EUREKA! THE TOP ENDOCRINE DISCOVERIES OF 2025

DECEMBER 2025

THE LEADING MAGAZINE FOR ENDOCRINOLOGISTS

Endocrine news

Endocrine Science: THE NEXT GENERATION

The 2025 Endocrine Society Early Investigator Award Winners Look to the Future

"I hope the Endocrine Society will continue to serve as a nurturing environment where young investigators can forge new career paths and establish meaningful mentorships."

Hironori Bando, PhD,
EKobe University Graduate School of Medicine, Kobe, Hyogo, Japan

"This award will also act as a strong motivator, boosting our dedication to pituitary research and helping to sustain the momentum for new long-term projects and ambitious scientific goals."

Pedro Marques, MD, PhD,
CUF Descobertas Hospital; Universidade Católica Portuguesa, Lisbon, Portugal; Leiden University Medical Center (LUMC), Leiden, The Netherlands

"The Endocrine Society has been a cornerstone in my professional development, providing access to leading-edge science, mentorship, and opportunities to present and refine my work."

Muriel Babey, MD,
University of California – San Francisco, San Francisco, California

"Receiving the Early Investigator Award is a real thrill, and I'm excited to carry that momentum into the lab as we take on new questions in steroid hormone biology and T-cell function."

Matthew Taves, PhD,
Cancer Center at Illinois; University of Illinois Urbana-Champaign, Champaign, Illinois

"What I truly hope is that the early-career researchers that come after me will embrace the ethos of interdisciplinary approaches and that the Endocrine Society can become the new home for scientists working at the interface of immunology and endocrinology."

Dequina Nicholas, PhD,
University of California Irvine, Irvine, California

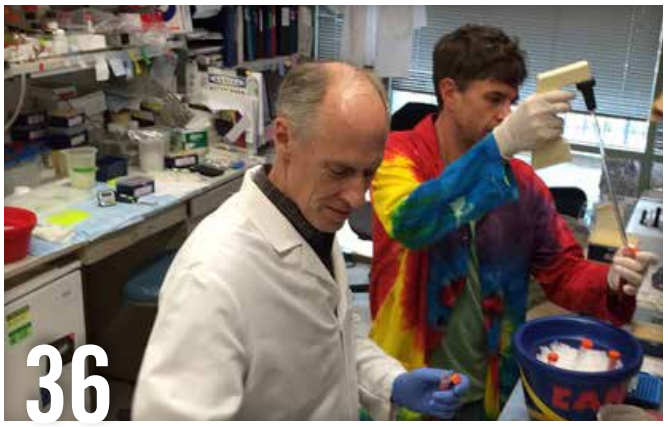
ENDOCRINE SOCIETY
Hormone Science to Health

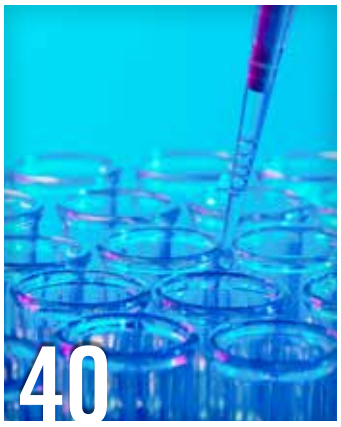
IN THIS ISSUE

DECEMBER 2025

IN THIS ISSUE

DECEMBER 205





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ENDOCRINE SOCIETY
Hormone Science to Health

Taking Stock of 2025: Highlights

Another year at the Endocrine Society has drawn to a close. I'm always impressed — and somewhat amazed — by the sheer volume of activities, resources, and advocacy that our organization produces over a 12-month period.

I'd like to recap some highlights from 2025!

Meetings: Making Connections Between Members and Ideas

Meetings lie at the heart of our mission as a society. Whether in person or virtual, meetings provide the perfect opportunities for learning, networking, mentoring, and advancing our overall profession.

Our meetings are all about making connections and finding your people. Nowhere are these multiple goals more evident than at **ENDO**, which, this year, took place in the beautiful city of San Francisco.

More than 7,000 attendees gathered from around the world, July 12 – 15, to take in 200-plus educational sessions, three plenary sessions, 75-plus symposia sessions, 40-plus Meet the Professor sessions, four Master Clinician panels, and six Meet the Scientist sessions.

Our ever-expanding **ENDOExpo** hall hosted more than 2,500 scientific posters and was the site of many social and networking activities.

From the **ENDO** abstracts, we launched a video series featuring 17 authors discussing the latest research on obesity, diabetes, reproductive health, puberty, cancer, and endocrine-disrupting chemicals. The videos have racked up nearly 54,000 views on our Instagram, Facebook, and YouTube channels as of mid-November.

We all look forward now to **ENDO 2026** in Chicago, June 13 – 16.

While **ENDO** is our biggest meeting each year, not to be overlooked are our third-quarter meetings.

Endocrine Review Board (EBR) 2025, held September 5 – 7, is considered the gold standard in preparing rising endocrinologists for the board examination. And **Clinical Endocrinology Update (CEU) 2025**, held October 23 – 25, offered sessions on the latest advancements in hormone care across nine topical tracks. Both meetings were widely attended and broadly praised by attendees.

Also in the realm of meetings are the Society's highly popular Fellows programs. The Type 1 Diabetes Fellows conference, July 10 – 11, is designed for endocrine fellows as they begin careers as practicing clinicians and diabetes experts. The in-person and online resources included educational and career development opportunities for building practical knowledge, skills, and a lasting network of colleagues.

The Obesity Fellows program, held September 19 – 20, included in-person educational and leadership programming at our headquarters in Washington, D.C., as well as six on-demand lectures with related pre- and post-test questions covering foundational topics on obesity clinical practice.

Fostering Science and Sharing Research

This year, we also took steps to create a new series of meetings for our research members. In September, we issued a call for proposals on what we call "Science Summits." These small

meetings, of no more than 200 attendees, will serve the educational and collaborative needs of basic and clinical scientists.

In today's uncertain research environment, we recognize the need to provide forums where scientists can gather and discuss topics that advance endocrine and related knowledge.

Stay tuned for exciting information on these events.

The Society also remains focused on expanding opportunities for our research members to share their knowledge. On July 9, we issued a Scientific Statement that proposes research into the development of new and improved treatment options for people with type 1 diabetes.

Additionally, our suite of five scientific journals remains the top destination for scientists publishing research on hormone conditions and diseases. Together, the Society journals published roughly 1,700 articles in 2025.

To expand research opportunities, the Society's publisher Oxford University Press (OUP) this year established Read and Publish agreements with hundreds of institutions worldwide that provide funding for Open Access publication.

And in August, the Society extended a benefit to Global Endocrine Leadership Coalition (GELC) member organizations, previously available only to Endocrine Society members, allowing individual members of GELC societies to incur no fees to publish under a standard license in *Endocrinology*, the Society's flagship basic science journal.

We've also marked a milestone in our podcasts that focus on the latest clinical and research advances. The ***Endocrine News Podcast*** marked its 100th episode and is well on its way to the next milestone. And our Endocrine Feedback Loop podcast passed its 65th episode talking to leading endocrine scientists about recent journal articles.

Guiding the Profession

Another area where the Society plays an indispensable role is in the issuing and updating of Clinical Practice Guidelines (CPGs). In 2025, we updated two important CPGs.

"Preexisting Diabetes and Pregnancy: An Endocrine Society and European Society of Endocrinology Joint Clinical Practice Guideline," published July 12, recommends that women with diabetes receive proper preconception care and access to emerging diabetes technology and therapeutics to manage their blood glucose before, during, and after pregnancy.

"Primary Aldosteronism: An Endocrine Society Clinical Practice Guideline," published July 15, calls for more widespread screening of primary aldosteronism, which is known to cause high blood pressure. The CPG noted that an estimated 5% to 14% of people with high blood pressure, seen in primary care, and up to 30% of people, seen in referral centers, have primary aldosteronism.

Advocating for our Profession and Healthcare

Advocacy is another foundation of the Society. Well known on Capitol Hill, our advocacy staff and volunteer leaders have played a leading role in some of the biggest healthcare issues of the day, including insulin affordability and funding of the National Institutes of Health (NIH).

Here is a sampling of our 2025 advocacy activities:

- Endocrine Society and other associations express disappointment in Supreme Court decision on transgender care that increases the likelihood other states will limit or eliminate families' and patients' ability to access medical care. (June 18)
- Endocrine Society's resolution to improve access to anti-obesity medications is passed by the American Medical Association (AMA) House of Delegates. (June 10)
- Endocrine Society expresses concern over the Department of Health and Human Services' major restructuring, which threatens scientific progress to drive the economy and improve public health. (March 28)
- Endocrine Society calls for the restoration of Diabetes Prevention Program Outcomes Study: The three decades of landmark research into type 2 diabetes prevention abruptly ended this month due to government funding cuts. (March 19)

Meanwhile, our advocacy efforts continue full steam ahead. Members are encouraged to lend their voices to ongoing campaigns on our Take Action page. These include:

- Urging Congress to immediately pass a long-term telehealth fix
- Urging Congress members to cosponsor the Treat and Reduce Obesity Act
- Urging Congress to keep the government open and protect funding for NIH in fiscal year 2026
- Telling Congress how cutting federal funding has affected your work

Learn about these and many other advocacy and policy efforts.

Our voice also is being heard in the media. This year, we secured nearly 10,000 articles about the Society and research from our journals in health and science news outlets. Top media outlets included NBC, TODAY.com, CNN, HealthDay, and *New Scientist*.

Growing the Profession

Ensuring a healthy pipeline of new endocrine clinicians and researchers is another key focus of our Society.

Founded in 2024, the Society's **Medical School Engagement Program (MSEP)** aims to encourage greater interest among medical students in endocrinology. This year, 11 U.S. universities joined the initial 10 MSEP institutions. The 2025 cohort includes some of the largest and most prestigious schools in the United States.

Other Society initiatives to expand the field of endocrinology also remain extremely popular.

The **Early Career Forum** once again attracted nearly 120 students, fellows, and residents to participate in the July 11 in-person workshop, which offered career guidance and training from established endocrine professionals.

The **ExCEL program** drew a maximum of 14 early-career physicians in medicine and science to the April 2 – 4 workshop in Washington, DC., Sessions addressed topics from financial management and business matters to team building and communicating across settings.

The **FLARE** program attracted a maximum of 25 graduate students, postdoctoral and clinical fellows, and junior faculty to an in-person workshop, March 13 – 15 in San Diego, Calif. The program teaches the "business of research" and the leadership skills needed to establish successful research careers.

The **Research Experiences for Graduate and Medical Students (REGMS)** program, held for eight weeks over July and August 2025, offered a maximum of 14 first- to third-year medical or graduate students to take part in a comprehensive endocrine research experience. Participants engaged in collaborative lab work, received expert mentorship, built professional networks, and enhanced their professional skills through year-round activities.

Boosting Membership Engagement

Last, but certainly not least, the Society exists to boost you, the member. I'm proud to point out several important efforts this year that helped members advance their careers.

Among them is our expanding list of **Special Interest Groups (SIGs)**. In September, we launched our latest one, the Women's Health SIG.

This SIG joins our Adrenal and Pituitary SIG, Bone & Mineral SIG, Early Career SIG, Endocrine-Disrupting Chemicals SIG, Endocrine Cancers SIG, Entrepreneurship SIG, Neuroendocrinology SIG, Obesity SIG, Oncoendocrinology SIG, and Transgender Research and Medicine SIG.

Collectively, the SIGs have held dozens of webinars on their specific topics. These events allow members to actively engage with like-minded colleagues, and to expand their knowledge and networks.

To better foster such dialogue among SIG members and others, we recently moved our **EndoForum online community** to a more user-friendly platform called Hivebrite. Here you can connect instantly with peers across the globe, engage in meaningful discussions, and exchange insights that elevate your work.

As always, this is just a taste of the many things our Society does for members and the field. I look forward to an exciting 2026! EN

Carol A. Lange, PhD
President, Endocrine Society

Was 2025 the Year of the Endocrine Scientist?

Endocrine scientists have taken over the December issue of Endocrine News! As another year wraps up, we take a closer look at the remarkable endocrine discoveries in endocrine science as well as the researchers who did the discovering! For the ELEVENTH consecutive year, we are running **"Eureka! The Year's Biggest Discoveries in Endocrine Science."** This year's roundup is once again compiled by Kelly Horvath who spoke with editors from the Endocrine Society's scientific journals for their input on new discoveries that could easily affect the future of endocrine science and treatment. This year's edition on page 20 clocks in at well over 4,000 words and is further proof of how vital endocrine science and endocrine researchers are to the future of human health.

On page 40, we let the up-and-coming endocrine scientists tell their own stories in the **"2025 Researchers Roundtable"** where I talk with this year's Early Investigator Award winners who all presented their research at **ENDO 2025** in San Francisco in July. These presentations were such an exciting highlight as people piled into the seminar room to learn about the latest breakthroughs in endocrine science presented by these five researchers from around the world who've spent their fair share of waking hours at the bench! When asked how he thought receiving the Early Investigator Award would impact his goals as an endocrine scientist, Pedro Marques, MD, PhD, an endocrinologist at CUF Descobertas Hospital and assistant professor and researcher at the Medical Faculty of Universidade Católica Portuguesa in Lisbon, Portugal, and at the Leiden University Medical Center (LUMC), Leiden, The Netherlands, says he feels it will advance his career further and help him establish himself as a leading clinician-scientist in the field of pituitary and neuroendocrinology. "It validates my past and current work, and it enhances its visibility in the world-stage of endocrine research," he says. "The credibility and recognition in academia is really important, and this is something that this award may significantly impact," adding that he also thinks that receiving the award will further motivate him and boost his dedication to pituitary research.

In **"A Change of Heart"** on page 36, Glenda Fauntleroy-Shaw talks to the recipient of the 2026 Edwin B. Astwood Award for Outstanding Research

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in Basic Science, Christopher Glass, MD, PhD, about how endocrinology lured him away from cardiology so many years ago. He also discusses his lab's macrophage research and what he tells his postdocs about "the intersection between three different facets of biomedical science." He says the first facet is a need to latch on to a problem that you're absolutely passionate about solving, and the second facet is making sure that solving that problem intersects with an unmet medical need. The third facet is simple: "It has to be fundable," Glass says. "You cannot do science without money, and it costs more than ever to push our boundaries of knowledge to the next level."

On page 32, Senior Editor Derek Bagley takes a look at a growing problem facing scholarly publishers in recent years: predatory journals. In **"Quality Time,"** Endocrine Society journal editors weigh in on this phenomenon and how the Society is combatting it. *The Journal of Clinical Endocrinology & Metabolism* Editor-in-Chief Paul M. Stewart, MD, FRCP, says that the publishing team has been working on a global footprint because the pressure is especially intense on scholarly publishers in developed countries. "And we've all seen over the years the odd figure that's probably been incorrectly doctored, and we've been through that kind of thing," Stewart says. "That's in no way excusable, but that's really nothing compared to what we're seeing now. There's no biological reason why anybody in their life would ever measure the association of serum rhubarb with thyroid function tests."

It would be extremely easy to devote every issue of *Endocrine News* to the endocrine scientists around the world, which is why this annual basic science issue is always such a treat. However, you can rest assured that online and in print, we will always play our part in championing endocrine researchers and how their discoveries are improving health for all of us. Feel free to reach out if you have any ideas or suggestions: **mnewman@endocrine.org.**

— **Mark A. Newman**, Executive Editor, *Endocrine News*

Research Redefines Bone Abnormality in Jansen's Disease

Scientists have uncovered a new, fundamental mechanism behind the severe skeletal abnormalities seen in Jansen metaphyseal chondrodysplasia (JMC), a rare genetic disorder characterized by short-limbed dwarfism. A new study reveals that the causative *H223R-PTH1R* gene mutation directly impairs mature bone cells, known as osteocytes, leading to bone structural irregularities and poor quality, a finding that refocuses therapeutic efforts away from cartilage alone and onto the bone's cellular infrastructure.

Titled **"Jansen's Disease: Bone Abnormalities Beyond Chondroplasia"** and recently published in *The Journal of Clinical Endocrinology & Metabolism*, the research fundamentally shifts the understanding of JMC, showing that the mutant parathyroid hormone 1 receptor (PTH1R) has a multifaceted impact extending far beyond initial theories of growth plate dysfunction. The study, which analyzed bone biopsy samples from two pediatric brothers with the mutation and nine healthy control males of similar age, found that the disease's severity is linked to abnormal osteocyte morphology and a disruptive change in the proteins these cells produce.

