ENDOGEAR: HIGH-TECH ENDOCRINE RESEARCH TOOLS

JULY 2025

THE LEADING MAGAZINE FOR ENDOCRINOLOGISTS

Endocrine News

PEER REVIEWS

Endocrine News celebrates endocrine scientists and researchers at ENDO 2025

- **MASTHEAD MAESTRO:** *Endocrine News* talks to **Manuel Tena-Sempere, MD, PhD**, the next editor-in-chief of *Endocrinology*, who shares his goals for the future of the Endocrine Society's flagship basic science journal.
- **COLLABORATION IS PARAMOUNT:** 2025 Transatlantic Alliance Award recipient, **Ashley B. Grossman, FMedSci**, talks to *Endocrine News* about what he calls his "rather convoluted career."
- **REDEFINING DIABETES CARE IN PREGNANCY:** The hotly anticipated "Diabetes and Pregnancy: An Endocrine Society and European Society of Endocrinology Joint Clinical Practice Guideline" debuts at **ENDO 2025**.

Manuel Tena-Sempere, MD, PhD

ENDOCRINE SOCIETY
Hormone Science to Health

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New Endocrine Society and European Society of Endocrinology guidelines provide a much-needed update

Making its debut at **ENDO 2025**, "Diabetes and Pregnancy: An Endocrine Society and European Society of Endocrinology Joint Clinical Practice Guideline" has been hotly anticipated. For the first time, clinicians will have a definitive guide on treating these patients that now includes the most recent technological breakthroughs in diabetes treatments.

BY KELLY HORVATH

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ENDOCRINE SOCIETY
Hormone Science to Health

Meet Incoming Endocrine Society President Carol Lange, PhD

The Endocrine Society is pleased to welcome Carol Lange, PhD, who takes office during **ENDO 2025** in San Francisco. Lange succeeds John Newell-Price, MD, PhD, FRCP.

Lange is a professor of medicine and molecular pharmacology and therapeutics, and holds the Tickle Family Land Grant Endowed Chair of Breast Cancer Research, and is the associate director for basic science and the director of the Molecular, Genetic, and Cellular Targets of Cancer Training Program at the University of Minnesota Masonic Cancer Center in Minneapolis, Minn. Her research focuses on the role of steroid hormone receptors in breast and ovarian cancers.

"I wanted to run for president because I wanted to help support our Society and continue our wonderful momentum and legacy," Lange says. "I know I will enjoy working together and representing our basic, translational, and clinical members and especially our early-career members and future leaders in a manner that is consistent with our mission."

Lange graduated magna cum laude with honors with BS degrees in both biology and chemistry as well as a mathematics minor from the University of Denver. She received her PhD in pharmaceutical science and molecular toxicology from the University of Colorado School of Pharmacy. She then completed a postdoctoral fellowship in the lab of Gary L. Johnson, PhD, at National Jewish Center for Immunology and Respiratory Medicine (Denver), followed by a second postdoctoral fellowship in the laboratory of Kathryn Horwitz, PhD, at the University of Colorado. She was then recruited to the University of Minnesota Masonic Cancer Center, where she currently directs her research program. Lange forged a research career studying the intersection of oncogenic signaling pathways with steroid hormone receptor actions in women's cancers.

Leading the Way

Lange, a passionate mentor to trainees at all levels, has held many leadership positions within the Endocrine Society. She served as the editor-in-chief of the Society's flagship basic science journal, *Endocrinology*. During her term as the Annual Meeting Steering Committee Basic Science chair, she helped found the annual Trainee Day at **ENDO**, an event that fosters the next generation of endocrine researchers. She also received the Society's 2020 Sidney H. Ingbar Laureate Award for Distinguished Service to the Field of Endocrinology for her many contributions.

> "I have found all my prior service to the Endocrine Society to be extremely fun and fulfilling. It's the people — working with people who care deeply and are so dedicated is the best professional experience in my view."

