MAYO CLINIC

alumni

2025 • Issue 4

▲ Celebrating Mayo Clinic milestones • 04

Letter from the **president**

By the time you receive this magazine, I will be the new president of the Mayo Clinic Alumni Association. Allow me to introduce myself with a few personal words.

I live in Germany with my family, and I am an orthopedic and trauma surgeon by trade. I was a visiting medical student at Mayo Medical School (now known as Mayo Clinic Alix School of Medicine) from 1980 to 1982 and was a research fellow in the Mayo Clinic biomechanics laboratory from 1986 to 1987. At the time, the lab was chaired by **Edmund Chao, Ph.D.** (OR '72), whom I sincerely appreciate for his teaching and guidance.

I am deeply honored to be the first president of this esteemed Alumni Association from outside the U.S. I was introduced to the Alumni Association by **Rudolf Juchems, M.D.** (I '61), who founded the Mayo Alumni German Speaking Chapter (MAGSC) in 1996. Today, MAGSC has about 80 members and typically about 30 members attend our annual meetings in a German-speaking country.

In this issue, you will find interesting articles on important topics for Mayo Clinic, starting with a celebration of the 100th anniversary of Mayo Clinic Proceedings. This medical journal has developed remarkably over the decades to become a prestigious and frequently cited high-quality publication.

Rheumatology practice at Mayo Clinic is also commemorating 100 years; read on to learn how this department has added significantly to the worldwide prestige of Mayo Clinic. And an article about 50 years of smoking cessation practice, research and advocacy at Mayo Clinic gives excellent insight into how leaders in the field found support to develop something extraordinary.

Finally, we present this year's Distinguished Alumni Award winners. (As it happens, two of these outstanding researchers and clinicians are members of our German speaking chapter, and one of them spent his career practicing in Germany.) Take some time to learn about their many inspiring contributions to the field of medicine.

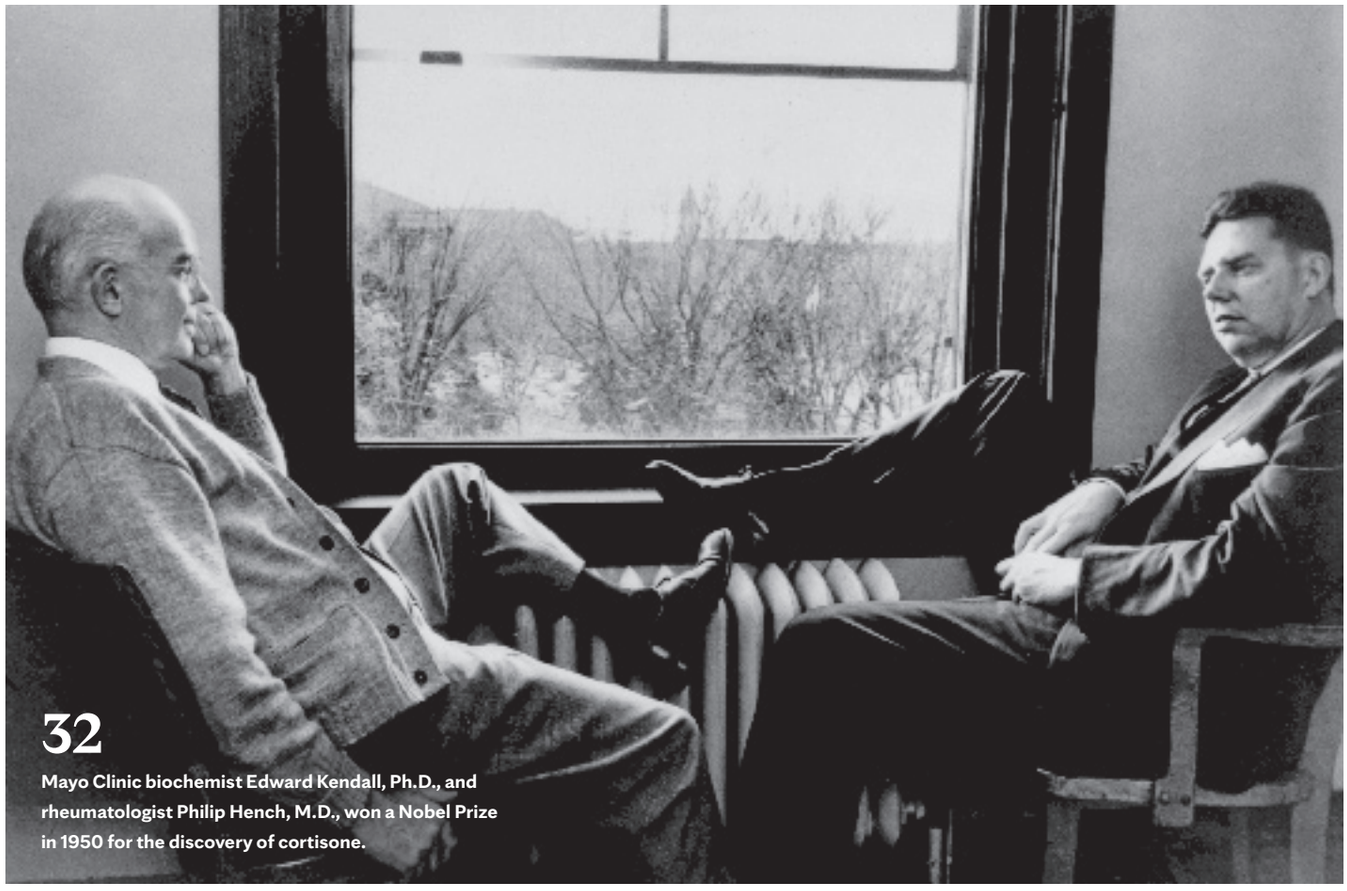
I am looking forward to my time as president of this association for the next two years, and I am eager to meet many of you in person in the near future — hopefully at the next international meeting in Sanremo, Italy.

Burkhard Wippermann, M.D. (BIOM '87)
President, Mayo Clinic Alumni Association
Head of the Department of Orthopaedics
and Trauma Surgery
Helios Albert-Schweitzer-Klinik Northeim
Northeim, Germany

About the cover: In this issue, we're celebrating key Mayo Clinic milestones worthy of this elaborate cake. We reflect on three noteworthy anniversaries that represent decades of medical practice, research and education that have collectively shaped modern medicine.

Photograph by Lisa Predko. Styling by Beth Somers.

PHOTOGRAPHY: (BURKHARD WIPPERMANN, M.D.) PETER PALLAGI; (EDWARD KENDALL, PH.D., AND PHILIP HENCH, M.D.) MAYO CLINIC ARCHIVES; (KARL NATH, M.B., CH.B.) TONY PAGEL



32

Mayo Clinic biochemist Edward Kendall, Ph.D., and rheumatologist Philip Hench, M.D., won a Nobel Prize in 1950 for the discovery of cortisone.

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100 years of Mayo Clinic's influential medical journal

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04

Karl Nath, M.B., Ch.B., editor-in-chief of Mayo Clinic Proceedings

100 years

of Mayo Clinic Proceedings

Carl Gambill, M.D., then a consultant and later head of the Mayo Clinic Section of Scientific Publications, Eleonore Clappier, managing editor of the Proceedings, and Ellen Guldberg, assistant managing editor of the Proceedings, check a proof of an issue of the Proceedings in 1952.

Karl Nath, M.B., Ch.B., editor-in-chief of Mayo Clinic Proceedings

In 1975, when he was a medical student at the University of Edinburgh, **Karl Nath, M.B., Ch.B.** (NEPH ’96), now a consultant in the Division of Nephrology and Hypertension at Mayo Clinic in Minnesota and the Robert Joseph Patnode Professor of Nephrology, completed an elective in Trinidad, the island on which he was born and raised.

The hospital hosted a small library displaying just four medical journals. Dr. Nath remembers the journals distinctly: West Indian Medical Journal, The BMJ, The Lancet and — as the only North American representative — Mayo Clinic Proceedings. “Here was this journal in a little library in the Port of Spain General Hospital that caught my attention,” Dr. Nath says.

Rafael Fonseca, M.D. (HEMO ’98), a consultant in the Division of Hematology and Medical Oncology, a member of the Mayo Clinic Board of Trustees and the Getz Family Cancer Professor at Mayo Clinic in Arizona, discovered the Proceedings while in medical school in Mexico.

“Someone said, ‘There’s this journal that is distributed for free in the United States called Mayo Clinic Proceedings. And guess what? It provides information that comes straight from Mayo Clinic,’” Dr. Fonseca says.

These are just two examples of the many Mayo Clinic physicians and physician-scientists who remember running across the journal during their medical training abroad, says Dr. Nath.

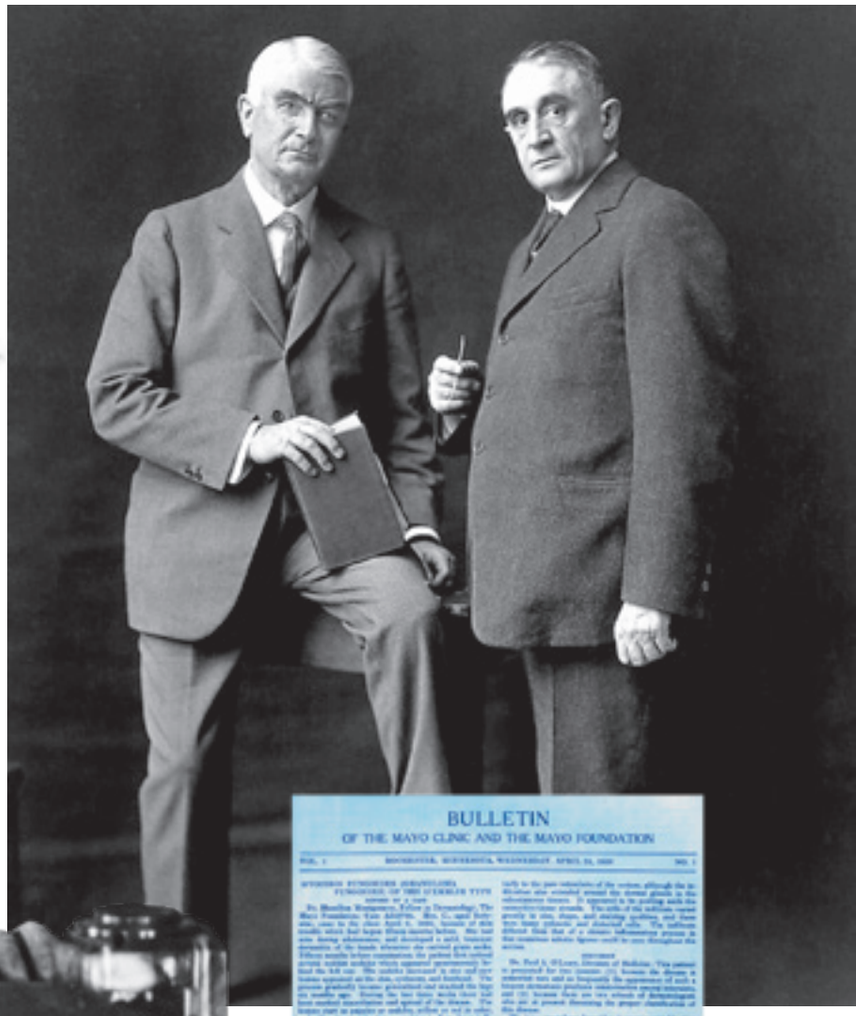
“It says volumes to me about what a copy of a journal does — it doesn’t just bring knowledge, it sends out a far-ranging message that there is a journal in a southern Minnesotan town that is supported by a top institution in the world,” Dr. Nath says. “And that journal touches so many people in various parts of the world.”

Today, Dr. Nath is the editor-in-chief of Mayo Clinic Proceedings and Dr. Fonseca is an editorial board member of the journal. And in April 2026, Mayo Clinic Proceedings will celebrate its centennial, commemorating 100 years of groundbreaking research, seminal publications and global impact.

“Mayo Clinic Proceedings’ 100th volume and upcoming centennial anniversary in April 2026 represent a fitting moment to reflect on the contributions and trajectory of one of healthcare’s influential clinical journals and one that has documented many of the innovations that have defined the course of modern medicine,” says **Gianrico Farrugia, M.D.** (I ’91, GI ’94), President and CEO of Mayo Clinic.

Follow the timeline to see how an internal staff publication grew to become such an influential medical journal worldwide.

PHOTOGRAPHY: (ALL HISTORICAL IMAGES AND DOCUMENTS) MAYO CLINIC ARCHIVES; PAGES 5, 6, 15, 20: (ALL PHOTO STILL LIFES, KARL NATH, M.B., CH.B.) TONY PAGEL




BULLETIN
OF THE MAYO CLINIC AND THE MAYO FOUNDATION

1926

The first issue of Mayo Clinic's in-house journal is published

In the early 1900s, weekly meetings of Mayo Clinic staff are a prime chance for physicians and fellows to present papers and interesting case studies, share new discoveries in medical diagnosis and treatment, report on travels to other institutions and share best practices — with Drs. Will and Charlie Mayo often sitting in the front row.

But a growing staff and increasing clinical demands make it harder to ensure attendance. So, with approval from the Mayo Clinic Board of Governors, Drs. Will and Charlie ask Maud Mellish Wilson, Mayo's first institutional librarian, to summarize and publish the content of the weekly staff meetings.

The result is a four-page weekly publication named Bulletin of the Mayo Clinic and The Mayo Foundation, with Ms. Wilson as editor. The first issue is published on April 21, 1926. In its first year, 260 copies of the journal are printed. The journal's name changes a few times, eventually settling on Proceedings of the Staff Meetings of the Mayo Clinic in 1927.

Left to right: Maud Mellish Wilson; William J. Mayo, M.D., with Charles H. Mayo, M.D.; The first issue of the Proceedings published in 1926, then known as Bulletin of the Mayo Clinic and The Mayo Foundation; Wallace Herrell, M.D.; An artistic rendering of staphylococcus aureus bacteria; Sir Alexander Fleming, M.B.B.S.; Edward Kendall, Ph.D.; Philip Hench, M.D.

1942

First U.S. report of treatment with systemic penicillin

Wallace Herrell, M.D. (I '38, died 1992), and colleagues publish the first clinical use of systemic penicillin in the U.S. The patient has a serious staphylococcal bacteremia infection and is treated successfully with intravenous infusions of penicillin.

"While penicillin was first discovered in 1928 by Alexander Fleming, it would not have a significant impact on patient care until the mid-1940s, thanks in large part to pioneering studies published in Mayo Clinic Proceedings over time by a team of Mayo Clinic physicians led by Dr. Wallace Herrell."
– GIANRICO FARRUGIA, M.D.

1949

Clinical trial of cortisone leads to a Nobel Prize

After years of collaboration, **Philip Hench, M.D.** (I 1925, died 1965), **Edward Kendall, Ph.D.** (BIOC 1914, died 1972), and colleagues study the effect of cortisone in rheumatoid arthritis patients. After treatment, these patients experience dramatic symptom relief. Read more about this discovery on page 32.

"Those who had found the following manoeuvres difficult or impossible often were able within a few days to do them much more easily or even 'normally': getting in or out of bed unassisted, rising from chairs or toilets, shaving, washing the hair or back of the neck, opening doors with one hand, wringing a wash cloth, lifting a cup or book with one hand, and climbing stairs."
– EXCERPT from "The Effect of a Hormone of the Adrenal Cortex and of Pituitary Adrenocorticotropic Hormone on Rheumatoid Arthritis: Preliminary report," Mayo Clinic Proceedings, 1949

PHOTOGRAPHY: (SIR ALEXANDER FLEMING, M.B.B.S.) ALAMY; (STAPH BACTERIA) ADOBE STOCK

What makes Mayo Clinic Proceedings unique?

There are thousands of peer-reviewed, English-language academic medical journals. What makes Mayo Clinic Proceedings special?

- **Diversity of content.** Each issue of the Proceedings includes multiple article types, including editorials, commentaries, rigorous original research, reviews, recurring features on pathologic diagnoses and more. This variety could "appeal to a very rigorous academician-investigator, yet it could also appeal to a resident in training," Dr. Nath says.
- **Mayo Clinic research.** "We live side by side with the No. 1 institution in the world," Dr. Nath says. "We get articles from Mayo Clinic staff who are leaders in their fields, and we get extremely innovative findings from Mayo Clinic faculty. That for us is a remarkable bonus."
- **But not only Mayo Clinic research.** The Proceedings has come a long way from the in-house publication it once was, and it routinely publishes important papers from external authors. "It's evolved as a journal. It's not internal, it's not self-serving. It's advancing medicine," says **Fredric Meyer, M.D.** (NS '87), the Juanita Kious Waugh Executive Dean of Education of the Mayo Clinic College of Medicine and Science, dean of Mayo Clinic Alix School of Medicine and the Alfred Uihlein Family Professor of Neurologic Surgery.
- **Global reach.** Even from its early days, the Proceedings has made its way around the world. "The Proceedings has a very large worldwide distribution and a huge readership base. That type of broad readership distribution means that it serves as a platform for the distribution of great medical knowledge," Dr. Meyer says.
- **Clinical relevance.** "Mayo Clinic Proceedings stands out among journals because it's not only able to incorporate top-level science, but it does so in a way that usually provides clinical context as well," says Dr. Fonseca.

Left: Rafael Fonseca, M.D.; Bottom: Fredric Meyer, M.D.

Left to right: A Mayo Clinic Proceedings excerpt showing the mechanical pump-oxygenator used in the revolutionary open-heart surgeries of John Kirklin, M.D.; John Kirklin, M.D.; The Mayo Clinic Proceedings board of editors in 1964; An article from a 1964 issue of the Mayo Clinic newspaper Mayovox describing changes to the Proceedings

1955

A new era in open heart surgery

Mayo Clinic cardiac surgeon **John Kirklin, M.D.** (S '43, died 2004), and colleagues produce the first article on a series of open-heart surgeries using a mechanical pump-oxygenator. This breakthrough technology shows the feasibility of using cardiopulmonary bypass to perform open-heart surgery and address complex heart diseases.