Often called the "architects of bone," osteocytes, reside within the hardened bone matrix and maintain its health by communicating through tiny channels called canaliculi. In the JMC patients, these osteocytes were found to have abnormal shapes, with canalicular networks that were both shorter and less abundant. Most critically, researchers identified an altered expression of the vital regulatory proteins fibroblast growth factor 23 (FGF23), which was enhanced, and sclerostin, which was diminished.

The *H223R-PTH1R* mutation, which leads to constitutive (always-on) activation of the receptor, resulted in several severe defects in the patients' iliac crest bone samples. Histologic analyses of the siblings showed widespread evidence of bone structural irregularities and hypomineralization — a lack of proper bone hardening. Specifically, the bone tissue displayed poorly formed bone scaffolding; unmineralized, soft bone matrix buildup, indicating a prolonged or failed maturation process; and areas of excessive bone breakdown, alongside scattered marrow scarring.

These findings suggest that while JMC is characterized by chondrodysplasia (abnormal cartilage development), the *H223R-PTH1R* mutation simultaneously exerts a direct, devastating influence on the bone's maintenance and quality control system managed by the osteocytes.

The identification of the osteocyte as a cellular target offers a clear path for future drug development. Currently, treatments for JMC primarily address symptoms or rely on orthopedic interventions. By pinpointing the specific cellular mechanism — the altered protein signaling (FGF23/sclerostin) — researchers now have a viable target for pharmacological intervention.

The study authors concluded that their findings underscore the multifaceted impact of the mutant PTH1R on bone physiology and focus attention on the osteocyte as a critical target. They suggest that future clinical trials for JMC therapeutics should consider using osteocyte morphology and function as novel diagnostic endpoints.

"Whether normalizing gene expression in osteocytes is possible and can improve bone health in JMC patients remains to be seen," the authors write. Yet this research provides crucial, granular detail needed to develop targeted therapies aimed at correcting the fundamental defect at the cellular level, bringing new hope for improved outcomes for children living with this rare and debilitating disease. — *Jackie Oberst*

"The study authors concluded that their findings underscore the multifaceted impact of the mutant PTH1R on bone physiology and focus attention on the osteocyte as a critical target. They suggest that future clinical trials for JMC therapeutics should consider using the assessment of osteocyte morphology and function as novel diagnostic endpoints."

Endocrinologists Urged to Master Birth Control as Key Tool for Hormonal Health

A critical gap in medical knowledge is severely limiting care for patients with hormonal disorders. A new review in *Endocrine Reviews* delivers a wake-up call to endocrinologists, asserting that these specialists must drastically expand their training in contraception. The paper argues that hormonal birth control is a powerful, yet overlooked, weapon for managing complex metabolic and endocrine diseases.

The review highlights that while endocrinologists are hormone experts, many are insufficiently trained in the diverse contraceptive options available, missing a crucial chance to utilize these drugs for their non-contraceptive benefits. This isn't about preventing pregnancy — it's about stabilizing conditions from polycystic ovary syndrome (PCOS) to diabetes.

Medical science has advanced dramatically from the desperate, often dangerous, methods of the past. For millennia, women relied on crude, often toxic, attempts at birth control, such as pessaries or suppositories made of crocodile dung, honey, and lint, or a cervical cap of lemon halves, as purported by Casanova. Similarly, men used linens or animal intestines as condoms. By contrast, modern hormonal contraception represents a victory of precision pharmacology. Yet, the review emphasizes that specialists today are failing to fully leverage this advanced science.

The review, titled **"Contraceptive Selection for the Endocrine Patient,"** fundamentally challenges the traditional view of birth control in the clinic. Researchers highlight that contraceptives — of which nearly 20 types are available — are instrumental in achieving therapeutic goals often faced by endocrinologists, including regulating chaotic menstrual cycles and suppressing excessive androgens (male hormones) that drive symptoms like acne and unwanted hair growth.

The authors state that the effects of these hormones are profound, directly influencing the complex hypothalamic–pituitary–gonadal (HPG) axis — the body's central hormonal communication system. Without a deep understanding of these interactions, specialists risk suboptimal outcomes for millions of patients.

The knowledge deficit means that patients with conditions like hyperthyroidism or adrenal disorders may not be receiving the most tailored and effective hormonal management. The review details how components like estrogens, progestins, and androgens interact with underlying diseases. For instance, the choice of progestin formulation can carry different risks for a patient with insulin resistance or a high risk of blood clots. The review also touches on emerging areas, such as contraception in transgender patients, noting it remains a "poorly studied area" as well as new contraceptive methods such as estrogen 4 and the vaginal ring Ovaprene for women and progestin and testosterone transdermal gel and pills for men.

This groundbreaking paper delivers a clear mandate for medical education reform. The guidance helps specialists select the safest and most effective method — whether it be an IUD, a specialized pill, or an injection — for patients who also have complex co-existing conditions like obesity or pituitary tumors. The ultimate goal is to close this critical knowledge gap, ensuring patients receive immediate and informed decisions that utilize every available hormonal arsenal to improve their long-term health. — *Jackie Oberst* EN

"The authors state that the effects of these hormones are profound, directly influencing the complex hypothalamic–pituitary–gonadal (HPG) axis — the body's central hormonal communication system. Without a deep understanding of these interactions, specialists risk suboptimal outcomes for millions of patients."

Anna Gloyn Wins 2026 Transatlantic Alliance Award in Endocrinology

Anna Gloyn, DPhil, FMedSci

The Endocrine Society and The European Society of Endocrinology (ESE) are delighted to announce Anna Gloyn, DPhil, FMedSci, as the winner of the fifth annual Transatlantic Alliance Award.

The Transatlantic Alliance Award, launched in 2022, recognizes an international leader who has made significant advancements in endocrine research on both sides of the Atlantic — in Europe and the United States.

Gloyn has been honored with this prestigious award for her exceptional work bridging the two continents. A globally recognized geneticist and endocrinologist, she is renowned for pioneering research that uncovers the genetic mechanisms underlying diabetes and advances precision medicine in diabetes care.

"Dr. Gloyn is an internationally recognized leader in endocrinology who has made extraordinary contributions to our understanding of the genetic basis of diabetes and has collaborated with colleagues on both sides of the Atlantic on landmark studies," says Endocrine Society President Carol Lange, PhD. "Her ground-breaking contributions to endocrine research across the globe and her outstanding work ethic make her an exceptional candidate for this award."

ESE's President Wiebke Arlt, MD, DSc, FRCP, FMedSci, says, "I am extremely pleased that Anna Gloyn is our 2026 Award winner. She is an inspiring example for emerging researchers who has shown exemplary leadership, and her contribution to endocrine and diabetes research has been invaluable. Her career embodies true transatlantic scientific exchange, reflected in her contributions to major international research alliances, editorial boards and her receipt of multiple accolades."

"For me, science is all about collaboration, and I continue to be fortunate to collaborate with so many incredible clinicians and scientists across Europe and the United States," Gloyn says. "I am honored to be recognized by both societies for doing what I truly love and would like to thank all my trainees, mentors and collaborators for enriching my scientific journey."

She continues, "I believe collaboration results in more than the sum of the parts. I learnt this as a trainee funded by an EU Horizon 2020 team science project and subsequently through multiple international consortia, which bring people from both sides of the Atlantic together to move the needle in our collective efforts to improve the lives of people with diabetes."

Gloyn is Professor of Pediatrics at Stanford University in Stanford, Calif. She earned her DPhil at the University of Oxford in Oxford, England, followed by post-doctoral training at the University of Exeter in Exeter, England, and the University of Pennsylvania in Philadelphia, Penn. Her early research centered on the impact of genetic variation in KATP channel genes, first in type 2 diabetes and later in neonatal diabetes.

In 2004, she returned to Oxford to establish an independent research program dedicated to elucidating beta-cell biology through functional characterization of genetic variants that cause monogenic diabetes. She is a member of the ClinGen expert review panel for monogenic diabetes and recently co-led the Precision Diagnostics working group for the International Precision Medicine Diabetes Initiative.

Gloyn's major focus for the past ten years has been on translating discoveries from genome-wide association studies into biological and clinical insights. Her research combines genetic discovery and functional genomics with clinical phenotyping and disease modeling in human cell models to elucidate how changes in DNA sequence alter diabetes risk. Highly collaborative, she plays roles in multiple international consortia, including the Accelerated Medicines Partnership for Common Metabolic Disease (AMP-CMD) and the Human Islet Research Network (HIRN).

Gloyn has received multiple national and international awards for her research, including the European Association for the Study of Diabetes (EASD) Rising Star (2005) and Minkowski (2014) awards

and the American Diabetes Association Outstanding Scientific Achievement Award (2022). In 2025, she was elected to the Academy of Medical Sciences in the United Kingdom.

Gloyn will present her award lecture at the European Society of Endocrinology's Annual Congress, the European Congress of Endocrinology (ECE) 2026, which is taking place from May 9-12 in Prague, Czech Republic.

Nominations for the 2027 Transatlantic Alliance Award will open early next year. ~ *Colleen Williams*

Bridging the World of Hormones: EndoBridge® 2025 Inspires Global Collaboration

The 13th annual meeting of the EndoBridge® took place in Antalya, Turkey, October 23 – 26, 2025.

This year's event welcomed world-renowned experts and more than 700 participants from 41 countries, underscoring EndoBridge's growing influence as a global platform for advancing endocrinology and metabolism. Accredited by the European Council for Accreditation in Endocrinology, the scientific program featured state-of-the-art lectures, interactive case discussions, and oral and poster sessions that highlighted the latest clinical developments across the field.

Abstracts of the presented clinical cases will be published as a supplement in the Endocrine Society journal *JCEM Case Reports*, allowing the insights shared at the meeting to reach a wider professional audience.

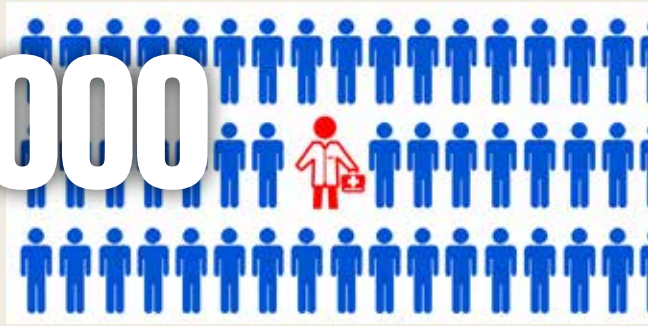
"We truly appreciate the growing intercontinental collaboration for bridging the world of hormones," says Bulent O. Yildiz, MD, professor at Hacettepe University School of Medicine and founder and president of EndoBridge®. "It's inspiring to see EndoBridge evolve into one of the most anticipated meetings in endocrinology, promoting cross-cultural dialogue, understanding, and collaboration beyond borders."

The 14th annual EndoBridge® will take place in Antalya, Turkey, October 22 – 25, 2026. Further information is available at: **www.endobridge.org**.

The faculty and attendees for EndoBridge 2025, which took place in October in Antalya, Turkey.

> The Endocrine Society will be a pillar in my scientific career. It is where my trainees will network and become part of the scientific community. It is where they will have a peer network and find collaborators just as I have. **It is where I will be supported by mentors, sponsors, and advocates, and it is where I will continue to lift up others as I advance in my career, just as my mentors have lifted me up."**
>
> **Dequina Nicholas, PhD**, assistant professor, Molecular Biology and Biochemistry, University of California Irvine, Irvine, Calif., when asked how she feels the Endocrine Society will further impact her career in **"2025 Researchers Roundtable"** on page 40.

The percentage of women worldwide who have polycystic ovary syndrome (PCOS) but remain undiagnosed. **SOURCE:** *WORLD HEALTH ORGANIZATION*



The average number of patient visits a full-time adult endocrinologist manages each year, typically while working 38 – 40 hours per week.

SOURCE: *JOURNAL OF THE ENDOCRINE SOCIETY*

1/2

Only 55.8% of people with diabetes globally were diagnosed, meaning nearly half of those with the condition were unaware they had it.

SOURCE: *EATING WELL*

12.6%

The percentage of adults in the United States aged 50+ that have osteoporosis in the hip, lumbar spine, or both **SOURCE:** *MEDICAL NEWS TODAY*

The percentage of diabetes patients receiving treatment whose blood glucose levels are under control.

SOURCE: *LANCET DIABETES AND ENDOCRINOLOGY*

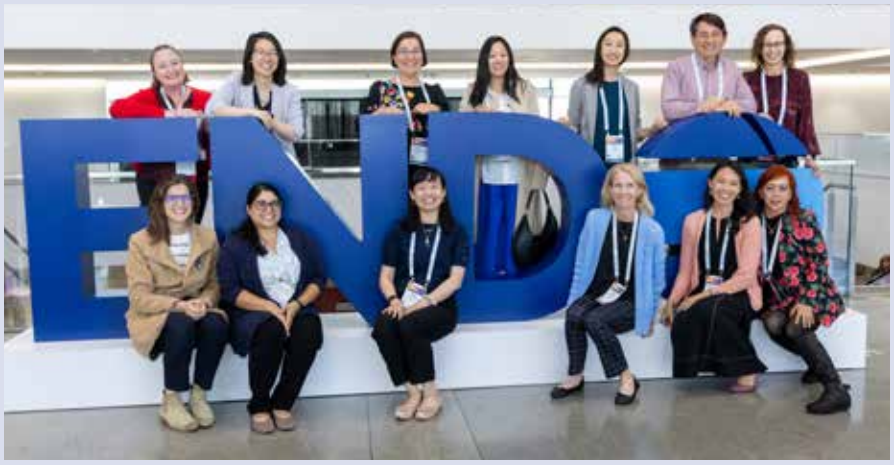
44,020

The projected number of new cases of thyroid cancer in the United States in 2025

SOURCE: CANCER.ORG

ENDO 2026

Chicago, Ill. • June 13 – 16, 2026



We hope to see you at **ENDO 2026**, taking place June 13 – 16, 2026, in Chicago, Ill. With more than 7,000 attendees, nearly 2,000 abstracts, and more than 200 other sessions, **ENDO** is the top global meeting on endocrinology research and clinical care. **ENDO** provides the opportunity to collaborate with an unparalleled list of endocrinologists, healthcare practitioners, and leading scientists from around the world. Through sharing our experience, advice on patient care, and new advances in research, we move the needle forward in hormone health and science. Our outstanding slate of world-renowned speakers will showcase the most cutting-edge advances in research and medicine, with presentations spanning the spectrum of science, clinical care, and social implications.

https://www.endocrine.org/meetings-and-events/endo-2026-save-the-date

BPS 2026

San Francisco, California
February 21 – 22, 2026

BPS2026 will showcase the exciting advances in science and technology brought forth by big data and AI. This year's program offers a strikingly diverse and forward-looking slate of symposia that captures the dynamic, multi-scale nature of our field. From

the controlled chaos of intrinsically disordered proteins to the emergent properties of life's assemblies, our sessions illuminate the physical organizing principles underlying biology. Symposia revisit new perspectives in classics like membrane transport and calcium signaling, while also spotlighting new frontiers such as the biophysics of immunity, cancer, and protein design.

https://www.biophysics.org/2026meeting#/

NASIT 2026

Portland, Oregon
March 6 – 7, 2026

The North American Society for Interventional Thyroidology (NASIT) is the largest, multidisciplinary group in the United States dedicated to the field of interventional thyroidology. The society was created to promote safe integration of ablative thyroid technologies into clinical practice and a collaborative environment that supports education and research efforts in interventional thyroidology. NASIT holds an annual meeting that includes one and a half days of expert panel sessions, scientific presentations, and the most up-to-date information on innovative technologies in the field.
https://www.nasit.org/Annual-Meeting

INTERNATIONAL **ITINERARY**

SIMBA Adrenal 2026

Birmingham, U.K.
January 15 – 16, 2026

Our adrenal conference returns this year for the fifth time! The conference will feature scenario-based assessments based on the SIMBA model (Simulation via Instant Messaging Birmingham Advance), providing a realistic and interactive learning experience. TThe event features clinical case simulations followed by case discussions. The clinical simulations are designed to improve healthcare professionals' confidence and optimize patient care. It is open to all healthcare professionals worldwide!
https://shop.bham.ac.uk/conferences-and-events/college-of-medicine-health/cmh-conferences-events/simba-adrenal-2026-5th-adrenal-conference

Thyroid Education Day 2026

Birmingham, U.K.
January 30, 2026

Thyroid Education Day will be an interactive event aimed at adult and pediatric endocrinologists, thyroid surgeons, and oncologists to discuss the latest developments and guidelines in the management of thyroid disorders. This face-to-face event will bring together experts in the field of thyroid dysfunction, thyroid nodules, thyroid cancer, and thyroid diseases in pregnancy. Discussions will be case-based and highlight pragmatic and cutting-edge approaches to common and complex thyroid conditions focusing on new national and international clinical practice guidelines.
https://www.endocrinology.org/events/thyroid-education-day/thyroid-education-day-2026/

World Endocrine, Diabetes & Cardiovascular Conference (EDCC26)

Bangkok, Thailand
March 6 – 7, 2026

The World Endocrine, Diabetes & Cardiovascular Conference 2026 (EDCC26) will be organized around the theme of "Interdisciplinary Approaches to Endocrine Health." The program includes local and international speakers with inspiring insights to share on advancing endocrinology, diabetes, cardiovascular health, and metabolism quality improvement through patient and family experiences. EDCC26 will feature leading experts, researchers, and healthcare professionals from around the globe and will serve as a platform for the exchange of knowledge, ideas, and insights in the fields of endocrinology, diabetes, obesity, and more.
https://endocrine.episirus.org/bangkok/

ATTD 2026

Barcelona, Spain
March 11 – 14, 2026

The landscape of diabetes care is evolving fast and the 19th International Conference on Advanced Technologies & Treatments for Diabetes (ATTD) 2026 is where technology, innovation, and research converge to shape the next era of treatment. From AI-driven solutions to the latest in digital health, smart devices, and groundbreaking therapies, this is the conference that defines what's next in diabetes management. Connect with global experts, industry leaders, and visionaries pushing the boundaries of what's possible.
https://attd.kenes.com/

eureka!

the top endocrine science of 2025

For the eleventh year running, *Endocrine News* talks to editors from Endocrine Society publications to unearth the most impressive breakthroughs in endocrine science and research for 2025. From GLP-1s, adrenal treatments, and acromegaly breakthroughs to obesity, diabetes, and cutting-edge research in reproductive medicine, 2025 was a banner year for endocrine research and researchers!

