I will never forget his inexhaustible friendliness toward us during our early visits to Germany."

Dr. Strassmann groomed his son, Erwin, to succeed him. Dr. Erwin Strassmann visited U.S. medical centers for specialty training in 1929, including two weeks at Mayo Clinic. He said about Mayo Clinic: "The modesty and simplicity of these brothers Mayo is indescribably touching. They are 100 percent matter-of-fact, genuine and of unfathomable greatness."

'The iron wheel is crushing us'

In 1930 the Nazi party took power in Germany. The Strassmanns were of Jewish descent, and the Nazis made persecution of Jewish people their official policy. All Germans were required to document their ancestry. The policy of classifying people by "race" left the Strassmanns in a precarious position.

Dr. Paul Strassmann said: "'Aryans' may no longer consult us; 'Jewish' physicians cling together. We 'non-Aryans' are between both groups." Drs. Paul and Erwin Strassmann were dismissed from the faculty of the University of Berlin. "Without pity, the iron wheel is crushing us," said Dr. Paul Strassmann.



Dr. W. Paul Strassmann

'Can I do anything for you?'

When he heard what was happening to his friend in Berlin, Dr. Will wrote to Dr. Paul Strassman: "Can I do anything for you?"

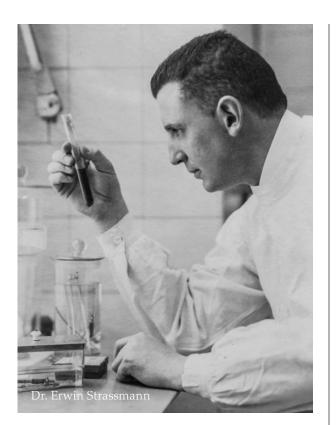
Tired of being stalked by the Nazis, as his grandson later described, Dr. Paul Strassman sold the clinic, retired and died soon thereafter. Other members of the family sought refuge throughout the world. Some were persecuted and killed in concentration camps.

In 1936 Dr. Erwin Strassman decided to emigrate, but bureaucratic red tape made it difficult to enter the U.S. The Strassmanns reached out to their friends at Mayo Clinic.

'A breathing space'

Dr. Will offered Dr. Erwin Strassman a stipend to study at Mayo Clinic, describing it as "a breathing space" while Dr. Strassmann "adjusts and makes plans for the future."

Assured of a place waiting for him at Mayo Clinic, Dr. Erwin Strassmann left Germany for America.



During almost two years at Mayo Clinic, Dr. Strassmann gave four lectures to the staff and published eight papers.

His wife, Ilse, and their children, Paul, Angelica and Renata, had to wait in Germany until they received permission to enter the U.S. The family was separated for more than a year. Dr. Strassmann worked to establish himself as a physician in America, refining his skills and writing papers with Mayo colleagues.

According to Dr. Strassmann, Dr. Will told him, "You can stay one, two, or three years, and in the meantime we'll find something for you. You will learn on your own what development is best for you and what you prefer."

'What if you had not cultivated these American contacts?'

In 1936 Ilse Strassmann wrote to her husband from Germany: "There's a hint of fate in this development. What if you had not cultivated these American contacts in Germany? How often was I annoyed at

once again having to invite Americans. Now I know how important and good it was."

Dr. Will intervened on behalf of the separated family, writing to the U.S. Consul General in Berlin: "If anything is possible to facilitate and expedite the granting of a visa for Mrs. Strassmann and the children, it will be deeply appreciated."

Days before their ship was to depart in August 1937, the family's final approvals arrived. The Strassmanns were able to bring some personal items to America, including a treasured book, "De Humani Corporis Fabrica Libri Septem," written by Andreas Vesalius and published in 1543. To leave the country with the rare book, the Strassmanns had to bribe a Nazi official with a painting from their art collection. A week after landing in New York City, Ilse Strassmann and the children were reunited with Dr. Strassmann in Rochester.

The Strassmanns were deeply touched by the hospitality they received in Rochester. "Will Mayo invited me for a Saturday lunch with organ music in the background. Who can describe my joy when he asked me ... would I spend three days with them on the Mississippi? I painted two watercolors and dedicated them to Mrs. Mayo," said Dr. Strassmann.

Ilse Strassmann said, "Our life here is so cheerful and peaceful ... foodstuffs incredibly good and generous. We spent a particularly nice evening at Charles Mayo's, a true house of culture."

The Strassmanns, who lived in a house a short walk from Mayo Clinic and Saint Marys Hospital, became friends with Dr. Charlie's son, Chuck Mayo, M.D. (S '64), and his wife, Alice.

From June 1936 to April 1938, Dr. Strassmann was a special fellow in obstetrics and gynecology at Mayo Clinic. Dr. Strassmann and Dr. Chuck Mayo co-authored a paper, "Fertility and Sterility after Extra-Uterine Pregnancy," which appeared in *Surgery, Gynecology and Obstetrics* in 1938. Dr. Strassman also worked with Mayo physicians Robert Mussey, M.D. (OBG '12), James Masson, M.D.



Watch "Breathing Space: One Family's Journey from Nazi Germany to Mayo Clinic" history.mayoclinic.org/books-films/heritage-films.php

(S '13), and Virgil Counseller, M.D. (S '27). During almost two years at Mayo Clinic, Dr. Strassmann gave four lectures to the staff and published eight papers.

'There is no way for me to express my thankfulness'

With the skills and experience he gained at Mayo Clinic, Dr. Strassmann went to Houston, Texas, where he developed a flourishing practice. Soon after moving there, he wrote to Dr. Will: "There is no way for me to express my thankfulness besides ... keeping up the standard which is the rule at Rochester and by becoming a loyal and useful citizen of a country which produces results as there are at Mayo Clinic."

In 1962 Dr. Erwin Strassmann gave the Vesalius book and other rare medical volumes to Mayo Clinic in gratitude for the Mayo brothers' role in helping his family escape Nazi Germany. The book's home today is in the W. Bruce Fye History of Medicine Library at Mayo Clinic in Rochester, Minnesota. The Vesalius book revolutionized understanding of the human body and is regarded as one of the most important books in the history of medicine.

'In the place where medicine is practiced best'

"It comes from the heart," said Dr. Erwin Strassmann.
"From the day I arrived in Rochester, Chuck and Alice
Mayo treated me as one of the family. This experience

together with the spirit and efficiency of the Clinic was America at its best. It would be a joy if I could leave this classic work, as a symbol of these sentiments, in the place where medicine is practiced best."

The Strassmann and Mayo families continued their friendship, and the Strassmanns were guests of honor at the Mayo centennial celebration in 1964.

More than 50 years after the book donation, Dr. Erwin Strassmann's son, Paul, and granddaughter, Diana, visited Mayo Clinic and saw the book for the first time. Paul Strassman, Ph.D., has continued the family tradition of generosity by donating other rare books, including a volume of the Koran. His gift is an expression of the love of learning the Strassmann family shares with Mayo Clinic and the spirit of friendship that extends across generations.

In 2018 at the Mayo Clinic Alumni Association International Meeting in Berlin, members of the Strassmann family were recognized as Mayo Alumni Laureates of the Doctors Mayo Society, the highest distinction of alumni philanthropic support. The family members in attendance watched the debut of the Mayo Clinic Heritage Film "Breathing Space: One Family's Journey from Nazi Germany to Mayo Clinic," depicting the relationship between the Mayo and Strassmann families. ▲



Drs. Chuck Mayo and Erwin Strassmann view the Vesalius book in 1962.



Dr. Erwin Strassmann's son, Paul Strassmann, Ph.D., looks at the historic book in 2014.



DR. WILL'S MUSINGS ON GERMAN SURGICAL CENTERS



William J. Mayo, M.D., visited German hospitals in 1900 and again in 1912 and 1913, and wrote about his observations.