"Now, 25 years later, as a result of the intense efforts of clinicians and investigators all over the world, the method is used quite safely and many times a day in hospitals in almost every country in the world."

– JOHN KIRKLIN, M.D., in "Open-Heart Surgery at the Mayo Clinic: The 25th Anniversary," Mayo Clinic Proceedings, 1980

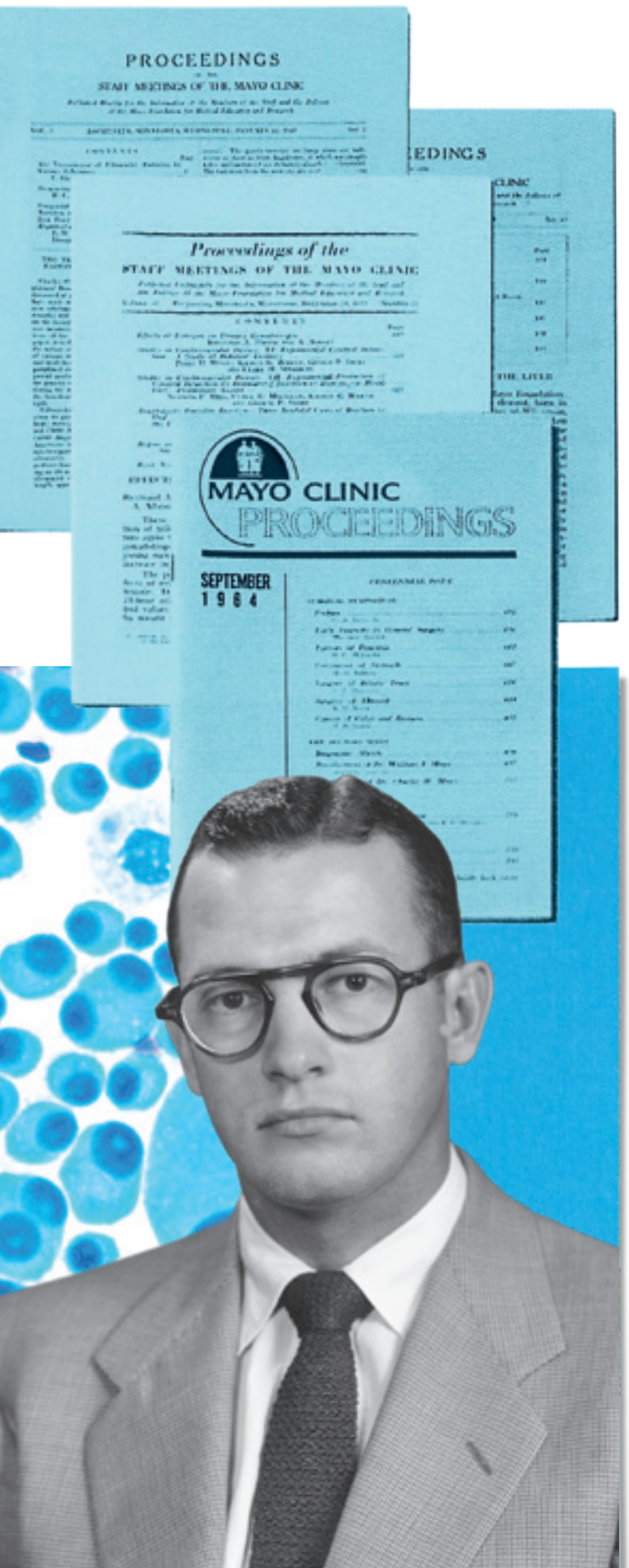
1962

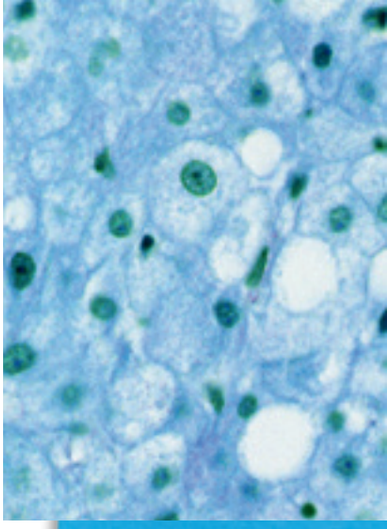
The journal adds a board of editors

The Mayo Clinic Board of Governors decides to instate a board of editors for the Proceedings, with a 1964 article in Mayovox, the Mayo Clinic newspaper, explaining: "Since the Proceedings has long since ceased to be the intramural publication originally conceived, appointment of an editorial board is another step in establishing it as a bona fide medical journal."

PHOTOGRAPHY: (RAFAEL FONSECA, M.D.) BILL PHELPS; (FREDRIC MEYER, M.D.) THOMAS BOGGAN

Top left: A 1964 issue of Mayo Clinic Proceedings. Bottom left: A picture of Robert Kyle, M.D., and a bone marrow sample showing multiple myeloma cells. Top right: Liver histology of macrovesicular steatosis; An image of a liver biopsy specimen used in the 1980 Proceedings article that coined the disease name NASH; A 1986 liver transplant operation performed at Mayo Clinic in Minnesota.





1964

Same journal, different name

The name of the journal is changed to Mayo Clinic Proceedings, because, as explained in a 1971 issue of Mayovox, "by that date — and to an even greater degree today — only a small proportion of the published material came from 'meetings of the staff.'"

1975

A game-changing understanding of multiple myeloma

For decades, **Robert Kyle, M.D.** (I '59), catalogs patient histories, archives blood samples and observes a vast number of people with plasma cell proliferative disorders at Mayo Clinic. His careful attention to multiple myeloma patients allows him to publish a seminal review of more than 800 patient cases in 1975.

"Generations of both clinicians and laboratory researchers have relied on this landmark article for understanding clinical manifestations and disease pathogenesis."

– KENNETH ANDERSON, M.D., director of the Jerome Lipper Multiple Myeloma Center at Dana-Farber Cancer Institute and the Kraft Family Professor of Medicine at Harvard Medical School, in "Multiple Myeloma: How Far Have We Come?" Mayo Clinic Proceedings, 2003

1980

The naming of a liver disease

In the 1970s, it's thought that certain fatty changes in the liver associated with lobular hepatitis are primarily caused by chronic alcohol use. So when doctors come across patients with these biopsy findings who state they don't drink, this causes "clinicians to unduly persevere in their attempts to wrench from the patient an admission of excessive alcohol intake," **Jurgen Ludwig, M.D.** (APTH '65), et al. write in a 1980 Proceedings article.

Dr. Ludwig and his co-authors propose that there is a different disease at play in these patients, which they name nonalcoholic steatohepatitis, or NASH. The term NASH subsequently dominates the field, with more than 1,500 papers published annually using the term in the 2020s, until the disease is officially renamed metabolic dysfunction–associated steatohepatitis (MASH) in 2023.

"This paper embodies what is most important in an investigation of any type, clinical or scientific: You faithfully and accurately describe what you observe and find, irrespective of whether it is incongruent with the conventional view. The study described just 20 patients, but this factual representation of what was seen by clinicians is really the cornerstone of one of the most significant causes of liver dysfunction." **– KARL NATH, M.B., CH.B.**

1992

External authors are welcomed

Submissions are opened to authors not affiliated with Mayo Clinic. Today, more than 80% of submissions are from non-Mayo authors.

2012

The Proceedings gets a new publisher

The Proceedings transitions to the esteemed academic medical publisher Elsevier in 2012, a partnership that is still going strong.

"Elsevier feels honored to have been the publishing partner for over a decade now. In close collaboration, we have embraced new opportunities, while honoring the mission of Mayo and addressing user needs of today, with an eye on the future." **– CARL SCHWARTZ,** senior vice president, health and medical sciences at Elsevier

PHOTOGRAPHY: (MULTIPLE MYELOMA CELLS) SHUTTERSTOCK; (MACROVESICULAR STEATOSIS) ISTOCK

Left to right:
Tait Shanafelt, M.D.;
John Noseworthy, M.D.;
Taimur Sher, M.B.B.S., M.D.

2017

Battling physician burnout

Tait Shanafelt, M.D. (HEMO '05), former director of Mayo Clinic's Program on Physician Well-Being, and colleagues document the rise and costs of physician burnout for more than a decade. In 2017, Dr. Shanafelt and **John Noseworthy, M.D.** (N '90), former president and CEO of Mayo Clinic, propose nine strategies that healthcare organizations can use to reverse the trend and limit risk to their patients and medical staff. The article is subsequently cited more than 2,000 times.

"Under the leadership of Dr. Tait Shanafelt, Mayo Clinic Proceedings has been an absolute pioneer in the field of physician burnout and well-being. The Proceedings was one of the major journals that focused and elucidated those issues."
– KARL NATH, M.B., CH.B.

Expanding the Mayo Clinic Proceedings family

In 2017, Mayo Clinic publishes its first Proceedings expansion journal known as Mayo Clinic Proceedings: Innovations, Quality & Outcomes (MCP:IQ&O). The journal focuses on promoting human well-being by offering a trusted knowledge platform encompassing innovations, quality and outcomes research across the entire spectrum of the healthcare ecosystem.

In 2024, the American College of Lifestyle Medicine recognizes the journal for making significant contributions to medical education by focusing on the critical burden of chronic diseases and their impact on society. In 2025, the journal is accepted to the Web of Science and is slated to receive a Clarivate impact factor.

"The future of MCP:IQ&O is very bright. With unprecedented growth in medical innovation across the spectrum of research, clinical care and education, MCP:IQ&O will be introducing a section of 'healthcare futurology' that will serve as a platform for publishing cutting-edge and disruptive biomedical research." **– TAIMUR SHER, M.B.B.S., M.D.** (HEMO '11), Mayo Clinic hematologist and oncologist and editor-in-chief of MCP:IQ&O

Read a special issue of MCP:IQ&O focused on lifestyle medicine by scanning the QR code.

PHOTOGRAPHY: (TAIT SHANAFELT, M.D.) JOSEPH KANE; (JOHN NOSEWORTHY, M.D.) DANIEL HUBERT; (TAIMUR SHER, M.B.B.S., M.D.) PAUL NAJLIS


'Mayo Clinic Proceedings' Becomes Monthly Publication in New Format
Preparation and submission of papers by Clinic authors for publication in the Proceedings will be the same as for any medical journal. A paper will be edited in the Section of Publications and then sent to the editorial board. It
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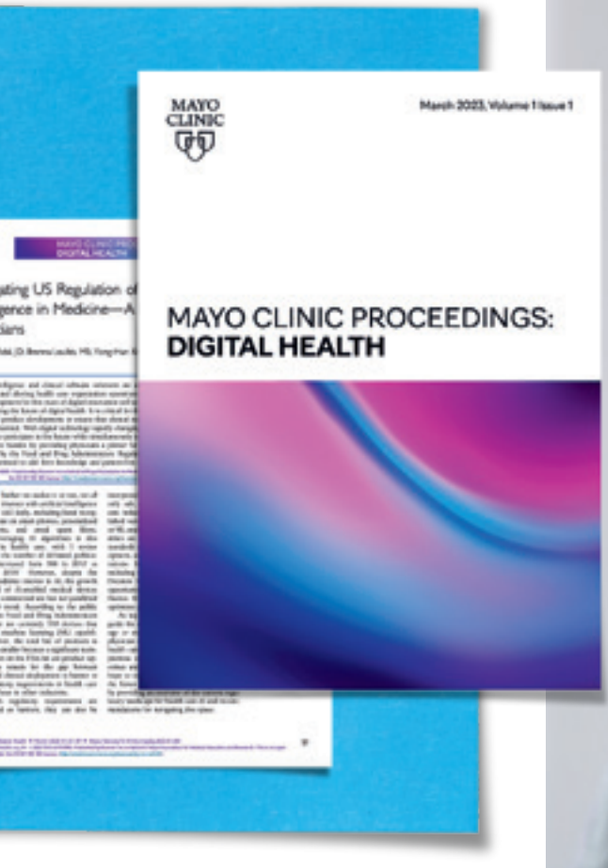
beneath the epidermis, was mucoid in character, and deeper
hyaline degeneration. The most striking feature of the
section was the marked dense infiltration of endothelial
leukocytes, plasma cells, and lymphocytes, limited essen-
fourth member of the group of malignant lymp
that occasionally the histologic picture may be

Top: Katharine Smith, a former managing editor of Mayo Clinic Proceedings, examines the first volume of the journal. Bottom: Ellen Guldberg, assistant managing editor of the Proceedings, and Eleonore Clappier, managing editor of the Proceedings, work on an issue of the journal.

2023



Another journal joins the Mayo Clinic Proceedings fold

The Mayo Clinic Proceedings family grows again in 2023 with the launch of Mayo Clinic Proceedings: Digital Health, which specializes in "publishing real-world experiences, implementation trials, and pragmatic evidence related to digital health, artificial intelligence, wearables, virtual medicine, and other technologies and paradigms," says editor-in-chief **Francisco Lopez-Jimenez, M.D.** (CV '01).

The journal is downloaded more than 125,000 times in its first year and is on track to be downloaded 300,000 times by the end of 2025. It is also accepted to the Web of Science.

"It's unusual for a new scientific journal to have an impact of this magnitude during its first few years. This is due in part to the fast growth of interest in digital health and artificial intelligence in healthcare. More importantly, it is also due to the reputation Mayo Clinic has built in this space, becoming an international beacon of rigorous development and implementation of digital health solutions."

– FRANCISCO LOPEZ-JIMENEZ, M.D.

Scan the QR code to read the most downloaded Mayo Clinic Proceedings: Digital Health article, which examines the use of smartphone-recorded voice segments to predict type 2 diabetes.

Left to right: The first issue of Mayo Clinic Proceedings: Digital Health; Francisco Lopez-Jimenez, M.D.; Stephanie Faubion, M.D.

PHOTOGRAPHY: (FRANCISCO LOPEZ-JIMENEZ, M.D.) PETER PALLAGI; (STEPHANIE FAUBION, M.D.) S. WADE RAMBO

Illuminating the impact of menopause in the workplace

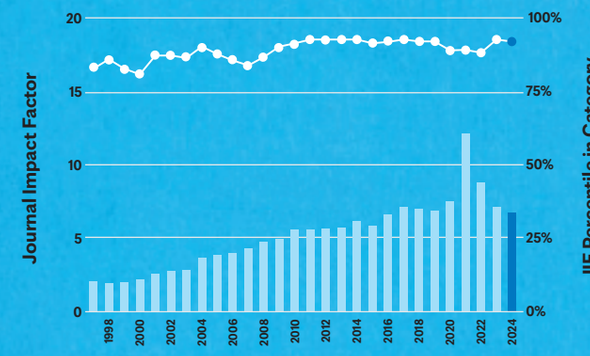
This study with first author **Stephanie Faubion, M.D.** (GIM '96), surveys more than 4,000 women ages 45 to 60 about adverse work outcomes related to menopause symptoms. It finds that 11% of women report missing work in the last 12 months due to menopause symptoms and estimates the annual cost associated with lost work productivity to be $1.8 billion in the U.S. The study is widely featured in major news outlets including The New York Times, Time Magazine and CNN.

"The findings of this study highlight a critical need to improve the medical treatment provided to women with menopause symptoms and an opportunity to make the workplace environment more supportive for women going through this universal life stage."

– EXCERPT from "Impact of Menopause Symptoms in the Workplace," Mayo Clinic Proceedings, 2023

Mayo Clinic Proceedings

by the numbers



8.2M

Article total views and downloads in 2024

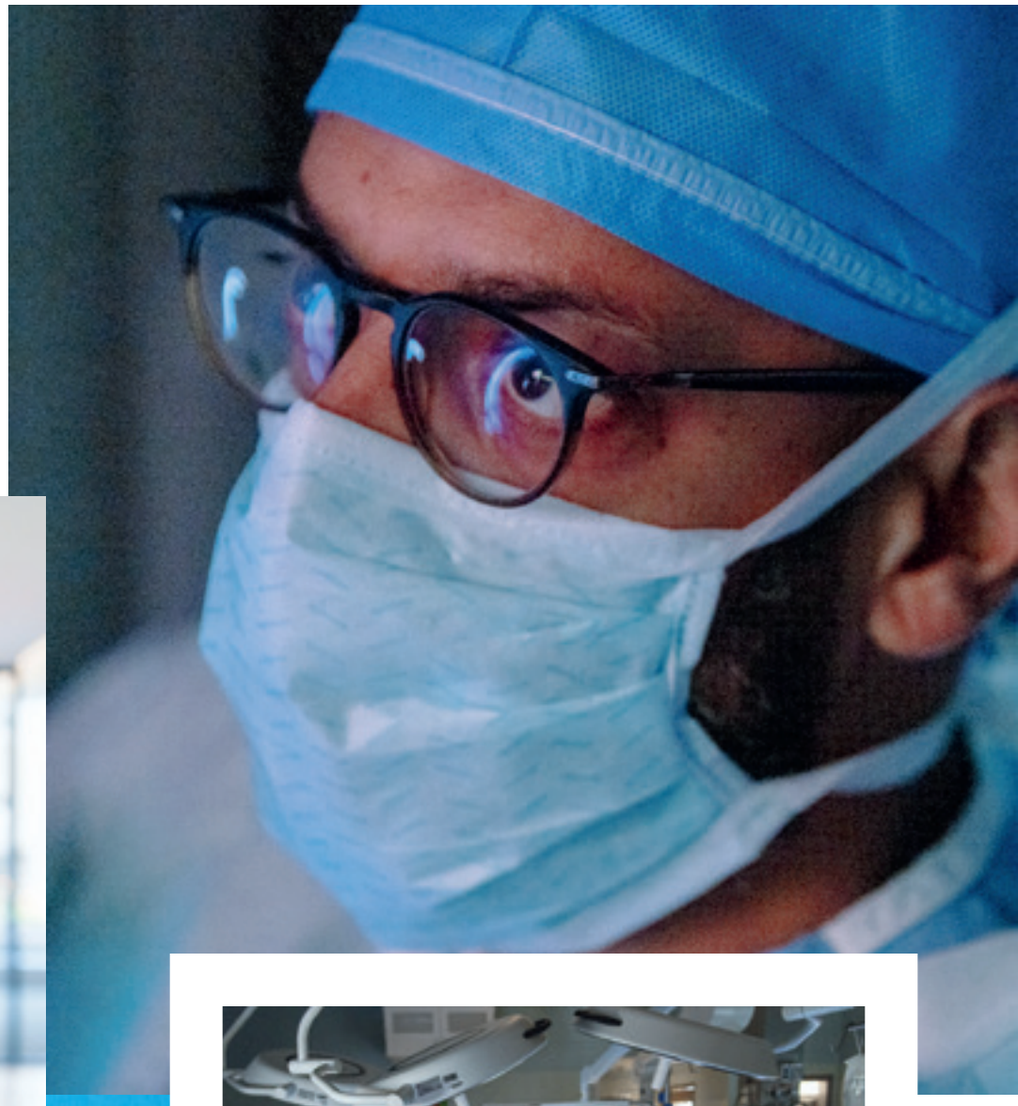
60

Authors from over 60 countries submit work to the Proceedings

6.7

Clarivate Impact Factor

2024



Left to right: Aleksandra Kukla, M.D.; Ty Diwan, M.D., in surgery; Ty Diwan, M.D., and Niv Pencovici, M.D., Ph.D., perform surgery together; Konstantinos Lazaridis, M.D., speaks on a panel; Carl Lavie, M.D.