When she was appointed editor-in-chief of *Endocrinology* in April 2020, she said that she's dedicated her entire career to understanding the molecular and biochemical underpinnings of hormone action and looks forward to continuing the journal's commitment to

publishing "fascinating original research and molecular mechanistic studies on endocrine pathways, cells, systems, and diseases."

"My charge is to strengthen our basic science base and help integrate this effort with the Endocrine Society annual meeting programming by collaboration with Endocrine Society leadership across the science and educational missions," she told *Endocrine News* at the time.

Lange has led the way in the field of endocrinology on many fronts. In October 2024, Lange co-chaired the 1st International Conference on Steroid Hormones and Receptors (SHR) with Eric R. Prossnitz, PhD, with help from additional national and international co-organizers, Zeynep Madak-Erdogan, (University of Illinois), Matthias Barton, (Zurich, Switzerland), and Brian Harvey (RCSI).

Building on 25 years of highly successful conferences, SHR was an international biomedical conference that explored state-of-the-art advances in steroid hormone and receptor functions, both rapid and genomic, in various aspects of biology and medicine in terms of normal physiology and pathophysiology.

Lange and Prossnitz especially wanted to support early-career scientists at SHR. "We would like to feature many of our outstanding trainees at this meeting and introduce them to the leaders and mentors in our field as they present their work in posters and short talks and have the opportunity to network during our social hours, at meals, and during other informal breaks," they said.

Finding Her People

Lange has been an active member of the Endocrine Society since she attended her very first **ENDO** in 1996. She has attended every **ENDO** since, chairing sessions, reviewing abstracts, judging posters, leading Meet the Professor sessions, and serving on the Annual Meeting Steering Committee from 2003 to 2006. She's also served on the Society's Scientific Meetings and Educational Programs Committee, the Publications Core Committee, the Laureate Awards Committee, and the Nominating Committee.

It's apt and almost poetic that Lange's first **ENDO** was here in San Francisco, Calif., where she'll be handed the baton almost three decades later. "After my very first **ENDO** meeting, I remember telling my parents that I had 'found my people,'" she said. "Being at the meeting in a new city was energizing, and I had so much fun networking and socializing with the people [members] in my field of nuclear receptor science."

"I have found all my prior service to the Endocrine Society to be extremely fun and fulfilling," Lange says. "It's the people — working with people who care deeply and are so dedicated is the best professional experience in my view."

When asked whether she had any advice for a postdoc fellow to encourage them to become more active in the Society, ever the mentor, Lange said: "Go to the meeting every single year. Sit in the front rows and near a microphone during the symposia you attend. Ask questions, be seen, meet people, and interact as much as possible in all the venues. Smile and have fun. In other words, dive in, find your people, and have a blast! Also, be sure to stay an extra day or two to visit the city, and enjoy sightseeing while you clear your head, energize, and plan for your next steps once home and back in the lab."

"One of the things that drives me is the desire to positively impact the field of endocrinology and promote the success of others within my circle of influence, both as individuals [authors and readers] and at the level of the Society," Lange wrote in *Endocrinology* when she took the helm of the journal. "As a veteran scientist and member, much of my leadership experience has come from service to the Society. As such, I understand the unique strength and core identity of the Society, and I enjoy promoting and supporting a stimulating and rich professional environment that recognizes that everyone has something valuable to contribute and is culturally inclusive, diverse, and innovative."

Lange concludes with: "I hope to live up to the high level of phenomenal leadership we have had in the past and continue to inspire young scientists, infuse energy, and help people connect at **ENDO 2026** and beyond." EN

– Derek Bagley

Endocrine Society Journal Editors, ENDO 2025 Sessions, and More!

It's no secret that the Endocrine Society's peer-reviewed journals are considered the leading research journals in the endocrinology and diabetes space, and this month's issue highlights a couple of our journal editors who are each making news in very different ways.