In 1912 Dr. Mayo said:

"There is a distinct school of German surgery, and so far as I know it is the only distinct national school, although we have a standardization of technic in America and a trend of surgical opinion which may be said to be American. The American school has been greatly influenced by German ideas and German methods. The American travels and learns, and America is the surgical clearing-house for international surgery. Germany surgery is forceful, thorough, and exact, but has not been influenced by foreign ideas to any extent. German surgery dominates the neighboring countries, and all the clinics I visited this year were distinctly German whether in Germany, Austria, Switzerland, or Holland. The central idea in German surgery is based on the sense of sight. 'To do your work well,' says the German, 'you must see what you do'; hence large incisions. To the American these incisions may seem excessive, yet we all know the size of the incision does not often affect the end-results. Another important point in German surgery is to eradicate

the disease, if possible. Operations are not, therefore, undertaken lightly; the punishment must fit the crime, and, with the exception of cancer, patients are operated upon in a more advanced stage than with us. German surgery deals with pure science; sentiment has no place in it. The directing surgeons of the clinics are responsible men, well-trained and effective. They have three missions to perform: (1) to advance surgical science, (2) to teach the next generation of surgeons, and (3) to conscientiously devote themselves to help their patients.

"The great German clinics are in the hands of keen, well-trained, and ambitious men, and there is a large output of new and good things. One has but to remember the recent contributions to surgery of the chest, head, abdomen, bones, and joints to recognize the great position of German surgery in this generation."

Sources: "Notes on a Visit to the Surgical Clinics of Germany and France," William J. Mayo, *St. Paul Medical Journal*, 1900; "A Short Visit to Some of the Hospitals in Germany, Austria, Switzerland, and Holland," William J. Mayo, M.D., *The Journal-Lancet*, 1912; "Notes from Some of the Surgical Clinics in Germany, Belgium, and Great Britain, 1913," William J. Mayo, M.D., *The Journal-Lancet*, 1913.



Dr. Will (center); his wife, Hattie (second from right); and Mayo Clinic's Christopher Graham, M.D. (left); in Bonn, Germany.

Cities and physicians Dr. Will visited in 1900

- · Hamburg: Drs. Sick, Krause and Lauenstein
- Braunschwieg: Drs. Sprengel and Bencke
- Bonn: Drs. Schede, von Graff and Peterson
- · Cologne: Dr. Bardenheuer

Cities and physicians Dr. Will visited in 1912

- · Hamburg: Dr. Kümmell
- Tübingen: Dr. Perthes
- Bonn: Dr. Garre
- Berlin: Drs. Bier, Körte and Franz

"Prof. Bier is here, the leading spirit in surgical progress. He is intensely interested in his work, and his clinic is very popular, especially with the American student. Prof. Bier has the largest surgical clinic in Germany, and he is a worthy successor to Langenbeck, Deffenbach, and von Bergmann, who each in his time, were the leaders of German surgery."

· Bern: Dr. Kocher

"For thirty years the Kocher clinic at Bern has been one of the leading surgical clinics of the world and is still one of the leading clinics. More new and good ideas have come from this one clinic than from any other clinic of my acquaintance, all due to the genius of one man, Theodor Kocher, who is still vigorous with a seemingly

perpetual youth. Kocher is constantly at work trying out new things and improving the old. He is an inspiration to surgeons the world over."

Cities and physicians Dr. Will visited in 1913

- Berlin: Drs. Bumm and Rotter
- · Leipzig: Dr. Payr
- Jena: Dr. Lexer
- · Heidelberg: Dr. Wilms
- Erlangen: Dr. Graser

"My purpose in visiting Erlangen was to see the work of Prof. Graser, whom I had the pleasure of meeting when he was in America. Graser is a surgeon of the first rank and in the prime of life. He has 180 hospital beds and a large amount of surgical materials. He has taken a great interest in work on the stomach and has originated a method of resection for cancer which has not been excelled. Like all German surgeons, he is greatly interested in bone and joint work, and I examined many cases following operations for deformed and ununited fractures." \blacktriangle



Read more of Dr. Will's comments and observations of German surgical centers: alumniassociation.mayo.edu/news.



Mayo Clinic Alumni Association Board of Directors

KNOW YOUR BOARD

Provides leadership • Makes policy decisions Decides strategic direction and vision

KAJETAN VON ECKARDSTEIN, M.D. (NS '08)

Board member

- Chair, Neurosurgical Department, Westpfalzklinikum Kaiserslautern, Kaiserslautern, Germany
- Clinical fellowship: Neurologic surgery, Mayo Clinic School of Graduate Medical Education, Rochester, Minnesota
- Residency: Neurologic surgery, Helios Klinikum Berlin, Klinikum Buch, Berlin, Germany
- Medical school: Humboldt Universität Berlin Medical School; Freie Universität Berlin Medical School
- Native of: Munich, Germany

Why did you decide to pursue medicine?

As a 16-year-old I spent a year abroad in an all-boys boarding school in Woodberry Forest, Virginia. I took part in a superb AP biology class where we did animal dissections of increasing complexity, beginning with worms and studying rats in the final term. I remember being completely fascinated with the beauty of anatomy and complexity of physiology.

Why did you train at Mayo Clinic?

During medical school I did short-term clinical rotations at the University of Texas Health Science Center at Houston and New York University School of Medicine. I dreamed of getting formal medical training in the U.S. I passed the United States Medical Licensing Examination. My first mentor and chair during residency in Berlin, Jürgen Kiwit, M.D. (NS '91), advocated Mayo Clinic as one of the finest places to aim for. I learned about the international fellowship program offered by the Department of Neurologic Surgery and decided to apply.

What were your initial impressions of Mayo Clinic?

My wife and I visited Rochester for the first time in January 2005. Our first impression was low temperatures and a blizzard. However, we experienced a warm welcome from department chair David Piepgras, M.D. (NS '74), and his wife and other Mayo staff and future colleagues who encouraged me to pursue the fellowship.





I started my fellowship in summer 2006 and was highly impressed with the facilities and resources of the Mayo campus — the neatness of the buildings, information technology infrastructure and prompt availability of diagnostics such as MRI scanners. But also the organized way new employees were officially welcomed and oriented.

I was impressed with the quality of training of assistant personnel such as nurses and physician assistants. The better and more experienced they are, the more doctors are able to focus on their core skills.

How does Mayo Clinic influence your practice?

Besides learning from outstanding surgeons, I have truly understood the necessity of the Mayo dictum — the needs of the patient come first. Although this is challenged day to day in my practice by shortness of time and funds, nothing else really matters in the end.

I have learned to listen to patients more carefully. Being a non-native speaker might have helped. Jokes aside, really understanding patients' symptoms and needs forms the basis for proper treatment decisions.

What do you contribute to the Mayo Clinic Alumni Association?

I would love to add an international perspective to the Board. The Mayo brothers traveled abroad and believed in professional exchange of ideas and techniques in the same way as many international researchers and physicians travel to the three Mayo sites today.

What do you do in your spare time?

I try to spend most of my spare time with my wife and four children. I also like to go hunting and read a good book.

What would people be surprised to know about you?

I was a member of the first German national lacrosse team in 1994. We took part in the world championship in Manchester, United Kingdom — enthusiastically but very unsuccessfully!