Demonstrating the benefits of bariatric surgery for those with kidney failure

Mayo Clinic nephrologist **Aleksandra Kukla, M.D.** (NEPH ’16), and transplant surgeon **Ty Diwan, M.D.** (TRNS ’11), co-found the Kidney Transplant Metabolic Bariatric Program at Mayo Clinic in Minnesota to offer bariatric surgery to individuals on dialysis who don’t qualify for kidney transplant primarily due to a high body mass index (BMI).

Together with colleagues, the pair then publish a retrospective study in Mayo Clinic Proceedings of 104 patients with advanced chronic kidney disease and obesity showing that laparoscopic sleeve gastrectomy promotes relatively rapid weight loss, reduces obesity-related health issues and improves eligibility for kidney transplantation.

“They were able to show that you can safely do bariatric surgery to decrease BMI, such that it no longer prohibits a safe transplant in these individuals.” **– KARL NATH, M.B., CH.B.**

Exome study offers blueprint for medical breakthroughs

Mayo Clinic's largest decentralized study is a whole exome sequencing study known as Tapestry. In 2024, the Tapestry team, led by **Konstantinos Lazaridis, M.D.** (I '96, GI '00), publishes findings after analyzing DNA from more than 100,000 Mayo Clinic patients from diverse backgrounds.

They find that nearly 2% of participants carry at least one genetic variant that could significantly increase their risk for certain cancers or familial hypercholesterolemia. The majority of these participants have no known prior personal or family history of the conditions; their participation in the study allows them — and their family members — to undergo early screenings or even surgeries to prevent disease. Equally importantly, the data of exome sequencing are then used by more than 150 investigators across the enterprise to study genomic contributions to a plethora of diseases.

"This is a remarkable achievement because this extraordinarily large database of whole exome sequencing provides a wealth of genomic data that could be correlated with clinical characteristics and disease manifestations." **– KARL NATH, M.B., CH.B.**

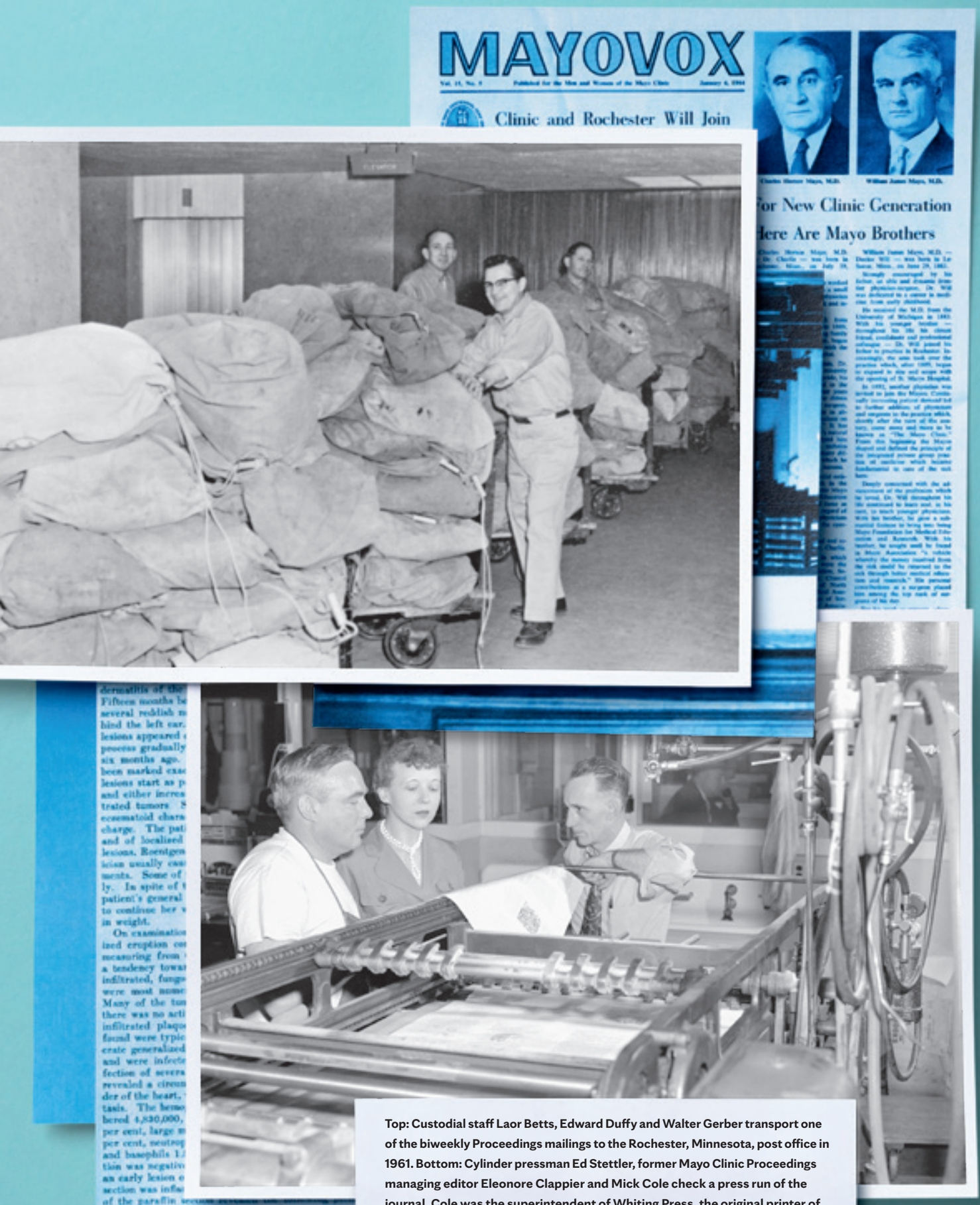
Illuminating the many benefits of cardiorespiratory fitness

Mayo Clinic Proceedings has a strong history of seminal contributions to cardiorespiratory fitness research. **Carl Lavie, M.D.** (CV '89), an esteemed cardiologist at Ochsner Medical Center in Louisiana, is an author of many of these papers, which demonstrate the importance of physical activity, exercise training, and cardiorespiratory fitness on the primary and secondary prevention of cardiovascular diseases (CVDs) and premature mortality.

A 2024 Proceedings study by Dr. Lavie and colleagues takes this a step further, showing that men with higher levels of cardiorespiratory fitness are at lower risk of death from several major non-CVD, non-cancer causes, including diabetes.

"Mayo Clinic Proceedings was one of the very first to spotlight that aspect of the broad benefit of cardiorespiratory fitness in diseases that, on the surface, had no seeming connection with cardiovascular diseases." **– KARL NATH, M.B., CH.B.**

PHOTOGRAPHY: (ALEKSANDRA KUKLA, M.D., TY DIWAN, M.D., TY DIWAN, M.D., AND NIV PENCOVICI, M.D., PH.D., IN SURGERY) MATT MEYER; (KONSTANTINOS LAZARIDIS, M.D.) JOHANNA HEIDORN; (CARL LAVIE, M.D.) OCHSNER HEALTH PHOTOGRAPHY



Top: Custodial staff Laor Betts, Edward Duffy and Walter Gerber transport one of the biweekly Proceedings mailings to the Rochester, Minnesota, post office in 1961. Bottom: Cylinder pressman Ed Stettler, former Mayo Clinic Proceedings managing editor Eleonore Clappier and Mick Cole check a press run of the journal. Cole was the superintendent of Whiting Press, the original printer of the Proceedings.

2024

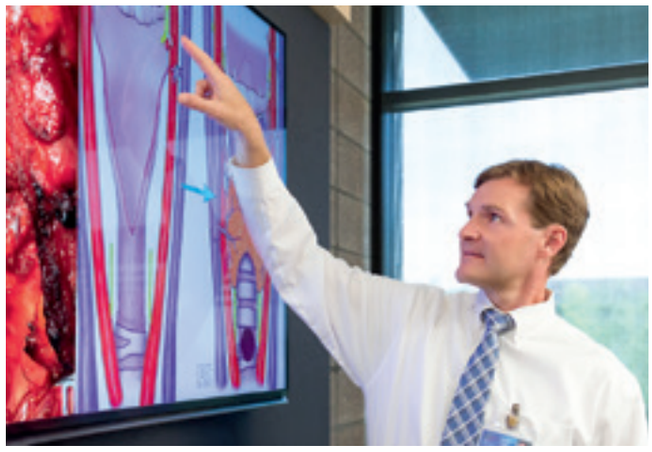
A milestone in total laryngeal transplant

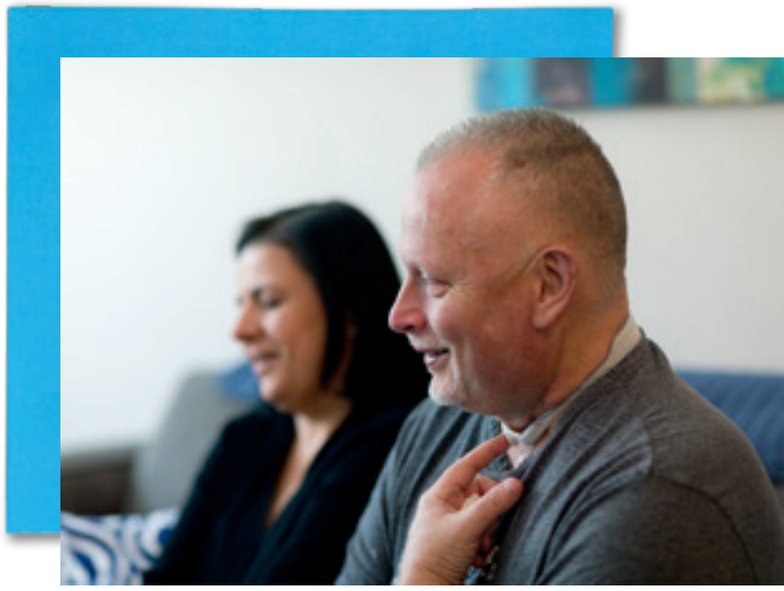
Mayo Clinic surgeon **David Lott, M.D.** (ENT '11), performs the first known successful total larynx transplant in a patient with active cancer as part of a clinical trial, and Dr. Lott and his coauthors describe the procedure in Mayo Clinic Proceedings.

"This striking report exemplifies how organ transplantation has evolved into a highly multidisciplinary endeavor with relevance to virtually every area of human healthcare that seeks to overcome complex barriers to restoring health and well-being to a growing range of patients."

– MATTHEW GRIFFIN, M.B., B.CH., B.A.O. (I '94, NEPH '96), head of the Discipline (Department) of Medicine at the University of Galway School of Medicine, in "Mayo Clinic Proceedings and Progress in Solid Organ Transplantation," Mayo Clinic Proceedings, 2025

Top: David Lott, M.D.
Bottom: Laryngeal transplant recipient Marty Kedian





What's next for Mayo Clinic Proceedings?

Looking to the future of the Proceedings, Dr. Nath is open to many new directions.

"Knowledge moves in improbable ways," Dr. Nath says. "We don't know what the future is going to bring. I think the whole area of digital medicine is going to change the way we practice medicine and the way we disseminate knowledge."

Dr. Nath is thankful for all the support the Proceedings has received along the way and gives special thanks to Proceedings managing editor Terry Jopke and assistant managing editors Kimberly Sankey and Margaret (Peg) Wentz.

Dr. Nath emphasizes that the success and longevity of the Proceedings continue to be critically dependent upon its authors, reviewers, editors, editorial board, the fundamental contributions of **William Lanier Jr., M.D.** (ANES '84), and other previous editors-in-chief — and every one of its readers. •

Terry Jopke, managing editor of Mayo Clinic Proceedings, Kimberly Sankey, assistant managing editor of the Proceedings, and Margaret (Peg) Wentz, assistant managing editor of the Proceedings

PHOTOGRAPHY: (DAVID LOTT, M.D., MARTY KEDIAN) PETER PALLAGI

Clearing the smoke

50 years of nicotine dependence treatment, research, education and advocacy at Mayo Clinic

Richard Hurt, M.D. (I '76), smoked in medical school, as did two other students in his gross anatomy dissection group. Their cadaver had died with emphysema, but this did not concern them. Instead, they laughingly declared that emphysema would never happen to them.

At the time, Dr. Hurt smoked two to three packs a day. He had tried to quit dozens of times, lasting half a day at most. And yet, he didn't consider himself addicted to cigarettes.

Most physicians at the time wouldn't have considered him addicted, either. The medical establishment tended to view smoking as a habit that could be ended with willpower — a message promoted aggressively by the tobacco industry.

"We could do a heart transplant, but we couldn't help people stop smoking, ***even though they clearly needed it****."*

– Richard Hurt, M.D.

"There was a huge public relations campaign that was going on from the 1960s, and it's still going on today, to say it really is just a matter of choice. People choose to smoke. People choose not to smoke. What's the big deal?" Dr. Hurt says.

Dr. Hurt's perspective didn't shift until 1975, when he was a resident at Mayo Clinic and his wife signed them up for the newly opened Smokers' Clinic, a joint effort between Rochester Methodist Hospital and Mayo Clinic. The program, founded by pioneering Mayo Clinic pulmonologist **Norman Hepper, M.D.** (I '55, died 2022), consisted of medical lectures and small-group discussion. With the clinic's help, Dr. Hurt successfully stopped smoking at week four. He then attended a panel of former smokers at the clinic. Dr. Hurt asked the panel a question: How would he cope if his wife started smoking again?

"(The panelist) was very direct. He looked me straight in the eye and said, 'You're setting yourself up to start smoking again, aren't you?'" Dr. Hurt says. "It just resonated with what I knew about relapse and other addictions. That was the turning point. I said to myself, well, this is really no different than people who are addicted to alcohol and other drugs."

This reframing sent Dr. Hurt on an "entirely different journey," he says. He realized he'd been in denial about the harm of cigarettes, rationalizing his use, forming rituals around smoking — in short, displaying many of the behaviors he'd seen when rotating in the alcoholism treatment unit.

"Once you realize the drug has taken control, then the recovery process becomes very obvious," Dr. Hurt says.

His belief that smoking was an addiction — and should be treated like one — grew throughout his involvement with the Smokers' Clinic. After graduating from the program, he returned as a group leader and eventually became its medical director.

In group sessions at the Smokers' Clinic, Dr. Hurt heard echoes of the group discussions he'd witnessed in the alcoholism treatment unit. Like alcohol, smoking was like a friend; it helped them cope or relax. People addicted to alcohol could be shown concerning liver tests and deny drinking was hurting them; smokers would brush off their constant, hacking cough as an unrelated phenomenon.

So Dr. Hurt began giving lectures on addiction concepts like tolerance, rationalization, denial and withdrawal in the Smokers' Clinic, and found these resonated with the smoking audience.

But eventually, it was clear that this wasn't enough. Dr. Hurt distinctly remembers getting two phone calls from Mayo Clinic colleagues on the same day in 1986: one from dermatology and one from vascular medicine. Both were calling about patients who had ischemic ulcers in the lower extremities — and were continuing to smoke. What could be done for these patients?

"The answer was nothing," Dr. Hurt says. "The Smokers' Clinic was an outpatient clinic. There was an outpatient, 90-minute patient education program, but it really wasn't very intensive. And so there was nothing we could do. This is back in the days when we could do a heart transplant, but we couldn't help people stop smoking, even though they clearly needed it."

That day, Dr. Hurt met with Mayo Clinic biostatistics professor Kenneth Offord and the pair decided something had to be done to fill this gap in clinical care. With their colleagues, they would work to found the Nicotine Dependence Center, a program that would go on to affect clinical practice, education and research in ways that are "hard to even imagine," Dr. Hurt says.

PHOTOGRAPHY, PAGES 22–23: (CIGARETTE EXTINGUISHED) LISA PREDKO; PAGE 25: (RICHARD HURT, M.D.) JEANNA DUERSCHERL

Top: Staff members of the newly opened Mayo Clinic Smoking Cessation Center, which would later be renamed the Nicotine Dependence Center (NDC), in 1988. Staff members included, from left, front row: Frances McClain, Karen Hurtis and Kathryn Hart; back row: Gary Lauger, Kay Eberman, Program Director Richard Hurt, M.D., and Luanne Schmidt. Right: Luanne Schmidt and Frances McClain discuss follow-up communication to an NDC patient.

THE NICOTINE DEPENDENCE CENTER

Dr. Hurt, Mr. Offord and an ad hoc team of colleagues knew they were swimming against cultural tides in their quest to open a Mayo Clinic nicotine dependence center and, eventually, incorporate residential treatment. Smoking was prevalent and often viewed as habitual rather than addictive, and the team knew of only one other residential treatment program for smoking offered by a medical center in the U.S.

