About the Cover

Strategic, not magic

Peter Glovitzki, M.D. (VASS ’83, S ’87), performed a magic show as part of the President’s Gala at the 68th Biennial Meeting of the Mayo Clinic Alumni Association in September 2013. How Mayo Clinic will thrive despite the changes and challenges in health care isn’t magic—it’s strategic—as John Noseworthy, M.D. (N ’90), explained to alumni at the meeting. Mayo Clinic’s strategy includes keeping the patient at the center of all decision making and thoughtful re-engineering to improve the efficiency and effectiveness of care.

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Mayo Clinic has a special place in my heart. It’s where my daughters were born and where I received training and mentorship that serves me in my career and life. My wife, Dr. Patricia Yugueros (PLS ’97, PLS ’99, HAND ’00, PRES ’02, PHYS ’02), and daughters joined me at the recent Biennial Meeting, and we delighted in reuniting with friends and forging new connections.

I stood among the historic portraits in Phillips Hall before the opening remarks of the meeting and felt a little awestruck. Then, at the President’s Gala, we watched the Sesquicentennial commemorative film, “150 Years of Serving Humanity,” and a musical re-creation of Dr. Charlie Mayo’s 1913 voyage to Europe. I remembered what makes Mayo Clinic so special. Humble, personal origins. Identifiable faces. Oft-repeated anecdotes. Medical giant upon medical giant who influence us with their humanity, humility, prescience and brilliance.

It’s not just a case of giants from the earliest days; each generation produces new giants. At the Biennial Meeting, I overheard Patricia tell someone that she thinks about her mentor, John Woods, M.D., Ph.D. (S ’66, PLS ’68, PLS ’69) [professor of surgery, Mayo Clinic College of Medicine], when she is unsure what to do. She asks herself, “What would Dr. Woods do in this situation?” and usually arrives at the right answer.

Whether we stand on the shoulders of giants named John, Charlie, Will, Henry, Louis, Edith or something else, we are united in our Mayo roots and ingrained desire to serve others — patients, colleagues and trainees. We represent this legacy at institutions around the world. I’m so very proud to be part of this legacy and to serve you in leadership of the Alumni Association.

Juan Sarmiento, M.D.
Associate Director of Surgery
Emory University School of Medicine
Director, Hepatopancreatic Biliary Surgery
Emory University Hospital, Atlanta

2014 Mayo Clinic Alumni Association
International Program and Tour

International Alumni Conversations: Learning from Controversies and Differences in Medical Practice

More details will be available soon for this multi-city event with options to participate in one or both locations.

Visiting Dublin, Ireland, and Edinburgh, Scotland

Sept. 10–18, 2014
The Global Reach of Mayo Clinic — Alumni Around the World

The 68th Biennial Meeting of the Mayo Clinic Alumni Association in Rochester, Minn., kicked off Mayo Clinic’s Sesquicentennial, which will be recognized throughout 2014. The meeting, whose theme was The Global Reach of Mayo Clinic — Alumni Around the World, drew alumni and their guests from 31 states and six countries. The pages that follow provide an overview of key speakers and awards.

Visit www.mayo.edu/alumni2013 to view select segments of the meeting on a private YouTube channel.
 Mayo Clinic, inventor of patient-centered care, re-engineers it

“Welcome back.”

That’s how Mayo Clinic President and CEO John Noseworthy, M.D. (N’90), greeted the more than 350 alumni at the Mayo Clinic Alumni Association’s 68th Biennial Meeting.

Dr. Noseworthy began his remarks by reiterating why Mayo Clinic exists — for patients and their needs. “Regardless of changes in health care, every decision at every table at Mayo Clinic has the patient at the center,” he said. “Is this the right thing for patients and their families?” That won’t change decade after decade, which is why we have been successful and will always be successful. Our 60,000 staff members understand that. Our staff come to work with a purpose. All of you here today have learned that and live your lives that way.”

He referenced “those on whose shoulders we stand,” gesturing to the historic portraits adorning Phillips Hall in the Siebens Building, before delving into the current economic challenges in health care. He assured the audience that Mayo Clinic’s strategy has helped and will continue to help it through uncertain times. “Health care costs are too high and unsustainable,” he said. “They’re high because fragmented care costs more; uneven quality costs more. Mayo isn’t fragmented; our quality isn’t fragmented. We have a strategy to share our solutions for the fragmentation and uneven quality of health care. That two-part solution will reduce our health care costs, which is good for patients. “We are perfecting these solutions internally and sharing them with others. We’re focused like a laser on making change happen. Being paid significantly less for the work we do is a huge threat. But our predecessors weathered storms, and we’ll do it, too. We’ll re-engineer how we do things. It will continue to be difficult, but the momentum is there. We’re involved in hundreds of initiatives to work differently to reduce costs.”

Among the initiatives he discussed were the following:

- **Projects to change the outpatient practice**, which has been relatively static for 30 years. The changes involve doing work before patient visits to improve efficiency and effectiveness. “This will help ensure patients visit us only when they really need to,” he said.

- **Standardization**, which Dr. Noseworthy said used to be a “bad word” at Mayo Clinic. Today, standardization is occurring where it should to reduce costs and improve care. He cited standardization projects in surgery that have reduced length of stay, readmission rates, patient pain levels and infection rates. “The results have been immediate and measurable,” he said.