MELANIE BROWN, M.D. (MED '98)

Board member

- Program director, integrative medicine,
 Department of Pain, Palliative Care and
 Integrative Medicine, Children's Hospitals and
 Clinics of Minnesota, Minneapolis
- Associate professor, Department of Pediatrics, University of Minnesota, Minneapolis
- Fellowship: Integrative medicine, University of Arizona, Arizona Center for Integrative Medicine, Tucson
- Fellowship: Medical Education Research Innovation Teaching and Scholarship, University of Chicago, Illinois
- Fellowship: MacLean Center for Clinical Medical Ethics, University of Chicago

- Fellowship: Pediatric critical care, University of Chicago
- Residency: Pediatrics, Children's Memorial Hospital, Northwestern University, Chicago
- Medical degree: Mayo Clinic School of Medicine, Rochester, Minnesota
- Master's degree: Systems engineering, University of Pennsylvania, Philadephia
- Undergraduate degree: Duke University, Durham, North Carolina
- Native of: Providence, Rhode Island, and Maplewood, New Jersey

Why did you decide to pursue medicine?

As an electrical engineering undergrad at Duke, I was very interested in medicine, and one of the surgeons I met offered to let me shadow him in the operating room. That surgeon turned out to be Onye Akwari, M.D. (S '78), a Mayo-trained physician. He told me if I was willing to get up at 5 a.m., I was welcome to join him in the OR. Dr. Akwari was a wonderful role model. I was amazed not only by his technical ability and skills but also by the compassion he had toward his patients and young scholars such as me. Throughout my life when I'm looking for my next step, I look at the people around me and think, "Would I want to be like them when I grow up?" He was someone I wanted to be like. I decided to continue my path of pursuing a degree in electrical engineering, but the experience I had with Dr. Akwari never left me.

My father was a physicist, and my mother worked in finance, so my household was science-heavy. I loved math and science, working with my hands and figuring out how things work; engineering was a natural fit. I loved engineering, but I was missing the human connection. Some of my work was making a difference in the world, but I didn't have a personal relationship with people where I could see the difference my work was making in their lives on a day-to-day basis. I wanted more and eventually found it in medicine.

I was an engineer in the aerospace industry for three years after college, and came to Mayo Clinic as a nontraditional student.

What were your impressions of Mayo Clinic?

At Mayo, everyone was on a constant path of discovery. It was a wonderful learning environment, and it shaped my philosophy of caring for and partnering with patients. I had wonderful opportunities to work in underserved countries, including the Solomon Islands and Peru, due to the support of generous benefactors. The class size at Mayo Clinic School of Medicine was great. It felt like a place where I could open the directory, call anyone, express interest and they'd enthusiastically welcome me to shadow them or collaborate on a project. Learning, growth and development are all paramount at Mayo and an important part of what has shaped my medical career and philosophy. There's very much a partnership with patients to figure out how best to improve their quality of life. It's a wonderful way to be taught.

How does Mayo Clinic influence your practice?

I get meaning from my work, which influences all of my interactions. I feel humbled and grateful that people put their trust in me and allow me to care for their children, especially when they are very sick or dying. I learned the importance of that honor and respect from my many mentors and teachers in life and at Mayo Clinic.

What do you contribute to the Mayo Clinic Alumni Association?

I continue the Mayo Clinic tradition even though I'm at a different institution. I offer enthusiasm, mentorship and support for those who come after me. I hope to help people strengthen their ties to the Mayo Clinic family.

What do you do in your spare time?

I love to travel, read, garden and take in the arts. I'm very family-focused. I enjoy doing fun things with my husband and my daughters, ages 10 and 12. ▲

Learning, growth and development are all paramount at Mayo and an important part of what has shaped my medical career and philosophy."

- Melanie Brown, M.D.



GIANRICO FARRUGIA, M.D., NAMED NEW MAYO CLINIC PRESIDENT AND CEO

ianrico Farrugia, M.D. (I '91, GI '94), will succeed John Noseworthy, M.D., as president and CEO. Dr. Farrugia was selected by a search committee made up of members of the Board of Trustees and Board of Governors, which solicited input from senior leaders, physicians and voting staff across Mayo Clinic.

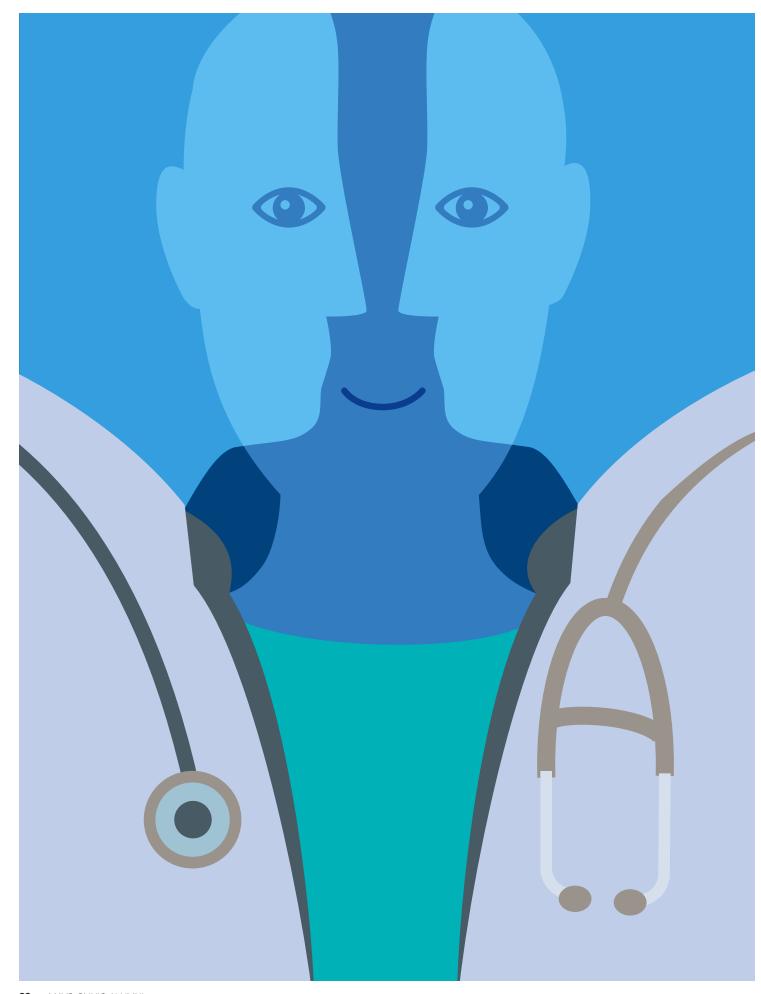
Dr. Farrugia has served as a Mayo Clinic vice president and CEO of Mayo Clinic in Florida since 2015. Under his leadership, Mayo Clinic in Florida has established itself as the destination medical center for the Southeast, with significant investments in people, technology and expansion, including the newly opened 190,000-square-foot Harry T. Mangurian Jr. Building on Mayo Clinic's Florida campus for patients seeking cancer, neurology and neurosurgical care. In 2018 Mayo Clinic was named the best hospital in Florida in *U.S. News & World Report's* annual list of hospitals.

Before serving as CEO of Mayo Clinic in Florida, Dr. Farrugia was director of the Center for Individualized Medicine, which is responsible for bringing genomics into routine clinical care, and cofounder of the Center for Innovation at Mayo Clinic. Dr. Farrugia has spent 30 years as a Mayo physician. ▲

Gianrico Farrugia, M.D.

- Division of Gastroenterology and Hepatology,
 Department of Medicine
- · Department of Physiology and Biomedical Engineering
- Mayo Clinic Florida
- Professor of medicine and physiology,
 Mayo Clinic College of Medicine and Science
- Faculty member, biomedical engineering,
 Mayo Clinic Graduate School of Biomedical Sciences
- Fellowship: Gastroenterology, Mayo Clinic School of Graduate Medical Education
- Residency: Internal medicine, Mayo Clinic School of Graduate Medical Education
- Medical degree: University of Malta Medical School,
 Msida Malta
- Undergraduate degree: St. Aloysius College, Birkirkara, Malta
- Native of: Malta







THE VALUE OF A SECOND OPINION

Since the dawn of the Mayo brothers' surgical practice in the 1880s, people from around the world have flocked to Mayo Clinic for surgery. Last year alone, Mayo surgeons performed almost 95,000 operations at three campuses. Many of these patients come as the result of second opinions requested by their local physicians, while many others initiate their own referrals to Mayo Clinic.