In addition, there was a mountain of administrative work to be done. A proposal for a center had to be written and approved, the program needed to find an administrative home, and space and staffing had to be secured.

But the team persevered, and the center opened in 1988 as the Smoking Cessation Center, later renamed the Nicotine Dependence Center. It followed an addictions treatment model of counselor-provided treatment under the supervision of a physician and incorporated behavioral treatment, addictions treatment, relapse prevention and pharmacotherapy.

The NDC has continued this work for decades, and as of April 2025, had provided initial counseling to more than 66,000 people. In 1991, the center established its residential treatment program known as the Intensive Tobacco Treatment Program (ITTP), a five-day immersive recovery experience including a customized treatment plan, medications and nicotine replacement therapies. It has since served more than 2,000 patients. The NDC is now working to expand digital treatment options and is already delivering telecare to patients in Minnesota, Wisconsin, Florida and Arizona.

The center also made huge strides in researching pharmaceutical treatments for nicotine dependence. When the NDC first opened, prescription nicotine gum was the only FDA-approved drug to help smokers quit.

In 1988, the NDC initiated the first randomized, double-blind, placebo-controlled nicotine patch trial in smokers in the U.S. Since then, the center has conducted clinical trials on all other forms of nicotine replacement, as well as bupropion and varenicline as treatments for

PHOTOGRAPHY: (ALL HISTORICAL IMAGES AND DOCUMENTS) MAYO CLINIC ARCHIVES; (CIGARETTE) LISA PREDKO

1960s

The tobacco industry aggressively promotes the idea that smoking is a choice, not an addiction.

1988

The Smoking Cessation Center, later renamed the Nicotine Dependence Center (NDC), opens at Mayo Clinic in Minnesota, thanks in large part to the efforts of **Richard Hurt, M.D.**, and Mayo Clinic professor **Kenneth Offord**.

1994

The state of Minnesota and healthcare insurance company Blue Cross and Blue Shield of Minnesota file a lawsuit against the tobacco industry. The case will come to be known as the Minnesota tobacco trial.

2008

A ribbon is cut for the grand opening of the Center for Tobacco-Free Living in the Gonda Building at Mayo Clinic in Minnesota. The center includes interactive displays of the neurobiology of addiction and the science of treatment, a display of previously secret tobacco industry documents and a video of treatment experiences.

1975

Norman Hepper, M.D., founds the Smokers' Clinic, a joint effort between Rochester Methodist Hospital and Mayo Clinic.

1991

The Nicotine Dependence Center establishes the Intensive Tobacco Treatment Program (ITTP), a residential care model that includes nicotine replacement therapies.

1998

Dr. Hurt testifies in the Minnesota tobacco trial, which results in a $6.6 billion settlement paid by the tobacco industry. The trial and settlement also force tobacco companies to release millions of pages of previously secret industry documents, which motivate new legislation and public health policy in the U.S. and abroad.

2025

As of April 2025, the NDC has provided initial counseling to more than 66,000 people and trained and certified more than 4,000 healthcare professionals through its Tobacco Treatment Specialist training program.

smoking and smokeless tobacco use. These studies "set the tone for treating tobacco dependence as the serious problem it is," says Dr. Hurt, and established the NDC as a leader in intensive treatment of tobacco dependence.

Current NDC medical director **Jon Ebbert, M.D.** (I '99, CMR '00, ADGM '01, CLRSH '01), says researching medications remains a priority, with more innovative therapies for tobacco and nicotine dependence in the pipeline.

"We only have three FDA-approved classes of medications for the treatment of tobacco dependence, and tobacco continues to kill about 480,000 people each year in this country," Dr. Ebbert says. "So we're always interested in opportunities to develop new and innovative therapies."

In the realm of education, the NDC created a Tobacco Treatment Specialist training program in 2005 that has since trained and certified more than 4,000 health-care professionals. The center also established the Global Bridges Program to advance evidence-based tobacco dependence treatment and advocate for effective tobacco policy worldwide. Global Bridges has since expanded beyond tobacco to additional clinical areas and, as of August 2025, had directed more than $15 million in grant support to

Jon Ebbert, M.D., medical director of the Nicotine Dependence Center at Mayo Clinic in Minnesota

"We're always interested in opportunities ***to develop new and innovative therapies.***"

– Jon Ebbert, M.D.

112 independent medical education projects, training 54,000 healthcare professionals in 85 countries.

In addition to this impressive education, research and clinical work, in 1998 Dr. Hurt participated in one of the most pivotal legal cases against the tobacco industry in the U.S.

THE TOBACCO TRIAL

In the early 1990s, Minnesota was one of four states trying to hold the tobacco industry accountable through legal action. History was not on their side; the hundreds of cases that had been filed against the industry since 1950 had been overwhelmingly unsuccessful.

But the Minnesota attorney general and Blue Cross and Blue Shield of Minnesota sued the tobacco industry in 1994 using different legal strategies. The state argued that by manipulating nicotine content and engaging in false advertising, the industry had violated consumer protection and antitrust laws. The health insurance company Blue Cross and Blue Shield argued that cigarette use was sickening their customers and sued to recoup the costs of increased insurance claims.

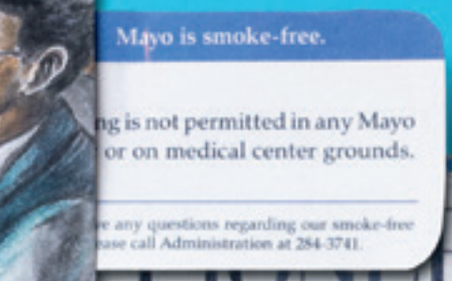
To bolster their argument, the state asked Dr. Hurt to appear as an expert witness to help prove that cigarette manufacturers had manipulated cigarettes and deceived consumers.

"The lawyers came down to meet with me, and said, 'We're going to learn from you. You're going to teach us about addictions and then we're going to teach you about the Looney Tunes of lawyering,'" Dr. Hurt says.

Dr. Hurt spent the next two years sifting through selections of 33 million pages of previously secret tobacco industry documents. The World Health Organization would later write: "The idea — what lawyers call 'papering' — was to simply bury the relevant material in a lot of trash. They forgot that winters are long in Minnesota and did not realize that the Minnesota team would look through all the paper."

Within this avalanche of documents, Dr. Hurt and the state's team made damning discoveries. The documents showed that the tobacco industry not only knew for decades that tobacco was addictive and harmful but worked to make cigarettes even more addictive and deceived consumers about cigarettes' negative effects.

During his four and a half days on the witness stand, Dr. Hurt explained that cigarette manufacturers had been adding ammonia to cigarettes to alter the pH of the tobacco. This increased the speed of nicotine absorption and, subsequently, the addictive potential of the cigarettes. The technique, known as freebasing, was first discovered by Marlboro.



Clockwise from top left: A courtroom sketch of Richard Hurt, M.D., testifying in the Minnesota tobacco trial; Graphics announcing Mayo Clinic's smoke-free policy, which was initially implemented in 1987; A 1998 article from the St. Paul Pioneer Press announcing the historic settlement of the Minnesota tobacco trial; A chart from a Nicotine Dependence Center study showing significant smoking cessation rates in the first randomized, double-blind, placebo-controlled nicotine patch trial in the U.S.; A 1975 article from the Mayo Clinic newspaper Mayovox announcing the opening of the Smokers' Clinic, a joint effort between Rochester Methodist Hospital and Mayo Clinic.

Smoker's Cessation Clinic—The first meeting of a new Smoker's Cessation Clinic will be held today, February 3, at 7:30 p.m. in Methodist Hospital Auditorium. The group will meet each Monday from 7:30 to 9:30 p.m. for eight weeks. Dr. Norman G. Hepper is coordinator and Drs. David T. Carr and Mark S. Schwartz are members of an advisory group. Mrs. Helen Mundhal, nurse-educator with training in psychology, will be group leader.

The clinic, which is part of Rochester Methodist Hospital's community service program, will provide education and group support to participants. Resource material is available in Rochester Methodist Hospital Library.

Those interested may call Methodist Hospital, 282-4451, ext. 5107.

PIONEER PRESS

MINNESOTA

SATURDAY

TOBACCO ON TRIAL: THE SETTLEMENT

$6.6 billion

Minnesota's historic lawsuit against U.S. cigarette makers concludes, with the state declaring victory and the industry saying it was forced by an unfair court to make a deal.

After 4 months, jury wanted its day in court

INSIDE

ONLINE

"We're in the business of helping people change and become independent from nicotine. ***When they're ready to quit, we're here."***

– Jon Ebbert, M.D.

"The secret of Marlboro back in the 1960s was not the theme from The Magnificent Seven. It wasn't the cowboys on television; it was simple chemistry," says Dr. Hurt. "They were freebasing nicotine before the drug culture knew how to freebase cocaine."

During the trial, Dr. Hurt also showed the deceit behind the tobacco industry's "healthier" alternatives such as low-tar, low-nicotine cigarettes.

To prove his point, Dr. Hurt pulled out his Swiss army knife to dissect cigarettes in front of the jury. He sliced open a Marlboro Lights cigarette (advertised as a low-tar, low-nicotine option) and a Marlboro Red (the original cigarette). Both cigarettes contained the same blend and amount of tobacco. The only difference, Dr. Hurt explained, was that the "low-tar" option had double the number of ventilation holes in the tipping paper — which introduced more air into the flow of smoke, making the smoke less dense and tricking the Federal Trade Commission's measurement machines into classifying the cigarettes as "low-tar."

This information wasn't just incriminating evidence for the trial; it was helpful for Dr. Hurt's patients.

"I used that knowledge to help break through some of their own denial and their own rationalization," he says. "It also made them a little bit angry. But they weren't angry at themselves anymore, because they knew that they'd been manipulated all this time."

In the end, the trial resulted in a $6.6 billion settlement to be paid by the tobacco industry. It would be followed by a 46-state settlement with tobacco companies in November 1998, which promoted tobacco control nationally and funded a new anti-tobacco nonprofit called the American Legacy Foundation.

But Dr. Hurt believes the greatest victory of the trial was the deluge of industry documents that tobacco companies were forced to release to a Minnesota depository — both at the time of the trial and, per the settlement, any future discovery in tobacco litigation for the next 10 years. The documents exposed the actions of the tobacco industry, motivating new legislation and public health policy in the U.S. and abroad, including the WHO Framework Convention on Tobacco Control (FCTC), an international treaty ratified by more than 180 countries.

"The legacy of the Minnesota tobacco trial is the release of millions of pages of documents," says Dr. Hurt. "Those documents literally changed the world."

HELPING PEOPLE CHANGE

Despite fighting uphill legal, logistical and cultural battles, Dr. Hurt and the NDC contributed to huge strides in the prevention and treatment of nicotine dependence.

And yet, Dr. Hurt and Dr. Ebbert know there is much more work to be done, as hundreds of thousands of Americans continue to die from tobacco-related disease every year. Despite historically low smoking rates in the U.S., Dr. Ebbert says, the country's nicotine dependence problem may be just as bad as ever.

"The tobacco companies are still in the nicotine dependence business. So they're continuing to drive that market with new and ever-evolving products," like electronic cigarettes and nicotine pouches, Dr. Ebbert says.

These products avoid some of the risks of conventional cigarettes but still deliver nicotine and are still addictive. Dr. Ebbert has seen an increasing number of e-cigarette users at the NDC, and he wouldn't be surprised to see an influx of nicotine pouch users in a few years. In the meantime, the NDC will continue researching, educating and providing clinical care to loosen tobacco's grip on people across the U.S.

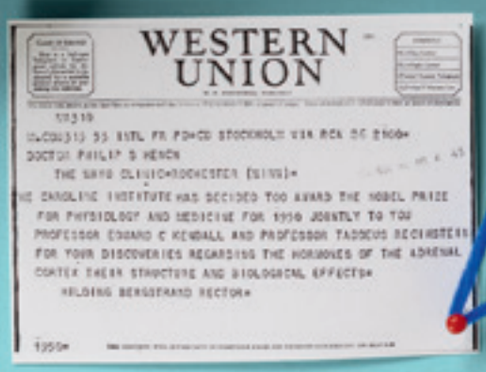
"We're in the business of helping people change and become independent from nicotine," says Dr. Ebbert. "When they're ready to quit, we're here." •

PHOTOGRAPHY: PAGES 28–29: (JON EBBERT, M.D.) JEANNA DUERSCHERL; PAGE 30: (PHOTO STILL LIFE) TONY PAGEL

Searching for SUBSTANCE X

A Sherlock Holmes aficionado on the case for rheumatic relief

Philip Hench, M.D., a Mayo Clinic rheumatologist and the Sherlock Holmes fan in question



WESTERN UNION

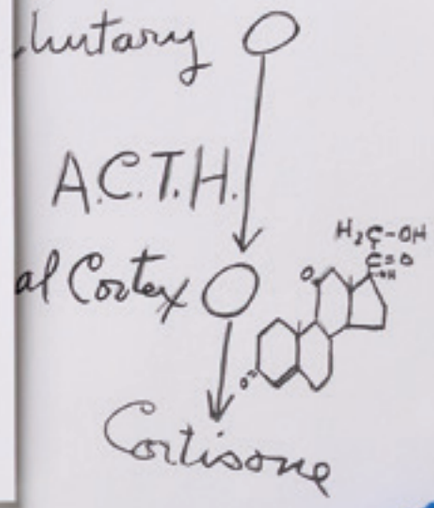
DOCTOR PHILIP S HENCH

THE MAYO CLINIC ROCHESTER MINN

THE CAROLINE INSTITUTE HAS DECIDED TOO AWARD THE NOBEL PRIZE FOR PHYSIOLOGY AND MEDICINE FOR 1950 JOINTLY TO YOU PROFESSOR EDWARD C KENDALL AND PROFESSOR TADEUS REICHSTEIN FOR YOUR DISCOVERIES REGARDING THE HORMONES OF THE ADRENAL CORTEX THEIR STRUCTURE AND BIOLOGICAL EFFECTS

HILDING BERGSTRAND RECTOR

Edward Kendall, Ph.D., a Mayo Clinic biochemist and the Watson to Dr. Hench's Holmes



A thrilling chapter in the 100-year story of Mayo Clinic rheumatology

Philip Hench, M.D., on the day he was selected as a recipient of the 1950 Nobel Prize in Physiology or Medicine

Emeriti professors of medicine and former Mayo Clinic rheumatologists Eric Matteson, M.D., and Gene Hunder, M.D.

To say that **Philip Hench, M.D.** (I 1925, died 1965), was a fan of the fictional character Sherlock Holmes would be an almost laughable understatement.

Over the course of his life, Dr. Hench amassed a collection of Sherlock Holmes memorabilia that included approximately 1,800 books and hundreds of photographs, manuscripts and periodicals, including four copies of an 1887 issue of Beeton's Christmas Annual containing the first published Sherlock Holmes story. Dr. Hench traveled to Switzerland to plead his case for a plaque honoring Holmes to be installed near Reichenbach Falls, a pivotal scene in the Holmes story "The Final Problem." He was, as one colleague noted, "a nut on the subject."

It's perhaps not surprising that Dr. Hench was drawn to Holmes, says **Eric Matteson, M.D.** (RHEU '89), an emeritus professor of medicine and former rheumatologist at Mayo Clinic in Minnesota who has written extensively on the history of Mayo Clinic rheumatology.

"Dr. Hench picked up on the idea that, as physicians, sleuthing for the cause of a disease or to understand a disease is a sort of Holmesian pursuit — particularly in rheumatology, where we deal with lots of very strange diseases," says Dr. Matteson.

This Holmesian fixation may have helped fuel Dr. Hench's own decades-long investigation to find a rheumatoid arthritis treatment — a hormone he deemed "substance X." He eventually solved the case, making a discovery that would reshape the practice of rheumatology as well as the treatment of many diseases across medical specialties.

And yet, Dr. Hench's contributions are just one chapter in the 100-year story of Mayo Clinic rheumatology. Dr. Hench established the practice of rheumatology at Mayo Clinic in 1926, and he was succeeded by a long line of physicians and researchers who have made their own marks on the field via cutting-edge care, robust rheumatology education and groundbreaking discoveries.

Charles Slocum, M.D., Philip Hench, M.D., Edward Kendall, Ph.D., and Howard Polley, M.D., all contributed to the discovery of cortisone for relief of rheumatic symptoms.

"It's a tremendous legacy. It's also a responsibility to uphold the standard of excellence that was set by all the people who have come before us," says **John Davis III, M.D.** (I '03, RHEU '06, CTSA '13), chair of the Division of Rheumatology at Mayo Clinic in Minnesota.

That includes a responsibility to continue to enhance care for people with serious and complex rheumatic diseases and to provide outstanding rheumatology training, Dr. Davis says — and to continue in the tradition of Dr. Hench and his quest to solve medical mysteries.

"We have the immense opportunity to contribute to the discovery and translation of the next diagnostic tests, approaches and cures to treat people with rheumatic diseases," Dr. Davis says.

"THINK OF THE PAIN"

When Dr. Hench began his training and practice at Mayo Clinic in the 1920s, rheumatic diseases were as formidable a villain as the slippery Holmes nemesis Moriarty.

Rheumatoid arthritis (RA) — known at the time by various names including chronic infectious arthritis — was a relentless, progressive disease with no curative treatments. According to Dr. Hench, the prevailing attitude of many physicians toward rheumatic diseases was pessimism. But Dr. Hench was dedicated to the field and explained that he was motivated by the millions of Americans with rheumatism and arthritis, writing, "Think of the pain, disability, frustrated hopes and economic loss!"

In 1926, Dr. Hench was tapped to establish a rheumatology service for patients with chronic arthritis at Saint Marys Hospital in Rochester, Minnesota, serving patients with serious joint problems — usually multiple swollen, painful joints.