First off, on the cover we are featuring the next editor-in-chief of *Endocrinology*, Manuel Tena-Sempere, MD, PhD, who will take the reins of the Society's flagship basic science journal in January 2026. In **"Masthead Maestro"** on page 22, Glenda Fauntleroy Shaw got the chance to speak with Tena-Sempere about his new role, as well as how *Endocrinology* actually had an impact on his own research career. He also tells Glenda how he plans to make *Endocrinology* the "go to" journal for researchers around the world. However, he says that it helps that the Endocrine Society itself is a global society. "We must keep the reputation of *Endocrinology* as a top-tier international journal that is the destination for groundbreaking papers from all countries worldwide, for our 18,000 members as well as for the many non-members who publish with us," he tells us. "In this sense, besides maintaining its solid science, we can learn from what authors experience during the submission and peer-review process to make *Endocrinology* even more friendly and attractive. And for Endocrine Society members, it must be remembered that regular publication fees are waived, which may be very useful these days."

A second Endocrine Society journal editor takes center stage in **"Collaboration Is Paramount: Ashley B. Grossman's Transatlantic Legacy"** on page 48. Kelly Horvath spoke with Grossman, who is not only the editor-in-chief of *Endocrine Reviews*, but he is also the recipient of the 2025 Transatlantic Alliance Award from the Endocrine Society and the European Society of Endocrinology! He speaks to Kelly about what this prestigious award means to him as well as what drew him to the field in the first place and discusses the importance of not only being a good mentor but of also being a good mentee. However, Grossman becomes downright contemplative when asked about the importance of the Endocrine Society to his professional and personal journeys, noting that the sheer size and breadth of the organization allowing for a wide exposure to a huge number of influences has always been exciting, he says. "In more recent years, [the Endocrine Society] has become such an open and inclusive body, with such a diversity of people and efforts to actually exploit that; it's really an 'international society of endocrinology,'" he says, adding that he goes to

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ENDO "as much as to network and meet up with my friends and colleagues, or strike up new research relationships. It has increasingly become very internationalist, and I think that's to everyone's benefit." Not to mention the benefit of the science and practice of endocrinology around the world!

Speaking of **ENDO**, in San Francisco during **ENDO 2025**, Grossman will present his Transatlantic Alliance Award in Endocrinology Lecture on Sunday July 13 at 4:30 p.m., and says he will discuss the state of science regarding pheochromocytomas and paragangliomas, "what's state of the art and where we're going in the future," he says. "The area of new radionuclides as targeted therapy is very exciting, so I hope to start from the beginning and take us up to 2030 and beyond."

Another highlight taking place in San Francisco during **ENDO 2025** will be the release of the Endocrine Society's new Clinical Practice Guidelines, "Diabetes and Pregnancy: An Endocrine Society and European Society of Endocrinology Joint Clinical Practice Guideline" and "Primary Aldosteronism: An Endocrine Society Clinical Practice Guideline." On page 28, Kelly gives us the details the former in **"Redefining Diabetes Care in Pregnancy."** This guideline has been highly anticipated and will finally give clinicians a definitive guide on treating these patients with the help of a tool that now includes the most recent breakthroughs in diabetes treatment.

And, finally, in **"Tightrope: Obesity Management in Women During Reproductive Years"** on page 40, Senior Editor Derek Bagley takes a look at one of the sessions featured in the **ENDO 2025** symposium "Obesity Management Across the Lifespan: Special Considerations" entitled "Balancing Weight and Wellness: Obesity Management in Women During Reproductive Years" conducted by Lisa L. Morselli, MD, PhD, DABOM, from the Medical College of Wisconsin in Milwaukee, who stresses the importance of messaging when talking to patients about weight loss. "Weight loss should be attempted to improve health or prevent future complications of excess weight, rather than to look good/conform to society pressure," she says. "We do not want to trigger eating disorders or other mental health issues related to fat-shaming or bias."

As **ENDO 2025** gets under way, I hope to see as many of you as possible at the Moscone Center in San Francisco! Don't hesitate to stop me and suggest story ideas for the magazine, as many of you have done throughout the years!