Four chairs of Mayo Clinic surgical divisions or departments weigh in with *Mayo Clinic Alumni* on second opinions. Each surgeon shares an example of the value in consulting a leading academic medical center with high surgical volumes, depth of expertise in uncommon conditions and an unparalleled multidisciplinary approach for every patient. Doing so may lead to a recommendation for nonsurgical treatment or no treatment at all, depending on the case.

MAYO CLINIC ALUMNI

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WATCH AND WAIT IS LATEST STANDARD OF CARE.

A middle-aged patient from North Dakota with a small tumor on her hearing and balance nerves was referred by her hometown physician to Mayo Clinic for surgery. She met with a multidisciplinary Mayo Clinic team that recommended she not have surgery.

"We often don't operate on these small, benign tumors because many of them stop growing," says Colin Driscoll, M.D. (ENT '97), chair of the Department of Otorhinolaryngology – Head and Neck Surgery at Mayo Clinic in Rochester. "We advised a watch-andwait approach and worked with the patient's local physician to make sure she has MRIs to monitor for tumor growth.

"When the patient's local physician trained, the standard practice might have been to remove this type of tumor, but that's not necessarily the best practice today. We don't want to overtreat anyone. When patients do need surgery, we excel at getting them into the OR promptly."

"UNRESECTABLE" IS RESECTABLE. An 80-year-old patient from the Twin Cities who'd been told her aggressive pancreatic cancer was unresectable came to Mayo Clinic for a second opinion. She received chemotherapy to shrink the tumor and surgery to remove what remained. Her tumor was invading multiple large blood vessels and required vascular procedures along with pancreas removal. This was completed by minimally invasive or laparoscopic surgery requiring only small incisions about one-half inch in size. After a successful operation, she healed quickly and left the hospital in six days.

"Many surgeons aren't comfortable with complex vascular resection," says Michael Kendrick, M.D. (S '03), chair of the Division of Hepatobiliary and Pancreas Surgery. "As a result, many patients are sent

home to hospice or receive only palliative chemotherapy. Today we are able to remove many of these tumors through a team approach of oncologists and surgeons. Increasingly, we see patients who have been told their tumors aren't resectable. We can help many of them. How many thousands aren't coming for second opinions?"

REVOLUTIONARY SURGERY IS AVAILABLE. After seven surgical procedures elsewhere, a 61-year-old woman from Illinois came to Mayo Clinic to explore treatment for marked pain and weakness in her shoulder and arm. She had major bone, muscle and tendon damage and had been told to live with it or consider an arm amputation. At Mayo she had major bone reconstruction, novel muscle and tendon transfers, and shoulder replacement. The surgery resulted in significant improvement in pain and range of motion.

"These complex shoulder problems were previously considered unfixable, but in the last five years, a team here has revolutionized the way these problems are treated," says Mark Pagnano, M.D. (OR '96), chair of the Department of Orthopedic Surgery.

the Midwest was diagnosed with testicular cancer that had spread from his pelvis to his jaw. The tumor type, teratoma, isn't responsive to chemotherapy. Other medical centers he consulted said there were no treatment options and recommended the patient receive hospice care. At Mayo Clinic, Bradley Leibovich, M.D. (U '01), chair of the Department of Urology and the David C. Utz, M.D., Professor of Urology, assembled a multidisciplinary team that oversaw 11 surgeries in three years. The patient has been disease-free for three years.









"The cancer threatened major arteries, veins and organs, and the teratoma were peeled away from virtually every structure critical for life," says Dr. Leibovich. "Tumors were removed from the neck, chest, abdomen and pelvis and involved multiple surgical disciplines. That the patient is alive and thriving today is a testament to the value of multidisciplinary expertise available at Mayo Clinic. Great physicians in every area of medicine are at the disposal of our surgical teams."

Every single day, physicians at Mayo Clinic review medical records of patients whose physicians want another voice to weigh in on surgical recommendations.

"It's always reasonable to inquire for another opinion, and we're glad to provide it," says Dr. Pagnano. "As a leading academic medical institution, Mayo Clinic offers the most up-to-date treatment options. If it's been five or more years since you trained at Mayo or inquired about the latest treatment for a particular problem, it's worth reinvestigating. When you feel like you've hit a roadblock, have questions in the back of your mind or feel like you're getting out of your element, contact us. That's what we're here for. Send the patient's records, and let us take a look. We're organized to review outside records and give timely second opinions, including whether it would be worthwhile for the patient to come to Mayo Clinic. Our only interest is making sure patients get the best care possible."

Dr. Pagnano and his surgical colleagues generally agree that surgical second opinions are most valuable for complex and uncommon problems.

"Just because something can't be done locally doesn't mean it can't be done," says Dr. Leibovich. "Many surgeons at Mayo Clinic do operations that aren't being done anywhere else."

Dr. Driscoll points out that volume is a good marker of experience and quality. "I see multiple cases of vestibular schwannoma every week. Most otolaryngologists see a few in the course of their careers. The best outcomes correlate to the highest volume. There are other unusual tumors I may see once every other year, but that's more than almost anyone else in the U.S. sees. We're deep into the rare at Mayo Clinic."

Dr. Kendrick emphasizes the importance of the multidisciplinary team to support the surgical team. "We bring in physicians from multiple specialties to get a patient though a complex operation and provide the necessary postsurgical care. If the risk is reasonable and we think we can help the patient, we'll be aggressive in both surgical and nonsurgical options as long as the patient would like to pursue care.

"At least once a week we see a patient who was told their tumor was unresectable at another center.

Even more disheartening, only a minority of patients with resectable pancreatic cancer ever get referred to a surgeon. The

> definition of what's resectable changes every year, and cancer care is changing rapidly. Mayo Clinic is leading the charge in many of these changes — for cancer and other

> > conditions."

Dr. Leibovich says there's no such thing as a small operation, and he encourages alumni to take advantage of their Mayo Clinic relationship. "Even relatively common procedures such as kidney stone removal and bladder biopsy can

become complicated for some patients, and we are available to discuss and assist as needed, with care at all levels of complexity. Every day we are contacted by Mayo alumni for consultations. They're good at knowing when to reach out about their patients' care, and we're good at considering all the treatment options available and rendering our best advice so all patients around the world benefit from our collective knowledge and experience." ▲

How to refer

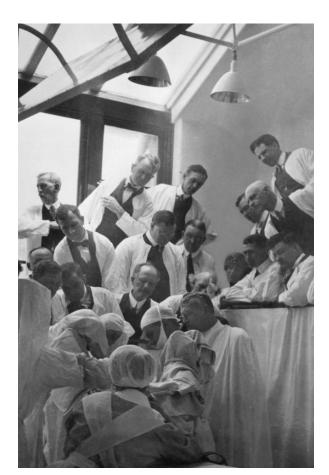
Provider Office (RPO) Rochester 800-533-1564 Arizona 866-629-6362 Florida 800-634-1417

You also can refer a friend or family member who is not your patient: resources/refer-a-friend



THE DAWN OF SURGERY

Surgery has long been a mainstay of Mayo Clinic's practice. The founding brothers, William J. Mayo, M.D. (Dr. Will), and Charles H. Mayo, M.D. (Dr. Charlie), were active in surgical practice from 1883 until 1930.