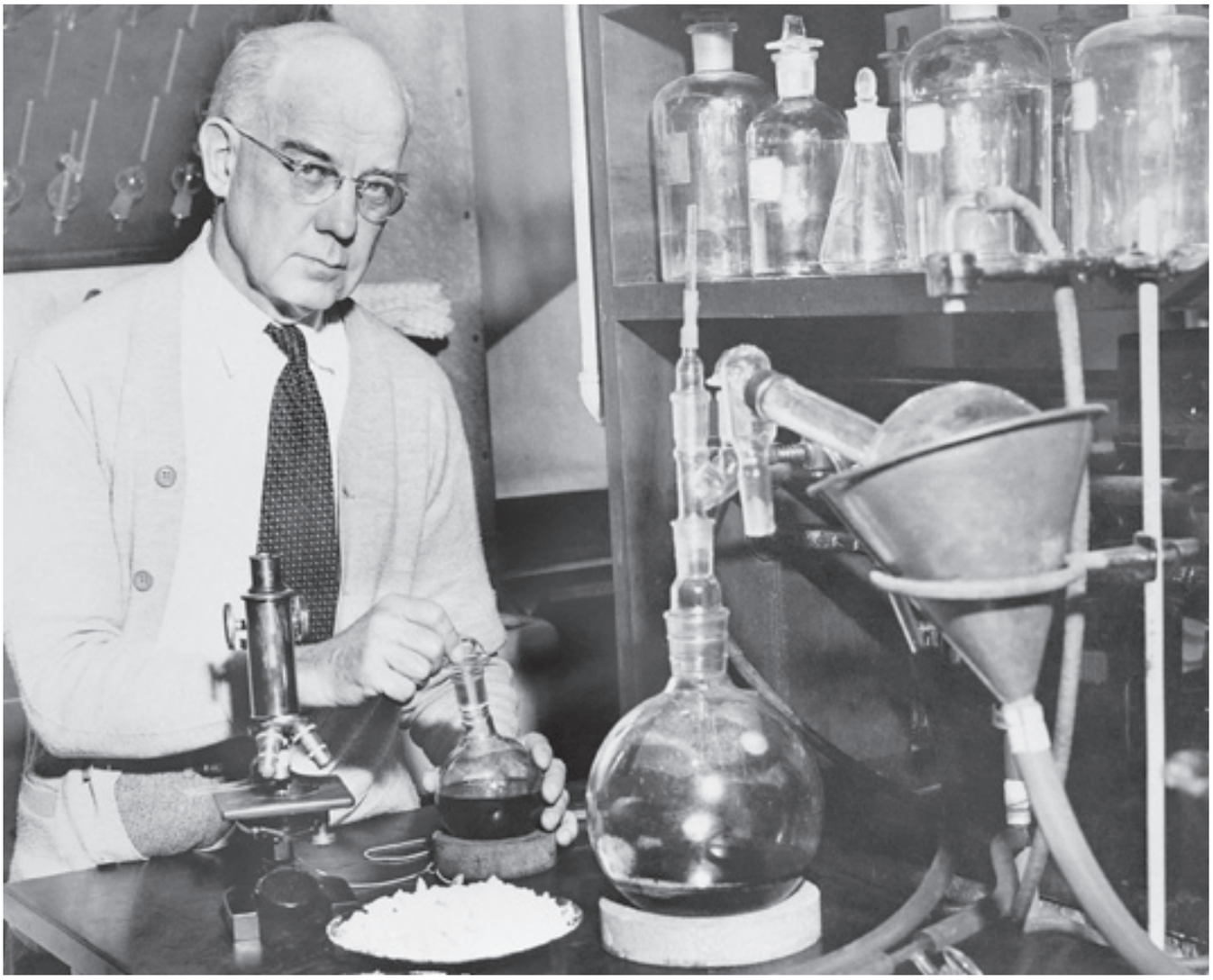
These patients were primarily treated with bed rest and physical therapy exercises, along with some analgesics for pain such as aspirin. More experimental approaches were also attempted at Mayo Clinic throughout the 1930s and 1940s, many of which were based on the belief that RA stemmed from a chronic infection. These included vaccine therapy, inducing fevers in patients and gold salt injections; none resulted in significant, sustained relief of symptoms.

THE GAME IS AFOOT

In 1929, Dr. Hench came upon his first clue that would

PHOTOGRAPH: JOHN DAVIS III, M.D.; TAYLOR PARKER

John Davis III, M.D., chair of the Division of Rheumatology at Mayo Clinic in Minnesota



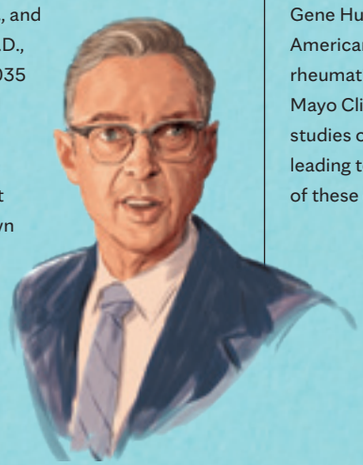
Edward Kendall, Ph.D., in his laboratory at Mayo Clinic. Dr. Kendall's work on the hormones of the adrenal complex proved pivotal in the search for rheumatoid arthritis treatment.

Discoveries through the decades

Dr. Hench was not Mayo Clinic's only disease detective. Many other Mayo Clinic rheumatologists have sleuthed out the pathology, prevalence and treatment of rheumatic diseases.

1947

Howard Polley, M.D., and Charles Slocumb, M.D., publish a study of 1,035 cases of rheumatoid spondylitis, making it — at the time — the largest study of what would become known as ankylosing spondylitis.



1969

Gene Hunder, M.D., is first author on the first American report of patients with polymyalgia rheumatica. The Division of Rheumatology at Mayo Clinic goes on to publish more than 150 studies on this disease and giant cell arteritis, leading to its status as a leader in the research of these conditions.

PHOTOGRAPH: (EDWARD KENDALL, PH.D.) MAYO CLINIC ARCHIVES/ASSOCIATED PRESS; ILLUSTRATIONS: (TIMELINE PORTRAITS) SAM HADLEY

lead to a more effective RA treatment. He observed that jaundiced patients often experienced swift improvement in their RA symptoms.

"Only one conclusion was possible," Dr. Hench wrote. "Contrary to the belief of centuries, rheumatoid arthritis must be potentially reversible, and rapidly so."

Dr. Hench tried giving "various products of the liver" to arthritic patients, but these experiments had no apparent effect on the disease. Then Dr. Hench witnessed the same rapid relief of RA symptoms in pregnant women.

"We began to suspect that the mysterious substance was neither a product of the liver nor a female hormone but might be a steroid hormone common to both men and women," Dr. Hench wrote. "But what hormone?"

Dr. Hench and his colleagues tried all sorts of experimental treatments for RA, including transfusing blood from jaundiced patients, administering female hormones and inducing jaundice.

Eventually, Dr. Hench knew that he "very much needed chemical help," he wrote.

This help would come from a Mayo Clinic scientist who worked just a few meters away from Dr. Hench. By 1938, biochemist **Edward Kendall, Ph.D.** (BIOC 1914, died 1972), would become Dr. Hench's chief collaborator on the path to rheumatic treatments. Sherlock had found his Watson.

A CHEMICAL SO COMPLEX

Even with the combined efforts of Drs. Hench and Kendall, success did not come easily.

Dr. Kendall's main aim was to isolate, identify and synthesize the hormones of the adrenal cortex. This effort put Dr. Kendall and his team in fierce competition with scientists around the world and made him "intensely preoccupied with a problem which at first seemed remote from ours," Dr. Hench wrote.

By his own account, Dr. Hench's confidence in his ability to solve the case of substance X wavered over the years. But it would turn out that their suspect was hiding in plain sight — within Dr. Kendall's adrenal work.

Of the 28 adrenal cortex hormones scientists isolated, preclinical testing showed that only a handful might have physiological potency. Dr. Kendall named these compounds A, B, E and F. But to test these compounds in a clinical trial, they would need to be synthetically created, as it was extremely challenging and costly to isolate them from animal adrenal glands.

"This was the most difficult part of all, because no chemical so complex had ever been made by man," Dr. Hench wrote. "The only ones bold enough to begin and continue the task were Kendall and his associates in Rochester and the research chemists of Merck & Company."

It took five years to create a synthetic compound A, via a 38-step process. In the end, the synthetic product failed as a treatment for Addison's disease, leading to bitter disappointment.

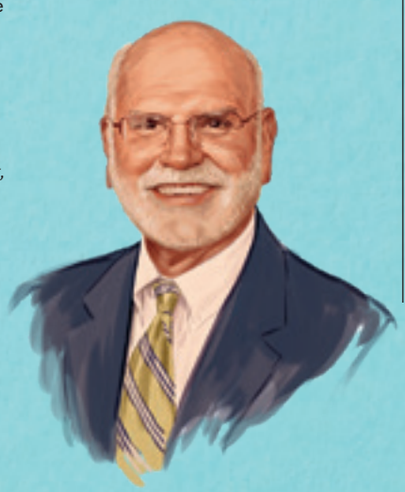
But the group learned from compound A, tried again and created a synthetic compound E. Compound E did benefit patients with Addison's disease, but the disease was not common enough to make this a profitable venture for Merck.

"At this point, [Merck associates] were men with a substance (compound E) hunting for some unknown condition which it might affect, while I remained a man with certain diseases hunting for an unknown compound (substance X) which might affect them," Dr. Hench wrote.

1985

Clement Michet, M.D., et al. publish trends in the incidence and prevalence rates of systemic lupus erythematosus (SLE) and other connective tissue disorders over 30 years, the first major study to do so after the American Rheumatological Association revises SLE criteria in 1982.

"Using the resources of the Rochester Epidemiology Project, we were the first institution that completed credible studies to determine how common certain diseases are in the population, including lupus, RA, gout, scleroderma, sarcoidosis and many others." – Eric Matteson, M.D.



1987

Dr. Hunder is the chair of the American College of Rheumatology Committee on Diagnostic and Therapeutic Criteria; the committee publishes revised classification criteria for RA that are then cited more than 10,000 times.

Howard Polley, M.D., examines a patient with other rheumatology and physical medicine and rehabilitation physicians in 1955.

A MEDICAL MIRACLE

By this time, Dr. Hench thought that substance X might be found in the adrenal gland. So, he wrote to Merck, requesting some remaining compound E to experimentally treat an RA patient. In 1948, the compound was injected into a volunteer Mayo Clinic patient; she experienced marked relief of her symptoms in just a few days.

Excited by these results, Dr. Hench's colleagues **Charles Slocumb, M.D.** (I '35, died 1996), and **Howard Polley, M.D.** (I '43, died 2001), treated additional patients with moderately severe or severe RA. All patients who received compound E again experienced significant improvement in symptoms. The resulting seminal publication reporting the results in 14 patients was published in Mayo Clinic Proceedings in 1949 (see page 9).

Dr. Hench then invited five prominent physicians to Mayo Clinic to observe a clinical demonstration of the effects of compound E, including Richard Freyberg, M.D., then-president of the American Rheumatological Association.

"During the course of two days, we watched them miraculously improve. Within 24 hours, we saw a generalized effect from the compound that led one to say, 'I never felt so well during the time that I've had arthritis as I do now,'" Dr. Freyberg said in a 1998 interview.

Dr. Hench reported these results in 1949 at the Seventh International Congress of Rheumatic Diseases in New York

2003

Sherine Gabriel, M.D., et al. publish a 40-year population study showing that survival in RA is reduced compared to the general population, pointing to extra-articular manifestations of RA as an important risk factor. Dr. Gabriel and Paulo Nicola, M.D., et al. go on to show that patients with RA have twice the risk of developing congestive heart failure as those without RA. They are also pioneers in demonstrating that people with RA are not only at higher risk of developing cardiovascular disease (CVD), but are more likely to have poor outcomes following CVD, including mortality.

"Dr. Gabriel advanced the epidemiology of RA and other rheumatic diseases and published some of the most seminal studies early on that showed that the excess mortality risk is driven largely by cardiovascular disease." – John Davis III, M.D.

2012

Eric Matteson, M.D., is an author on the 2012 update of the American College of Rheumatology (ACR) recommendations on the use of disease-modifying antirheumatic drugs and biologic agents in treating RA, which goes on to be cited more than 2,000 times. He is also a lead investigator of a study of polymyalgia rheumatica leading to ACR classification criteria of this disease and to the 2015 ACR formal treatment recommendations.

PHOTOGRAPH: (WATCH) MICHAEL BURROWS

2013

Mayo Clinic rheumatologists collaborate with Mayo Clinic pulmonologist **Ulrich Specks, M.D.**, for the first clinical trial using rituximab to treat antineutrophil cytoplasmic antibodies (ANCA)-associated vasculitis, including granulomatosis with polyangiitis (GPA) and microscopic polyangiitis (MPA). It proves effective at inducing and maintaining remission and reducing the need for glucocorticoids.

"This was a major breakthrough made with researchers and clinicians in pulmonary medicine. Rituximab is now the standard treatment for these diseases, and it has changed the lives of these patients and drastically improved survival." – Eric Matteson, M.D.

City to fervent enthusiasm, thunderous applause and even a rush of physicians to the stage to congratulate him.

Drs. Hench and Kendall won the 1950 Nobel Prize in Physiology or Medicine for their work, alongside a Swiss physician, Tadeus Reichstein, M.D., who had independently isolated compound E. Drs. Hench and Kendall would give compound E its name: cortisone.

ADVERSE EFFECTS

Cortisone was then used successfully as a treatment for lupus, vasculitis, psoriatic arthritis, allergies, skin diseases and many other conditions; substance X was lauded as a wonder drug.

But it was clear from early use that cortisone could result in adverse effects like hypertension, weight gain, anxiety, and even gastrointestinal ulcers, hypomania and psychosis.

Dr. Freyberg recalled witnessing Dr. Hench receive a distressing call from one of the first RA patients to receive compound E. The call came before Dr. Hench's presentation at the 1949 New York meeting.

"Between sobs she told how miserable she was, feeling persecuted, suffering delusions and unable to sleep," Dr. Freyberg said in 1998. "This phone call had a profound effect on Dr. Hench. Before I knew it, he was crying, 'What have I done to this patient?' I am convinced that this phone call influenced the tone of his presentation that day. He cautioned the listeners to be alert for toxic effects, calling for careful scrutiny of patients and their complaints after they had received the drug."

Dr. Hench had solved the case of substance X. In doing so, he and Dr. Kendall had provided important relief for a range of diseases inside and outside of rheumatology.

But in addition to its many troubling side effects, cortisone could not cure or modify RA. In 2007, a Mayo Clinic article by **Angel Gonzalez, M.D.** (CLRSH '06), et al. found that survival rates of patients with RA hadn't increased in four decades — despite improved mortality rates in the general population.

BACK ON THE CASE

Over the decades, other physicians and researchers pursued their own suspects for effective RA treatment. In the 1980s, some answers began to emerge in the form of inflammation-blocking pharmaceuticals that would come to be known as disease-modifying antirheumatic drugs (DMARDs). These drugs can slow progression of RA, reduce the risk of comorbidities such as cardiovascular disease and lead to improved mortality outcomes.

"The arrival of DMARDs moved RA treatment from just making people feel better today to changing their disease trajectory," says **Elena Myasoedova, M.D., Ph.D.** (HSR '10, I '16, RHEU '19, CTSA '19). "DMARDs help to reduce the inflammation at its source, preventing joint damage and helping people to keep their mobility and independence much longer."

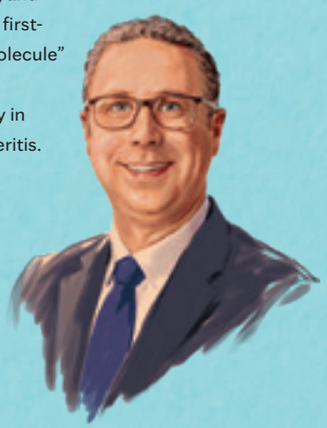
2021

Cornelia Weyand, M.D., Ph.D., and **Jorg Goronzy, M.D., Ph.D.**, start a translational program bringing research advances into the care of patients with autoimmune rheumatic diseases, building on the pair's previous work in immune system aging and immuno-metabolism as drivers of autoimmunity.

"They have made immense contributions to the basic understanding of mechanisms of disease in RA and vasculitis. Their impactful lines of research and publications have informed much of the approach to the diagnosis and treatment of those diseases." – John Davis III, M.D.

2022

Matthew Koster, M.D., and colleagues publish the first-ever trial of a "small molecule" Janus kinase inhibitor demonstrating efficacy in relapsing giant cell arteritis.



PHOTOGRAPH: (CORTISONE BOTTLE) PAUL FLESSLAND; (IMAGE LABEL) FIRST LASTNAME/SOURCE

*"The arrival of DMARDs moved RA treatment from just making people feel better today to **changing their disease trajectory**."*

– Elena Myasoedova, M.D., Ph.D.

But DMARDs come with their own various risks and side effects, and patients may go through a lengthy process of medication trial and error to find the right fit.

"Patients may feel frustrated, anxious, even discouraged, because it can take weeks to months to understand whether the medication works," says Dr. Myasoedova. "Some may feel overwhelmed by how many options there are and the idea that nothing may work."

That's why Mayo Clinic investigators like Dr. Myasoedova are back on the case, finding ways to utilize pharmacogenomics and artificial intelligence (AI) to get patients more quickly connected to the correct RA treatment.

In 2019, Dr. Myasoedova partnered with researchers from Mayo Clinic's Center for Individualized Medicine to develop a model to predict patient response to the DMARD methotrexate by applying machine learning methods to patients' clinical and genomic data.

The team recently incorporated generative AI into their model in order to dig deeper into patient genomics. Generative AI allows the model to read genetic sequences as text with contextual meaning — rather than researchers reading the genetic features and providing the model with their interpretation.

"This provides us with an ability to understand genetic data beyond the traditional information that has been derived from genes or variants," Dr. Myasoedova says, ideally providing more precise DMARD predictions and helping to solve individual patient medication mysteries.