BY KELLY HORVATH

For more than a decade, *Endocrine News* talks to editors from Endocrine Society publications to unearth the top endocrine discoveries of the past year. These studies, as selected by Endocrine Society journal editors-in-chief as well as deputy editors, represent what they consider the top endocrinology studies published in 2025.

This year's selections span the breadth of endocrinology, from advances in treating endocrine tumors to groundbreaking insights into the hypothalamus's role in metabolic regulation to addressing critical issues in diabetes care (and so much more), while also confronting urgent questions of health equity. These discoveries collectively promise to revolutionize patient care through more precise, personalized treatment strategies and to deepen our understanding of the endocrine system's molecular intricacies and its far-reaching effects on human health. Add to these the spotlight on the real-world challenges of delivering equitable, effective care, and these advances will ultimately lead to better outcomes across a broad spectrum of endocrine disorders.

From the Editor of *Endocrine Reviews*

Endocrine Reviews Editor-in-Chief Ashley Grossman, FMedSci, emeritus professor of endocrinology, University of Oxford; senior research fellow, Green Templeton College; consultant NET endocrinologist, Royal Free London; professor of neuroendocrinology, Barts and the London School of Medicine; and consultant endocrinologist at the London Clinic Centre for Endocrinology, in the UK, chose six *Journal of Clinical Endocrinology & Metabolism* papers that concern somatotroph tumors causing acromegaly, medullary thyroid carcinoma, and parathyroid carcinoma, as endocrine tumors are his specialty.

> Hormones and therapeutics that act in part via the hypothalamus have made tremendous waves in the past year, **underscoring the importance of endocrine regulation in the pathophysiology and treatment of prevalent metabolic disorders such as obesity, diabetes, and fatty liver disease."**
>
> — E. DALE ABEL, MD, PHD, DEPUTY EDITOR, *ENDOCRINE REVIEWS*

"In terms of acromegaly, the most fascinating data come from an explanation of the paradoxical biochemical response in some patients with acromegaly, a rise in serum growth hormone (GH) rather than a fall in response to a glucose challenge," Grossman says. In healthy people, GH falls to very low levels after a glucose tolerance test, but in most patients with acromegaly, only a partial fall occurs. As Mette H. Jensen and colleagues show in **"GIP receptor antagonism eliminates paradoxical growth hormone secretion in some patients with acromegaly,"** published in February, however, the serum GH actually rises in a subset of patients with acromegaly due to the ectopic expression of glucose-dependent insulinotropic polypeptide (GIP) receptors. In other words, explains Grossman, "in four out of seven of these patients, the paradoxical response was abolished by GIP receptor blockade."

A second paper, **"The preoperative GH response to oral glucose load predicts a low risk of recurrence in acromegaly,"** by Marco Losa, et al. and published in April, also looks at the paradoxical response. "Losa and colleagues have now shown that where this paradoxical response is seen, in approximately a third of patients, recurrence after surgery is very infrequent compared to patients not showing the paradoxical response," Grossman says. "This suggests that such tumors are a distinct biological subgroup, and future research should explore the specific molecular characterization of these tumors."

Two additional papers look at the pharmacologic aspect of treating acromegaly. Explains Grossman: "In terms of medical therapy, the mainstay of treatment for acromegaly has for long been somatostatin analogues, octreotide LAR, and lanreotide autogel, given by monthly injection. A new long-acting analogue based on liquid crystal technology, CAM2029, was shown by Diego Ferone and coauthors to be highly effective, and indicating that self- or partner-injection can be used, as for lanreotide autogel." That study, **"Octreotide subcutaneous depot for acromegaly: A randomized, double-blind, placebo-controlled phase 3 trial, ACROINNOVA 1"** published in May.

"But a more innovative approach has been the use of oral octreotide," Grossman continues. "This has been developed as a formulation with a transepithelial enhancer, but paltusotine is a non-octreotide molecule effective as once-daily administration, taken first thing in the morning before breakfast, similar to thyroxine dosing." This latter paper is **"Acromegaly disease control maintained after switching from injected somatostatin receptor ligands to oral paltusotine"** and published in December 2024, by Mônica R. Gadelha and colleagues. "These exciting developments should offer patients more choice," Grossman says.

Medullary thyroid cancer (MTC) is a rare tumor developing from thyroid C cells, not infrequently associated with a germline mutation of the RET oncogene in multiple endocrine neoplasia (MEN)2, MEN3, and familial MTC. Asks Grossman: "While surgery is all-important, many metastatic tumors can be indolent over many years; if progressive, tyrosine kinase inhibitors — especially the highly RET-selective selpercatinib and pralsetinib — can be very effective. But 'how progressive is progressive'? When should we be more active in therapy?" He found some of the answers he was looking for in **"Tumor volume doubling time of less than 1 year is associated with a higher risk of death from medullary thyroid cancer,"** by Noha Behairy, et al. from June. This study of 51 patients showed that three baseline and three follow-up scans calculate tumor doubling-time accurately, with a one-year doubling time predicting increased mortality,

and genetic cases showing less progression. "Calcitonin can be a surrogate marker but is less sensitive (albeit more convenient). This should help plan the need for interventions more accurately," Grossman says.

Grossman's final choice is **"A comparative genomic analysis of parathyroid adenomas and carcinomas harboring heterozygous germline *CDC73* mutations,"** by Yulong Li, William F. Simonds, and Haobin Chen from January. "Parathyroid carcinoma is rare but especially occurs in parathyroid-jaw tumor syndrome, with a germline mutation of *CDC73*, but with very incomplete penetrance for either a parathyroid adenoma or a carcinoma," Grossman explains. "Now, in a group of 12 tumors, the authors show that both adenomas and carcinomas in this syndrome show biallelic loss or mutation of *CDC73*, with the carcinomas showing other molecular aberrations; this complete loss of *CDC73* activity is a necessary but not sufficient cause for parathyroid carcinoma in these patients, but with other changes leading to a cancer phenotype."

From the Deputy Editor of *Endocrine Reviews*

E. Dale Abel, MD, PhD, William S. Adams Distinguished Professor of Medicine and chair and executive medical director of the Department of Medicine at the David Geffen School of Medicine and UCLA Health in Los Angeles, chose five papers that spotlight the incredibly complex role of the hypothalamus. "The hypothalamus represents a small area at the base of the brain that plays an outsized role in endocrine regulation and homeostasis," he says. "It represents a node for the integration of many systemic and neural signals that regulate appetite and feeding behavior.

Starting with one from *Endocrine Reviews* from May 2024 by Hoong-Wei Gan, Manuela Cerbone, and Mehul Tulsidas Dattani, **"Appetite- and Weight-Regulating Neuroendocrine Circuitry in Hypothalamic Obesity,"** says Abel, "provided a comprehensive overview of the complex interacting pathways by which the hypothalamus receives numerous peripheral hormonal signals from the gut and adipose tissue, such as leptin, ghrelin, glucagon-like peptide 1 (GLP1), and others and integrates these to regulate feeding behavior, energy expenditure, and body weight. The review is timely, as a number of primary reports shed exciting new insights into the role of the hypothalamus in regulating novel aspects of metabolic homeostasis including fatty liver disease."

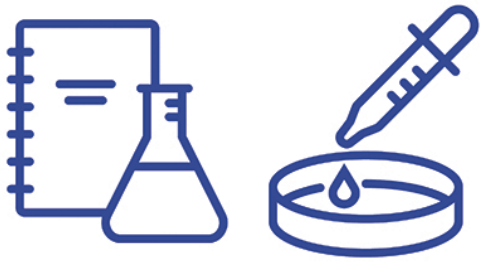
Abel's next paper, **"Obesity disrupts the pituitary-hepatic UPR communication leading to NAFLD progression,"** homes in on this mechanism. Published in *Cell Metabolism* in July 2024 and written by Qingwen Qian and colleagues, it "described a novel mechanism by which activation of the integrated stress response pathway, known as endoplasmic reticulum (ER) stress, in the hypothalamus is induced by obesity-related inflammation," Abel says. "Importantly this phenomenon contributed to the development of nonalcoholic fatty liver disease (NFLD) via mechanisms involving the hypothalamic and pituitary regulation of thyroid hormone. This work is also significant

in light of recent U.S. Food and Drug Administration (FDA) approval of the thyroid hormone beta agonist resmetirom, for the treatment of fatty liver disease" (see Thyroid hormone receptor-β analogues for the treatment of metabolic dysfunction-associated steatohepatitis [MASH]," published in February 2020 in the *Journal of Hepatology* by Vlad Ratziu, Thomas S. Scanlan, and Eveline Bruinstroop).

"Finally," Abel continues, "two landmark trials of GLP1 receptor agonists (GLP1-RAs) were published in the *New England Journal of Medicine*. GLP-1 acts in part via hypothalamic pathways to regulate food intake, energy intake, gut motility, and body weight." A.J. Sanyal, et al.'s *"Phase 3 Trial of Semaglutide in Metabolic Dysfunction-Associated Steatohepatitis"* from June, "indicated significant efficacy of the GLP1-RA semaglutide in treating fatty liver disease, where it led to resolution of steatohepatitis without worsening of fibrosis in 63% of treated participants relative to 34% in the placebo group."

"The second trial demonstrated a dramatic effect of tirzepatide, a dual GIP and GLP-1RA, revealing a 10-fold reduction in the progression from prediabetes to type 2 diabetes, relative to placebo, in individuals with obesity who were treated with tirzepatide," Abel says. **"Tirzepatide for Obesity Treatment and Diabetes Prevention"** was published in March by Ania M. Jastreboff and colleagues.

"Hormones and therapeutics that act in part via the hypothalamus have made tremendous waves in the past year, underscoring the importance of endocrine regulation in the pathophysiology and treatment of prevalent metabolic disorders such as obesity, diabetes, and fatty liver disease," Abel concludes.



From the Editor of *Endocrinology*

Editor-in-Chief Zane B. Andrews, PhD, from the Department of Physiology at Monash University in Melbourne, Australia and deputy head of the Metabolism, Diabetes, and Obesity Program at the Monash Biomedicine Discovery Institute selected five main papers from *Endocrinology*.

First up is **"Role of Serotonin on Gene Expression and Physiology in Human Cytotrophoblasts and Placenta,"** from Nolwenn S. Morris and coauthors from September. "Serotonin is usually associated with the control of mood in the brain, but in this study maternal serotonin promoted placental and fetal development," Andrews says.

Andrews also especially liked Mai Otsuka, et al.'s paper **"Neuromedin U Deficiency Disrupts Daily Testosterone Fluctuation and Reduces Wheel-Running Activity in Rats"** from the August issue. Says Andrews: "Neuromedin U (NMU) has a role in energy metabolism; in this study, the authors show a novel function for NMU to enhance exercise (running wheel activity) via testosterone."

"Tenascin-C Potentiates Wnt Signaling in Thyroid Cancer," from Heather A. Hartmann and colleagues in March made Andrews' list because it showed that the secreted extracellular matrix protein tenascin-C (TNC) increased tumor burden in a model of thyroid cancer. "This discovery could help identify novel biomarkers and new therapies," he says.

From Ji Soo Yoon, Daniel Gamu, William T. Gibson, and Francis C. Lynn comes **"NPAS4 Depletion in POMC Neurons Protects From Obesity and Alters the Feeding-regulated Transcriptome in Male Mice"** published in July. Andrews says, "Proopiomelanocortin (POMC) neurons reduce appetite and increase energy expenditure, and POMC gene deletion causes obesity in humans and animal models. This study identified a molecular target that is required to efficiently activate POMC neurons and control appetite."

Finally, from May, **"Lipotoxicity Induces β-cell Small Extracellular Vesicle–Mediated β-cell Dysfunction in Male Mice"** is by Abhishek Roy, et al. "The study shows that lipotoxicity, commonly linked to obesity and type 2 diabetes, increases the release to small extracellular vesicles (sEVs) causing impaired function of pancreatic insulin–producing cells and exacerbating type 2 diabetes. These findings highlight potential avenues for therapeutic interventions targeting sEV-

"[Oral octreotide to treat acromegaly] … has been developed as a formulation with a transepithelial enhancer, but paltusotine is a non-octreotide molecule effective as once-daily administration, **taken first thing in the morning before breakfast, similar to thyroxine dosing. These exciting developments should offer patients more choice."**

— ASHLEY GROSSMAN, FMEDSCI, EDITOR-IN-CHIEF, *ENDOCRINE REVIEWS*

mediated pathways to preserve β-cell health in metabolic disorders," Andrews says.

From the Deputy Editor of *Endocrinology*

Gail S. Prins, PhD, the Michael Reese Endowed Professor in the Departments of Urology, Physiology and Biophysics, and Pathology at the University of Illinois at Chicago (UIC) as well as co-director of the Prostate Cancer Research Program at the UIC Cancer Center reviewed several top candidate papers, settling on two from her journal. **"Polychlorinated Biphenyls Alter Estrogen Receptor β-mediated Epigenetic Regulation, Promoting Endometriosis,"** by Yuri Park et al. just published in November, and **"Mice Lacking the Fructose Transporter Glut5 Exhibit Excessive Androgens and Reduced Sperm Motility,"** by Aikaterini Kallianioti et al. published in February.

From the Editor of the *Journal of the Endocrine Society*

For Journal of the Endocrine Society Editor-in-Chief Zeynep Madak-Erdogan, PhD, associate professor of nutrition; Sylvia D. Stroup Scholar at the University of Illinois Urbana-Champaign, **"Direct sensing of dietary ω-6 linoleic acid through FABP5-mTORC1 signaling"** was a favorite. This paper from Science by Nikos Koundouros and colleagues published in March. "The team uncovered a mechanism that is directly linking dietary intake of omega-6 fatty acids to breast cancer progression," Madak-Erdogan says. "The study presents major implications for personalized nutrition in cancer treatment."

From the Deputy Editor of *Journal of the Endocrine Society*

Stephen R. Hammes, MD, PhD, Louis S. Wolk Distinguished Professor of Medicine; chief, Division of Endocrinology and Metabolism; and executive vice chair, Department of Medicine at the University of Rochester School of Medicine and Dentistry in NY, chose two papers from JES.

"Determining Insulin Pump Candidacy: The Disconnect Between Clinical Care Guidelines and Clinical Practice," by Estelle Everett, et al. from July, earned his appreciation for demonstrating that the clinical care guidelines for insulin pump candidacy do not always align with the reality of clinical practice. The authors surveyed 299 endocrinologists about how they determine who will get an insulin pump and whether they were aware of the current guidelines. About half of the respondents were aware of the guidelines but not following them, instead relying on their own judgment. "I think this article points out two things," Hammes says. "First, that a large percentage of physicians are not using the guidelines to make their decisions despite knowing about them, suggesting that we need to do a better job of educating diabetologists regarding the guidelines. However, to me, this also points out that perhaps the guidelines are not based on reality — meaning, it may not be so easy in the real world of insurance issues, unequal social determinants of health, education, etc., to follow these 'ideal' guidelines."