“Regardless of changes in health care, every decision at every table at Mayo Clinic has the patient at the center.” – John Noseworthy, M.D.
• Upper Midwest integration involving Mayo Clinic Health System. With a half million patients per year, Mayo Clinic Health System’s volume is equivalent to that of Mayo Clinic in Rochester, Florida and Arizona combined. Neurologists in the Mayo Clinic Health System are now part of the departmental structure in Rochester (i.e., Division of Community Neurology).

• Partnership with Optum Labs, a subsidiary of United Healthcare. Partners in this undertaking have access to data about 149 million lives over two decades to determine what drives health care costs, hospital admissions and optimal outcomes.

• Mayo Clinic Care Network. Organizations selected for this network ally with Mayo Clinic to enhance care in their communities. “The rest of the country is involved in mergers and acquisitions,” said Dr. Noseworthy. “We don’t think that will provide better care for patients, which is where we’re focused. We want to help doctors and nurses provide better care.”

• Investments in Mayo Clinic campuses. Dr. Noseworthy mentioned investments including proton beam centers in Rochester and Arizona and three new translational centers: Center for the Science of Health Care Delivery, Center for Regenerative Medicine and Center for Individualized Medicine. “Mayo Clinic invented patient-centered care, and we’re re-engineering it now,” he said. “In regenerative medicine, we’re studying how the body can repair itself. In individualized medicine, we’re discovering the power of the genome so we can tailor treatment to the individual patient. In health care delivery, we’re learning how to drive out waste and provide more efficient care. These investments are critical. In a challenging health care environment, we’re repurposing to succeed.”

• Destination Medical Center. This largest economic development project in the United States was passed by the Minnesota legislature in only 110 days, and supports the area’s infrastructure as Mayo Clinic changes and grows. “This will help us create a medical destination unlike any other and recruit and retain the best staff,” he said. “This was a huge effort and success — a brilliant piece of work by Mayo Clinic staff.” He said there are similar efforts underway in Arizona and Florida to boost Mayo’s role in those communities.

• Payment reform. Dr. Noseworthy mentioned that Mayo Clinic has been working diligently to favorably position payment reform as the Affordable Care Act is enacted.

Mayo Clinic’s myriad efforts are succeeding, said Dr. Noseworthy. “Without a doubt, we’re the safest, highest quality organization in the country, and we can prove it,” he said. “We’re in a good financial position and can offer a secure future for our staff and patients.

“The way we provide care in the 21st century will be different, but the needs of our patients will always come first.” – John Noseworthy, M.D.

Alumni and guests from 31 U.S. states and six countries attended the Biennial Meeting.
Members of a panel discussed ways in which Mayo Clinic’s three new translational centers are breaking barriers in medicine by unifying practice and research.

Center for Individualized Medicine
Bringing patients advanced individualized therapies

About the center: The center approaches medical research and practice with the understanding that genomes influence how diseases start and progress differently in each person. This involves using an individual’s unique genetic code to more effectively and precisely diagnose, treat, predict and eventually prevent disease. Already, the center has built a new Individualized Medicine Clinic for patients with advanced cancer and rare diseases, and physicians now have the information they need to prescribe the right drugs at the right dose and time for patients who are genetically susceptible to adverse reaction and severe side effects.

1. Gianrico Farrugia, M.D. (I ’91, GI ’94),
   Director, Mayo Clinic Center for Individualized Medicine; Division of Gastroenterology and Hepatology, Department of Physiology and Biomedical Engineering, Mayo Clinic Rochester; Professor of Medicine and Physiology

2. Aleksandar Sekulic, M.D., Ph.D. (IMM ’99, DERM ’00, I-1 ’01, CI ’03, DERM ’06), Department of Dermatology, Mayo Clinic Arizona, Assistant Professor of Dermatology

Center for Regenerative Medicine
Finding solutions and hope for conditions that today are beyond repair

About the center: Physicians and scientists are carrying out innovative basic, translational and clinical research to translate regenerative strategies into new treatments. Using various types of native and bioengineered cells, assistive devices and engineering platforms, the center is designing and developing a new generation of reparative solutions for a spectrum of disease, injuries and congenital anomalies.

3. Andre Terzic, M.D., Ph.D. (CV ’95),
   Michael S. and Mary Sue Shannon Family Director, Mayo Clinic Center for Regenerative Medicine, Mayo Clinic Rochester; Marriott Family Professor of Cardiovascular Research, and Professor of Medicine, Pharmacology, and Medical Genetics

4. Rafael Sierra, M.D. (OR ’05),
   Department of Orthopedic Surgery, Mayo Clinic Rochester; Associate Professor of Orthopedics
It takes a village to put on a biennial meeting, and the scientific program co-chairs are integral to a successful event. Why? Because they make sure the breadth and depth of Mayo Clinic talent is showcased in a dynamic, relevant program.

“Highlighting the entire Mayo enterprise across specialties, across the three shields and across locations in a single day is a challenge I was delighted to be part of,” says Dawn Marie Davis, M.D. (PD ’03, DERM ’06), departments of Dermatology and Pediatrics, Mayo Clinic in Rochester.