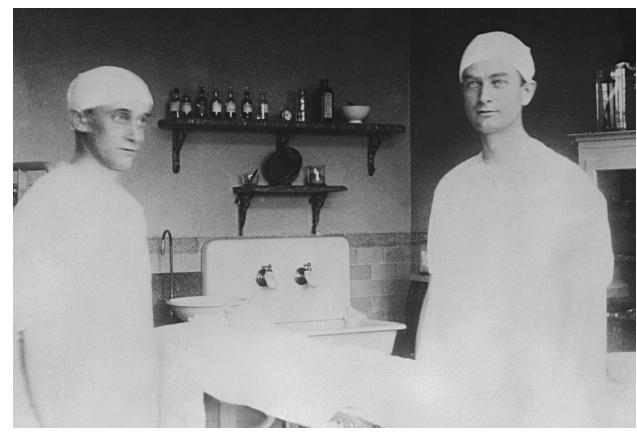
Early surgery circa 1911.

After receiving his medical degree in 1883, Dr. Will joined his father, William Worrall Mayo, M.D., a general practitioner with surgical skills, bringing knowledge about antiseptic procedures to enhance the practice. Dr. Will became his father's assistant and performed surgery in his father's absence. The father-son team gained local recognition for surgical successes. Five years later the younger brother, Dr. Charlie, received his medical degree and joined the practice.

The following year, 1889, Saint Marys Hospital was established in Rochester by the Sisters of Saint Francis, and the Mayo brothers began operating in the single operating room, acting as each other's assistant. The setting was better than most anywhere else in the western U.S. in a similar-size town.

Rochester didn't offer many opportunities to hone their surgical skills, so the brothers volunteered their services at state hospitals in Rochester and St. Peter, Minnesota. Institutions such as these were evolving from asylums to hospitals at the time, and they lacked surgical service.

"... the remuneration they sought was access to the postmortem material of the hospitals and the chance to perform any needed operations on the inmates. Each



The Mayo brothers in the first operating room circa 1904.

Saturday night one of them made the journey to St. Peter to do on Sunday whatever operations were necessary and whatever autopsies the superintendent had saved for his visit. Although the amount of surgery these hospitals provided was relatively small, it was enough to give Will and Charlie some experience in most every new operation they learned."

— "The Doctors Mayo," Helen Clapesattle

By the turn of the century, the Mayo brothers had become nationally known. Drs. Will and Charlie operated on alternate mornings three days a week and did surgical consultations in the afternoons. They operated only on patients they had personally examined beforehand. Dr. Will focused on abdominal and pelvic operations. Dr. Charlie was skilled in operations of the eye, ear, nose, throat, bones and joints, nerves and neck. He visited the clinics of the best specialists in the East to learn about the new specialty of ear, nose and throat.

According to Clapesattle's book, Dr. Charlie scored a triumph when he saw a patient with acute suppuration of the knee joint:

"It was too late for mild measures; the patient was already showing all the constitutional signs of dangerously active infection. Yet Dr. Charlie hesitated. He hated to amputate. If only he could get at the inner cavities of the joint, to clean them out and drain them thoroughly.

"Well, why not lay the knee joint wide open by a sweeping transverse incision so he could get at them freely? He might yet check the infection. Of course the motion in the joint would be gone, but a stiff leg would be better than no leg at all. If it did not work, there would be time enough for amputation. So he made the incision, drained all the recesses of the joint, and packed it full of antiseptic gauze.

"The effect was astonishing. In a few hours the symptoms of active inflammation subsided and the patient was obviously on the road to recovery. Then Dr. Charlie put the joint in position and allowed the parts to unite.

Soon the patient was up and about again, his leg stiff but useful, and his own.

"Feeling that this outcome was no lucky accident, Dr. Charlie wrote a report of the case and the method he used for publication in the Annals of Surgery. And a few months later he was pleased as Punch to read in that same journal a communication from Dr. Arpad Gerster of New York calling attention to this 'Mayo operation' and testifying from his own experience to its worth."

As the practice grew, the brothers occupied separate operating rooms and had their own teams of surgical assistants. They trained their own associate surgeons. The first of these was E. Starr Judd, M.D. (S '04), who occupied a third operating room in 1905, after assisting Dr. Charlie for two years. Emil Beckman, M.D. (S '07), was added in 1907, assisting the Mayo brothers until 1911, when he was given the fourth operating room. Donald Balfour, M.D. (S '09), became a junior surgeon in 1909, followed by Melvin Henderson, M.D. (S '11), in 1911. The next decade brought James Masson, M.D. (S '13), Walter Sistrunk, M.D., John Pemberton, M.D. (S '17), Carl Hedblom, M.D. (S '19), Verne Hunt, M.D. (S '19), and Stuart Harrington, M.D. (S '20).

Dr. Will retired from active surgical practice in 1928, with Dr. Charlie following a year and a half later. ▲







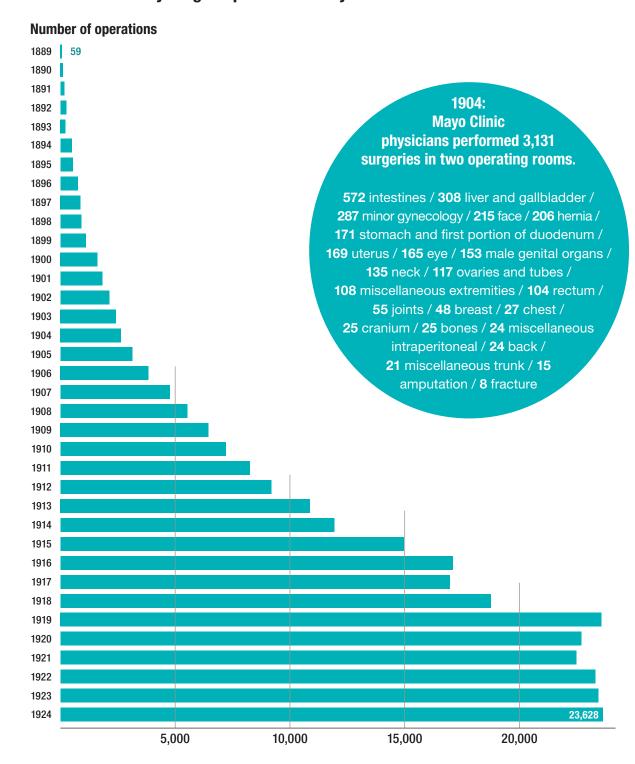


Clockwise from upper left: E. Starr Judd, M.D., Donald Balfour, M.D., Carl Hedblom, M.D., and Stuart Harrington, M.D.



Early surgery circa 1923.

A look at the early surgical practice at Mayo Clinic



Gynecologic surgery provided the bulk of the Mayo surgical practice for the first decade. Other operations included (in descending order): intraabdominal, fractures, cataracts, enucleations of the eye, carcinoma of the lip or other portions

of face, tuberculosis of bones or joints, tuberculosis of spine, amputation of extremities, carcinoma of breast, empyema, trephinings for mastoid abscess, and turberulous adenitis.



MAKING PATIENTS WHOLE FASTER



A new standard of care for treating facial deformities

any physicians envisage patients who have been treated for oral, facial, or head or neck diseases as having major functional and aesthetic deficits including loss of salivary control, discontinuity of the upper and lower jaws, tracheostomy, fistulas, missing teeth and difficulties with speech. Historically this was often true. Advances in digital imaging and surgical techniques have dramatically improved the results that can be achieved today, and Mayo Clinic is in the forefront of providing comprehensive treatment for these patients.

'All the pieces under one roof'

In 2008 oral and maxillofacial surgeons at Mayo Clinic were among the first in the U.S. to adopt virtual surgical planning to manage reconstructive facial surgeries. Initially used for patients having orthognathic (jaw deformity) surgery, these techniques have evolved and are now used in other types of reconstruction including for malignant and benign diseases of the face, head and neck.