Hammes' second choice is **"The Association of Bone-related Biomarkers With Incident Hip Fracture: A Nested Case-control Study,"** by Sara J. Cromer, Elaine W. Yu, Elisabetta Patorno, Gary C. Curhan, and Julie M. Paik from September. "Here the authors look at bone turnover markers as an independent predictor of fracture risk. This seems simple enough, but some people are still measuring bone turnover markers in untreated people with osteoporosis to determine whether to treat," Hammes explains. "In fact, this article confirms what most bone experts already knew — checking them is not necessary and should not be part of the decision-making process of whether to treat or not."

From the Editor of *The Journal of Clinical Endocrinology & Metabolism*

Editor-in-Chief of JCEM, Paul M. Stewart, MD, FRCP, FMedSci, executive dean and professor at the University of Leeds School of Medicine in the United Kingdom, selected three papers from JCEM, which as he pointed out, was not an easy task given that JCEM publishes more than 500 articles a year. But, using altimetrics, he narrowed down that vast pool to focus on publications that have generated the most interest and attention.

"Adrenalectomy Reduces the Risk of Vertebral Fractures in Patients With Mild Autonomous Cortisol Secretion," by Valentina Morelli and coauthors published in April and comprises two separate studies. Stewart says: "Firstly, a retrospective analysis of 53 patients with adrenal incidentaloma in the setting of hypercortisolism that failed to suppress to below 1.8 µg/dL following a 1-mg overnight dexamethasone suppression test (note I am deliberately avoiding the term 'mild autonomous cortisol secretion' or MACS): 31 patients received surgery, 22 did not and were followed conservatively. Secondly a more robust (albeit small study) prospectively randomized patients to either adrenalectomy (n=21) or conservative treatment (n=28). In both studies, bone mineral density (BMD) didn't really change across treated and conservative groups, but there were significant reductions in the incidence of new vertebral fractures in surgically treated groups in both studies." He further notes that the diagnosis

"Primary aldosteronism (PA) has been in the spotlight across all Endocrine Society journals in 2025. In previous years, **mounting evidence has shifted the paradigm of a long-presumed rare disease to the most common cause of endocrine hypertension and established PA as an independent risk for cardiovascular morbidity."**

— ADINA TURCU, MD, MS, DEPUTY EDITOR, *JCEM CASE REPORTS*

and management of these patients remains challenging: "more so the unresolved issue of whether dysregulated cortisol secretion plays any pathogenetic role in what could easily be age-related comorbidities. These data are tantalizing, but larger prospective randomized studies powered to provide data on markers of bone formation/resorption and BMD are required."

From April, **"Characterizing Disparities in Access to Surgery for Pituitary Adenomas: A National Cancer Database Analysis,"** by Miguel Angel Jimenez, et al., likewise garnered a lot of attention and represents a call to action. "One of the most shameful facts we all face as clinicians is the unacceptable disparity in health outcomes of our patients," Stewart says. "Studies from the UK have shown life expectancy gaps of up to 19 years between patients from the most and least deprived areas. Social determinants of health, systematic and unconscious bias, and healthcare access are all underpinning factors and tough obstacles to overcome. Endocrinology is not spared, and in this thorough analysis of access of 58,000 patients with pituitary adenomas to surgery in centers of excellence in the U.S., the same racial and socioeconomic outcome data emerge, with significantly worse outcomes in Black and Hispanic patients and in those of lower socioeconomic groups. Some of these determinants are hard to crack and perhaps beyond the control of the practicing endocrinologist. But it is within our power to abolish any racial bias in our own practices," he concludes.

Finally, from Richard C. Frank, et al. and published in May, comes **"Pancreatic Cancer Screening in New-onset and Deteriorating Diabetes: Preliminary Results From the PANDOME Study."** "The majority of endocrinologists will be well aware of the link between pancreatic cancer and new onset diabetes mellitus," Stewart says. "Cancer rates are six- to eight-fold higher in patients with new-onset diabetes (NOD). This elegant study — reported as early outcomes of the PAncreatic cancer screening in New-onset and DeteriOrating diabetes MEllitus (PANDOME) study — details the follow-up of the first 109 enrolled patients (all over 50 years of age) with either NOD or deteriorating diabetes control. Although numbers are small, pancreatic cancer was detected in one patient with deteriorating diabetes with suspicions findings in three others. The study will run its course, but endocrinologists should be vigilant and have a low threshold for referring patients with deteriorating diabetes for further pancreatic cancer screening."

From the Deputy Editors of JCEM

Raghu G. Mirmira, MD, PhD, professor of medicine; vice chair for research director, Translational Research Center at the University of Chicago, Chicago, Ill., likewise highlights three JCEM papers that caught his eye.

"Obesity Is Associated with Hyperandrogenemia in a Nationally Representative Sample of US Girls Aged 6 to 18 Years" from May, written by Su Hee Kim and colleagues, used nationally representative U.S. data to show that girls with obesity have consistently higher free testosterone levels across childhood and adolescence compared with healthy-weight peers.

"One of the most shameful facts we all face as clinicians is the unacceptable disparity in health outcomes of our patients. Studies from the UK have shown life expectancy gaps of up to 19 years between patients from the most and least deprived areas. **Social determinants of health, systematic and unconscious bias, and healthcare access are all underpinning factors and tough obstacles to overcome."**

— PAUL M. STEWART, MD, FRCP, FMEDSCI, EDITOR-IN-CHIEF, *THE JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM*

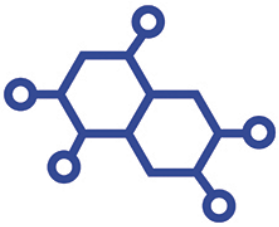
"The relationship was independent of age, puberty, and race, suggesting an intrinsic endocrine effect of obesity rather than developmental confounding," Mirmira says. "These findings are important because they demonstrate that androgen excess begins early in life in the context of obesity, establishing a potential mechanistic link to later reproductive and metabolic disorders such as polycystic ovary syndrome. The work is impactful in reframing pediatric obesity as not only a metabolic but also an endocrine condition that alters the hormonal milieu well before adulthood, highlighting a window for early detection and preventive strategies," he concludes.

"Effect of Time-Restricted Eating on β-Cell Function in Adults With Type 2 Diabetes" from May evaluated the effects of time-restricted eating (TRE) on metabolic function in 39 adults with early type 2 diabetes. Coauthors Caroline Kaercher Kramer, Bernard Zinman, Denice S. Feig, and Ravi Retnakaran found that TRE led to a 14% improvement in β-cell function and a 14% reduction in hepatic insulin resistance over six weeks, compared with a standard lifestyle. Participants also experienced a modest HbA1c reduction (−0.32%) and decreases in body weight (−3.9%) and waist circumference (−3.8 cm), despite similar fasting glucose levels. "These results indicate that adjusting meal timing alone can meaningfully enhance both insulin secretory capacity and insulin sensitivity in early diabetes," Mirmira says. "The findings are impactful because they suggest that circadian alignment through TRE may restore β-cell responsiveness and metabolic efficiency independent of medication."

Mirmira's third pick, **"Genetic Risk and Transition Through Preclinical Stages of Type 1 Diabetes,"** from July, "demonstrates that genetic risk continues to shape disease progression even after autoimmunity has begun in type 1 diabetes." Using a large TrialNet cohort, Andrea K. Steck, et al. showed that individuals with higher composite genetic risk scores, especially those carrying human leukocyte antigen (HLA) class II and DR4 haplotypes, were more likely to progress through successive preclinical stages toward overt diabetes. "The findings are important," Mirmira says, "because they move beyond simple disease susceptibility to define how genetics influences disease tempo. This has potential impacts for precision prevention — allowing clinicians and researchers to stratify at-risk individuals not only by likelihood of disease but by the expected rate of progression, which could guide enrollment and timing in prevention trials and inform personalized surveillance strategies."

Elizabeth N. Pearce MD, MSc, Boston University School of Medicine, Section of Endocrinology, Diabetes, and Nutrition, in Mass., also selected three JCEM papers, two on thyroid dysfunction (her specialty area) and a third on bone with the highest altimetric score.

Pearce selected **"Effects of low-dose methotrexate with methimazole in patients with Graves' disease: results of a randomized clinical trial"** from July 2024 by Pu Xie and colleagues because it potentially simplifies the treatment for Graves disease. "In this clinical trial, 144 patients with newly diagnosed Graves hyperthyroidism were randomized to treatment with methimazole alone vs. methimazole in combination with methotrexate 10 mg weekly. The methotrexate-treated group had a more rapid decline in thyroid-stimulating hormone receptor antibody titers and were more likely to be able to discontinue methimazole treatment at 12 to 18 months. There were no methotrexate-associated serious adverse events. This was limited by a small sample size, short duration of follow-up, and a lack of blinding. However, this is novel and I think warrants a larger trial to see if this result can be replicated. Although there are multiple targeted Graves drugs currently in the pipeline, methotrexate is inexpensive and already available,"



2025: The Year of Gut Instincts

Endocrinology Editor-in-Chief Zane B. Andrews, PhD, notes a broader trend that defined the year: "It is safe to say that 2025 is the Year of the Gut from an endocrine perspective in *Endocrinology*. The five most cited minireviews are all linked to gut hormonal feedback, and it's not surprising that GLP-1 features prominently. Based on the rise of GLP-1RAs like Ozempic and Wegovy, there is growing interesting in the biological actions of GLP-1 at its receptor. In 2025, *Endocrinology* had a number of invited minireviews on GLP-1 biology including the neurobiological control of feeding, actions in the central amygdala, and the role of receptor agonists in alcohol use disorder. We also featured how the gut microbiome affects gut hormone secretion and the role of liver-expressed antimicrobial peptide (LEAP-2) in biology."

Those much-cited minireviews are:

- Lauren A. Jones and Daniel I. Brierley, **"GLP-1 and the Neurobiology of Eating Control: Recent Advances,"** with 10 citations
- Mario Perelló, **"Critical Insights Into LEAP2 Biology and Physiological Functions: Potential Roles Beyond Ghrelin Antagonism,"** with nine citations
- Jessica Chao, Rosemary A. Coleman, Damien J. Keating, and Alyce M. Martin, ***"Gut Microbiome Regulation of Gut Hormone Secretion,"*** with six citations
- Miguel Duran, et al., **"Integration of Glucagon-Like Peptide 1 Receptor Actions Through the Central Amygdala,"** with four citations
- Elisabet Jerlhag, **"GLP-1 Receptor Agonists: Promising Therapeutic Targets for Alcohol Use Disorder,"** with four citations

she notes.w**"Treatment Preferences in Patients With Hypothyroidism,"** from February, a systematic review and meta-analysis of randomized controlled trials (RCTs), earned her nod by comparing the three available thyroid treatments for adults with hypothyroidism (levothyroxine alone, LT3/LT4 combination therapy, and desiccated thyroid extract). "Fabyan Esberard de Lima Beltrão and coauthors found that patients with hypothyroidism preferred combination therapy (LT3/LT4 or desiccated thyroid) over levothyroxine monotherapy by a considerable margin (52% compared to 24%)," Pearce says. "The reason for this is not entirely clear, but these data suggest that it may be reasonable to offer a therapeutic trial of combination therapy in patients who feel unwell on levothyroxine alone. An ongoing RCT being conducted in the Netherlands aims to more definitively evaluate whether combination therapy improves fatigue in those who feel unwell on levothyroxine monotherapy, but results from this trial are not anticipated for several years."

Lastly, **"Efficacy and Safety of TransCon PTH in Adults With Hypoparathyroidism: 52-Week Results From the Phase 3 PaTHway Trial,"** by Bart L. Clarke, et al. from April, was a phase 3, multicenter RCT assessing the effects of palopegteriparatide (TransCon PTH) versus placebo extension in 78 adults with hypoparathyroidism. Says Pearce: "Results of a 26-week, double-blind, placebo-controlled period had previously been reported; this paper described results of an open-label extension at week 52. At week 52, 81% of subjects met a composite efficacy endpoint, 95% were able to stop conventional therapy, and none required active vitamin D. In addition, there were appropriate decreases in bone densitometry and 24-hour calcium excretion and improved quality of life. Longer-term study will still be needed and is planned."

From the Editor of *JCEM Case Reports*

William F. Young, Jr., MD, MSc, professor of medicine in the Mayo Clinic College of Medicine and Science in Rochester, Minn., chose five papers from *JCEM Case Reports*.

In **"Percutaneous Radiofrequency Ablation After Incomplete Adrenalectomy in a Lateralized Case of Primary Aldosteronism,"** from October, "Pierre-Antonin Rigon and colleagues remind all clinicians that complete unilateral adrenalectomy is mandatory to a successful operation in patients with primary aldosteronism," Young explains. "They

also show that when an incomplete unilateral adrenalectomy is performed, there still may be an opportunity for cure with CT-guided percutaneous radiofrequency ablation."

In **"Successful Surgical Removal of GH-secreting Adenoma in Early Childhood: Long-term Follow-up into Adulthood,"** also from October, "Baha M. Arafah reports on a remarkable case of successful resection of a GH-secreting adenoma in a prepubertal female with detailed clinical and biochemical data documenting partial GH deficiency postoperatively along with height and bone age measurements throughout adolescence and into adulthood," Young says. "Arafah highlights that his case raised questions about the conundrum of the therapeutic use of GH in children who develop isolated partial deficiency of the hormone after successful treatment of gigantism."

From August, **"Unanticipated Adverse Events With Tirzepatide: Three Cases Underscoring the Importance of Postmarketing Monitoring"** by Maria Colorado, Jose Gomez Miranda, and Carlos E. Arias-Morales, leaves no one guessing. Says Young: "Colorado and colleagues remind us of the importance of reporting on medication-related side effects of endocrine medications following FDA approval. They report on tirzepatide, a novel dual GIP/GLP-1RA, that was associated with palpitations, musculoskeletal pain, and headaches."

"Gebeyaw Addis Bezie and colleagues caution that thyroid storm can be precipitated by thyroid fine-needle aspiration FNA)," Young says. "They advise that clinicians should exercise caution when performing FNA in patients with thyrotoxicosis." **"Thyroid Storm Precipitated by Fine-needle Aspiration"** published in August.

Young's last pick was **"Functional Suppression of a Prolactinoma by a Dopamine-Secreting Paraganglioma,"** from April. "Fox and colleagues report the endogenous treatment of a prolactin (PRL)-secreting tumor by a dopamine (DA)-secreting paraganglioma (PGL) in a 52-year-old man who presented with cerebrospinal fluid (CSF) rhinorrhea and was found to have an invasive, 4.2-cm pituitary mass with mild hyperprolactinemia," he explains. "Additional imaging discovered a mediastinal mass suspicious for a thoracic PGL. Biochemical screening demonstrated marked elevation of plasma and urinary DA. Following PGL resection, DA levels normalized, but PRL rose seven-fold, suggesting an endogenous dopamine agonist–like effect from the PGL to suppress pituitary PRL hypersecretion."

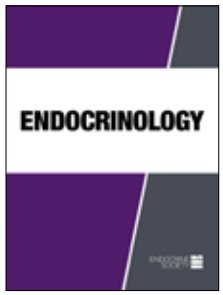
From the Deputy Editor of *JCEM Case Reports*

Adina Turcu, MD, MS, assistant professor of internal medicine at the University of Michigan, in Ann Arbor, takes this chance to promote the **"Primary Aldosteronism: An Endocrine Society Clinical Practice Guideline,"** published in August, which presents a major shift towards universal screening in all patients with hypertension. "Primary aldosteronism (PA) has been in the spotlight across all Endocrine Society journals in 2025," Turcu says. "In previous years, mounting evidence has shifted the paradigm of a long-presumed rare disease to the most common cause of endocrine hypertension and established PA as an independent risk for cardiovascular morbidity. These major background developments have propelled Gail K. Adler et al. to recommend PA screening in all individuals with hypertension, encouraging personalized treatment of hypertension in early stages."

Turcu then turns her focus to how case reports/case series can teach valuable lessons that spark future studies. "A series of exciting new therapies for adrenal disorders have emerged in recent years," she says, "and these medications are increasingly used in clinical practice. For example, separate publications in JCEM and *JCEM Case Reports* indicate that osilodrostat, an 11β-hydroxylase (CYP11B1) inhibitor approved for treating Cushing syndrome, has the potential to cause prolonged adrenal insufficiency and adrenal gland shrinkage. In most cases, treating adrenal insufficiency is much simpler than treating hypercortisolism."