Dr. Davis and Peter Amadio, M.D. (OR ‘83), Lloyd A. and Barbara A. Amundson Professor of Orthopedics, incoming secretary-treasurer of the Mayo Clinic Alumni Association and dean for Research Academic Affairs at Mayo Clinic in Rochester, along with a committee of colleagues, brainstormed about physicians and researchers at various stages of their careers who are involved in world-class endeavors.

“We’re fortunate at Mayo to have a vast talent pool,” says Dr. Davis. “We chose talent based on new research, state-of-the-art initiatives, and identification as ‘up and coming’ by department and division leadership. Faculty members were eager to participate in the meeting because they understand the importance of Mayo alumni.”

The meeting’s designation as the kickoff event of the Mayo Clinic Sesquicentennial gives it special significance, according to Drs. Davis and Amadio.

“Marking the Sesquicentennial reminds us how the Mayo brothers emphasized sharing knowledge across borders,” says Dr. Davis. “We strive every day to follow their example by sharing knowledge with alumni and colleagues from around the world, preserving the Mayo Clinic standards for patients, advancing science and demonstrating our commitment to the Mayo mission.”
Marilyn Carlson Nelson, recognized by Forbes as one of “The World’s 100 Most Powerful Women,” quoted poet Carl Sandburg (1878–1967):

“When a nation goes down, or a society perishes, one condition may always be found; they forgot where they came from. They lost sight of what had brought them along.”

The relevance of the quote, said Carlson Nelson, is that Mayo Clinic celebrates its heritage every day, “making it a place of great goodness decade after decade, in ever wider circles.”

She noted the many storms Mayo Clinic has weathered — from the tornado at its origins to current changes in the health care model — and Mayo’s success by holding firm to its focus on patient-centered care.

“An organization’s culture sees it through crises,” she said. “Mayo was born of a stormy past. Organizations that hold tight to their foundations can weather storms. When patients acknowledge you and your expertise,” she told the alumni audience, “it’s because of ‘the Mayo effect’ — where you came from.”

“The Mayo Effect” — When patients acknowledge you and your expertise, it’s because of ‘the Mayo effect’ — where you came from.” — Marilyn Carlson Nelson
Terrence L. Cascino, M.D., has been a staff consultant in the Department of Neurology at Mayo Clinic in Rochester since 1982 and is a professor of neurology and neuro-oncology. He has served as vice chair of the Department of Neurology and has been a leader in clinical practice, serving as the chair of the Mayo Clinic Clinical Practice Committee. He has served as the Juanita Kious Waugh Executive Dean for Education and the dean of Mayo Medical School, completing his tenure in 2012. He is presently the president-elect of the American Academy of Neurology and director of the American Board of Psychiatry and Neurology.

“We’ve identified the qualities that make the best doctors — a high degree of professionalism, a thirst for knowledge and the ability to work well in teams. But, during training, we typically recognize individuals for supreme confidence, rugged individualism and the ability to memorize facts. This needs to evolve, and Mayo Clinic is involved in efforts to implement changes in medical education.”

— Terrence L. Cascino, M.D.
Robert Waller, M.D., was president and CEO of Mayo Clinic from 1988 to 1998. He also served as department chair and professor of ophthalmology, and served on the board of Mayo Clinic from 1974 to 1998 and as chair of the Executive Committee from 1988 to 1997. Now retired, he has been a member of the Board of Trustees of Rhodes College (Memphis, Tenn.) since 2003.

Dr. Waller received an undergraduate degree from Duke University and a medical degree from the University of Tennessee College of Medicine.

Dr. Waller has received awards and recognitions and served in professional groups including:

- Distinguished Alumnus Award, The University of Tennessee
- Medical Executive Award, American College of Medical Group Administrators
- Honorary Doctor of Letters, University of Jacksonville
- Yater Award, American Group Practice Association
- Honorary Fellow, Royal College of Surgeons, Ireland
- JURAN Medal, American Society for Quality
- Lucian Howe Medal, American Ophthalmologic Society
- Honorary Doctor of Humanities, Rhodes College
- Chairman Emeritus, Healthcare Leadership Council, Washington, D.C.
- Inductee, Nation’s Health Care Hall of Fame
- Board Member, Church Health Center
- Board Member, Howard Baker School of Public Policy
- Past Chair, Institute for Healthcare Improvement, Cambridge, Mass.

“I’ve been watching Mayo Clinic from afar and have seen Dr. [John] Noseworthy and Shirley [Weis, chief administrative officer] make bold decisions without compromising Mayo Clinic’s values.”

– Robert Waller, M.D.
Walter Wilson, M.D., a consultant in the Division of Infectious Diseases and Department of Orthopedic Surgery at Mayo Clinic in Rochester, joined the staff in 1975. His research is focused on infective endocarditis, animal models of infection, new antimicrobial agents, musculoskeletal infections, blood culture systems, and pulmonary disease in immunocompromised hosts. He has published more than 220 articles in peer-reviewed journals and more than 60 books or book chapters.