"Diseases and acquired deformities affecting the face, head and neck can result in very significant aesthetic and functional losses," says Christopher Viozzi, D. D. S., M.D. (OMS '03), Division of Oral Diagnosis and Oral and Maxillofacial Surgery at Mayo Clinic in Rochester. "These deficits are visible to everyone and affect facial expression, speech, breathing, eating, drinking and sleeping. Because of these many impacts, patients often had to endure multiple sequenced surgeries and dental procedures to try to restore them to reasonable form and function. But at Mayo Clinic, the collaborative



work of surgeons, radiologists, prosthodontists, biomedical engineers and others often permits complete disease management, soft tissue and bony reconstruction, and placement of endosseous dental implants and a functional dental prosthesis in a single operation. The patients leave the operating room completely reconstructed in one surgery."

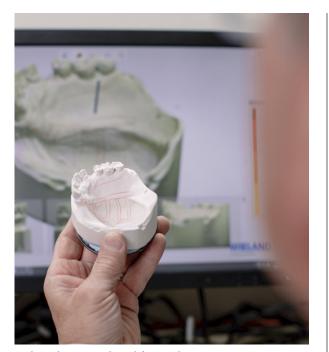
Kevin Arce, D.M.D., M.D. (MDOMS '00, PRES '01, OMS '02), chair, Division of Oral Diagnosis and Oral and Maxillofacial Surgery, says the trend in medicine and surgery today is to tailor treatments to the precise needs of each patient. "Mayo Clinic is unique in that we have all the key pieces under one roof to provide this type of treatment to patients. We're one of few places in the country to offer such comprehensive surgical treatment and single-surgery microvascular

and dental reconstruction for these patients."

Mayo Clinic surgeons use advanced imaging and 3-D anatomical modeling to digitally replicate the exact anatomy involved in the operation and simulate the planned procedures many times and in multiple variations in the computer before surgery. Team members create 3-D-printed models of the patient's anatomy and surgical guides and templates to improve accuracy and shorten the duration of surgeries that can last as long as 12 hours.

"Our patients are made whole much faster and leave the operating room with new soft tissue, bone and teeth," says Dr. Viozzi. "This is now standard of care at Mayo Clinic."

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A dental cast produced from a laser scanner is used to fabricate dental restorations.

Having a single hospitalization and recovery allows patients a faster return to their families and communities. And when teeth lost to disease or surgery are replaced in the original operation, health insurance often covers the dental part of the procedure. If implant or prosthodontic services are provided in a subsequent operation, they may not be covered, burdening patients with significantly higher out-of-pocket expenses.

'Unthinkable 20 years ago'

Thirty years ago Dr. Viozzi trained as a mechanical engineer, studying computer-aided design and manufacturing in their infancy. Now those technologies have completely changed the reconstructive practice in oral and maxillofacial surgery.

Division of Oral Diagnosis and Oral and Maxillofacial Surgery, Department of Surgery, Mayo Clinic Rochester

- Chair: Kevin Arce, D.M.D., M.D.
- Oral and maxillofacial surgeons at Mayo Clinic specialize in reconstructive orthognathic and temporomandibular joint surgery, facial trauma treatment and deformity correction, surgical management and reconstruction of oral, head and neck pathology, surgery for severe obstructive sleep apnea, and osseointegrated implant reconstruction.

"The engineering profession saw the light early on, and computer-aided design and manufacturing propelled that profession forward," he says. "It took 20 years for medicine to catch on, and in the last decade it's just exploded. The Division of Oral Diagnosis and Oral and Maxillofacial Surgery was the first group at Mayo Clinic to use 3-D anatomic modeling for this type of surgery. The beneficiaries of this transformation are our patients, who now have access to comprehensive treatment in a single operation. This was unthinkable just 20 years ago. We're privileged to be a part of this revolution in reconstructive surgery."

We're one of few places in the country to offer such comprehensive surgical treatment and single-surgery microvascular and dental reconstruction for these patients."

- Kevin Arce, D.M.D., M.D.



100 YEARS OF DENTISTRY



Origins, reminiscences and conversations with the Mayo brothers

he Mayo Clinic Department of Dentistry celebrates its centennial in 2018. The department is one of the longest running institutional group dental practices in North America. Today, the department's 10 dentists see patients for more than 30,000 visits per year.

As the department prepares to embark on its second century, *Mayo Clinic Alumni* reflects on the origins of the department and its pioneering efforts in anesthesia, surgery, imaging, continuing education and sharing Mayo Clinic knowledge with the rest of the world.

Integration of dental and medical care

In 1928 Charles H. Mayo, M.D. (Dr. Charlie), addressed the American Dental Association, describing the interdependence of medicine and dentistry as being similar to that of medicine and surgery or medicine and obstetrics. "The practice of medicine includes dentistry and dentistry is the practice of a special branch of medicine, as is

Portions excerpted from "The Role of Dentistry at Mayo Clinic," *Minnesota Medicine*, August 2005, Joseph Gibilisco, D.D.S. (OMS '56), emeritus professor of dentistry, Mayo Clinic

ophthalmology. It may be going too far to say that all dentists should be doctors of medicine, but certainly all dentists should know much more about the practice of medicine as a whole; and, conversely, all physicians should know more about dentistry, its importance and possibilities."

His words reflected a decision made years earlier to fully integrate dental and medical care at Mayo Clinic. Almost as soon as Drs. William and Charles Mayo joined the practice of their father, the brothers recognized the need to add other specialties to the clinic. Among those given serious consideration was dentistry.

In medical centers across the U.S., investigations were underway to identify primary sources of infection. This research led to a theory of focal infection, which suggested that many systemic diseases resulted from infection somewhere in the body. It was theorized that abscessed teeth were among the contributing factors to these diseases. Contemporary thinking was that an oral surgeon would best be able to diagnose and provide care for many patients with oral infections.

Dr. Charlie was acquainted with work being done by Frank Billings, M.D., in Chicago and Edward Rosenow, M.D. (I '40), an internist and microbiologist

at Mayo Clinic. Both theorized that dental infection, particularly abscessed teeth, could exacerbate rheumatoid arthritis. Drs. Billings and Rosenow were convinced that the removal of dental infection would eliminate one of the factors contributing to arthritis and other diseases.

Boyd Gardner, D.D.S., heeds Dr. Will's call

Mayo Clinic's first head of the Section on Dental Surgery, Boyd Gardner, D.D.S. (DENT '18), joined the practice in 1918. Dr. Charlie is credited with bringing Dr. Gardner to Mayo Clinic to establish the section.



Boyd Gardner, D.D.S.

Dr. Gardner had a dental degree from the University of Michigan and practiced general dentistry in Michigan and Indiana. He had an early interest in anesthesia and analgesia with nitrous oxide and oxygen, and was becoming well-known for his work in general anesthesia. Dentists

experienced in this method of anesthesia were in demand to educate other members of the profession, so Dr. Gardner spent a year in Europe teaching and lecturing dental groups. Back stateside, he honed his surgical skills. Dr. Gardner was practicing in St. Louis, Missouri, when he received a request for an interview at Mayo Clinic.

"I had been with him (a dentist in St. Louis) less than two years when, in August 1918, at the request of Dr. W.J. Mayo and Mr. Harry J. Harwick, I went to Rochester, Minnesota, for interview. The invitation was the result of *Dr. Charles Mayo's interest in the work on focal infection* that was being done in Chicago by Dr. Frank Billings and Dr. Edward C. Rosenow.

"On the day of my arrival in Rochester, after breakfast, I went to the Clinic. ... After the interview with Mr. Harwick, I went to St. Marys Hospital because I wished to see the Drs. Mayo in action; for some time, at the Laboratory of Surgical Techniques, I had been teaching the technics of their operations as I had learned the from the publications of the two men.

"Dr. Will was on the dot at 1:30. The interview was short and to the point. He wished to know what I thought should be done in a dental section of the Clinic and he seemed pleased that I thought we should not do any restorative dentistry. He asked my age, where I had been graduated and how soon I could join the Clinic group. 'Now,' he concluded, 'whatever arrangements you make with Mr. Harwick are all right with me.'