"Osilodrostat-associated Adrenal Gland Shrinkage: A Case Series of Patients With ACTH-dependent Cushing's Syndrome," by Elena V. Varlamov, Brian J. Park, and Maria Fleseriu, published in the October issue of JCEM, and **"Prolonged Adrenal Insufficiency After Failed Cryoablation and Osilodrostat for Cushing Syndrome in Nodular Adrenal Disease,"** by Colleen Veloski, Amanda Sturgeon, and Julie Hallanger Johnson, published in *JCEM Case Reports* in June. "Signals emerging from such case reports are likely to spark future, large-scale clinical studies and mechanistic research, investigating a potential medical cure of Cushing syndrome," Turcu says. EN

– HORVATH IS A FREELANCE WRITER BASED IN BALTIMORE, MD. THIS IS HER ELEVENTH OUTING AS THE AUTHOR OF THE ANNUAL EUREKA! FEATURE FOR *ENDOCRINE NEWS*.



Scientific journal integrity is increasingly being threatened with the rise of predatory journals, fraudulent papers, and even nonsensical submissions.

Quality TIME

BY DEREK BAGLEY

On January 28 this year, the Endocrine Society released a statement warning members against solicitations from a journal called *"Journal of Endocrinology and Metabolism."* The Society cannot verify the authenticity or accuracy of this "journal" with the statement going on to say that the authentic journal goes by the name of *The Journal of Clinical Endocrinology & Metabolism*.

Two days later, the editor-in-chief of (the real) *The Journal of Clinical Endocrinology & Metabolism* (JCEM), Paul M. Stewart, MD, FRCP, wrote an editorial in the journal titled, "'Houston We Have a Problem….': Raising the Quality and Authenticity of Manuscripts Submitted to JCEM." Stewart begins by pointing to the demographic shift in submissions to JCEM – China is now regarded as a scientific superpower and has overtaken the U.S. and Europe in size of research workforce and its scientific output. "We are processing thousands of manuscripts per year from China, the vast majority of them either out of scope or lacking a mechanistic or experimental basis," Stewart writes.

But make no mistake; no on here is trying to blacklist China or anyone else. "We embrace geographical diversity in our governance (we have editors from 12 countries and editorial board members from 25 countries, with China well represented), and are committed to publishing the best research wherever it is undertaken around the world," Stewart writes. "Indeed we publish outputs from submitting authors based in 42 countries (2023 data). So what is the problem? In a nutshell, quality."

Publish or Perish

Stewart tells *Endocrine News* he is passionate about journal quality, but is concerned that quality risks being eroded, and he wants to do what's right for the sector. JCEM is an extremely well-regarded journal globally. When Stewart took over as editor-in-

chief, he aimed to maintain that reputation by soliciting exciting content, but found he was being deflected. "We were getting to a stage where it was just getting ridiculous in terms of the volume of content being submitted that just didn't make sense biologically," he says. "my editorial in-box was increasingly swamped with scores of submissions each week that were basically nonsensical."

So why is this happening? Why submit a paper you know is not up to scientific standards or even downright fraudulent? For many early career researchers, particularly in lower-income countries with an emerging science sector, the pressure on them to churn out papers is crushing. They have no chance at career progression unless they get something in a journal. Publish or perish.

"We're now working in a global context where the pressure on researchers in many countries is unacceptably intense. And we've all seen over the years the odd figure that's probably been incorrectly doctored in a paper and raised red flags" Stewart says. "That's in no way excusable, but is nothing compared to what we're seeing now. Over and above a proliferation of fraudulent papers, there is no biological reason why anybody in their life would ever measure the association of serum rhubarb with thyroid function tests, but papers of this ilk are now the norm."

Reviewer Fatigue

Zane B. Andrews, PhD, deputy head of the Metabolism, Diabetes, and Obesity Program at Monash University in Victoria, Australia and editor-in-chief of the Endocrine Society's flagship basic science journal *Endocrinology* (END), agrees that as an experienced editor, it's pretty easy to spot to the "dodgy" papers, especially when those submitted papers have nothing to do with the journal.

"My concern is that they clog up the review process and lead to reviewer fatigue," Andrews says. "It's really important for handling editors to weed them out before review, but in my experience, junior handling editors often feel unsure about what to do, so they err on the side of caution and give authors benefits of doubt — we have to weed them out before review."

Stewart says that JCEM receives up to 4,000 submissions a year now, half of which are from China. "There is a very large number of manuscripts that are at best of poor quality and at worse complete rubbish or fabricated," he says. "And that's a huge amount of work for staff."

Stewart writes in his editorial that these low-quality submissions have led to the "reject without review rate" being unacceptably high, so editors have to focus more on "firefighting" than content strategy or journal enhancement.

Fire Prevention

Education is probably the most effective way to prevent fires, and Stewart says there are plenty of authentic researchers who are just misguided and don't have a supportive research culture environment. "Hence our inclusion of more expert Chinese endocrinologists into editorial leadership roles," he says.

Paul M. Stewart, MD, FRCP

Zane B. Andrews, PhD

Journal Integrity

The onslaught of suspicious papers is a problem for virtually all peer-reviewed journals. However, a couple other Endocrine Society journals have so far managed to avoid the issue, as editors have also been noticing "eroding" quality and taken measures.

"I have to say this is much less of a problem," says Ashley Grossman, FMedSci, emeritus professor of endocrinology at the University of Oxford and editor-in-chief of *Endocrine Reviews*. "Around half of all submissions are commissioned by established authors, and of the 'non-invited' submissions, the acceptance rate is very low and all are assessed by our editorial board."

William F. Young, MD, Tyson Family Endocrinology clinical professor and professor of medicine in the Mayo Clinic College of Medicine at the Mayo Clinic in Rochester, Minn., and editor-in-chief of *JCEM Case Reports* (JCEMCR) says that JCEMCR is a new journal and does not yet have an impact factor. "In general, fraudulent submissions seek out journals that have an impact factor," he says.

Beyond that, Young says, JCEMCR has unique formatting and quality requirements, and the editorial board reviews each submission to be sure that it is factual, concise, well organized, presented clearly, based on logical causality, and easily readable. "All authors must follow our manuscript template," Young says. "Authors must provide a complete description of the case and include pertinent laboratory tests and images. Each case report must conclude with bulleted key learning points."

Then there are noninstitutional email accounts. Stewart says that of those 1,900 aforementioned manuscripts, possibly 50% are fraudulent. They come in from amorphous email accounts with no way of confirming the identity of the author. When the editors email them back requesting authenticity, radio silence. "The singular most important issue here," Stewart says, "is to ensure an authentic email address, for example one that tracks to a definite individual who is actually employed within an institution."

And Stewart is careful in his editorial to note that requiring an institutional account might be unpopular in some countries where junior researchers or PhD students don't have access to these types of official email accounts yet. "I get there may be those in transition between institutions or there may be those who say they are working in partnership with a university group but based in a hospital, where they may not have that email address," Stewart says. "That's easy; we can accommodate for this with the principal author on the paper confirming that this individual is who he/she claims to be."

Stewart also says that the implementation of this email rule has already caught on with other journals.

Andrews says that END makes sure corresponding authors have an institutional email address and appropriate ethics documentation. He goes on to say that END put guidelines and policies around certain types of studies where it's easy to generate data fast, like from publicly accessible databases where scientists place datasets, often mandated by funders to ensure transparency and promote open science. "While this is good practice and most scientists support this approach, it can lead to quick data generation without rationale," he says.

Any Data Can Become a Manuscript

Earlier this year, the Endocrine Society published a "Notice about Predatory Publishing" warning researchers about the deceptive practices of "journals" who will publish your article about the association of serum rhubarb with thyroid function tests, but you'll have to pay handsomely for it.

"Predatory journals or publishers cheat authors (and their funders and institutions) through charging publishing-related fees without providing the expected or industry standard services," the statement reads.

And again, the pressure to publish that rhubarb study is enormous. It could mean a promotion, a better job. But it might not have to be that way. (Especially if you have to get cheated to publish it.) "Our training mantra was very much an inquiring mind and if you see something that doesn't quite look right in the clinic and investigate why, or you advance a new clinical therapy or come up with a new concept, innovation, or technology, this is where JCEM is here to support you in disseminating your research to others," Stewart says. "That's very different from sitting at a desk and perhaps in a single day coming up with meaningless comparisons from an already published dataset. For this reason, generally JCEM will no longer accept association studies in isolation without a strong mechanistic/experimental base." EN

– BAGLEY IS THE SENIOR EDITOR OF *ENDOCRINE NEWS*. HE WROTE ABOUT THE RELATIONSHIP BETWEEN TYPE 2 DIABETES AND LIVER DISEASE, AND HOW ENDOCRINOLOGISTS CAN TAKE THE LEAD IN TREATMENT IN THE AUGUST ISSUE.

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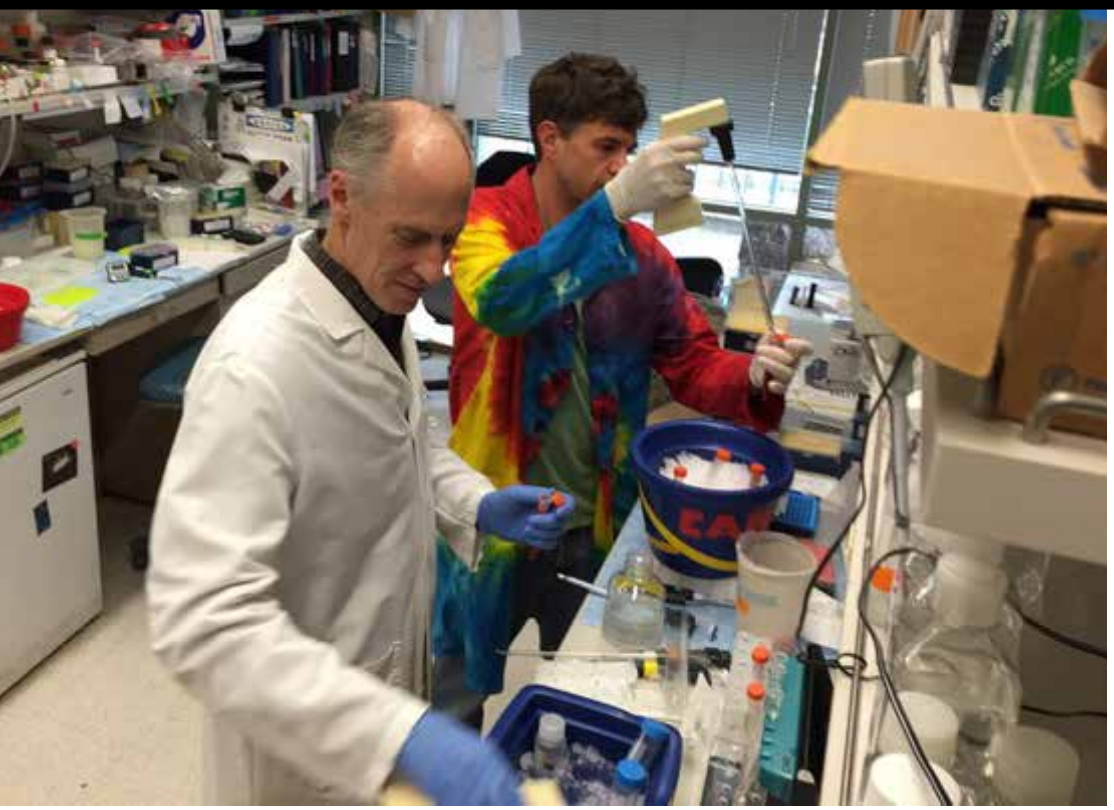

A conversation with 2026 Laureate Christopher Glass, MD, PhD

a change of Heart

Recipient of the 2026 Edwin B. Astwood Award for Outstanding Research in Basic Science, Christopher Glass, MD, PhD, talks to Endocrine News *about how endocrinology lured him away from cardiology so many years ago. He also discusses his lab's macrophage research and what he tells his postdocs about "the intersection between three different facets of biomedical science."*

In sunny San Diego, Calif., where the ocean beckons nearly year-round, Christopher Glass, MD, PhD, starts his day with a morning swim, a ritual he says helps him "clear his brain" before heading into the lab. A former competitive swimmer, Glass credits the discipline and stamina from years in the pool with shaping his approach to research.

At the Glass Laboratory, he investigates how nuclear hormone receptors and other signal-dependent transcription factors control macrophages — immune cells that play critical roles in health and disease. His work has revealed new insights into how these cells develop and function, offering implications for nearly every chronic disease.

Glass's contributions have earned him his place among the Endocrine Society's 12 distinguished leaders in endocrinology, as recipient of the 2026 Edwin B. Astwood Award for Outstanding Research in Basic Science. He is a professor of cellular and molecular medicine and professor of medicine at the University of

Opposite: Glass working in the lab with Nathan Spann, functional genomics specialist, during an in-house sabbatical around 2014.

California San Diego in San Diego. We asked about his path to macrophage research as well as the advice he shares with the young postdocs on his team.

Endocrine News: **The award is named after Dr. Edwin Astwood who is known for his contributions to the treatment of hypothyroidism. What did hearing the news of the award mean to you?**

Glass: This award has gone to many of the all-stars of basic science and endocrinology over the years, so being included in that group was really thrilling. Getting the phone call that I had been awarded this honor just put a spring in my step. Especially now when there's so much bad news, having some incredibly good news come along was really rejuvenating.

EN: **Do you recall when you first realized that science would be your career?**

Glass: It was a bit of a process, really. I was an undergrad biophysics major at UC Berkeley with a long-term interest in being a physician. I went from there to UC San Diego (UCSD) to start medical school with the idea of being a physician, but I was also attracted to UCSD as a very young medical school that put the science of medicine as one of its core principles. And so, it was really that transition into the UCSD environment and getting connected with some mentors very early on who were great physician-scientists who pointed me in the direction of doing biomedical research.

And to make a long story, short, even though I went to UCSD as a straight medical student, my experiences there with the faculty led me to enroll in the MD-PhD program, and what I worked on as a graduate student was lipoprotein metabolism. And then I finished my clinical training and was launched as a physician-scientist.

EN: **How did exploring macrophages become your life's work?**

Glass: So that also was not a completely linear path. As I mentioned, I worked on lipoproteins when I was a graduate student, and at that time, some of the major discoveries that had to do with cholesterol metabolism were being made by the labs of Brown and Goldstein at University of Texas Southwestern. They had worked out what we call the LDL receptor pathway, and that's the pathway that is targeted by statins, which are the most common form of medicines used to lower cholesterol levels. We knew from their studies and others that macrophages were very important in cardiovascular

Christopher Glass, MD, PhD

> "You cannot do science without money, **and it costs more than ever to push our boundaries of knowledge to the next level."**
>
> — CHRISTOPHER GLASS, MD, PHD, PROFESSOR OF CELLULAR AND MOLECULAR MEDICINE, PROFESSOR OF MEDICINE, UNIVERSITY OF CALIFORNIA SAN DIEGO, SAN DIEGO, CALIF.

> “The research on the steroid hormone receptors indicated that they were actually inside the cell, and they were transcription factors that were regulated by the hormones. And I was just sort of knocked over by that. **It was the very beginning of a new field of molecular endocrinology...”**
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> — CHRISTOPHER GLASS, MD, PHD, PROFESSOR OF CELLULAR AND MOLECULAR MEDICINE, PROFESSOR OF MEDICINE, UNIVERSITY OF CALIFORNIA SAN DIEGO, SAN DIEGO, CALIF.

Glass (back row, third from right) with the team that did some of the early work recognized by the Endocrine Society with the Edwin B. Astwood Award, which honors individuals who have made significant contributions to the field of endocrinology via their outstanding basic science research. They showed that PPARgamma is a negative regulator of macrophage activation and that PPARgamma ligands could inhibit the development of atherosclerosis in mice – among the first lines of evidence that atherosclerosis could be inhibited by targeting macrophage inflammation rather than by lowering cholesterol.

disease, and that it's the macrophage within the arterial wall that is the cell that accumulates cholesterol and begins the process of atherosclerosis that then leads to cardiovascular disease. People in the lab where I was working were studying that, so that relationship was embedded in my mind.