Dr. Wilson is a professor of internal medicine and the Edward C. Rosenow III, M.D., Professor in The Art of Medicine — the highest academic distinction at Mayo Clinic. He has received Teacher of the Year Awards for the Department of Medicine, Mayo Graduate School of Medicine and was admitted into the school’s Teacher of the Year Hall of Fame. He received a Distinguished Faculty Service Award from Mayo Medical School and a Teacher of the Year Hall of Fame award from the Department of Medicine. Other awards in recognition of teaching include Mayo Fellows’ Association Teacher of the Year Award, Department of Medicine – Subspecialties, and Internal Medicine Residents’ Outstanding Teacher Award for Education mentor. Other awards include Mayo Distinguished Clinician Award and Henry S. Plummer Distinguished Physician Award.

Dr. Wilson has held leadership positions at Mayo Clinic including chair, Division of Infectious Diseases (1990–2000) and director, Infectious Diseases Research Laboratory (1981–1992).

He is a member of numerous organizations including the Center for Infectious Disease Research and Policy Advisory Board, Practice Guidelines Committee for the Infectious Diseases Society of America and the Board of Trustees of the National Foundation of Infectious Diseases.

Dr. Wilson received an undergraduate degree from Baylor University in Waco, Texas, and his medical degree from Baylor University College of Medicine in Houston. He completed a residency in internal medicine and fellowships in infectious diseases and microbiology at Mayo School of Graduate Medical Education.

“Ed Rosenow (I ’65, THD ’65) was the best physician I’ve ever known in my life and was my mentor. He taught me, ‘If you just let patients talk, they’ll tell you what’s wrong with them.’ I’m grateful to my patients for teaching me about adversity, family and faith.

“In Buddhism, life is divided into four parts — youth, fighter, builder, and learning/teaching. I’m in the last quarter, and I still have a lot to learn.’’
– Walter Wilson, M.D.
Board member service recognized

The occasion of the 68th Biennial Meeting represents the changing of the guard in the Mayo Clinic Alumni Association. Outgoing members of its Board of Directors, Executive Committee and Officers, whose service was recognized, include:

- Ali (Mirza) Alikhan, M.D. (DERM ’13), MCR-MSGME Representative
- Christopher Boswell, M.D. (MMS ’13, FM ’16), MMS Representative
- Diane F. Jelinek, Ph.D. (IMM ’91), Rochester, Minn.
- Mark Laney, M.D. (PDN ’89), Past President, St. Joseph, Mo.
- Siong-Chi Lin, M.D. (P ’86), Jacksonville, Fla.
- Kevin G. Madden, M.D. (N ’84), Scranton, Pa.
- M. Mark Melin, M.D. (S ’96, VASS ’97), St. Louis Park, Minn.
- Meghan Painter (NCSI ’15), MGS Representative, Rochester, Minn.
- Nicole W. Pelly, M.D. (ANES ’02), Seattle
- Pamela B. Sylvestre, M.D. (SGPA ’00), Memphis, Tenn.
- Karl F. Tamussino, M.D. (GYNS ’96), Graz, Austria

New Board members
- Ann Colbourne, M.D. (ADGM ’94), Edmonton, Alberta, Canada
- Holly Geyer, M.D. (PD ’03, DERM ’06), Phoenix
- Suzanne Ildstad, M.D. (MMS ’78), Prospect, Ky.
- Joseph Mayo III, M.D. (MMS ’83, I ’85, OR ’89), Placentia, Calif.
- Gene Siegal, M.D., Ph.D. (PATH ’79), Mountain Brook, Ala.
- Sumeet Teotia, M.D. (PRES ’97, S ’01, CI ’03), Dallas

New members of Executive Committee
- Dawn Marie Davis, M.D. (PD ’03, DERM ’06), Rochester, Minn.
- Louis (Jim) Maher III, Ph.D. (BIOC ’95), Rochester, Minn.
- Jerry Sayre, M.D. (FM ’96), Jacksonville, Fla.
- Nathaniel Tighe (MMS ’15), MMS Representative
- Jeffrey Wang, M.D. (S ’10, U ’14), MCR-MSGME Representative

Other Board members pictured
- Carl Backer, M.D. (MMS ’80), Winnetka, Ill.
- Juan Sarmiento, M.D. (SR ’96, PRES ’98, S ’00, S-GI ’02), President, Atlanta
- Susheela Bala, M.D. (PAIM ’87), President Elect, San Bernardino, Calif.
- Eric Grigsby, M.D. (S ’86, ANES ’88), Past President, Napa, Calif.
- Mary Reynolds, M.D. (MMS ’98), Golden, Colo.
- Theresa Emory, M.D. (PATH ’94), Bristol, Va.
- Judith Anderson, Director, Alumni Center, Rochester, Minn.
- David Graham, M.D. (MMS ’87, I ’90, HEMO ’93), Urbana, Ill.
- Alan Freedman, M.D. (PLS ’89), Great Neck, N.Y.
- Douglas Chyatte, M.D. (NS ’85), Mankato, Minn.
- Steven Rose, M.D. (MMS ’81, I ’82, ANES ’84), Rochester, Minn.
Kicking off Sesquicentennial with a new president, an original musical and esteemed awards

The 68th Biennial Meeting included an evening event — the President’s Gala — at Mayo Civic Center’s Exhibit Hall. At the gala, the new Alumni Association president was installed — with a passing of the gavel from Eric Grigsby, M.D. (S ’86, ANES ’88), to Juan Sarmiento, M.D. (SR ’96, PRES ’98, S ’00, S-GI ’02).