Like cortisone, this work has implications far beyond rheumatology; the team is collaborating with other specialties within the Department of Medicine to apply this same generative AI-powered approach to better predict treatment responses in other diseases, such as inflammatory bowel disease and cancer.

Dr. Myasoedova's work is one example within the division's strong portfolio of active research programs, Dr. Davis says, and research is just one element of the division's impact. From the days of Dr. Hench up to today, the division has also been a key contributor to rheumatology education and clinical practice in the U.S.

"We have been a beacon of hope and healing for generations of patients with rheumatic diseases dating back to the 1920s," says Dr. Davis. "We have trained more than 200 rheumatology fellows who have then gone on to populate private practices and academic centers across the U.S. and beyond.

"I want to ensure that we're moving forward and not only sustaining that legacy but trying to blaze the path forward and achieve great things." •

PHOTOGRAPHY: (ELENA MYASOEDOVA, M.D., PH.D.) TAYLOR PARKER; (GLASSES) MICHAEL BURROWS

The Mayo Clinic

Distinguished Alumni Awards

HONORING EXCELLENCE IN PATIENT CARE, RESEARCH & EDUCATION

The Mayo Clinic Distinguished Alumni Award was established in 1981 by the Mayo Clinic Board of Trustees 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 receiving this award are recognized nationally — and often internationally — in their field.

2025 Distinguished Alumni awardees Allan Jaffe, M.D., Herbert Gaisano, M.D., Peter Layer, M.D., Ph.D., David Lee, M.D., Vicente Torres, M.D., Ph.D., Vladimir Parpura, M.D., Ph.D., Eric Matteson, M.D., Richard Ehman, M.D., Thomas Brott, M.D., and Raymond Gibbons, M.D.

PHOTOGRAPH: (GROUP) MICHAEL BURROWS

Mayo Clinic Distinguished Alumni Award

Thomas Brott, M.D.

Professor of neurology
Mayo Clinic College of Medicine and Science
Jacksonville, Florida

Mayo Clinic in Florida: Consultant, Department of Neurology, 2001–present; professor of neurology, 2000–present; Eugene and Marcia Applebaum Professor of Neurosciences, 2009–2025; member, Executive Operations Team, 2005–2014; James C. and Sarah K. Kennedy Dean for Research, 2005–2014; senior associate consultant, Department of Neurology, 1998–2001

Fellowship: Clinical neurology, Harvard Medical School, Boston, Massachusetts

Residency: Neurology, Harvard Longwood Neurology Program, Boston, Massachusetts

Internship: Medicine, Beth Israel Hospital, Harvard Medical School

Medical school: University of Chicago Pritzker School of Medicine, Chicago, Illinois

Undergraduate: Economics, Harvard College, Cambridge, Massachusetts

Hometown: Chicago, Illinois

TRAILBLAZER IN STROKE PREVENTION AND TREATMENT

In the U.S., stroke mortality rates have dropped significantly over the last few decades — thanks to the work of researchers and clinicians like **Thomas Brott, M.D.** (N ’98).

Dr. Brott led the charge to treat stroke as a neurologic emergency, was a leader in the development of multidisciplinary stroke teams and the regional acute stroke network, and materially improved management of carotid artery disease, affecting the care of millions of patients around the world.

Dr. Brott is a professor of neurology and consultant in the Department of Neurology at Mayo Clinic in Florida, as well as the emeritus Eugene and Marcia Applebaum Professor of Neurosciences.

Dr. Brott has been principal investigator (PI) of seminal clinical research studies, including the Carotid Revascularization Endarterectomy Versus Stenting Trial (CREST). CREST demonstrated similar outcomes following carotid endarterectomy and carotid stenting to prevent stroke; the results impacted clinical practice worldwide. He is continuing this work as the national PI for the multicenter CREST-2 trial, which was funded by a $39.5 million federal grant — one of the largest ever made to a Mayo Clinic investigator — and renewed for an additional $19.5 million. Dr. Brott was also the lead designer of the National Institutes of Health (NIH) Stroke Scale, which is now embedded in electronic medical record systems and used around the world as a neurological examination for stroke patients. In addition, Dr. Brott played a major role in the testing and U.S. Food and Drug Administration (FDA) approval of the tissue plasminogen activator (tPA) alteplase, the first drug deemed safe and effective for acute ischemic stroke treatment.

Dr. Brott has shared his neurological and stroke expertise as a member and chair of the FDA neurological devices panel, a member of multiple American Academy of Neurology sections including the sections on neuroimaging and stroke, vice chair of the National Stroke Association and chair of the American Heart Association Stroke Council.

Dr. Brott has published extensively, with more than 600 publications and 65,000 citations, including first-author articles in high-impact journals such as the New England Journal of Medicine, Circulation and The Lancet Neurology. Dr. Brott’s notable awards include the 2023 Innovation Award from the Society of Vascular and Interventional Neurology and the 2017 Research Achievement Award from the American Heart Association.

PHOTOGRAPHY: (ALL PORTRAITS) EASTON GREEN

Mayo Clinic Distinguished Alumni Award

Richard Ehman, M.D.

Professor of radiology
Blanche R. and Richard J. Erlanger Professor of Medical Research
Mayo Clinic College of Medicine and Science
Rochester, Minnesota

Mayo Clinic in Minnesota: Blanche R. and Richard J. Erlanger Professor of Medical Research, 2015–present; joint appointment, Department of Physiology and Biomedical Engineering, 2004–present; professor of radiology, 1995–present; consultant, Department of Radiology, 1987–present; member, Mayo Clinic Board of Trustees, 2007–2014; member, Mayo Clinic Board of Governors, 2006–2014; associate professor of radiology, 1989–1995; assistant professor of radiology, 1985–1989; senior associate consultant, Department of Radiology, 1985–1987

Fellowships: Diagnostic radiology, Mayo Clinic School of Graduate Medical Education, Rochester, Minnesota; Research, University of California – San Francisco, San Francisco, California

Residency: Diagnostic radiology, University of Calgary, Calgary, Canada

Internship: Foothills Hospital, University of Calgary

Medical school: University of Saskatchewan, Saskatoon, Canada

Undergraduate: Physics, University of Saskatchewan

Hometown: Saskatoon, Canada

PIONEER OF MAGNETIC RESONANCE IMAGING

When **Richard Ehman, M.D.** (RD '85), joined Mayo Clinic staff in 1985, magnetic resonance imaging (MRI) was a new modality and its practical clinical applications outside the central nervous system were uncertain.

With his background in physics, experience with early MRI systems and creative problem-solving mindset, Dr. Ehman enabled Mayo Clinic to pioneer groundbreaking clinical applications of this new technology. He helped shape modern imaging science and led the Mayo Clinic body MRI practice to become one of the largest in the world.

Dr. Ehman is a consultant in the Department of Radiology, a professor of radiology and the Blanche R. and Richard J. Erlanger Professor of Medical Research at Mayo Clinic in Minnesota.

Dr. Ehman is best known for his groundbreaking work in medical imaging and is credited with developing magnetic resonance elastography (MRE), which uses mechanical vibrations to measure changes in tissue elasticity. MRE has since been adopted by all major MRI manufacturers and established as the most accurate non-invasive test for detecting and diagnosing liver fibrosis. Dr. Ehman also played a crucial role in developing the technique known as spatial presaturation — which is now an essential component in clinical MRI studies worldwide — as well as techniques for vascular imaging, improving image quality and faster MRI scanning.

His curious and inventive personality has led to major advancements and 45 U.S. patents, and many of his inventions are widely used in medical care. His research has been continuously funded by competitive National Institutes of Health grants for over three decades.

His exceptional communication skills and diplomatic, strategic leadership have earned him presidential roles at multiple professional societies, including the Radiological Society of North America, the International Society for Magnetic Resonance in Medicine, and the Society for Advanced Body Imaging. At Mayo Clinic, he served on the Board of Trustees and Board of Governors.

Dr. Ehman is a prolific author, with more than 430 peer-reviewed articles, more than 560 abstracts, and additional books, book chapters, editorials and commentaries. Awards of note include the Mayo Clinic 2014 Distinguished Investigator Award and the Radiological Society of North America Outstanding Researcher Award and Gold Medal. He is an elected member of the National Academy of Medicine.

Mayo Clinic Distinguished Alumni Award

Herbert Gaisano, M.D.

Professor of medicine and physiology
University of Toronto
Toronto, Canada

Fellowship: Gastroenterology, Mayo Clinic School of Graduate Medical Education, Rochester, Minnesota

Residencies: Internal medicine, gastroenterology, Mayo Clinic School of Graduate Medical Education

Internship: Philippine General Hospital, University of the Philippines, Manila, Philippines

Medical school: University of the Philippines College of Medicine

Undergraduate: Pre-medicine, University of the Philippines

Hometown: Province of Cebu, Philippines

TOP INVESTIGATOR OF PANCREATIC AND MOLECULAR BIOLOGY

In 2013, a group of scientists was awarded the Nobel Prize in Physiology or Medicine for the important discovery of membrane fusion mediated by soluble NSF attachment receptor (SNARE) proteins.

Herbert Gaisano, M.D. (GI ’84, I ’86, GI ’90), quickly realized that the fundamental basis of membrane fusion had important implications for cells outside the nervous system. He was among the first to show that SNARE proteins mediate secretion in the pancreas. This began a series of major contributions to secretory cell biology — discoveries that illuminated the pathogenesis of common diseases such as diabetes and pancreatitis.

Dr. Gaisano is a professor of medicine and physiology at the University of Toronto, a staff physician in the Division of Gastroenterology in the University Health Network and a senior scientist at Toronto General Research Institute. He is recognized worldwide as one of the top investigators in the pancreatic exocrine and islet function fields, and he leads a premier pancreatic cell biology research laboratory.

Dr. Gaisano’s outstanding body of work includes 240 original manuscripts with more than 12,500 citations. His research elucidated the role of SNARE proteins on pancreatic acinar cell and islet beta cell exocytosis and showed that atypical behavior of these proteins is a critical component in pancreatic diseases, including alcoholic pancreatitis and insulin secretory deficiency in diabetes. His work has major translational impact on potential treatments for diabetes and other pancreatic diseases.

Dr. Gaisano was the lead primary investigator and director of two major Canada Foundation for Innovation awards, which funded the creation of the Center for Diet, Digestive Tract and Disease and the Center for Islet Research and Therapeutics; the latter spearheaded the successful launch of a clinical islet transplantation program at Toronto General Hospital.

In addition to his status as a renowned clinician-scientist in the fields of endocrinology and gastroenterology, he is dedicated to mentoring the next generation of researchers. As one example, he started an exchange program to bring M.D.-Ph.D. students from the University of the Philippines medical school, his alma mater, to his laboratory in Toronto.

Dr. Gaisano has received numerous recognitions and awards for his contributions to gastroenterology and diabetes, including the Order of Ontario, a Queen Elizabeth II Diamond Jubilee Medal and fellowship in the Canadian Academy of Health Sciences, equivalent to the National Academy of Medicine.

Mayo Clinic Distinguished Alumni Award

Raymond Gibbons, M.D.

Emeritus professor of medicine
Mayo Clinic College of Medicine and Science
Rochester, Minnesota

Mayo Clinic in Minnesota: Emeritus professor of medicine, 2019–present; Arthur M. and Gladys D. Gray Professor in Honor of Dr. Howard A. Andersen, 1997–2019; professor of medicine, 1992–2019; consultant, Departments of Cardiovascular Medicine and Internal Medicine, 1981–2019; co-director, Nuclear Cardiology Laboratory, 1981–2005; associate professor of medicine, 1989–1992; assistant professor of medicine, 1981–1989

Fellowship: Cardiology, Duke University Medical Center, Durham, North Carolina

Residency: Internal medicine, Massachusetts General Hospital, Boston, Massachusetts

Internship: Internal medicine, Massachusetts General Hospital

Medical school: Harvard Medical School, Harvard-MIT Program in Health Sciences Technology, Boston, Massachusetts

Postgraduate: M.Sc., mathematics, New College, Oxford University, Oxford, England (Rhodes Scholarship); Biomedical engineering, Johns Hopkins University, Baltimore, Maryland

Undergraduate: Aerospace and mechanical sciences, Princeton University, Princeton, New Jersey

Hometown: Wood-Ridge, New Jersey

LEADER IN CARDIOLOGY AND HEALTHCARE REFORM

The federal debate on healthcare reform in the early 2000s was complicated and extremely controversial. As president of the American Heart Association (AHA), **Raymond Gibbons, M.D.** (CV '81), addressed the topic head-on in his 2006 AHA presidential address.

"Our ability to reduce disability and death from cardiovascular disease and stroke is threatened by the growing crisis in healthcare delivery," he said as he advocated for open dialog to build a mandate for change.

His national healthcare reform work continued for four years; he was the lead author on the AHA's Statement of Principles for Healthcare Reform, represented the AHA and Mayo Clinic on Capitol Hill, and helped develop the Mayo Health Policy Center Value Proposal that ultimately became the Cantwell Amendment to the Affordable Care Act.

Dr. Gibbons is an emeritus professor of medicine at Mayo Clinic College of Medicine and Science and a retired consultant in the Department of Cardiovascular Medicine at Mayo Clinic in Minnesota. He is a compassionate physician with world-class clinical acumen and broad expertise in many areas of cardiovascular disease, particularly coronary artery disease.

Dr. Gibbons was a pioneer in writing the earliest clinical practice guidelines addressing stress testing and chronic coronary artery disease management; these efforts set the standard for subsequent guideline development in other subspecialty fields of cardiology.

He published more than 400 peer-reviewed manuscripts during his career, many of which were first-authored by 49 different Mayo Clinic cardiac fellows under his mentorship. His mentorship emphasized scientific rigor, which was the focus of his widely acclaimed Mario S. Verani, M.D., Memorial Lecture to the American Society of Nuclear Cardiology (ASNC).

Dr. Gibbons established the Mayo Clinic Nuclear Cardiology Laboratory with the Department of Laboratory Medicine in 1981 and served as its co-director until 2005. Under his leadership, the lab developed and validated a measurement of myocardial infarct size that was used as a gold-standard endpoint in multiple randomized clinical trials for more than a decade.

A gifted clinical teacher, Dr. Gibbons emphasized the importance of evidence-based medicine in clinical practice and championed this viewpoint on many committees within major societies, such as the AHA, ASNC, National Heart, Lung, and Blood Institute, American College of Cardiology (ACC) and the Institute of Medicine. His awards and honors include the ACC Distinguished Fellow Award and AHA Distinguished Achievement Award.

Allan Jaffe, M.D.

Professor of medicine and laboratory medicine and pathology
Wayne and Kathryn Preisel Professor of Cardiovascular Disease Research
Mayo Clinic College of Medicine and Science
Rochester, Minnesota

Mayo Clinic in Minnesota: Wayne and Kathryn Preisel Professor of Cardiovascular Disease Research, 2022–present; professor of laboratory medicine and pathology, 2013–present; professor of medicine, 1999–present; consultant, Division of Ischemic Heart Disease and Critical Care, 1999–present; joint appointment, Division of Clinical Core Laboratory Services, 1999–present; chair, Division of Clinical Core Laboratory Services, 2008–2019

Fellowship: Clinical cardiology, Washington University School of Medicine, St. Louis, Missouri

Residency: Chief resident, medicine, Washington University School of Medicine

Internship: Medicine, Barnes Hospital, Washington University School of Medicine

Medical school: University of Maryland School of Medicine, Baltimore, Maryland

Hometown: Bethesda, Maryland

GROUNDBREAKING HEART DISEASE BIOMARKER RESEARCHER

As a professor at Washington University School of Medicine in St. Louis, Missouri, **Allan Jaffe, M.D.** (CV '99), helped develop and validate the first cardiac troponin I assay.

Today, troponin testing is the blood test of choice for the diagnosis of heart attacks, and Dr. Jaffe is a top authority and researcher of myocardial disease biomarkers.

Dr. Jaffe is a consultant in the Division of Ischemic Heart Disease and Critical Care with a joint appointment in the Department of Laboratory Medicine and Pathology at Mayo Clinic in Minnesota. He is also the Wayne and Kathryn Preisel Professor of Cardiovascular Disease Research and a professor of medicine and professor of laboratory medicine and pathology at Mayo Clinic College of Medicine and Science. His appointments reflect his ability to productively bridge the laboratory and clinical cardiology communities.

Dr. Jaffe's work has defined the interpretation of biomarkers across a wide spectrum of clinical scenarios, with an emphasis on acute ischemic heart disease. Dr. Jaffe is a leading voice in the multiple professional societies that determine how myocardial injury is defined. He was the lead physician on the biomarker committee for the four iterations of the Universal Definition of Myocardial Infarction sponsored by the American Heart Association, the American College of Cardiology and the European Society of Cardiology. At Mayo Clinic, he has led the adoption of high-sensitivity troponin assays by coordinating a comprehensive cardiac biomarker education program for physicians, nurses and clinicians. He continues to research novel biomarkers to improve the diagnosis and management of patients with cardiovascular disease.

Dr. Jaffe is a highly esteemed national and international presenter who has co-authored five books and written more than 1,000 peer-reviewed articles, book chapters and abstracts. His writings focus on the use of cardiac troponin and natriuretic peptides to characterize patients with both acute and chronic heart disease.

His leadership positions at Mayo Clinic have included tenure as the medical director of the Cardiovascular Medicine Laboratory and chair of the Division of Clinical Core Laboratory Services. Dr. Jaffe has received many awards and honors, including the Citation of International Service from the American Heart Association, the Gifted Teacher Award from the American College of Cardiology, and awards for lifetime contributions from the Association for Diagnostics and Laboratory Medicine and the International Federation of Clinical Chemistry and Laboratory Medicine.

Mayo Clinic Distinguished Alumni Award

Peter Layer, M.D., Ph.D.