When I later left UCSD to do my internship and residency, I went to the Brigham and Women's Hospital with the idea that I would be a cardiologist, and that I would study lipids and cardiovascular disease. It was while I was

A gathering of the the Glass Lab with current and past members of the team.

in Boston that some major discoveries related to regulation of gene expression were made. And some of the first discoveries that related to the steroid hormone receptors were made that indicated that steroid receptors were not like other classes of receptors that were well known at the time, like insulin receptors, which are on the cell surface. The research on the steroid hormone receptors indicated that they were actually inside the cell, and they were transcription factors that were regulated by the hormones. And I was just sort of knocked over by that. It was the very beginning of a new field of molecular endocrinology, so in mid-stride at Boston, I changed my career focus from being a cardiologist to be to becoming an endocrinologist…And with that new perspective of my career path, I looked for researchers who I could do a post-doc with and learn about how hormones regulate gene expression through this class of proteins. I ended up back here at UCSD working with Geoff Rosenfeld. He was then and still is one of the leading investigators in studying hormone-dependent gene expression.

So now, I thought, "how can I put those two things together in a new way that would allow me to make a significant impact on research going forward?" And that's when I remembered macrophages. No one knew how they were regulated at the level of gene expression, so when I started my laboratory, it was really to understand the molecular mechanisms that controlled macrophage development and function. And the initial emphasis was on studying roles of macrophages in cardiovascular disease, and to study the genes that enabled macrophages to take up cholesterol particles in the arterial wall that would lead to cardiovascular disease. So, that's it in a nutshell.

EN: How has the Endocrine Society played a role in your career?

Glass: I've been a long-standing member of the Endocrine Society since I've been a postdoc, so that's a long time. I've had a consistent thread of activity with the Endocrine Society. Most recently, I was a member of the Laureate Awards Committee, and I actually chaired that committee for a year. That's probably my most significant service to the Society. But you know, between the Endocrine Society and the National Institute of Diabetes and Digestive and Kidney Diseases, those have been pillars of my professional career.

EN: Your Glass Laboratory boasts a great diverse team including postdocs, undergraduates, and a mathematician. Is there a core methodology or life lessons that you offer your team?

Glass: What I tell postdocs who are thinking about heading off on their own, and setting up their new laboratory, is they have to find the intersection between three different facets of biomedical science.

The first facet is they need to latch on to some problem that they're absolutely passionate about, and they must solve it. So, given that there are lots of those types of problems that you could become passionate about solving, then the next thing that you have to do is figure out which of those problems intersect with a significant unmet medical need. And so, if you can do that, then all of a sudden the significance of whatever that problem is that you're working on goes way up. That's the second piece of advice. And then the third factor is that it has to be fundable. You cannot do science without money, and it costs more than ever to push our boundaries of knowledge to the next level. So, that's the third essential pillar of the three pillars.

To the extent that I can help my postdocs shape their vision and let them leave the lab and hit the ground running, that's one of my goals, as well.

EN: When you're not in the lab what's your favorite pastime to unwind?

Glass: One of the things that I do, almost every day, before I come in to work, is I swim. I was a competitive swimmer in college and high school, and I've just continued to love swimming as a form of exercise. But what's great about San Diego is that not only can I swim in the pool, which I do frequently in the winter, but in the spring, summer, and fall, the ocean warms up, and I can swim in the ocean. This is one of the few places in the world where you can go for a swim in the ocean and be in your office by 8:30. So for me, that's been the way I stay fit and active, and it clears my brain, so that when I get into the office, I'm absolutely awake and ready to go.

The Endocrine Society will present Glass with the Outstanding Research in Basic Science Award at ENDO 2026 being held June 13– 16, in Chicago, Ill.

– SHAW IS A FREELANCE WRITER BASED IN CARMEL, IND., AND A REGULAR CONTRIBUTOR TO *ENDOCRINE NEWS*. SHE WRITES THE MONTHLY LABORATORY NOTES COLUMN.

Every year, the Endocrine Society recognizes endocrinologists who are in the early stages of their research careers with the Early Investigator Awards. *Endocrine News* spoke to the five award recipients from around the world to find out more about their award-winning research, the award's potential impact, and the biggest challenges facing them today.

BY MARK A. NEWMAN

2025 Researchers ROUNDTABLE

Discussing endocrine science with the 2025 Early Investigator Award Winners

When the recipients of the Endocrine Society's 2025 Early Investigator Awards presented their research at **ENDO 2025**, the atmosphere was electric and filled with anticipation at San Francisco's Moscone Center.

One by one, as each of this year's winners got up to speak, attendees in the room were treated to an eclectic array of research encompassing acquired and congenital hypopituitarism; the influence of non-skeletal tissues on skeletal health; the microenvironment of pituitary tumors; the impact of glucocorticoids on immunity, specifically tissue- and cell-specific steroid production and signaling in T lymphocytes; and the causal relationships of immune cells to the pathophysiology of type 2 diabetes and polycystic ovary syndrome (PCOS).

Moderating the proceedings was Endocrine Society Past-President Stephen R. Hammes, MD, PhD, the Louis S. Wolk Distinguished Professor of Medicine, chief of the Division of Endocrinology, Diabetes and Metabolism, and executive vice-chair of the Department of Medicine at the University of Rochester in Rochester, N.Y. "There is nothing more important to the Endocrine Society than our early-career physicians, educators, and researchers," Hammes tells *Endocrine News*. "The Society helped launch and support my own research career many years ago, and it continues to do the same for this current generation of rising stars."

The 2025 winners are: **Muriel Babey, MD**, assistant professor, adjunct, Division of Endocrinology, Metabolism, and Diabetes, University of California – San Francisco, San Francisco, Calif.; **Hironori Bando, PhD**, associate professor, Division of Diabetes and Endocrinology, Kobe University Graduate School of Medicine, Kobe, Hyogo, Japan; **Pedro Marques, MD, PhD**, endocrinologist, CUF Descobertas Hospital; assistant professor and researcher, Medical Faculty of Universidade Católica Portuguesa, Lisbon, Portugal, and at the Leiden University Medical Center (LUMC), Leiden, The Netherlands; **Dequina Nicholas, PhD**, assistant professor, Molecular Biology and Biochemistry, University of California Irvine, Irvine, Calif.; and **Matthew Taves, PhD**, assistant professor, Department of Animal Sciences, Cancer Center at Illinois; Carl R. Woese Institute for Genomic Biology, Neuroscience Program, University of Illinois Urbana-Champaign, Champaign, Ill.

Endocrine News was fortunate enough to catch their presentations in San Francisco and caught up with them to

Muriel Babey, MD,
assistant professor, adjunct, Division of Endocrinology, Metabolism, and Diabetes, University of California – San Francisco, San Francisco, Calif.

“I applied for the Early Investigator Award because this is specifically designed to support and recognize early-career researchers in endocrinology, like myself. I believe that this award may truly advance my career in many different ways. Firstly, it is a very competitive and prestigious award which validates the significance and quality of my research.”

Hironori Bando, PhD,
associate professor, Division of Diabetes and Endocrinology, Kobe University Graduate School of Medicine, Kobe, Hyogo, Japan

“I attended **ENDO** at a time when I was grappling with how to advance my original research. By engaging with the presentations, I discovered a new direction for my work and connected with a mentor who would guide my next steps. Similarly, I hope the Endocrine Society will continue to serve as a nurturing environment where young investigators can forge new career paths and establish meaningful mentorships.”

Pedro Marques, MD, PhD,
endocrinologist, CUF Descobertas Hospital; assistant professor and researcher, Medical Faculty of Universidade Católica Portuguesa, Lisbon, Portugal, and at the Leiden University Medical Center (LUMC), Leiden, The Netherlands

“The Endocrine Society has been a cornerstone in my professional development, providing access to leading-edge science, mentorship, and opportunities to present and refine my work. I see the Endocrine Society as an enduring partner in my career, offering a platform for scientific exchange, leadership growth, and advocacy for the next generation of physician-scientists.”

learn more about their research, the unique challenges they've each faced, and what the award means for their work.

Endocrine News: Tell us a little bit about your research and your motivation to apply for the Early Investigator Award.

Muriel Babey: My research focuses on how non-skeletal tissues, such as the hypothalamus' influence skeletal health in the context of metabolic disease and aging. My work builds on our recent discovery of CCN3, a brain-derived osteoanabolic hormone that plays a critical role in maintaining maternal bone mass during lactation (Babey, Krause, et al., Nature 2024). We found that CCN3 acts on mouse and human skeletal stem cells at low, sub-nanomolar concentrations, independent of sex and age, to promote bone formation. As a clinical endocrine fellow, I joined the Ingraham Laboratory at UCSF, which offered an outstanding environment for scientific growth and mentorship. This supportive, collaborative setting allowed me to develop cross-disciplinary expertise and shape my early-stage research program, now funded by an NIH K08 Career Development Award, to define CCN3's actions in bone

and marrow fat metabolism, characterize its dynamics in physiologic states such as lactation, and explore its therapeutic potential in skeletal fragility.

My motivation to apply for the Early Investigator Award is to gain support and visibility for this translational work, accelerate its impact for patients, and deepen my engagement with the Endocrine Society's vibrant scientific community.

Hironori Bando: I have been conducting research on acquired and congenital hypopituitarism to elucidate the pathogenesis. Originally trained as an adult endocrinologist, I have encountered numerous cases of acquired hypopituitarism, providing a natural foundation for clinical and translational research. As my understanding of acquired forms deepened, I gradually broadened my focus to include congenital hypopituitarism. Transitions from research on acquired to congenital hypopituitarism are relatively rare, and few investigators pursue both domains in depth. In this context, I believe my trajectory represents a distinctive research pathway. With this in mind, I applied for this award to highlight the existence of such cross-cutting researchers and to present this atypical yet valuable research approach.

Dequina Nicholas, PhD
assistant professor,
Molecular Biology and Biochemistry,
University of California Irvine, Irvine, Calif.

> I hope that receiving this award will make the field a little more receptive to my outside-the-box ideas. What I truly hope is that the early-career researchers that come after me will embrace the ethos of interdisciplinary approaches and that the Endocrine Society can become the new home for scientists working at the interface of immunology and endocrinology.

Matthew Taves, PhD,
assistant professor,
Department of Animal Sciences, Cancer Center at Illinois; Carl R. Woese Institute for Genomic Biology, Neuroscience Program, University of Illinois Urbana-Champaign, Champaign, Ill.

> One of my biggest ongoing challenges is figuring out how to manage both time and projects effectively. In research, this often involves balancing high-risk/high-reward projects with more foundational, "safer" projects. It's not always clear when a high-risk idea is worth pushing through versus when it's better to move on to something else. I've gotten better at recognizing when to let go of something that isn't working, but it's still a skill I'm working hard at developing.

Pedro Marques: My research is focused on the microenvironment of pituitary tumors. We have been carrying out a range of studies designed to understand the composition of the microenvironment and the role of its different components, such as immune cells, stromal cells and cytokines/chemokines in the biological behavior, phenotype, and clinical outcomes of pituitary tumors, as well as their impact in several tumorigenic mechanisms, like tumor cell proliferation, invasion, angiogenesis, and epithelial-to-

The winners circle (left to right): Matthew Taves, PhD; Pedro Marques, MD, PhD; Dequina Nicholas, PhD; Hironori Bando, PhD; Muriel Babey, MD; and Past-President Stephen R. Hammes, MD, PhD, who served as moderator for the event.

mesenchymal transition (EMT) pathway activation. I applied for the Early Investigator Award because this is specifically designed to support and recognize early-career researchers in endocrinology, like myself. I believe that this award may truly advance my career in many different ways. Firstly, it is a very competitive and prestigious award, which validates the significance and quality of my research. Secondly, it gives visibility to my work and to my research topic, not to mention the unique opportunity to present my research at the world's largest endocrine conference. Thirdly, I saw it as a good opportunity to further boost my CV and network connections, as award ceremonies and presentations like this allow connections with other researchers and leaders in the field. Lastly, I believe that this award will be a strong motivator for me and my colleagues, further boosting our drive and dedication to endocrine research.

Dequina Nicholas: My lab aims to determine causal relationships of immune cells to the pathophysiology of type 2 diabetes and polycystic ovary syndrome (PCOS). Throughout my career, my goal has been to use collaborative and interdisciplinary approaches to solve long-standing questions in the field. When merging the fields of immunology and endocrinology, we know the immune system becomes active in disease, but rarely are we clear on how this happens in the absence of infection. Over the past 15 years of my academic research career, I have asked outside-the-box questions which required developing new techniques and approaches to determine the role of immune cells in type2 diabetes and PCOS. My ideas were not always well received and generally have been difficult to publish. Applying for the Early Career Investigator Award felt like an opportunity to have not just my contributions to endocrinology recognized, but a chance to showcase the importance of questioning dogma and doing the difficult experiments and being rewarded for pushing boundaries despite not being easy in the moment. I never honestly thought I would get this award and to be frank, it still does not feel real. I am humbled and honored by this recognition and hope that it is the start to truly build bridges across disparate academic fields to drive discovery in endocrinology.

Matthew Taves: My research focuses on how glucocorticoids regulate immunity, with an emphasis on tissue- and cell-specific steroid production and signaling in T lymphocytes. I study how these pathways shape immune development, anti-pathogen responses, and cancer progression. Because this work intersects endocrinology, immunology, and oncology, I've explored different meetings to try and find a scientific community that I feel would be a good home in which to develop my research program and career. Over the past few years, I've found that the Endocrine Society has done a great job of fulfilling this role, particularly through formal and informal mentoring efforts. I've really settled on the Endocrine Society as my central community, and this has motivated me to become more actively engaged. I decided to apply for the Early Investigator Award as an opportunity to contribute to and grow within this community.

EN: What were some of your biggest challenges at this point in your career as a scientist and researcher?

Babey: The COVID-19 pandemic coincided with my entry into the Ingraham Laboratory, requiring rapid adaptation to a very restrictive research environment, including disruptions of mouse studies and shifts in research priorities. As I transition to independence, securing sustained funding in this uncertain funding climate and building a multidisciplinary team with the right technical expertise will be a significant undertaking. I aim to expand my research program beyond CCN3 to identify new secreted factors that regulate bone remodeling, an effort that requires bridging molecular discovery with translational models, which is both scientifically exciting and technically demanding at this career stage.

Bando: Currently working in the clinical department, I am required to dedicate a greater portion of my time to patient care and the education of medical students and junior physicians, resulting in less time available for research compared to my postdoctoral period. I aspire to achieve a more balanced allocation of duties that would allow me to devote additional time to research work.

PHOTO: Susan Merrell

Muriel Babey, MD (center) with William Krause, PhD, and Holly Ingraham, PhD, at the Ingraham Lab in Arthur and Toni Rembe Rock Hall at the UCSF Mission Bay campus.

Dequina NIcholas with Immediate Past-President John Newell Price, MD, PhD, during **ENDO 2025**.

Marques: As an early-career clinician-scientist aiming to consolidate my lab and line of research, the biggest challenge has been related to funding and access to key resources, particularly talented PhD students or postdocs, which in turn depends very much on financial aspects. The funding opportunities and grants are relatively scarce, and grant applications are always very competitive and have limited funds available. The field of pituitary tumors (the focus of my research) tends to receive lower priority when competing with other more prevalent and possibly more impactful diseases for human health, such as breast cancer, melanoma, prostate cancer, lung cancer, or diabetes, which therefore limits the chance of obtaining funding. Another key aspect relates with the fact that I am originally from Portugal, where my current lab is based. Portugal is a relatively small country where national funding opportunities are scarce, which further limits access to funding crucial to acquire key reagents/materials, but also to recruit talented colleagues and expand the research group.

Matthew Taves in the lab at the University of Illinois Urbana-Champaign, Champaign, Ill.

Nicholas: So many challenges! Where to start? Navigating publishing as a new PI and managing the impact of personal life on my career and vice versa. As a new PI doing interdisciplinary work, my lab's findings do not necessarily fit nicely within the scope of many journals. Editors of immunology journals do not immediately see the significance of the reproductive endocrinology, and many times editors of endocrinology journals do not have the tools to evaluate the minutiae of immunologic approaches. Layered on top of that, we mix clinical and basic science approaches, which makes finding appropriate reviewers difficult. Though difficult, my team will better learn how to navigate publishing interdisciplinary work with persistence, just as I have throughout my career. The second biggest challenge at this point in my career is managing the demands of motherhood with running an academic lab. I constantly feel pulled in opposite directions. When I'm working, I feel like a bad mom. When I am spending time

Hironori Bando, PhD, presenting his research during the Early Investigator Awards session at **ENDO 2025**.

with my family, I feel like I am getting behind on work. The Endocrine Society has been wonderful in demonstrating that I can integrate both aspects of my life. On-site daycare at the meetings and members that are supportive of scientists with families are just two examples. It has been at the **ENDO** Early Career Forum that I have received and still use advice from members on how to navigate this crazy yet rewarding journey.