The entertainment portion of the evening was an original musical commissioned for the 68th Biennial Meeting gala event — a re-creation of a 1913 ship’s concert in the first-class dining saloon of a trans-Atlantic voyage aboard the R.M.S. Mauretania. “Passengers” on the voyage included Charles H. Mayo, M.D., Edith Graham Mayo and their son, Charles William (Chuck) Mayo.

Dr. Will looked forward to these crossings on his spring holidays to visit European clinics. He said of one of these trips, it “furnishes a much-needed rest. One leaves home tired out, but in the week of ocean travel he has an opportunity to become well rested. In the return trip, again, one gets needed rest and recuperation just before returning to work.”

Details of the production emerged from conversations with alumni and Mayo Clinic staff families, who shared their memories about early days at Mayo Clinic. Among these individuals were Dr. Will Mayo’s daughter, Phoebe Mayo Walters, and her son, Walt Walters, and Mary Elizabeth (Mrs. J. Grafton) Love, Barbara Withers and many members of Dr. Charlie Mayo’s family.

While today is far removed from the manner of travel that the Mayo brothers knew, the desire to teach, to learn and to serve, with respect for people and places around the world, continues today among the staff and alumni of Mayo Clinic.
Gala entertainment

Mayo Clinic alumni were among the performers in the musical:

1. Patricia Barrier, M.D. (PREV ’93), as ballroom dance instructor Madame Patrice; recently retired, former consultant, Division of Preventive, Occupational and Aerospace Medicine; former associate dean for student affairs

2. Peter Gloviczki, M.D. (VASS ’83, S ’87), as magician Professor Gloviczki; Joe M. and Ruth Roberts Professor of Surgery; consultant and former chair, Division of Vascular and Endovascular Surgery; past chair, Gonda Vascular Center

3. Brian Koh, M.D. (I ’10, HEMO ’11, CI ’12, HEMO ’15), as violinist in the Palm Court Orchestra; clinical fellow, Division of Hematology and Medical Oncology

4. Dennis Robertson, M.D. (OPH ’67), as emcee Joe Goodwin; emeritus consultant, Department of Ophthalmology
Humanitarian and Professional Achievement Awards

Humanitarian Award

Paul E. Spray, M.D., was awarded the 2013 Mayo Clinic Alumni Association Humanitarian Award in recognition for decades of dedication to humanitarian care, including teaching orthopedic procedures and lecturing in developing nations, and providing medical care to impoverished patients in the Appalachian region close to his home. Now in his 90s, he is still involved in service projects.

Dr. Spray received an undergraduate degree from the University of Pittsburgh, his medical degree from George Washington University in Washington, D.C., and a master's degree from the University of Minnesota. He was a captain in the U.S. Army from 1946 to 1948, and then completed a residency in orthopedic surgery at the Mayo School of Graduate Medical Education.

In 1950, he began practicing orthopedic surgery in Oak Ridge, Tenn., where he remains today, retired from practice since 1998. One of the first orthopedic specialists in eastern Tennessee, he is noted for having influenced many physicians in the area and for providing exemplary patient care infused with kindness.

Dr. Spray is committed to educating and advancing orthopedic care around the world. He was an early member of Orthopedic Overseas, a group that provided volunteer services for education in orthopedic care in disadvantaged countries.

Between 1959 and 1998, Dr. Spray, under the auspices of CARE/MEDICO, made 23 annual monthlong trips to developing nations. Those who have served with him have remarked about his leadership and devotion to the welfare of people in desperate need. He was the secretary of the Orthopedic Overseas Division of CARE/MEDICO, and a member of the medical advisory board and vice president of Care Incorporated. He was a member of the U.S. Organizing Committee of the First International Academy Symposium on Orthopedics in Tianjin, China.

Dr. Spray has been an invited guest speaker on orthopedics in multiple institutions around the world. He was a member of the editorial board of Contemporary Orthopedics and a fellow of the International College of Surgeons and many other organizations.

In accepting his award, Dr. Spray said, “I want to thank Mayo alumni doctors T. Norley [Theodore Norley, M.D. (OR ‘46, OR ‘48)] and Allan McKelvie [EXS ‘48, OR ‘51], who introduced me to overseas medical programs. I had the honor of working with them in some of these programs. I also owe a great debt of gratitude to Mayo Clinic for accepting me as a resident. It opened doors for me to excellent and fulfilling medical experiences and led to some very lasting friendships.”
William C. Oliver Jr., M.D., was awarded the 2013 Mayo Clinic Alumni Association Professional Achievement Award for an extraordinary track record of driving innovations in practice, developing broad-based collaboration, mentoring younger staff, excelling in clinical investigation and providing outstanding patient care.

Dr. Oliver is a consultant in the Department of Anesthesiology at Mayo Clinic in Rochester and professor of anesthesiology in the Mayo Clinic College of Medicine. He received undergraduate and medical degrees from the University of Alabama in Tuscaloosa. He completed a residency in anesthesiology and a fellowship in cardiac anesthesia at surgery at the Mayo School of Graduate Medical Education.