Emeritus professor of medicine
University of Hamburg
Hamburg, Germany

Fellowship: Gastroenterology, Mayo Clinic School of Graduate Medical Education, Rochester, Minnesota

Residency: Internal medicine, Essen University Hospital, Essen, Germany

Internship: Internal medicine, Essen University Hospital

Medical schools: University of Tübingen, Tübingen, Germany; University of Edinburgh, Edinburgh, United Kingdom

Hometown: Mosbach, Germany

LEADING GASTROENTEROLOGIST OF HIS GENERATION

It would be difficult to find a better ambassador for the principles and reputation of Mayo Clinic to Germany and Europe than **Peter Layer, M.D., Ph.D.** (GI '85).

He has written about the history of Mayo Clinic for a German audience and served as a founding member and past president of the Mayo Alumni German Speaking Chapter. And with prominent leadership positions and research that has greatly enhanced the understanding of pancreatic physiology and pathophysiology, his career is a shining example of Mayo Clinic professional excellence.

Dr. Layer is the former medical director of the Israelitic Hospital and an emeritus professor of medicine at the University of Hamburg in Germany. He is recognized as a leading German gastroenterologist of his generation.

With hundreds of published articles and abstracts, Dr. Layer's research projects have illuminated the diagnosis and therapy of gastrointestinal (GI) diseases such as pancreatitis, inflammatory bowel diseases, and functional and motility disorders of the small and large intestine, among many others. His research contributions include a landmark epidemiological study on chronic pancreatitis and investigations into the control mechanisms of gastric and intestinal motility.

Dr. Layer has published in and served as a reviewer or editorial board member of major international journals such as Pancreatology and Gut. He repeatedly contributed to German national guidelines for pancreatic and motility disorders and was lead author on national guidelines for managing irritable bowel syndrome.

During his time as physician-in-chief and medical director of Israelitic Hospital, Dr. Layer played a crucial role in developing the hospital into one of the leading clinical and academic GI institutions in Germany, as evidenced by the hospital's top rankings in national surveys. He also taught, supervised, coached and mentored his team of more than 30 colleagues, propelling his mentees to greater career success.

Additionally, he served as treasurer and president of the German Gastroenterological Society and is credited with transforming the society into a financially viable operation during his tenure as treasurer. Dr. Layer has also demonstrated an enormous talent and vigorous approach in clinical activities, administering patient care and endoscopic management.

His many awards include the Presidential Award of the American Gastroenterological Association and the European Association of Gastroenterology Scientific Award.

Mayo Clinic Distinguished Alumni Award

David Lee, M.D.

Professor of ophthalmology
Susan and Richard Anderson Distinguished Chair in Ophthalmology
McGovern Medical School
Houston, Texas

Fellowship: Glaucoma, Massachusetts Eye and Ear Infirmary, Harvard Medical School, Boston, Massachusetts

Residency: Ophthalmology, Mayo Clinic School of Graduate Medical Education, Rochester, Minnesota

Internship: Ophthalmology, Mayo Clinic School of Graduate Medical Education

Medical school: Boston University School of Medicine, Boston, Massachusetts

Postgraduate: MBA, University of California – Los Angeles, Los Angeles, California; M.S., ophthalmology, University of Minnesota, Minneapolis, Minnesota

Undergraduate: Medical science, philosophy, Boston University, Boston, Massachusetts

Hometown: Pine Ridge, South Dakota

GLAUCOMA AUTHORITY AND COLLABORATIVE LEADER

David Lee, M.D. (OPH ’84), has held tenured professorships and prestigious endowed chairs at leading institutions, including the University of California – Los Angeles (UCLA), Penn State University and the Medical University of South Carolina.

As impressive as his titles are, colleagues say his collaborative spirit and genuine respect for others truly define his leadership. These qualities empower others to reach their full potential, expanding Dr. Lee’s impact on academic medicine.

Dr. Lee is a professor of ophthalmology and the Susan and Richard Anderson Distinguished Chair in Ophthalmology at McGovern Medical School in the University of Texas Health Science Center at Houston. His contributions have significantly advanced the understanding, diagnosis and treatment of glaucoma worldwide.

Dr. Lee is a highly sought-after specialist known for his ability to handle the most challenging diabetes and glaucoma cases with surgical precision, genuine compassion and warmth.

This clinical expertise is deeply rooted in his extensive research, which includes multiple National Eye Institute grants, including an R01 grant investigating the cellular biology and pharmacology of wound healing after glaucoma surgery. He has published pioneering research at the intersection of data science, artificial intelligence and machine learning, focusing on developing predictive models to assess the risk of progression in glaucoma, as well as other major eye diseases. This work has advanced personalized patient care and early intervention strategies.

His peer-reviewed articles, abstracts and other publications number in the hundreds, and he has served as an editorial board member for journals such as the Journal of Ocular Pharmacology and Therapeutics. He has a passion for teaching, as evidenced by more than 200 invited lectures, 60 visiting professorships and countless mentoring relationships.

Dr. Lee also completed an executive MBA program at UCLA’s John E. Anderson Graduate School of Management and earned a Master of Science degree in ophthalmology from the University of Minnesota. His numerous awards include Phi Beta Kappa and Alpha Omega Alpha memberships, the Roland P. Mackay Award from the American Academy of Neurology and multiple prestigious fellowships.

Dr. Lee is deeply committed to serving vulnerable communities; under his leadership the UCLA Mobile Eye Clinic provided more than 50,000 free eye exams to Native American reservations and underserved urban areas.

Mayo Clinic Distinguished Alumni Award

Eric Matteson, M.D.

Emeritus professor of medicine
Mayo Clinic College of Medicine and Science
Rochester, Minnesota

Mayo Clinic in Minnesota: Emeritus professor of medicine, 2018–present; professor of medicine, 2003–2018; joint appointment, Division of Epidemiology, 2010–2018; consultant, Division of Rheumatology, 1993–2018; chair, Division of Rheumatology, 2005–2015; associate professor of medicine, 1997–2003; assistant professor of medicine, 1990–1997; senior associate consultant, Division of Rheumatology, 1990–1993

Fellowships: Rheumatology, University of Michigan Hospitals, Ann Arbor, Michigan; Rheumatology, Mayo Clinic School of Graduate Medical Education, Rochester, Minnesota

Residency: Internal medicine, Southwestern Michigan Area Health Education Center, Michigan State University, Kalamazoo, Michigan

Internship: Internal medicine, Southwestern Michigan Area Health Education Center

Medical school: Friedrich-Alexander University of Erlangen-Nürnberg, Erlangen, Germany

Postgraduate: M.P.H., epidemiology, University of North Carolina, Chapel Hill, North Carolina; Practical nursing, Friedrich-Alexander University of Erlangen-Nürnberg School of Nursing

Undergraduate: Political science, German, University of Nebraska, Lincoln, Nebraska

Hometown: Lincoln, Nebraska

INTERNATIONALLY RENOWNED RHEUMATOLOGIST

For years, when rheumatology physicians at Mayo Clinic faced a challenging clinical scenario and needed guidance, they knew who to turn to.

A "clinician's clinician," **Eric Matteson, M.D.** (RHEU '89), was a trusted resource for colleagues at Mayo Clinic and around the world. He was always eager to help, drawing on his clinical and research expertise in rheumatoid arthritis (RA), polymyalgia rheumatica (PMR), giant cell arteritis (GCA), vasculitis and many other rheumatic diseases.

Dr. Matteson is an emeritus professor of medicine at Mayo Clinic College of Medicine and Science, the emeritus John F. Finn Minnesota Arthritis Foundation Professor and a retired consultant in the Division of Rheumatology at Mayo Clinic in Minnesota. As an internationally renowned clinician-scientist, Dr. Matteson conducted extensive epidemiological, mechanistic and clinical studies, which significantly advanced the understanding of rheumatic diseases.

Dr. Matteson was a pioneer in the use of biologics for the treatment of rheumatic disease, an advance that improved quality of life for countless patients. Groundbreaking drug trials he pursued include the first use of etanercept for autoimmune ear disease and an unprecedented trial of rituximab for RA lung disease. With colleagues at Mayo Clinic, he initiated a large artificial intelligence program to develop an individualized prediction of response to RA therapies by applying machine learning methods to patients' clinical and genomic data.

As a past president of the American College of Rheumatology (ACR) Rheumatology Research Foundation, he played a significant role in establishing the foundation as the second largest funder of arthritis research in the U.S. Other notable leadership positions include his current place as chair of the ACR Global Engagement Committee and his former chairmanship of the Division of Rheumatology at Mayo Clinic in Minnesota.

Dr. Matteson has authored or co-authored more than 500 original scientific publications, more than 60 book chapters and eight books. He has written detailed histories of rheumatology at Mayo Clinic and elsewhere, and his investigation into Friedrich Wegener led to a nomenclature revision of Wegener's granulomatosis.

He was a primary or key co-mentor for more than 100 individuals throughout his career and delivered more than 300 presentations at conferences in the U.S. and abroad. His many awards and honors include a highly esteemed Masters designation and Presidential Gold Medal from the ACR and a Hero Award from the Arthritis Foundation.

Mayo Clinic Distinguished Alumni Award

Vladimir Parpura, M.D., Ph.D.

Distinguished professor
Zhejiang Chinese Medical University
Hangzhou, China

Fellowship: Physiology (research), Mayo Clinic School of Graduate Medical Education, Rochester, Minnesota

Internship: Rotating internship, Clinical Hospital Center, Split, Croatia

Medical school: University of Zagreb School of Medicine, Zagreb, Croatia

Postgraduate: Ph.D., neuroscience, Iowa State University, Ames, Iowa

Hometown: Split, Croatia

GLOBAL EXPERT IN GLIO TRANSMISSION

When **Vladimir Parpura, M.D., Ph.D.** (PHYS '96), began his career in neuroscience, it was thought that astrocytes, a type of glial cell, did not exhibit functions such as excitability and regulated chemical messenger release — making them functionally subservient to neurons.

In the 1990s, Dr. Parpura showed that this assumption was incorrect; astrocytes were capable of releasing gliotransmitters and signaling to neurons. This discovery of gliotransmission, published in Nature, revolutionized the understanding of the role of astrocytes in information processing. The paradigm-shifting finding and Dr. Parpura's subsequent work has had a remarkable impact on the fields of neuroscience and cell biology.

Dr. Parpura is a distinguished professor and director of the International Translational Neuroscience Research Institute at Zhejiang Chinese Medical University in Hangzhou, China. He has held tenured professorships at the University of California – Riverside, the University of Rijeka in Croatia and the University of Alabama at Birmingham.

On top of his discovery of gliotransmission, Dr. Parpura's other notable research contributions include his definition of tripartite synapse and his illumination of the role of cellular vesicles and membrane proteins in astrocytes. His work carries important implications for fundamental life processes such as sleep, respiration, learning, memory, and gut motility and secretion.

In addition to basic science, Dr. Parpura has also advanced molecular technology. He initiated a new branch of neuroengineering by developing carbon nanotubes for tissue repair after traumatic brain and spinal cord injury. He has also contributed to the development of biorobots and biosensors, including a single molecule sensor that can rapidly detect the presence of toxins such as tetanus and botulism.

Dr. Parpura's work has been cited more than 19,000 times, and he has delivered more than 260 lectures and invited seminars. He served as president of the American Society for Neurochemistry and has earned prestigious awards and memberships in academic institutions, such as his election as an American Association for the Advancement of Science fellow and the McNulty Civitan Scientist Award for research on developmental disabilities.

Dr. Parpura has remained actively involved in science education in his native Croatia, mentoring Croatian students and collaborating in research with the University of Rijeka.

Mayo Clinic Distinguished Alumni Award

Vicente Torres, M.D., Ph.D.

Professor of medicine
Robert M. and Billie J. Pirnie Professor of Kidney Disease Research in Honor of Michael J. Krowka, M.D.
Mayo Clinic College of Medicine and Science
Rochester, Minnesota

Mayo Clinic in Minnesota: Robert M. and Billie J. Pirnie Professor of Kidney Disease Research in Honor of Michael J. Krowka, M.D., 2018–present; professor of medicine, 1991–present; consultant, Division of Nephrology and Hypertension, 1980–present; associate director, Mayo Translational Polycystic Kidney Disease Center (MTPC), 2022–2024; director, MTPC, 2010–2021; program director, Kidney Disease Research Training Grant, 2002–2010; chair, Division of Nephrology and Hypertension, 2004–2009; chair, Division of Nephrology, 1998–2004, associate professor of medicine, 1984–1991; assistant professor of medicine, 1980–1984; associate consultant, Division of Nephrology and Hypertension, 1979–1980

Fellowships: Nephrology, Mayo Clinic School of Graduate Medical Education, Rochester, Minnesota; Nephrology, Hospital Clínic i Provincial de Barcelona Faculty of Medicine, Barcelona, Spain

Residencies: Nephrology, internal medicine, Mayo Clinic School of Graduate Medical Education

Internship: Internal medicine, Mount Sinai Medical Center, Milwaukee, Wisconsin

Medical school: University of Barcelona, Barcelona, Spain

Postgraduate: Ph.D., nephrology and hypertension, University of Barcelona

Hometown: Palma de Mallorca, Spain

FOUNDING FIGURE IN POLYCYSTIC KIDNEY DISEASE

Polycystic kidney disease (PKD) commonly results in loss of kidney function and the need for dialysis or transplant. But when **Vicente Torres, M.D., Ph.D.** (I '77, NEPH '79), started his work in the field in the 1980s, there were no PKD-specific therapies.

His research efforts over the subsequent decades have changed clinical care, culminating with his leadership of clinical trials that have led to the first and only specific treatment for autosomal dominant PKD (ADPKD).

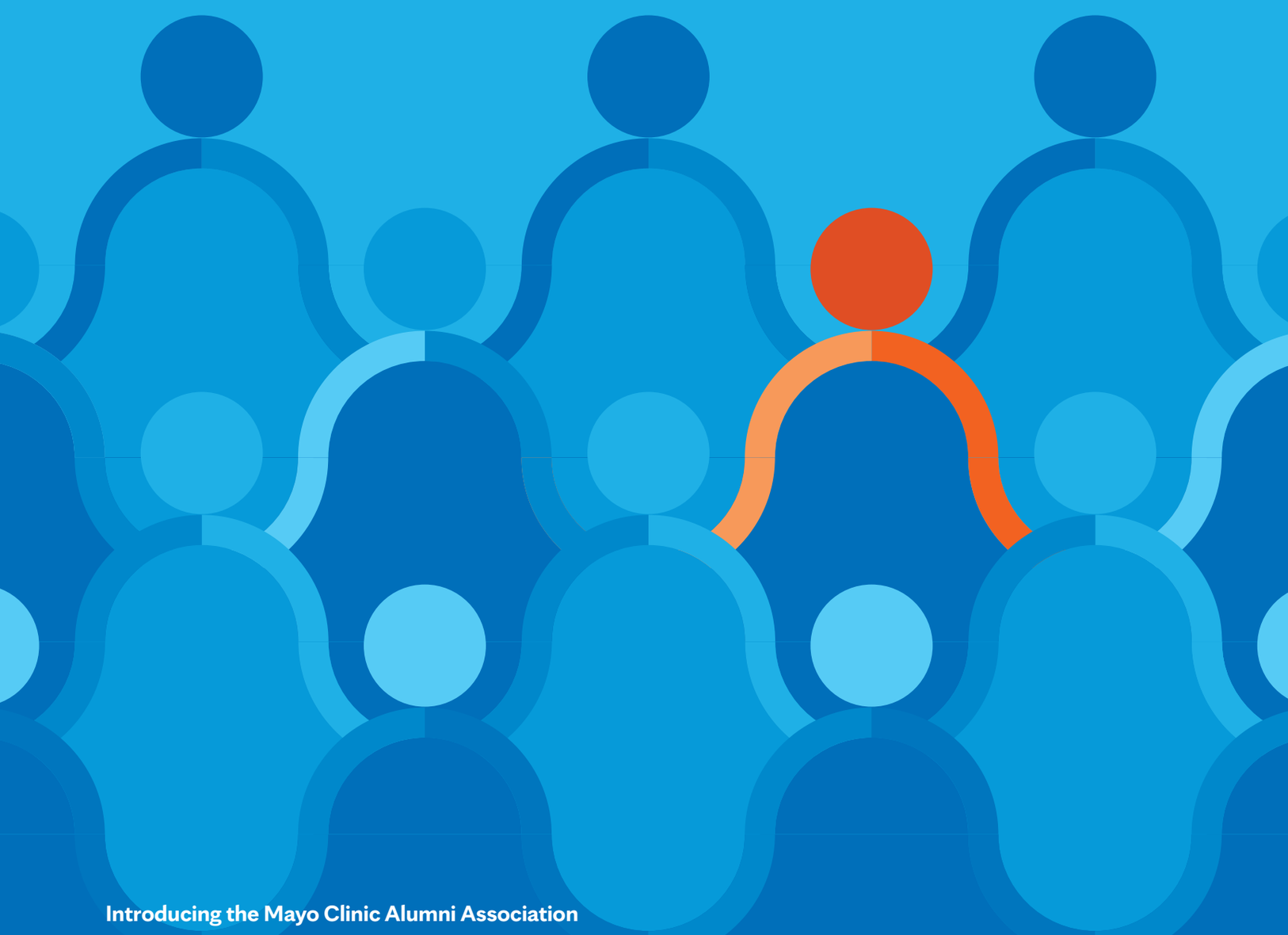
Dr. Torres is a consultant in the Division of Nephrology and Hypertension at Mayo Clinic in Minnesota. He is also a professor of medicine and the Robert M. and Billie J. Pirnie Professor of Kidney Disease Research in Honor of Michael J. Krowka, M.D. Dr. Torres is a world leader in nephrology and a founding figure in the research of PKD.

Dr. Torres has published extensively on a multitude of topics, including the epidemiology, phenotypic characterization, natural history and clinical management of PKD and related diseases, with more than 400 peer-reviewed publications and nearly 34,000 citations. His basic and translational research programs are supported by major grants, and he led a PKD research effort at Mayo Clinic that was recognized by a National Institute of Diabetes and Digestive and Kidney Diseases grant to fund the Mayo Translational PKD Center in 2010.