"Accordingly, the section was started on October 1, 1918, with the understanding that the work should be limited to diagnosis and surgery and that I should furnish to visiting dentists every opportunity to observe the work, just as visiting physicians were given similar opportunity in other sections."

The practice flourishes

Soon, Dr. Gardner's Mayo Clinic colleagues began referring many of their patients with infectious and rheumatologic diseases for dental X-rays, oral examination and diagnosis. Dr. Gardner removed infected teeth and treated soft-tissue diseases of the mouth. The dental practice began to flourish.

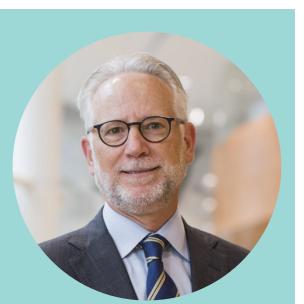
"I used nitrous oxide and oxygen for the first time only for demonstration.

"Soon the flow of visiting dentists became a steady one. ... Up to this time, use of sutures in dentistry had been almost unknown. Most extractions had consisted of taking hold, with forceps, of what was visible and pulling until something came away. According to records in the Section

that it was used at Colonial Hospital (Mayo Clinic). Dr. John S. Lundy (ANES '24), founder of the Section of Anesthesiology of the Clinic, has reported that these gases had been used at St. Marys Hospital earlier but possibly

[Dr. Will] reminded me to make myself useful to visiting dentists because, as he truly said, their goodwill was an asset to the Clinic."

- Boyd Gardner, D.D.S.



Alan Carr, D.M.D.

Department of Dental Specialties

- Chair: Alan Carr, D.M.D. (PROS '86)
- Division of Esthetic and Prosthetic Dentistry: Makes artificial replacements for missing or damaged natural structures ranging from crowns for missing teeth to facial parts for patients who have lost a nose or eye to cancer; supports post-surgical reconstructive needs after ENT or oral maxillofacial cancer therapy and maxillofacial trauma management.
- Division of Orofacial Pain: Diagnoses and manages orofacial pain conditions including temporomandibular disorders; supports Sleep Center with intraoral devices to assist obstructive sleep apnea patients.
- Division of Periodontics: Prevents, diagnoses and treats diseases involving gums and bone surrounding teeth, and mucosal tissues of mouth; places and maintains dental implants; supports oral health screening prior to transplant and oncology
- Division of Orthodontics: Diagnoses, prevents and treats dental and facial irregularities.

on Dental Surgery, a third of the patients who were wearing dentures harbored at least one overlooked root, to say nothing of pathologic residual tissue. We of the section cleaned up such mouths. Moreover, our technic of surgical preparation of the edentulous mouth for immediate fitting of dentures, use of our chisels and our splitting of teeth to facilitate their removal, brought more and more visiting dentists and more and more we were in demand to appear on programs of dental meetings. The Mayo Clinic became a desirable place to hold dental conventions.

"... one of the most outstanding incidents occurred in 1921, when the American Dental Association met in Milwaukee. Dentists, especially those interested in oral surgery and diagnosis, gathered in Rochester for a two-day meeting previous to the meeting of the American Dental Association and both Dr. Will and Dr. Charlie went all out to help make it a success. I arranged to have a special train take the dentists to Milwaukee in time for the regular meeting of the American Dental Association. I think the other members of the staff will agree that, by becoming an informal center of postgraduate dental instruction, we played a large part in bringing about important changes in the practice of dentistry."

Dr. Gardner's publications after coming to Mayo elucidate the section's priorities: "Roentgenology in Diseases in Teeth," "The Value of Dental Examination in General Medicine," "The Dentist in Group Medicine," and "A Plea for More Careful Selection of Dental Students."

Fellowship and specialty programs

The section launched an oral surgery fellowship in 1935. As part of the program, oral surgery fellows were required to enroll in the University of Minnesota-Mayo Graduate School of Medicine to secure a master's degree in dentistry. The program required a thesis and other publications.

At first dental practice at Mayo was limited to oral surgery and diagnosis. Patient need and physician referrals drove specialization and, with the addition of each specialty came three-year graduate fellowship programs. Orthodontists were added to the dental section to care for patients, including those with cleft palate. Prosthodontists were added to help patients with large surgical defects after the removal of malignant tissue in the oral cavity. Peridontics was added to benefit patients with oral soft-tissue diseases.



Louie Austin, D.D.S.

Subsequent section heads, national visibility and X-rays

Louie Austin, D.D.S. (OMS '19), succeeded Dr. Gardner as head of the section in 1938. Under his leadership, the section gained national visibility, and Mayo Clinic became a member of the American Association

of Dental Schools. Dental trainees were encouraged to participate in nondental medical programs. Dr. Austin worked with Dr. Gardner to use local anesthesia in lieu of nitrous oxide and oxygen. Dr. Austin treated patients with maxillary or mandibular jaw fractures and developed close working relationships with his colleagues in plastic surgery.



Edward Stafne D.D.S.

Dental X-rays were a priority in the section, and the clinic sent them home with patients to provide to their local dentists. In a memoir, Dr. Gardner noted:

"We knew that only a small percentage of dentists had X-ray machines and also that only a small percentage of dentists could interpret X-ray films. To help them, for a time Dr. Louie T. Austin drew diagrams of the teeth which would allow the home dentist to identify the teeth represented in each roentgenogram. ...

"Many dentists found that the restorative work they had (previously) done had to be removed because the X-ray revealed evidence of infection of which they had been unaware. They made their adjustment in this respect. Our sending out thousands of mounted X-ray films induced many dentists to join the American Dental Association and to take other measures to learn more about dental roentgenograms. Many, for instance, took advantage of the opportunity to visit our section."

Dr. Austin was succeeded by Edward Stafne, D.D.S. (OMS '30), in 1951. He published a series of articles in *Radiology* under the title "Dental Manifestations of Systemic Disease," as well as a textbook, "Oral Roentgenographic Diagnosis." He was a founding member and president of the American Academy of Oral Roentgenology.

In his memoir, Dr. Gardner commented about conversations with the Mayo brothers:

"We early staff members were most fortunate to have had the privilege of associating with Drs. Will and Charlie for so many years. Their willingness to cooperate was outstanding. The longest conversation I ever had with Dr. Will, strange to say, was on a train, when we were returning from Eastern meetings. He reminded me to make myself useful to visiting dentists because, as he truly said, their goodwill was an asset to the Clinic. He wished us of the Section on Dental Surgery to do for visiting dentists much as physicians of the Clinic staff did to make the visits of physicians pleasant and profitable. ... I am convinced that the determination of the brothers Mayo that any physician should be welcome to learn from them anything they had to teach was a major factor in the *success of the Clinic.*" ▲

Department of Dentistry centennial

Sixty current and former trainees and staff members of the Mayo Clinic Department of Dentistry convened in Rochester in the summer to celebrate the department's centennial.



Mayo Clinic orthodontic staff and trainees past and present: (Front) John Volz, D.D.S. (DENT '07), Alfred Howard Sather, D.D.S. (ODON '59), Arnold Hill Jr., D.D.S. (ODON '70), Frederick Regennitter, D.D.S. (ODON '01) (Back) Steven Nedrelow, D.D.S. Michelich, D.D.S. (PDON '84). (ODON '74), Chad Rasmussen, D.D.S. (ODON '18), Deborah Lien, D.D.S. (ODON '86), Gregory Lamansky, D.D.S. (ODON '85), Michelle Koster, D.D.S. (ODON '93), Steven Hechler, D.D.S. (ODON '87).