Dr. Oliver has been at the forefront of practice innovation in the care of patients with complex heart disease, including advancing the anesthetic care of neonates, toddlers and, now, teens and adults as they survive longer and require multiple staged surgeries. He provides an abundance of compassion for these patients who face psychological stress and morbidity and mortality, and devotes significant time to caring for pediatric and adult congenital patients in the intensive care unit. He developed exemplary clinical relationships with cardiac surgeons to improve care in cardiac surgery ICUs, and has been a key player in the implementation of the extracorporeal membrane oxygenation (ECMO) program at Mayo Clinic.

Dr. Oliver has been a world leader in developing transfusion algorithms for cardiac surgery and understanding goal-directed transfusion therapy guided by point-of-care testing. This has been a novel and innovative element of the Mayo Clinic surgical and ICU practice. Dr. Oliver’s initial vision has led to the idea of better blood management, a concept that has radically changed practice at Mayo Clinic, is now diffused throughout Mayo and mimicked around the globe.

He pioneered the use of antifibrinolytics for the prevention of bleeding associated with cardiac surgery at Mayo Clinic, and has published multiple articles on the efficacy and dosing of antifibrinolytics in cardiac surgery. He has performed an extensive number of studies on the use of coagulation tests to guide transfusion therapy in cardiac surgical patients in the operating room and in the ICU.

Dr. Oliver has been a dedicated mentor to younger staff members, and he has been instrumental in recruiting and teaching the next generation of cardiovascular anesthesiologist intensivists.

Dr. Oliver has accomplished much despite an ongoing battle with cystic fibrosis. Despite life-threatening setbacks, he has bounced back and found new, innovative ways to contribute to the care of some of Mayo Clinic’s most complex patients.

Dr. Oliver shared a letter from the mother of a pediatric patient: “We think of all the people who cared for her, believed in her and supported us. Remember that with every milestone she achieves, every birthday, every Christmas card, every first day of school, we think of you people. Remember that what you did for her, we are more grateful than we could ever express in words.” Dr. Oliver commented, “When I go home with that on my mind, I say it’s a good 24 hours. I would like to thank everybody for the opportunity to be around people like this and to enjoy a life I had no reason to expect but I got a chance to have.”
eliminate medical errors and offer preventive health strategies,” says Dr. Roger. “Discussions of health care quality often devolve into noisy exchanges of opinion and rhetoric. We are shifting the focus to science. We’re harnessing Mayo’s history of applying engineering principles to patient-centered health care and developing evidence-based care models.”

Dr. Roger points out that this legacy of weaving engineering techniques into care delivery began a century ago when Henry Plummer, M.D., invented the individual dossier-style medical record and interconnecting telephone system for consultation among physicians.

A lofty goal, but Mayo Clinic is up to the challenge, building on a tradition of continuously innovating and improving care. Since its inception in 2011, the center has been involved in projects large and small, and proven ideas have been incorporated into the Mayo Clinic practice. It’s not enough to simply improve Mayo Clinic’s practice, according to Veronique Roger, M.D. (CV ’88), director of the Mayo Clinic Kern Center for the Science of Health Care Delivery and a consultant in the divisions of Cardiovascular Diseases and Epidemiology at Mayo Clinic in Rochester. The aim is to share and replicate the practices throughout the United States. The ambition is for the changes to be transformational.

“As health care leaders, we have a responsibility to our patients to improve quality, reduce costs of treatment, eliminate medical errors and offer preventive health strategies,” says Dr. Roger. “Discussions of health care quality often devolve into noisy exchanges of opinion and rhetoric. We are shifting the focus to science. We’re harnessing Mayo’s history of applying engineering principles to patient-centered health care and developing evidence-based care models.”

Dr. Roger points out that this legacy of weaving engineering techniques into care delivery began a century ago when Henry Plummer, M.D., invented the individual dossier-style medical record and interconnecting telephone system for consultation among physicians.

Mayo Alumni looks at two of the many projects underway in the center.

**Intraoperative tumor evaluation reduces breast cancer reoperation rates**

Does Mayo Clinic’s approach to lumpectomy surgery for breast cancer, which includes intraoperative evaluation of lumpectomy specimens in the frozen section pathology laboratory, result in more efficient care and improved quality of life for patients?

The Mayo Clinic Kern Center for the Science of Health Care Delivery investigated the effects of this practice in breast cancer surgery.

At most institutions that do not have a frozen section pathology laboratory, lumpectomy specimens are evaluated for positive margins after the lumpectomy operation has been completed. Patients with positive findings, identified several days after surgery, then need a second operation to address the margins.

A comparison of 30-day reoperation rates using the National Surgical Quality Improvement Program dataset revealed that reoperation rates at Mayo Clinic were indeed significantly lower than in the national data — 3.6 percent compared to 13.2 percent.

“We anticipated that the reoperation rate would be lower but were pleasantly surprised by how big the difference was,” says Elizabeth
Clinic Ventures. The rollout and three-year pilot study are funded by the CMS Award.

“Providers who care for unstable hospitalized patients have only a few minutes to wade through medical records before making critically important decisions,” says Brian Pickering, M.B., B.Ch. (CCM-A ‘09, CCM-I ’10), Department of Anesthesiology, Division of Critical Care Medicine. “This decision making often is hindered by patient information that is difficult to access and use, which increases the potential for errors and delays in treatment.”