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

MEMBERS in the NEWS

Basu Named Director of UAS Diabetes Research Center

Ananda Basu, MBBS, MD, FRCP

Ananda Basu, MBBS, MD, FRCP, was recently named the director of the University of Alabama at Birmingham (UAB) Diabetes Research Center.

Basu, who was trained in India and the UK before completing his residency and fellowship at the Mayo Clinic, came to UAB in 2023 from the University of Virginia as a tenured professor in the Department of Medicine and Division of Endocrinology, Diabetes, and Metabolism.

A particular research interest for Basu is the development of an effective artificial pancreas for patients with type 1 diabetes using the closed loop system of insulin delivery and glucose sensing, landing several National Institutes of Health awards in pursuit of that goal.

A longtime member of the Endocrine Society, he has authored more than 200 peer-reviewed articles in journals including *The Journal of Clinical Endocrinology & Metabolism* and the *New England Journal of Medicine.*

Basu co-authored a paper that recently appeared in JCEM titled, "Postprandial Glucose Turnover Differs Between Adolescents and Adults With Type 1 Diabetes: Triple Tracer Mixed Meal Study." The study, which compared postprandial glucose turnover and insulin sensitivity between adolescents and adults with type 1 diabetes, reports differences in parameters of postprandial glucose turnover and insulin sensitivity between adults and early adolescents with type 1 diabetes that could, as the authors write, at least in part be due to the shorter duration of diabetes among early adolescents with type 1 diabetes. "These data support the concept that over time with type 1 diabetes, endogenous glucose production increases and [insulin sensitivity] deteriorates," Basu and his co-authors write.

According to UAB, Basu's primary appointment will remain in the Heersink School of Medicine as the S. Richardson Hill, Jr. Endowed Professor of Endocrinology and director of the UAB Diabetes Technology Program. He will have a secondary appointment in the Department of Nutrition Sciences. – *Derek Bagley*

MEDICAL SCHOOL ENGAGEMENT PROGRAM

Endocrine Society Announces Schools Selected for MSEP

On May 13, the Endocrine Society announced the medical schools chosen for the second year of its Endocrine Society's Medical School Engagement Program (MSEP).

The chosen recipients stood out with exceptional leadership in education, innovative approaches, and unwavering commitment to advancing the field of endocrinology by increasing medical students' exposure to the many exciting aspects of this specialty.

Please join us in congratulating our 2025 MSEP Awardees:

- Boston University Chobanian & Avedisian School of Medicine
- Perelman School of Medicine at the University of Pennsylvania
- West Virginia University School of Medicine
- Hackensack Meridian School of Medicine
- Lewis Katz School of Medicine at Temple University
- University of California, San Francisco, School of Medicine
- Harvard Medical School
- Howard University College of Medicine
- University of Michigan Medical School
- University of Miami, Leonard M. Miller School of Medicine
- Spencer Eccles Fox School of Medicine — The University of Utah

MSEP's goal is to increase medical students' interest and enthusiasm for endocrinology as their career choice. Timely, ongoing, and engaging mentorship with medical students — starting early, and continuing throughout their educational careers — can play a significant role in increasing the number of students choosing a specialty. MSEP plays a pivotal role in this mission, offering invaluable opportunities for our medical students to learn, grow, and excel in their journey toward becoming our colleagues.

For more information, go to: **https://www.endocrine.org/our-community/advancing-endocrinology-and-public-health/medical-school-engagement-program** EN – *Derek Bagley*

New Guidelines Reexamine Hirsutism

A new set of clinical guidelines published in *The Journal of Clinical Endocrinology & Metabolism* is reshaping how physicians diagnose and treat hirsutism, a condition that causes excessive male-pattern hair growth in women. Affecting roughly 10% of women worldwide, hirsutism has long been viewed through a primarily cosmetic lens. But the updated recommendations emphasize a broader, more nuanced approach — one that accounts for hormonal causes, treatment options, and the significant psychological toll the condition can take.