Taves: One of my biggest ongoing challenges is figuring out how to manage both time and projects effectively. In research, this often involves balancing high-risk/high-reward projects with more foundational, "safer" projects. It's not always clear when a high-risk idea is worth pushing through versus when it's better to move on to something else. I've gotten better at recognizing when to let go of something that isn't working, but it's still a skill I'm working hard at developing. Rather than thinking that I'm "dropping a project," I now try to think of it as choosing between alternate projects — this (perhaps obvious) shift in thinking helps me avoid getting stuck. I'm also much quicker to run ideas by colleagues for perspective. I also tend to let work spill into all available hours, so maintaining a healthy work-life balance is something I have to keep working.

EN: How do you hope receiving the Early Investigator award will help support your goals as an endocrine scientist, and what role do you see the Endocrine Society playing in your career?

Babey: The Early Investigator Award will strengthen my progress toward establishing an independently funded, translational research program in skeletal endocrinology. The recognition will enhance opportunities to form new collaborations, recruit talented trainees, and disseminate our findings to both basic and clinical audiences. The

At the Excellence in Endocrinology Dinner during **ENDO 2025**, Pedro Marques grabbed a quick selfie with one of his mentors, Ashley Grossman, FMedSci, recipient of the 2025 Transatlantic Alliance Award.

Endocrine Society has been a cornerstone in my professional development, providing access to leading-edge science, mentorship, and opportunities to present and refine my work. I see the Endocrine Society as an enduring partner in my career, offering a platform for scientific exchange, leadership growth, and advocacy for the next generation of physician-scientists.

Bando: I attended **ENDO** at a time when I was grappling with how to advance my original research. By engaging with the presentations, I discovered a new direction for my work and connected with a mentor who would guide my next steps. Similarly, I hope the Endocrine Society will continue to serve as a nurturing environment where young investigators can forge new career paths and establish meaningful mentorships.

Marques: I believe it will advance my career further and it will help me in many ways in establishing myself as a leading clinician-scientist in the field of pituitary and neuroendocrinology. Firstly, it validates my past and current work, and it enhances its visibility in the world-stage of endocrine research. The credibility and recognition in academia is really important, and this is something that this award may significantly impact. This award is an important boost to my CV, which certainly will help in future grant or job applications, as I trust it will have a positive effect on the various selection procedures. Furthermore, it may open some new opportunities; for example it may lead to invitations to conferences, workshops, editorial roles, panels, or leadership promotions, which are crucial for the continuous development of my career. Additionally, this award grants a wide visibility to my work and research field through its promotion in the various channels of the Endocrine Society, including at **ENDO 2025**, which is important for future projects and successful collaborations. I believe that this award will also act as a strong motivator, boosting our dedication to pituitary research and helping to sustain the momentum for new long-term projects and ambitious scientific goals.

Nicholas: I hope that receiving this award will make the field a little more receptive to my outside-the box ideas. What I truly hope is that the early-career researchers that come after me will embrace the ethos of interdisciplinary approaches and that the Endocrine Society can become the new home for scientists working at the interface of immunology and endocrinology. It would be awesome to formalize the dream of my "shero" Dr. Cherie Butts to feature ImmunoEndocrinology in our society. The Endocrine Society is already my scientific home. I foresee growing in service to the society that has already given me so much opportunity. The Endocrine Society will be a pillar in my scientific career. It is where my trainees will network and become part of the scientific community. It is where they will have a peer network and find collaborators just as I have. It is where I will be supported by mentors, sponsors, and advocates, and it is where I will continue to lift up others as I advance in my career, just as my mentors have lifted me up.

Taves: Receiving the Early Investigator Award is a real thrill and I'm excited to carry that momentum into the lab as we take on new questions in steroid hormone biology and T-cell function. Recognition at this early stage helps build confidence for me but also my growing research team, especially trainees who are involved in these projects. I hope to use this opportunity to grow and strengthen connections within the Endocrine Society's mentoring and scientific networks, and to contribute to the Society's work through service, collaboration, and by encouraging my trainees to engage with **ENDO** meetings and programs.

This award also affirms the value of interdisciplinary approaches in endocrine research. I loved seeing aspects of immunology highlighted in several of the Early Investigator Award research projects, and I absolutely agree with Dr. Dequina Nicholas that the **ENDO** meeting should continue growing into a hub for endocrine-immune discovery and translational research. As someone whose work bridges those fields, I'm excited to pitch in and continue building this to support the next generation of endocrine scientists.

For his part, despite the many activities Hammes participated in over the course of **ENDO 2025** in San Francisco, he says that what he saw and heard during the five winners' presentations will stay with him for a long time. "Having the opportunity to listen to the amazing science being performed by this year's Early Investigator awardees was the highlight of my **ENDO 2025** experience," he says, "and I could not be more pleased to see that the future of endocrine research is in great hands." EN

– NEWMAN HAS BEEN THE EDITOR AT *ENDOCRINE NEWS* SINCE 2013. FEEL FREE TO CONTACT HIM AT **MNEWMAN@ENDOCRINE.ORG** IF YOU HAVE A STORY IDEA FOR THE MAGAZINE.

THE ENDOCRINE SOCIETY IS
THRILLED TO ANNOUNCE AND CONGRATULATE THE

2026 LAUREATE AWARDS WINNERS

FRED CONRAD KOCH LIFETIME ACHIEVEMENT AWARD
Robert M. Carey, MD, MACP

EDWIN B. ASTWOOD AWARD FOR OUTSTANDING RESEARCH IN BASIC SCIENCE
Christopher Kevin Glass, MD, PhD

GERALD D. AURBACH AWARD FOR OUTSTANDING TRANSLATIONAL RESEARCH
Ismaa Sadaf Farooqi, MD, PhD

INTERNATIONAL EXCELLENCE IN ENDOCRINOLOGY AWARD
Rebecca Reynolds, MD, PhD

OUTSTANDING CLINICAL INVESTIGATOR AWARD
Samuel Klein, MD

VIGERSKY OUTSTANDING CLINICAL PRACTITIONER AWARD
Lisa B. Nachtigall, MD

OUTSTANDING EDUCATOR AWARD
Bradley David Anawalt, MD

OUTSTANDING MENTOR AWARD
Patricia Lee Brubaker, PhD

OUTSTANDING SCHOLARLY PHYSICIAN AWARD
Martin Reincke, MD

RICHARD E. WEITZMAN OUTSTANDING EARLY CAREER INVESTIGATOR AWARD
Katrin J. Svensson, PhD

ROY O. GREEP AWARD FOR OUTSTANDING RESEARCH
Alvin C. Powers, MD

SIDNEY H. INGBAR AWARD FOR DISTINGUISHED SERVICE
R. Paul Robertson, MD

AWARDS WILL BE PRESENTED AT ENDO 2026:
THE ANNUAL MEETING & EXPO IN CHICAGO, IL, JUNE 13–16, 2026.

LEARN MORE ABOUT OUR WINNERS AT
ENDOCRINE.ORG/LAUREATE

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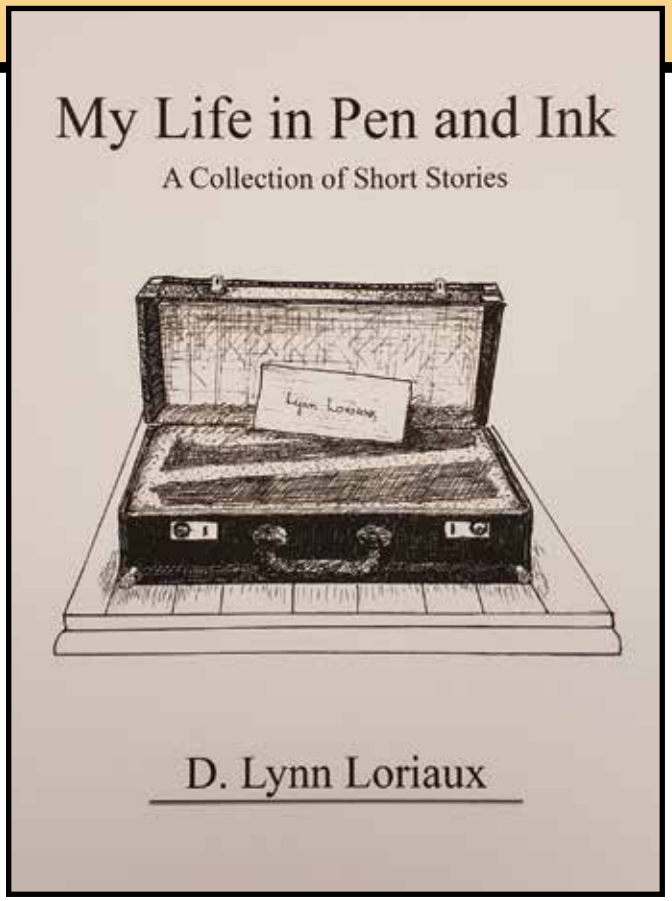


BY COLLEEN WILLIAMS

'Tis the Season

life lessons through storytelling

Over the years, Endocrine Society Past-President D. Lynn Loriaux, MD, delighted recipients with his hand-drawn Christmas cards and accompanying chapters from his life. Now, everyone can be on his mailing list with the release of a new book containing these treasured memories.

Since the 1970s, Endocrine Society members have looked forward to receiving Christmas cards authored and illustrated by Past-President D. Lynn Loriaux, MD, PhD. Each card includes a handmade drawing and a short story based on his extraordinary life experiences and the important, often complex lessons he's learned along the way.

Now, he's compiled these custom cards into a book, *My Life in Pen and Ink*, which is an exceptional tribute and pictorial review of his remarkable life. Story topics range from the quest for a peaceful world to the loss of a best friend, all with a focus on what truly matters in life and how to find joy and small victories among life's trials and tribulations.

However, Loriaux says these cherished cards all began due to his own empty pockets over the holidays. "I couldn't afford to buy all those cards so I thought I could save some money and simply make them," he explains. "As it turned out, making cards was way more expensive than buying them. The first year I proudly hand-delivered just 15 or so of my first printed batch and they were so well received, people asked to be added to the list for the next year, and the list grew and grew. I enjoyed drawing and writing stories, so I continued to make them year after year."

"We all eagerly looked forward to the cards' arrival with the same anticipation of a young child waiting for Santa," says Loriaux's longtime friend and colleague, William F. Crowley Jr., MD, who wrote the book's introduction.

"His parsimony of words always conveyed a depth of personal life anecdotes that never failed to stir their readers' spirits with their deep, astonishing, honest, and sometimes painful personal insights," he continued. "Each of these stories represented major life episodes and career occurrences that were instrumental in shaping his life, as well as being universally applicable to ours."

Barry Albertson, PhD, another friend and colleague of Loriaux's since 1974 says, "This is a very special, once-in-a-lifetime book with something in it for everyone, even if they never really knew Lynn."

Meaning Beyond the Words

The book contains 35 short stories about Loriaux's life that end with important lessons the reader can take away and apply to their own life. One story of note is "The Perfect Pitch," which follows Loriaux as a student trumpet player at band camp at

Eastern New Mexico University in Portales, N.M., and discusses how one question and little bit of luck landed him a lifelong reputation of excellence.

He started as the fearful underdog of the group, learning to deal with a strict bandmaster who demanded perfection. One day he got the confidence to speak up and answer a question that would change his life and be a memory he still recalls, 60 years later.

There was a train that passed through each practice, the engineer blowing the horn each time. He was the only student interested in the train, and when the bandmaster asked one day what note the horn was, Loriaux confidently answered, "F#." "My God," the bandmaster said. "I have been waiting for this my whole life. I can't believe it. Do you know you have the perfect pitch? His "perfect pitch" helped him develop a reputation for excellence that followed him beyond band camp and throughout his career.

Loriaux says luck can predict success in life. But not the typical kind of luck. He calls this luck, "chance," the kind of luck that "favors a prepared mind. This is just one of the many insightful stories in the book, with lessons people of all ages can relate to and learn from.

The Man Behind the Stories

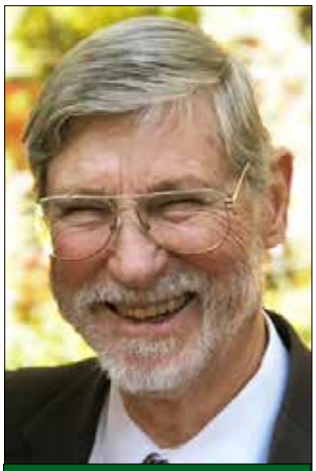
Loriaux's talents span way beyond his abilities as a leader in endocrinology. He is a writer, artist, teacher, father, musician, and an amazing friend and colleague to people he's known for over 45 years. As a physician-scientist, his discoveries have improved patient care across several specialties including endocrinology, pediatrics, and obstetrics and gynecology. As a teacher, he has mentored numerous students over the years, putting them on the path to success.

He spent the first half of his extensive career at the National Intitutues of Health (NIH) in Bethesda, Md., and the latter half at The Oregon Health & Sciences University (OHSU) in Portland. He remained at the NIH for 20 years, eventually becoming chief of the Developmental Endocrinology branch, and clinical director of the National Institute of Child Health and Human Development (NICHD). In 1990, he moved to OHSU, first as head of the Endocrinology Division, then as chairman of the Department of Internal Medicine for 19 years. He became the chief of the Division of Endocrinology, Diabetes, and Metabolism and retired in 2018 as emeritus professor of medicine.

A member of the Endocrine Society for over four decades, he served on several committees, including the Nominating Committee, Finance and Audit Committee, Publications Committee and chaired the Scientific and Educational Programs Core Committee in the early 1990s before being elected Endocrine Society president in 1995. As recently as 2016, Loriaux was an editorial board member for *The Journal of Clinical Endocrinology & Metabolism*.

Loriaux is currently living in Oregon enjoying his life as a well-respected teacher, loyal friend, and a dearly loved father. "Thank you for the life lessons, Dad. We won't ever forget them," says his daughter, Aubyn Loriaux.

If you'd like to purchase a copy of the book, please email: **mylifeinpenandink@gmail.com**. EN



D. Lynn Loriaux, MD, PhD

– WILLIAMS IS THE ASSOCIATE DIRECTOR, COMMUNICATIONS AND MEDIA RELATIONS AT THE ENDOCRINE SOCIETY WHERE SHE HELPS SPREAD THE WORD ABOUT THE SOCIETY AND ITS MEMBERS TO THE MEDIA, PUBLIC, AND POLICYMAKERS.

Early-career scientist Zari McCullers follows in her parents' footsteps to the bench!

With both her parents working as scientists in the United States Army, it was only natural for Zari McCullers to go into the "family business" when she got the chance. She discusses her career path, why she became focused on the science of addiction, and how making music keeps her grounded when she's not making science.

family matters

BY GLENDA FAUNTLEROY SHAW

FASEB's Howard Garrison Advocacy Fellow cohorts and program directors at the 2025 FASEB Science Policy Symposium. Pictured are (back row, left to right): Rodney Williams, Jillian Cox, Jessica Chen, Anika Zaman, Rebekah Kendall, and Matthew Steinsaltz; Front row (left to right): program directors Jennifer Zietzer, deputy executive director, FASEB, and Yvette R. Seger, chief science policy and workforce development officer, FASEB, Zari McCullers, Jocelyn Olvera, and Alejandra Flores.

Never one to back down from a challenge, Zari McCullers picked up the 100-pound marimba as her instrument of choice back in ninth grade. These days, she's traded it for the "lighter" harp —and when she's not in the lab, you can often find her making music.

Now a biomedical sciences PhD candidate in the Department of Neuroscience and Experimental Therapeutics at Penn State College of Medicine, McCullers works under the mentorship of Yuval Silberman, PhD. Her research explores sex differences in diet- and alcohol-induced binge behaviors in mice, focusing on the neuroimmune and neuroendocrine mechanisms that drive these interactions. Since binge eating and binge drinking often co-occur, her work aims to uncover the shared brain pathways that may explain how, and why, these behaviors develop.

McCullers earned her Bachelor of Science from Towson University in Baltimore before completing the NIH PREP Scholar Program at Louisiana State University Health Sciences Center in New Orleans. A chance encounter with the Endocrine Society booth at a neuroscience convention sparked her interest in becoming a member — connecting her scientific pursuits with a long-standing fascination for endocrinology. She is currently a Federation of American Societies for Experimental Biology (FASEB) Howard Garrison Advocacy Fellow, representing the Endocrine Society and the American Society for Experimental Therapeutics and Pharmacology.

Endocrine News caught up with McCullers to discuss her journey to Penn State, her passion for neuroscience, and the lessons she's learned along the way.