To address these issues, Mayo Clinic staff members developed AWARE (Ambient Warning and Response Evaluation), which extracts data from electronic medical records to enhance ICU patient care. AWARE has been tested and validated at Mayo Clinic in Rochester to foster the best clinical practice by addressing the key clinical components known to improve patient outcomes:

• Dashboards reduce information overload by facilitating access to key information needed for timely medical decision making at the point of care.

Data aggregator and decision-making guide improves ICU care
Can ICU care be provided more effectively — defined as fewer complications and lower cost — by reducing the information overload that providers in intensive care units face?

Physician investigators at Mayo Clinic received a Centers for Medicare & Medicaid Services (CMS) Health Care Innovation Award to address this question. They launched a novel acute care clinical data assimilation and analytics tool with built-in mechanisms for error prevention, practice surveillance, decision support and reporting. The tool had been developed with funding from Mayo Clinic Ventures. The rollout and three-year pilot study are funded by the CMS Award.

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“Sniffers” continuously survey the patient condition and provider actions to detect potential mismatches and prevent errors.

Whiteboard, task list, readiness for discharge and claim functions facilitate communication among team members, patient, family and during care transitions, preventing common communication errors.

Checklist and rounding tools help providers develop and execute a coordinated daily plan of care, ensuring adherence to patient-centered best care practices and regulatory requirements.

Feedback and reporting tools enable easy access to quality improvement metrics and patient outcomes for clinicians and oversight groups.

In less than a year, more than 2,100 Mayo Clinic physicians, nurses and other providers regularly used AWARE to care for more than 8,100 ICU patients. Early indicators show reductions in cognitive load, cognitive errors, medical errors and time to intervention. In the surgical ICU, the time spent gathering data for each patient before rounds was cut in half — from a median of 16.22 minutes pre-AWARE to 7.75 minutes post-AWARE.

In the months ahead, AWARE will be launched in hospitals at Montefiore Medical Center and University Hospital for Albert Einstein College of Medicine in New York, and Lawrence General Hospital in Lawrence, Mass. Mayo Clinic’s Florida and Arizona campuses will launch AWARE by the end of 2013, and University Hospitals in Oklahoma City is expected to start using the tool in 2014.

Specific aims of AWARE include:

- Increasing compliance to 90 percent or higher with best practices such as ICU prophylaxis, ventilator bundles, sedation reduction and breathing trials, and other recommended processes of care.
- Reducing the rate of ICU-acquired complications, increasing patient engagement, improving hospital survival, and decreasing ICU and hospital readmissions.
- Decreasing hospital costs through decreased ICU and hospital length of stay, daily use of central lines, blood transfusions and days of mechanical ventilation.

“Innovation that starts at the bedside is essential if we are to get the most out of the huge investment in health information technology,” says Dr. Pickering. “Such innovation requires unfettered access to clinical data, a rigorous scientific method and a focus on meaningful patient outcomes. The attempted diffusion of technology such as AWARE across different health care settings is an important next step along the path toward safer, more reliable health care.”

Gift allows Center expansion

In October, Mayo Clinic honored benefactors Robert D. and Patricia E. Kern for reaching $100 million in lifetime giving to Mayo, with more than $87 million dedicated to the Center for the Science of Health Care Delivery. With the Kerns’ most recent gift, the center will expand its operations, endow five scientific director positions and create online education offerings. A portion of the gift will support efforts to share the center’s portfolio of scientifically proven, high-value care models with health care providers throughout the United States. To recognize the Kerns, Mayo Clinic has named the center in their honor.

“This changes everything,” says John Noseworthy, M.D. (N ’90), president and CEO of Mayo Clinic. “With the Kerns’ support, Mayo Clinic will re-engineer health care to improve safety, quality and value. This gift empowers us to share these findings with hospitals, clinics and nursing homes across the country so that patients everywhere get the high-quality, high-value care they need and deserve.”

More effective ICU care has been achieved with the AWARE tool developed by physician investigators including Brian Pickering, M.B., B.Ch. (right).
Mayo Clinic Distinguished Alumni Award 2013 Recipients

HONORING EXCELLENCE IN PATIENT CARE, RESEARCH AND EDUCATION

The Mayo Clinic Board of Trustees established the Mayo Clinic Distinguished Alumni Award in 1981 to acknowledge and show appreciation for the exceptional contributions of Mayo alumni to the field of medicine, including medical practice, research, education and administration. Individuals who have received the award have been recognized nationally and often internationally in their fields.

The 2013 Mayo Clinic Distinguished Alumni Awards were presented on Oct. 21, 2013.

Stephen Carmichael, Ph.D., D.Sc.
Emeritus Professor of Anatomy and Orthopedic Surgery, Department of Anatomy and Department of Orthopedic Surgery, Mayo Clinic, Rochester, Minn.

Richard DeRemee, M.D.
Emeritus Professor of Medicine, Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Mayo Clinic, Rochester, Minn.