Dr. Torres is a principal investigator for the National Institutes of Health-funded Consortium for Radiologic Imaging Studies of Polycystic Kidney Diseases (CRISP) study and the completed HALT-PKD clinical trial. He also led industry-funded clinical trials of vasopressin V2 receptor antagonists, which led to the clinical development of tolvaptan for ADPKD, the first internationally approved drug for this disease. Today, tolvaptan is routinely used around the world in select ADPKD patients to slow disease progression.

During his tenure as chair of the Division of Nephrology at Mayo Clinic in Rochester, he revitalized the division and oversaw its merger with the Division of Hypertension. He has co-organized several conferences, including the first Kidney Disease: Improving Global Outcomes (KDIGO) Controversies Conference on ADPKD in 2014, and he co-led the development of the KDIGO 2025 ADPKD clinical practice guideline.

In 2019, Dr. Torres received the American Society of Nephrology John P. Peters Award, considered among the most prestigious in nephrology. He is also the recipient of the esteemed Lillian Jean Kaplan International Prize for Advancement in the Understanding of Polycystic Kidney Disease.



Introducing the Mayo Clinic Alumni Association

Humanitarian Visiting Professorship

Empowering alumni combatting health disparities abroad

Every year, **Cumara O'Carroll, M.D.** (TY '10, N '13, CBVD '14), medical director of the Mayo International Health Program and a consultant in the Division of Stroke and Cerebrovascular Diseases at Mayo Clinic in Arizona, visits Uganda for a month to teach neurology curriculum to internal medicine residents and medical students. She has also worked with local physicians to develop clinical protocols to treat neurologic emergencies in resource-limited settings.

Tri Dinh, M.D. (OBG '11), chair of the Department of Medical and Surgical Gynecology at Mayo Clinic in Florida, regularly travels to Da Nang, Vietnam, to deliver patient care and medical education, and even helped set up a cervical cancer screening system for the Da Nang metropolitan area.

These are just two of the many Mayo Clinic alumni using their skills and expertise to compassionately care for underserved patients outside the U.S. In doing so, they're

bringing Mayo Clinic values to the world — a critical aspect of the Mayo Clinic Alumni Association (MCAA)'s mission.

To better support this important work, the MCAA has established a new Humanitarian Visiting Professorship to foster mutual learning, share expertise, and deepen connections between Mayo Clinic and alumni working full-time or through structured programs to combat health disparities abroad.

"We know many of our alumni work relentlessly to put the needs of the patient first in challenging medical settings," says **Burkhard Wippermann, M.D.** (BIOM '87), president of the MCAA. "We're excited to partner with them in this small way and hope they will inspire and educate others to follow their example of global service."

The annual professorship is supported by the Alumni Humanitarian Endowment and is designed to benefit both the recipient and Mayo Clinic staff and learners. The recipient will receive timely and relevant medical education to enhance their current knowledge base and skills. Mayo Clinic staff and learners will glean expertise and insight into international service work and healthcare disparities.

The opportunity affords a three-day visit to the Mayo Clinic campus of the recipient's choice and includes:

- Delivery of two lectures by the recipient: one to colleagues and learners, and one to learners (medical students and/or residents/fellows). Lectures will focus on the recipient's specialty expertise and their work addressing global healthcare disparities.
- The opportunity to shadow Mayo Clinic staff and learn the most up-to-date and emerging medical and surgical best practices in their chosen specialty.
- The opportunity for engagement with current learners with an interest in service in medically underserved areas.
- A private dinner with select colleagues.

"It's an honor to support our alumni through this professorship," says **Theresa Emory, M.D.** (PATH '94), past president of the MCAA. "We look forward to the exchange of ideas and experiences, and we encourage our alumni to nominate a colleague for this unique opportunity."

The deadline to submit a nomination is **March 1, 2026.** •

To learn more about this professorship or nominate a colleague, scan the QR code at left.

Top: Tri Dinh, M.D., on a rooftop in Da Nang, Vietnam. Bottom: Mayo Clinic neurologist Cumara O'Carroll, M.D., in discussion with Amir Mbonde, M.B., Ch.B., Sam Olum, M.B., Ch.B., Adrian Kayanja, M.B., Ch.B., and Abdirahim Aden, M.B., Ch.B. Dr. O'Carroll first met the physicians when teaching neurology to internal medicine residents in Uganda. The group is pictured at Mayo Clinic in Arizona when Dr. Mbonde and Dr. Aden were Mayo Clinic neurology residents and Dr. Olum and Dr. Kayanja were on site for a clinical neuropsychology course.

ILLUSTRATION: YENI KIM; PHOTOGRAPHY: (TRI DINH, M.D.) BINH DANG; (CUMARA O'CARROLL, M.D., AND GROUP) PETER PALLAGI

Mayo Clinic Update

Mayo Clinic in Florida makes progress toward carbon ion therapy program

In a bold step to transform cancer care, Mayo Clinic is bringing new hope to patients diagnosed with the most aggressive and treatment-resistant cancers. Mayo Clinic opened the new 228,000-square-foot Duan Family Building at its Jacksonville, Florida, location in June 2025. The building will house the first carbon ion therapy program in the Americas and advanced technology that can seamlessly deliver both carbon ions and protons to treat the same tumor.

"Carbon ion therapy and other heavy particle therapies are the advanced radiation therapies of our future," says **Cheryl Willman, M.D.** (MED '81, PATH '81), executive director, Mayo Clinic Comprehensive Cancer Center. "When battling our patients' complex, currently radioresistant cancers at Mayo Clinic, we need the advantage of these next-gen radiation tools, which can be fine-tuned to target and treat aggressive tumors while minimizing the impact to surrounding tissue."

As a leading National Cancer Institute-designated Comprehensive Cancer Center with locations in Florida, Minnesota and Arizona, Mayo Clinic is uniquely qualified to bring carbon ion therapy, as well as the dual carbon ion and proton treatment option, to the Americas.

"Mayo Clinic is building a better future where more cures are possible — giving new hope to patients with aggressive cancers," says **Gianrico Farrugia, M.D.** (I '91, GI '94), president and CEO of Mayo Clinic. "This is the latest demonstration of our commitment to patient-centered healthcare transformation through our Bold. Forward. strategy."

While treatment with carbon ion therapy is expected to begin in 2028 and proton therapy in 2027, the opening of the Duan Family Building marks a significant milestone. Other cancer treatment options to be offered in the new building include photon therapy, immunotherapy, chimeric antigen receptor (CAR)-T cell therapy and more, along with sophisticated imaging technology.

"The emerging treatments that will be offered in the Duan Family Building, including carbon ion therapy, are an important part of the integrated cancer practice at Mayo Clinic, ensuring constant, research-driven innovation in the care we are providing to patients," says **Kent Thielen, M.D.** (RD '94, RNEU '97), CEO of Mayo Clinic in Florida.

Mayo Clinic researchers, working with outside global experts, are also exploring the use of other heavy ions beyond carbon in clinical studies to evaluate their potential benefits in future cancer care.

Mayo Clinic in Arizona launches new lung transplant program

Mayo Clinic in Arizona has added lung transplantation to its nationally recognized solid organ transplant program, establishing itself as a comprehensive transplant destination medical center. The program delivers world-class care to critically ill patients battling end-stage lung disease who need a lung transplant to survive and restore their quality of life.

Richard Gray, M.D.

Jonathan D'Cunha, M.D., Ph.D.

The new Mayo Clinic Lung Transplant Program in Arizona offers a multidisciplinary team of medical and surgical experts in the Southwest, supported by clinical innovation from across Mayo Clinic, bringing unparalleled experience and the latest in research-driven care to every patient.

"With the launch of our new lung transplant program, we are reinforcing our commitment to providing category-of-one care to patients with serious and complex medical needs. This new program strengthens our nationally acclaimed solid organ transplant program in Arizona, giving more patients access to the transformative gift of renewed life," says **Richard Gray, M.D.** (S '00), CEO of Mayo Clinic in Arizona.

The program will offer the latest advancements in lung transplant innovation, including ex vivo lung perfusion (EVLP), which is considered one of the most transformative breakthroughs in lung transplantation in recent years. EVLP improves the success of lung transplantation by helping preserve and evaluate donor lungs prior to transplant.

Jonathan D'Cunha, M.D., Ph.D. (TS '19), surgical director of the lung transplant program, says the team of experts will provide transplantation for the full range of patients with end-stage lung disease.

"This is the beginning of a remarkable new era for lung transplantation in Arizona," says Dr. D'Cunha. "We are excited and honored to offer patients and families renewed hope and a second chance at life through Mayo's unrivaled expertise in comprehensive adult organ transplant care."

Swiss Medical Network and Hospital Internacional de Colombia join Mayo Clinic Care Network

Swiss Medical Network and Hospital Internacional de Colombia have joined the Mayo Clinic Care Network, a group of carefully vetted healthcare organizations with special access to Mayo Clinic's knowledge and expertise.

Eric Moore, M.D.

Seven clinics and centers of Swiss Medical Network have joined the Mayo Clinic Care Network, becoming the first healthcare provider in Western Europe to enter the collaboration. The agreement includes Clinique de Genolier in Genolier, Privatklinik Bethanien in Zurich, Clinica Sant'Anna in Lugano, and Swiss Visio centers in Genolier, Montchoisi, Zurich and Bellinzona.

As part of Mayo Clinic Care Network, Swiss Medical Network will leverage Mayo Clinic's globally recognized expertise, advanced medical knowledge and best practices to further elevate healthcare in Switzerland. The collaboration aims to support the development of preventive care programs — including executive health and check-ups — enhance knowledge sharing in ophthalmology research and advance nursing education.

Hospital Internacional de Colombia (HIC) in Bucaramanga is the first hospital in Colombia and in South America to join the network. HIC is one of the highest-rated medical institutions in Latin America and recipient of the Five-Star Global Hospital Rating by Newsweek and Statista.

Among projects planned, Mayo Clinic will conduct a comprehensive review of HIC's breast cancer care and offer guidance on best practices in areas including diagnostics, clinical protocols, workflows and quality. Mayo Clinic and HIC will also explore the integration of additional innovative technologies into patient care.

Eric Moore, M.D. (ENT '97), medical director of Mayo Clinic International and chair of the Department of Otolaryngology – Head and Neck Surgery at Mayo Clinic in Minnesota, said he was pleased to welcome both institutions to the Mayo Clinic Care Network.

"We look forward to working together to develop innovative solutions to advance our common purpose: high-quality, patient-centered care," Dr. Moore says.

Established in 2011, the Mayo Clinic Care Network now includes leading healthcare organizations across the United States, Europe, the Middle East, Asia and Latin America.

PHOTOGRAPH: (DUAN FAMILY BUILDING) DAMON CRAIG

Mayo Clinic top-ranked in most specialties for 36 straight years by U.S. News & World Report

Mayo Clinic again leads U.S. News & World Report's "Best Hospitals" rankings for 2025–2026 — for the 36th time since the rankings began. This sustained distinction includes a place on the Honor Roll and more specialties ranked in the top three than any other hospital in the nation.

"We are proud to be recognized once again as a leader in healthcare, a reflection of the unwavering commitment of our employees and their dedication to excellence, innovation and putting patients first," says **Gianrico Farrugia, M.D.** (I '91, GI '94). "This honor reinforces our continued focus on raising the standard of what's possible in medicine."

This recognition comes as Mayo Clinic continues to make major investments in shaping the future of healthcare through Mayo Clinic Platform and Bold. Forward. Unbound., which seamlessly blends physical spaces with digital technologies to create new healthcare experiences for patients and staff. This includes integrating artificial intelligence, robotics and automation with a human touch to address patients' unmet and evolving needs.

U.S. News & World Report's Honor Roll features the top 20 U.S. hospitals that earn the most points across 15 specialties and 22 procedures and conditions. Mayo Clinic is the only healthcare organization with two hospitals on the list — Mayo Clinic in Arizona marks its ninth consecutive year and Mayo Clinic in Rochester again earned the highest overall point total.

Mayo Clinic again ranks No. 1 in the U.S. News state rankings for Minnesota and Arizona and continues to be the top hospital in the Jacksonville, Florida, metro area. Mayo Clinic Health System in Eau Claire, Wisconsin, has also been recognized as a "Best Regional Hospital" in Northwestern Wisconsin.

Mayo Clinic awards named professorships — its highest academic distinction

Daryl Kor, M.D. (I1 '02, ANES '05, CCMA '06, CTSA '14)
Walter and Leonore Annenberg Professorship in Anesthesiology Honoring Dr. Daniel R. Brown
- Chair, Department of Anesthesiology and Perioperative Medicine
- Mayo Clinic in Minnesota

Owen Ross, Ph.D. (NSCI '08)
Wayne and Kathryn Preisel Professorship in Neuroscience Research
- Department of Neuroscience
- Department of Clinical Genomics
- Mayo Clinic in Florida

Kendall Lee, M.D., Ph.D. (NS '06)
Charles B. and Ann L. Johnson Professorship in Neurosurgery I
- Department of Neurologic Surgery
- Department of Physiology & Biomedical Engineering
- Department of Physical Medicine & Rehabilitation
- Mayo Clinic in Minnesota

Dean Wingerchuk, M.D. (I1 '94, N '97, NIMM '98)
Eugene and Marcia Applebaum Professorship in Neurosciences
- Chair, Department of Neurology
- Mayo Clinic in Arizona

Peter Murray, M.D. (HAND '93)
Ruth and Vernon Taylor Professorship
- Department of Orthopedic Surgery
- Department of Neurologic Surgery
- Mayo Clinic in Florida

Mayo Clinic's AI tool identifies 9 dementia types with one scan

Mayo Clinic researchers have developed a new artificial intelligence (AI) tool that helps clinicians identify brain activity patterns linked to nine types of dementia, including Alzheimer's disease, using a single, widely available scan — a transformative advance in early, accurate diagnosis.

David Jones, M.D.

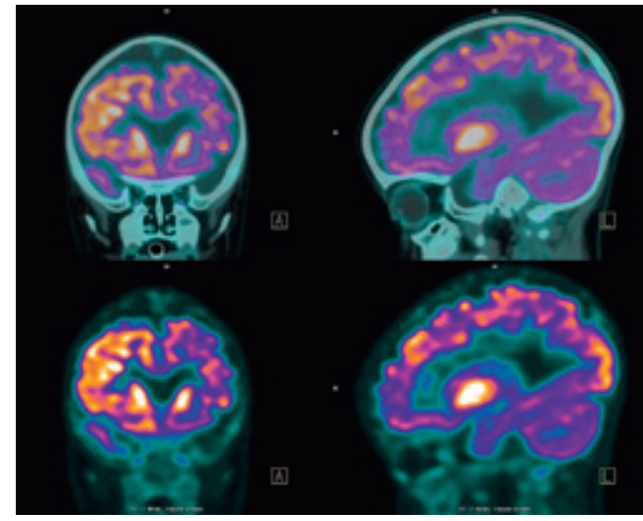
The tool, StateViewer, helped researchers identify the dementia type in 88% of cases, according to research published in Neurology. It also enabled clinicians to interpret brain scans nearly twice as fast and with up to three times greater accuracy than standard workflows. Researchers trained and tested the AI on more than 3,600 scans, including images from patients with dementia and people without cognitive impairment.

Leland Barnard, Ph.D.

StateViewer was developed under the direction of **David Jones, M.D.** (N '11, CI '13, NBN '14), a Mayo Clinic neurologist and director of the Mayo Clinic Neurology Artificial Intelligence Program.

"Every patient who walks into my clinic carries a unique story shaped by the brain's complexity," Dr. Jones says. "That complexity drew me to neurology and continues to drive my commitment to clearer answers. StateViewer reflects that commitment — a step toward earlier understanding, more precise treatment and, one day, changing the course of these diseases."

To bring that vision to life, Dr. Jones worked alongside **Leland Barnard, Ph.D.** (N '20), a data scientist who leads the AI engineering behind StateViewer.



Positron emission tomography (PET) scans of the brain

"As we were designing StateViewer, we never lost sight of the fact that behind every data point and brain scan was a person facing a difficult diagnosis and urgent questions," Dr. Barnard says. "Seeing how this tool could assist physicians with real-time, precise insights and guidance highlights the potential of machine learning for clinical medicine."

The tool analyzes a fluorodeoxyglucose positron emission tomography (FDG-PET) scan. It then compares the scan to a large database of scans from people with confirmed dementia diagnoses and identifies patterns that match specific types, or combinations, of dementia.

Alzheimer's typically affects memory and processing regions, Lewy body dementia involves areas tied to attention and movement, and frontotemporal dementia alters regions responsible for language and behavior. StateViewer displays these patterns through color-coded brain maps that highlight key areas of brain activity, giving all clinicians, even those without neurology training, a visual explanation of what the AI sees and how it supports the diagnosis.

Mayo Clinic researchers plan to expand the tool's use and will continue evaluating its performance in a variety of clinical settings.

PHOTOGRAPH: (BRAIN SCAN) GETTY IMAGES

Obituaries

Sean Cleary, M.D. (S '17), died August 10, 2025.
John Collins, M.D. (FM '76), died September 26, 2025.
Peter Dyck, M.D. (N '60), died July 26, 2025.
Delmar Gillespie, M.D., Ph.D. (PHYS '72, I '78, THD '80), died September 6, 2025.
James Gregoire, M.D. (MED '86, I '89, PHAR '92, NEPH '92), died September 23, 2025.
Nathan Hull, M.D. (RD '16), died August 27, 2025.
George M. Johnson, M.D. (PD '65), died July 17, 2025.
Theodore Lescher, M.D. (S '64, CRS '66), died September 15, 2024.
Evan Nelson Jr., M.D. (ENT '66), died July 31, 2025.
Hamlet Peterson, M.D. (OR '67), died August 26, 2025.
Donald Spring, M.D. (I '69), died July 14, 2025.

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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 Clinic consulting staff. The magazine reports on Mayo Clinic alumni, staff and students and informs readers about newsworthy activities at Mayo Clinic.

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ILLUSTRATION: YENI KIM

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