Hirsutism most often arises from elevated levels of androgens — commonly referred to as "male" hormones — or an increased sensitivity to these hormones at the level of the hair follicle. The most frequent culprit is polycystic ovary syndrome (PCOS), a complex hormonal disorder also associated with irregular menstrual cycles, acne, and infertility. Other causes include adrenal disorders, certain medications, and in rare cases, androgen-secreting tumors. In some instances, no identifiable cause is found, termed idiopathic hirsutism.

"For many women, hirsutism is more than a medical issue. It impacts how they see themselves, how they interact socially, and their overall quality of life," says one of the lead authors of "Approach to the Patient: Hirsutism," the guideline update.

The guidelines encourage physicians to adopt a more individualized approach to diagnosis. The Ferriman-Gallwey scoring system — used to rate hair growth in nine body areas — remains a cornerstone of clinical evaluation. However, experts now urge practitioners to consider ethnic differences in hair distribution, as some populations naturally have more body hair than others.

Blood tests to measure total and free testosterone are recommended in nearly all cases, along with additional hormone testing when symptoms point to more serious underlying conditions such as late-onset congenital adrenal hyperplasia or Cushing's syndrome.

First-line treatment still includes combined oral contraceptives (COCs), which lower free testosterone levels by suppressing ovarian hormone production and increasing sex hormone-binding globulin. But when COCs are not enough, the guidelines support the use of anti-androgen medications like spironolactone — though they stress the importance of contraception due to the risk of birth defects.

Equally emphasized are cosmetic solutions, such as laser hair removal and electrolysis. These can provide immediate relief while medical treatments work on the root hormonal causes. Experts say a dual approach — combining medical and cosmetic strategies — offers the most effective long-term outcomes.

Perhaps the most notable shift in the new guidelines is the inclusion of mental health as a core component of care. Studies have shown that women with hirsutism are at a higher risk of anxiety, depression, body dysmorphia, and decreased self-esteem.

"Too often, these patients are told it's 'just hair,'" says one clinician involved in drafting the recommendations. "But for many, it affects every part of their lives. That needs to be acknowledged and addressed."

The guidelines represent a modern, patient-centered approach to a condition that is often misunderstood or dismissed. By incorporating mental health screening, nuanced diagnostics, and tailored treatment strategies, experts hope to improve outcomes for the millions of women living with hirsutism today. – *Jackie Oberst*

From Growth to Cancer: The Double Life of Growth Hormone

A growing body of research reveals that growth hormone (GH), long known for its role in growth and development, may have a darker side — one that could be manipulated for therapeutic benefit in cancer. "Growth Hormone Action as a Target in Cancer: Significance, Mechanisms, and Possible Therapies," a comprehensive review published in *Endocrine Reviews,* spotlights the role of GH in cancer development and progression and evaluates the promise of GH-targeted therapies.

The pituitary gland traditionally produces GH. However, this new review challenges conventional narratives by detailing how GH is also produced locally in non-pituitary tissues, including tumors. In these sites, GH functions in autocrine and paracrine modes, acting directly on tumor cells or neighboring cells within the tumor microenvironment. The authors argue that this localized GH activity can support tumor survival, proliferation, angiogenesis, and metastasis. "Hundreds of studies across >20 different cancer types over the last 70 years have amassed a persuasive body of evidence implicating GH and cancer," they write, emphasizing that "GH as a cellular growth factor (autocrine/paracrine action) in cancer is more relevant than that of GH as a hormone (endocrine action)."

This paradigm-shifting concept — that GH is not merely a systemic growth signal but also a local promoter of oncogenesis — has significant implications. The review carefully outlines the mechanisms by which GH drives cancer biology. Key among them is GH's activation of the growth hormone receptor (GHR), which in turn modulates several downstream pathways, including the JAK2/STAT5, MAPK, and PI3K/AKT pathways. These signaling cascades are well-known contributors to oncogenic processes, such as unchecked cell proliferation and resistance to cell death or apoptosis.