Olaf Paulson, M.D., DMSc
Professor of Neurology, University of Copenhagen; Consultant, Department of Neurology and Neurobiology Research, Copenhagen University Hospital, Rigshospitalet, Copenhagen, Denmark
Stephen Carmichael, Ph.D, D.Sc. (ANAT ’82), is a fixture in anatomy around the globe, having developed and taught innovative anatomy curriculum at Mayo Medical School, conducted research, published extensively and participated in developments in treating Parkinson’s disease. His has published about 100 laboratory research papers in peer-reviewed journals. He wrote a 1985 article in Scientific American that was republished in four other languages — a testament to his international reputation. His more than 130 reviews — “Carmichael’s Concise Review” — in Microscopy Today are one of the journal’s most popular features. He was editor-in-chief of Clinical Anatomy for 12 years. His research career includes investigating the basic mechanisms of catecholamine synthesis and secretion. He also was involved in pioneering work transplanting the autologous adrenal medulla into the caudate nucleus of patients with Parkinson’s disease. He recently received the highest honor of the American Association of Clinical Anatomists.

Graduate (Ph.D., Anatomy): Tulane University, New Orleans
Undergraduate: Kenyon College, Gambier, Ohio
Native of: Detroit

Richard DeRemee, M.D. (I ’66), achieved worldwide recognition in the fields of interstitial lung disease, vasculitis and pulmonary medicine. Dr. DeRemee made novel observations that altered the understanding and therapy of certain diseases, including IPF/UIP, sarcoidosis and Wegener’s granulomatosis. He made numerous contributions to literature in furthering the understanding of aspects of pulmonary diseases. His interest and writings in the field of granulomatous pulmonary disease are nationally and internationally recognized. He is an established authority on the history, diagnosis and treatment of Wegener’s. He was instrumental in presenting a theory that Wegener’s granulomatosis and polymorphic reticulosis were two separate diseases, a finding that significantly altered the understanding, pathogenesis and therapy of these diseases. Dr. DeRemee also was instrumental in mentoring fellows and fostering international collaboration during his 30 years in the Division of Pulmonary and Critical Care Medicine at Mayo Clinic.

Mayo Clinic, Consultant, Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, 1966-1996; Professor of Medicine, 1984–1996
Residency (Internal Medicine, Pulmonary Disease): Mayo School of Graduate Medical Education
Medical School: University of Minnesota, Minneapolis
Undergraduate: University of Minnesota, Minneapolis; Gustavus Adolphus College, St. Peter, Minn.
Native of: Red Wing, Minn.

Olaf Paulson, M.D., DMSc (N ’73), is a highly cited researcher and author who was at the forefront of research of cerebral circulation and metabolism transport across the blood-brain barriers. He was among a small group of pioneering neuroscientists who foresaw the importance of modern brain imaging methods. He has significantly contributed to autoregulation and CO₂ reactivity. His demonstration of the influence of the angiotensin converting enzyme on the autoregulation curve has been highly acknowledged internationally. He established a neurobiology research unit at the Rigshospitalet in Copenhagen and has trained more than 30 young investigators and maintained collaboration with research institutes on three continents.

He was elected to the Royal Danish Academy of Sciences and Letters in 2000. He is a past president of the Danish Society for Neuroscience, Danish Neurological Society, and Society of Cerebral Blood Flow and Metabolism. Dr. Paulson has authored or co-authored 598 publications.

Residency: University Hospitals, Copenhagen;
Mayo School of Graduate Medical Education (one year)
Graduate (DMSc): University of Copenhagen
Medical School: University of Copenhagen
Undergraduate: University of Copenhagen
Native of: Copenhagen, Denmark
Mayo Update

Board of Trustees news
At its quarterly meeting in November, the Mayo Clinic Board of Trustees welcomed a new member and elected an emeritus trustee.

New member
Eric Schmidt, executive chairman of Google

Emeritus member
Shirley Weis, recently retired Mayo Clinic vice president and chief administrative officer

Obituaries
Frederick Behling, M.D. (OR ‘56), died July 10, 2013.


James Knight, M.D. (ANES ‘56), died July 8, 2013.


Albert Nisswandt, M.D. (NS ‘60), died June 3, 2013.


Complete obituaries and the Update section, with alumni and staff news, are available on the Mayo Clinic Alumni Association website, alumniconnections.com/ocl/pub/MAYO/.

Mayo Clinic celebrates Sesquicentennial
The Mayo Clinic Sesquicentennial of 2014 celebrates 150 years since William Worrall Mayo, M.D., settled his family in Rochester, Minn., and opened a small medical practice. He and his wife, Louise, passed on their pioneering spirit to their sons, William J. Mayo, M.D., and Charles H. Mayo, M.D., who transformed the family practice into Mayo Clinic.

Sesquicentennial events, including a mobile exhibit, are planned at all Mayo locations from September 2013 to December 2014. For information about the Sesquicentennial, visit http://150years.mayoclinic.org. There, you can watch a commemorative film, “150 Years of Serving Humanity,” narrated by Tom Brokaw, journalist and a member of the Mayo Clinic Board of Trustees.

Mayo Clinic’s Sesquicentennial is celebrated at all locations throughout the year, including (clockwise from top) Rochester, Arizona and Florida.
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Mayo 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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Mayo Clinic is committed to creating and sustaining an environment that respects and supports diversity in staff and patient populations.
Mayo Clinic Alumni Association 68th Meeting

The September 2013 Biennial Meeting provided opportunities for discovery, discourse and diversion.