***Endocrine News*: What inspired you to pursue a career in research science?**

Zari McCullers: I decided to pursue STEM because first, both of my parents were scientists in the United States Army, based at the United States Army Medical Research Institute of Infectious Diseases. Having family members who were in STEM was inspirational and a driving force in me deciding to choose life sciences in college. Even then, I really didn't know what I wanted to do as a career, and I really didn't understand what research was until I did a summer research internship at Alabama A&M University in environmental science. I absolutely loved doing research and being able to contribute to knowledge in general.

Later, I was fortunate to get a postbaccalaureate position at LSU Health Science Center in New Orleans through NIH PREP and they placed me in an addiction neuroscience lab. It was my first time working with animals, and I came to love doing addiction research because it's easy for so many people to understand that studying impacts of alcohol use and drug use is important. Many people have been touched in some way by the

Zari McCullers

> "Many people have been touched in some way by the impacts of addiction, and so it's very translational in a way that I hadn't experienced before. **That's when I decided to pursue biomedical science research, with a focus on studying addiction."**
>
> — ZARI MCCULLERS, PHD STUDENT, DEPARTMENT OF NEUROSCIENCE AND EXPERIMENTAL THERAPEUTICS, PENN STATE COLLEGE OF MEDICINE, HERSHEY, PA.

McCullers playing the harp at a family event in 2022.

impacts of addiction, and so it's very translational in a way that I hadn't experienced before. That's when I decided to pursue biomedical science research, with a focus on studying addiction.

EN: Can you pinpoint one of the biggest lessons you've learned in your career?

McCullers: I think the biggest lesson is that whatever career you want to pursue, and this is specifically for those getting a PhD in life sciences, it should be a top priority to pave your own way. Most likely, the main pathway that's going to be taught to you is how to stay in academia and become a PI because PIs are all around you. So, if you want something other than that, you have to make that pathway for yourself at an early point. If you want to go into industry, then it's on you to pursue those opportunities outside of the lab to make those connections and to get those additional mentors. If you want to go into policy like me, it's on you to talk with your program directors and make sure you make yourself competitive enough to make that segue.

EN: What do you think the future for your field looks like?

McCullers: Well, for biomedical research and for students going into graduate school, it's going to be competitive because funding is changing, and priorities are shifting. I think it's just imperative that students make good choices in undergrad to really set themselves apart. Also, the top huge fellowships and programs that everybody talks about might not be the best pathway going forward. It might be something smaller and closer to home, so thinking outside the box is going to be a big theme.

EN: Where do you see yourself in the next five to 10 years?

McCullers: I'm not 100% sure, but I have a tiny door open for possibly a postdoctoral fellowship. If I were to do a postdoc, there's this very specific project that I want to work on. It's the Adolescent Brain Cognitive Development study, for which I've had the opportunity to conduct research within a part-time capacity. But I have a much larger plan for pursuing science policy. I really enjoy program management and program design. Program management could deal with broadening participation, policy education, STEM capacity building, and mentoring in science, maybe some day at a federal level, but I'm hoping to make an impact at the state level or for a private nonprofit first. These kinds of programs need people to run them, and I want to be one of those people.

EN: How do you unwind when you're not in the lab?

McCullers: I've been doing performing arts since the fourth grade. I started out in the concert band and stayed with music through high school and college where I minored in music. I played an instrument called the marimba, which is a melodic percussion instrument that looks like a xylophone. And then, when I got to grad school, I switched from marimba, because it was too heavy and too big, to the harp, which is also very heavy and big! I've been playing the harp since starting grad school, so it's been four years. I've also done a little bit of theater. So, the performing arts have been my main thing outside the lab. EN

– SHAW IS A FREELANCE WRITER BASED IN CARMEL, IND., AND A REGULAR CONTRIBUTOR TO *ENDOCRINE NEWS*. SHE WRITES THE MONTHLY LABORATORY NOTES COLUMN.

2027 LAUREATE AWARDS

CALL FOR NOMINATIONS

DEADLINE: TUESDAY, JANUARY 20, 2026

- Fred Conrad Koch Lifetime Achievement Award
- Edwin B. Astwood Award for Outstanding Research in Basic Science
- Gerald D. Aurbach Award for Translational Research
- John D. Baxter Prize for Entrepreneurship
- International Excellence in Endocrinology Award
- Outstanding Clinical Investigator Award
- Outstanding Educator Award
- Outstanding Leadership in Endocrinology Award
- Outstanding Mentor Award
- Outstanding Scholarly Physician Award
- Richard E. Weitzman Outstanding Early Career Investigator Award
- Roy O. Greep Award for Outstanding Research
- Sidney H. Ingbar Award for Distinguished Service
- Vigersky Outstanding Clinical Practitioner Award

NOMINATE TODAY!

Our Laureate Awards are the highest honors bestowed in recognition of the paramount achievements in the endocrinology field including, but not limited to, seminal research, clinical investigation, translational research, mentorship, and non-traditional activities to support developing countries.

Nominate on your own schedule—nominations for the 2027 awards cycle are now being accepted until Tuesday, January 20, 2026.

Get started now by visiting endocrine.org/laureate.

Questions? Contact us at laureate@endocrine.org.

ENDOCRINE SOCIETY

Hormone Science to Health

U.S. Government Reopened, But Future Shutdown Looms

Last month, the U.S. Senate and House of Representatives passed a Continuing Resolution (CR) that funds the Federal Government through January 30, 2026, at last year's levels.

The measure also includes several appropriations bills that provide full-year funding for certain agencies such as the Food and Drug Administration and Veterans Affairs through fiscal year (FY) 2026. While this development ended the longest government shutdown in U.S. history and reopened the federal government, it does not complete full-year funding

bills for most of the government, including the Department of Health and Human Resources (which supports the National Institutes of Health [NIH]). Before Thanksgiving, Republican leaders met to discuss the path forward and agreed it would be best to move the less complicated and small funding bills before Christmas and push the major bills, including the one for the Department of Health and Hurman Services into early next year. Additionally, the underlying issue of expiring tax credits for plans under the Affordable Care Act remains unresolved, further complicating the outlook for progress beyond January 30.

The Endocrine Society advocated for Congress to reopen the Federal Government and protect NIH Funding. We continue to push for a full-year funding bill that includes a $400 million increase in funding for the NIH, consistent with a version advanced by the Senate earlier this year. We thank our members who joined our previous online advocacy campaign. You helped make a difference! We encourage members to join our new online advocacy campaign (endocrine.org/advocacy/take-action) to maintain pressure on Congress. We will keep members posted on new developments.

Medicare Physician Payment Rule for Calendar Year 2026

On October 31, the Centers for Medicare and Medicaid Services (CMS) released the Medicare Physician Fee Schedule (MPFS) final rule for calendar year 2026. This rule updates payment policies and payment rates for Part B services furnished under the MPFS, as well as makes changes to the Quality Payment Program (QPP).

The Society has provided a full analysis of the final rule on our website (**endocrine.org/improving-practice/macra**). This includes a detailed summary and payment rate chart of services important to endocrinology. Some highlights are included below:

Conversion Factor — 2026 marks the first year that there are two separate conversion factors: one for practitioners working in a qualifying advanced Alternative Payment Model (APM) and the other for those not in a qualifying APM. The conversion factor for the former will increase to $33.57, an increase of 3.77%, and the latter to $33.40, an increase of 3.62%. These increases reflect the 2.5% increase to the conversion factor included in the reconciliation package adopted by Congress in July, and a 0.49% positive update to account for the redistributive effects of the finalized changes to work relative value units (RVUs).

Impact to the Specialty of Endocrinology — CMS estimates the final rule policies will result in a 3% increase in total Medicare charges for endocrinology. However, CMS finalized changes to the methodology for the allocation of indirect practice expenses (PE) within the physician payment formula, which will decrease overall charges for endocrinology in the facility setting by 10% but increase payments by 6% in the non-facility (office) setting. According to the agency, this policy reflects the current state of clinical practice with fewer

physicians working in private practice settings, and therefore, "the allocation of indirect costs for PE RVUs in the facility setting at the same rate as the non-facility setting may no longer reflect contemporary clinical practice." Additionally, changing the allocation of indirect costs represents a move towards site neutrality payment policy, long favored by CMS. The agency rejected calls to phase in this change over time as it has done with other PE changes. Note that the impact of the final MPFS policies on group practices and individual physicians will differ depending on factors such as practice structure, payer mix, patient demographics, and the range of services offered.

> **"The Endocrine Society is pleased that efforts are now underway to allow Medicare beneficiaries to access AOMs for weight loss at an affordable price. The Society has been a leading advocate for allowing Medicare to cover these medications."**

Potentially Misvalued Codes: Fine Needle Aspiration Services — The fine needle aspiration (FNA) services represented by CPT codes 10021, 10004, 10005, and 10006 were nominated as misvalued in the proposed rule, with the nominating party requesting that the work RVUs be restored to the 2019 levels. CMS finalized its assertion that FNA services are not misvalued but did support the relative value update committee placing FNA services on its list of services that must be reviewed by specialty societies.

Telehealth Updates — The agency finalized a simplified review process for adding services to the Medicare Telehealth Services List, and to eliminate the distinction between provisional and permanent services. CMS also permanently adopted a definition of direct supervision for certain services that allows the physician or supervising practitioner to provide supervision through real-time audio and visual interactive telecommunications. Finally, in a reversal of proposed policy due to submitted comments, CMS will continue to allow teaching physicians to have a virtual presence for services provided by residents in teaching settings.

CMS to Expand Medicare Coverage of Anti-Obesity Medications Over Next Two Years

In November, the Trump Administration announced that it had reached an agreement with two major drug manufacturers to lower the cost of anti-obesity medications (AOMs). As part of that agreement, the administration plans to take steps over the next two years to expand access to AOMs for Medicare beneficiaries.

The Centers for Medicare & Medicaid Services (CMS) is expected to launch a pilot program through the CMS Innovation Center (CMMI) that would allow beneficiaries on certain Medicare plans to access AOMs for weight loss based on specific clinical criteria for a $50 co-pay. CMS has yet to release specific details, but it is expected that beneficiaries enrolled in the pilot who have class II obesity (body mass index [BMI] at least 35) would be eligible for AOM coverage with no additional comorbidities. Beneficiaries with obesity with a lower BMI and another condition, such as diabetes or hypertension, would also be eligible. The pilot is expected to begin in 2027, but CMS is planning to launch a smaller demonstration project in 2026 to begin the process of opening access to AOMs for some beneficiaries. According to administration officials, about 10% of Medicare enrollees would be eligible for expanded access as result of these actions.

The Endocrine Society is pleased that efforts are now underway to allow Medicare beneficiaries to access AOMs for weight loss at an affordable price. The Society has been a leading advocate for allowing Medicare to cover these medications. In January, we advocated for the new Trump Administration to finalize an earlier proposal offered by the Biden Administration to allow Medicare to cover AOMs for weight loss. We have also supported legislation, the Treat and Reduce Obesity Act (TROA), which would allow Medicare to cover AOMs for weight loss. This is a top priority for the Society, and we will continue to follow this issue closely and seek to work with the administration to make these pilots effective and accessible.

Endocrine Society Advocacy Accomplishments in 2025

The past year saw many changes and disruptions to health policy. We remain concerned about funding restrictions to endocrine research, payment cuts to clinicians, and limits to access to care. We know this has affected our members' work, jobs, and patients. Throughout the year, the Endocrine Society continued to pursue its policy priorities and represent the interests of its member researchers and clinicians to policymakers. Below are some examples of our advocacy accomplishments:

- Restored the Diabetes Prevention Program Outcomes Study and the Diabetes Research Centers
- Reauthorized the Special Diabetes Program through January 30, 2026
- Extended telehealth waivers through January 30, 2026
- Influenced the U.N. Global Treaty on Plastics Pollution
- Helped develop in vitro fertilization legislation
- Advanced the Treat and Reduce Obesity Act (TROA)
- Removed provisions to restrict access to care in federal legislation

Society Advocates for Policy Priorities During AMA Interim Meeting

In November, Endocrine Society members attended the American Medical Association (AMA) House of Delegates meeting and successfully advocated for issues important to endocrinology, including access to in vitro fertilization (IVF) treatment, diabetes, and obesity. The AMA House of Delegates, which is the legislative and policy-making body of the AMA, meets twice a year to consider changes to AMA policy. A special thanks to our delegates, Amanda Bell, Barbara Onumah, Naykky Singh Ospina, Daniel Spratt, and Salwa Zahalka for attending the AMA meeting and representing the Society.

Representing the Endocrine Society at the AMA House of Delegates in November are (l to r): Daniel Spratt, Naykky Singh Ospina, Barbara Onumah, and Amanda Bell.

We worked with the American Society of Reproductive Medicine (ASRM) to co-author a resolution to oppose efforts to limit access to fertility care. The resolution, which passed the House of Delegates, highlighted legislative efforts at the state and federal level that have sought to codify restorative reproductive medicine (RRM). RRM is a selective rebranding of certain medical practices in ways that mislead patients and threaten access to appropriate fertility care. The new policy affirms that many of the practices described as RRM are already integral to evidence-based fertility care provided by reproductive endocrinologists, urologists, and other fertility specialists. The resolution also calls for increased National Institutes of Health funding for women's health and reproductive health research to expand understanding of infertility and its underlying causes.

The Society also successfully advocated for the passage of resolutions that focus on reducing the onset of chronic diseases like obesity and diabetes and the need for the AMA to support legislation to protect physicians from being disqualified from medical licensure due to providing services for access to care. EN

A Lab of Their Own

Bringing endocrinology testing in-house offers physicians more than convenience – it provides the ability to deliver faster, more reliable results that can directly influence patient care.

BY COURTNEY CARSON

With streamlined diagnostics, reduced turnaround times, and improved accuracy, in-house testing supports timely decision making and enhances management of complex conditions such as diabetes, thyroid disease, adrenal disorders, and reproductive health challenges. Equipping labs with the right equipment is essential for ensuring diagnostic precision; workflow efficiency; and, ultimately, better outcomes. In this roundup, we highlight several technologies shaping today's in-house endocrinology labs.

DXL 9000 Access Immunoassay Analyzer The DXL 9000 Access Immunoassay Analyzer from Beckman Coulter is designed to support high-throughput clinical labs. With the capacity to process up to 450 tests per hour, this analyzer accelerates turnaround for common hormone panels, including thyroid, adrenal, and reproductive assays. Real-time error detection and simplified maintenance help maintain workflow consistency, while advances in chemiluminescent detection improve sensitivity and reliability, aiming to provide dependable results in routine endocrine diagnostics.

www.beckmancoulter.com

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Afinion HbA1c Dx Assay

The Afinion HbA1c Dx assay is the first point-of-care test cleared by the U.S. Food and Drug Administration for both monitoring long-term glycemic control and aiding in the diagnosis of diabetes. Delivering results in about three minutes from a fingerstick or venous sample as small as 1.5 microliters, the assay is traceable to reference methods and demonstrates strong agreement with central laboratory testing across a clinically relevant range of 4% – 15% HbA1c. While the broader Afinion platform is Clinical Laboratory Improvement Amendments-waived for HbA1c monitoring, the Dx assay expands its role by enabling diagnostic use at the point of care. By providing accurate results quickly, this assay supports timely clinical decision making and enhances opportunities for patient counseling and diabetes management in just one visit. **www.abbott.com**

Medifuge™ Small Benchtop Centrifuge

The Thermo Scientific™ Medifuge™ Small Benchtop Centrifuge provides flexible sample processing in compact clinical settings. Its DualSpin rotor combines both fixed-angle and swinging-bucket formats in a single assembly, accommodating tube sizes from 1.4 to 15 mL. With speeds up to 4,900 rpm and multiple deceleration profiles, the system is designed to optimize sample separation while preventing overheating or disruption. A large LED display, one-click lid closure, and certified safety features make it a practical tool for busy endocrinology workflows. **www.thermofisher.com**

Bio-Rad CFX Opus Dx Real-Time PCR System

The Bio-Rad CFX Opus Dx Real-Time PCR System extends molecular capabilities into the diagnostic endocrinology lab. Available in 96-well, 384-well, and deep-well formats, this system can analyze up to five targets in a single well, making it possible to study several hormone-related genes or biomarkers at the same time. The system is designed to be flexible and reliable, with programmable thermal gradients to fine-tune assays and uniform heating for consistent results. Its compact size, easy-to-use touchscreen, and multiple connectivity options make it simple to fit into existing lab workflows. **www.bio-rad.com**

Building an in-house endocrinology lab is an investment in accuracy, efficiency, and patient-centered care. From high-throughput analyzers to advanced molecular detection systems, these technologies bring critical diagnostics closer to the point of care, resulting in more timely and accurate treatment. EN

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