Mayo Clinic periodontic staff and trainees past and present: Wolfgang Zimmer, D.D.S. (PDON '92), Phillip J. Sheridan, D.D.S. (PDON '70), Anthony



Joseph Gibilisco, D.D.S. (OMS '56), Mayo Clinic Emeriti Staff.



Mayo Clinic prosthodontic staff and trainees past and present: (Front) Ned Van Roekel, D.D.S. (PROS '80), Steven Eckert, D.D.S. (PROS '90), Ron Desjardins, D.M.D. (PROS '70), Alan Carr, D.M.D. (PROS '86), Thomas Salinas, D.D.S. (PROS '06), Sreenivas Koka, D.D.S., Ph.D. (ODON '04) (Back) Michael Forde, D.D.S. (PROS '07), Robert (Graham) Greenland, D.D.S. (PROS '19, PROA '20), Alfred Stines, D.D.S. (OMS '70, PROS '73), Clement Caron, D.D.S. (PROS '74).



Mayo Clinic ranked No. 1 in the nation

Mayo Clinic was again named the best hospital in the country in the *U.S. News & World Report* annual list of top hospitals. Mayo has ranked top or near the top of "Honor Roll" hospitals throughout the history of the *U.S. News* Best Hospitals rankings.

Other highlights:

- Mayo Clinic ranked No. 1 in Arizona, Florida and Minnesota.
- Mayo Clinic has more No. 1 rankings than any other hospital in the country.
- Mayo Clinic ranked No. 1 in the Jacksonville, Florida, and Phoenix, Arizona, metro areas.
- Mayo Clinic's Arizona campus ranked No. 11 among hospitals nationwide, a significant improvement.
- Mayo Clinic Health System in Eau Claire,
 Wisconsin, is the fifth-best hospital in Wisconsin
 (three-way tie) and a best regional hospital in
 northwest Wisconsin.

Mayo Clinic ranked No. 1 in six specialties:

- · Diabetes and endocrinology
- · Gastroenterology and gastrointestinal surgery
- Geriatrics
- Gynecology
- Nephrology
- Neurology and neurosurgery

No. 2 in four specialties:

- Cardiology and heart surgery
- Orthopedics
- Pulmonology
- Urology (two-way tie)

No. 3 in one specialty:

Cancer

Hospitals are measured for factors including safety, mortality, nursing Magnet status, patient services and reputation with other specialists.

Mayo Clinic School of Medicine – Arizona Campus receives \$25 million gift

Mayo Clinic School of Medicine – Arizona Campus received a \$25 million gift from William A. and Carolyn D. Franke and family. This transformative gift will support scholarships and operations including faculty development and curriculum innovation. In recognition of the gift, the Mayo Clinic Education Center at Mayo Clinic Hospital in Arizona will be named the Mayo Clinic Franke Education Center.

"We must redefine medical education and advance innovative medical education models if we are to meet the needs of patients and society in the 21st century," says Fredric Meyer, M.D. (NS '88), the Juanita Kious Waugh Executive Dean for Education and the Alfred Uihlein Family Professor of Neurologic Surgery at Mayo Clinic. "This gift holds great power to allow Mayo Clinic School of Medicine to advance this journey, allowing the school to continuously evaluate and re-engineer the curriculum to provide the best educational programs and learning paradigms available in the world."

William Franke, the managing partner of Indigo Partners LLC, a private equity firm focused on investments in air transportation, says: "The path to becoming a medical doctor is long and challenging. Students face years of commitment at a significant financial cost. As a family, we are focused on making that journey less onerous in the hope that qualified, talented and in-need students are not discouraged by the financial burden. We want them focused on the medical education that Mayo Clinic School of Medicine can provide."

Halena Gazelka, M.D., appointed to new HHS Pain Management Task Force



Halena Gazelka, M.D. (ANES '10, PAIN '11, PLM '15), Department of Anesthesiology and Perioperative Medicine at Mayo Clinic in Rochester, was appointed by U.S. Department of Health and Human Services Secretary

Alex Azar to serve on the newly established Pain Management Best Practices Inter-Agency Task Force. Established by the Comprehensive Addiction and Recovery Act of 2016, the task force will identify and propose strategies to resolve inconsistencies in pain management best practices among federal agencies.

Sundeep Khosla, M.D., receives career science award



Sundeep Khosla, M.D. (ENDO '88), director of the Mayo Clinic Center for Clinical and Translational Science and consultant in the Division of Endocrinology, Diabetes, Metabolism, & Nutrition at Mayo Clinic in Rochester, was awarded

the Frontiers in Science Award by the American Association of Clinical Endocrinologists. It is the association's highest honor. The award recognizes outstanding contributions to the profession or area of expertise. Dr. Khosla is the Dr. Francis Chucker and Nathan Landow Research Professor.

Mayo Clinic Children's Center ranked among Best Children's Hospitals by U.S. News & World Report

Mayo Clinic Children's Center was ranked as a topperforming children's hospital in Iowa, Minnesota, North Dakota and South Dakota in the *U.S. News* & World Report 2018–2019 Best Children's Hospitals rankings.

The rankings of 118 pediatric centers include the top 50 in each of 10 specialties. Mayo Clinic Children's Center ranked as a top-performing children's hospital in seven of 10 pediatric specialties:

- Cancer (No. 26)
- Cardiology and heart surgery (No. 27)
- Diabetes and endocrinology (No. 13)
- Neonatology (No. 13)
- Neurology and neurosurgery (No. 21)
- Orthopedics (No. 31)
- Urology (No. 31 two-way tie)

Mayo Clinic recognized by DiversityInc

Mayo Clinic was named to DiversityInc's Top Hospitals and Health Systems ranking for the seventh consecutive year. The rankings recognize commitment to diversity, inclusion and equity.

Mayo Clinic recognized as a top employer by Forbes and Fortune

Mayo Clinic was recognized as a top employer by *Forbes* and *Fortune* magazines.

- Mayo Clinic was ranked No. 25 by Fortune in its list of the top 30 "Best Workplaces in Health Care."
- Mayo Clinic was ranked No. 14 among 500 large organizations in *Forbes'* America's Best Employers 2018 and ranked No. 23 among Best Employers for Diversity.

Obituaries

Justin Arata, M.D. (S '52), died Nov. 21, 2017.

John Bamforth, M.D. (PHYS '64), died March 6, 2018.

Algie "AC" Brown, M.D. (DERM '68), died May 14, 2018.

Jerrad Hertzler, M.D. (I '67, N '70), died March 26, 2018.

James (Cleon) Hunt, M.D. (RD '60), died Dec. 19, 2017.

Ronald Kaye, M.D. (I '63), died March 3, 2018.

Bob Lanier, M.D. (I '67, RHEU '69), died March 30, 2018.

David Movius, D.D.S. (PDON '75), died May 30, 2018.

Karl Niehaus, M.D. (I '59), died May 29, 2018.

Claude Louis Puthon, M.D. (PHYS '62), died May 27, 2018.

Adolf Walser, M.D. (I '71, ENDO '72), died May 9, 2018.

Ronald Yake, M.D. (NS '71), died May 17, 2018.

Masaru Yukawa, M.D. (CANS '09), died Aug. 4, 2017.

Complete obituaries and alumni news alumniassociation.mayo.edu/people

Mayo Clinic Alumni magazine is published quarterly and mailed free of charge to physicians, scientists and medical educators who studied and/or trained at Mayo Clinic, and to Mayo consulting staff. The magazine reports on Mayo Clinic alumni, staff and students, and informs readers about newsworthy activities throughout Mayo Clinic.

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Sept. 26–28, 2019 • Hilton Hotel • Rochester, Minnesota

We hope to see you on the Rochester campus next year for reconnecting with colleagues, friends, mentors and students. The conference hotel will be a new Hilton Hotel opening in 2019 in the heart of downtown Rochester.