The GH/IGF-1 axis is also scrutinized. IGF-1 (insulin-like growth factor 1), produced in response to GH stimulation, is itself a potent growth factor implicated in cancer. The interaction between GH, IGF-1, and their respective receptors can amplify tumor-promoting signals. Notably, this axis is already a target of interest in some cancer therapies, but this review suggests a need to look beyond IGF-1 alone and directly at GH and GHR as intervention points.

Of particular concern are patients with conditions that involve elevated GH levels, such as acromegaly, or those receiving GH therapy for growth deficiencies. In these populations, the risk of GH-fueled tumor growth may be elevated, especially in the context of preexisting cancer susceptibility. The authors call for more nuanced approaches in monitoring and managing such patients.

Encouragingly, the review also highlights ongoing efforts to develop GH-targeted therapies. These include GHR antagonists such as pegvisomant, as well as newer molecular agents that inhibit GH binding or downstream signaling. While still in early phases, such strategies may prove effective in slowing or reversing tumor progression in GH-sensitive cancers.

By reframing GH from a purely growth-promoting hormone to a possible oncogenic driver, this review opens new avenues for precision medicine. Targeting GH action, especially its local effects in tumors, could one day form part of a multi-pronged approach to cancer treatment — one that goes beyond traditional chemotherapeutics and targets the very signals that sustain malignancy. – *Jackie Oberst*

“By reframing GH from a purely growth-promoting hormone to a possible oncogenic driver, this review opens new avenues for precision medicine. Targeting GH action, especially its local effects in tumors, could one day form part of a multi-pronged approach to cancer treatment — one that goes beyond traditional chemotherapeutics and targets the very signals that sustain malignancy.”

New Study Questions Need to Stop SGLT2 Inhibitors Before Emergency Surgery

A new study, entitled "Postoperative Outcomes Among Sodium-Glucose Cotransporter 2 Inhibitor Users" published in *JAMA Surgery,* calls into question the current guidelines advising doctors to pause a widely used class of diabetes drugs — sodium-glucose cotransporter 2 inhibitors (SGLT2i) — before surgery. The findings suggest the risk of developing postoperative euglycemic ketoacidosis (eKA), a serious and potentially life-threatening complication, slightly increased both in elective and emergent surgery, which challenges the current recommendation that stopping this medication prevents this risk.

SGLT2i , such as canagliflozin, dapagliflozin, and empagliflozin, have become popular treatments for type 2 diabetes in recent years, thanks to their benefits for both cardiovascular and kidney health. But use of these medications before surgery has been controversial due to a known, though rare, risk of triggering eKA — where a patient develops dangerous levels of ketones in the blood without the high blood sugar usually seen with eKA.

As a precaution, the U.S. Food and Drug Administration recommends stopping these medications at least three days prior to elective surgery. However, this new retrospective case-control study, which analyzed data from over 34,000 patients ages 18 years and older with type 2 diabetes who underwent emergency surgeries, found that the risk of eKA is moderately increased both in emergent and elective surgeries.

"We found a statistically significant increase in postoperative eDKA risk among SGLT2 inhibitor users — albeit modest — which was associated with prolonged hospital length of stay. This risk was present both in elective and emergent procedures even though they likely did not stop the medication," says Matthieu Legrand, MD, PhD, principal investigator at University of California, San Francisco, lead author of the study.

The research team examined surgical outcomes from the Veterans Affairs Health Care System (VAHCS) National Registry database between 2014 and 2022. Adult patients using SGLT2i, who underwent inpatient surgical procedures, such as plastic, cardiac, and orthopedic surgeries, were compared with a 1:5 matched control group that included such indicators as the patient's demographic characteristics, comorbidities, and surgical characteristics. The researchers defined long-term SGLT2i use as having more than three fills of outpatient prescription or less than a 180-day gap of the last fill, according to the VAHCS pharmacy registries. They found that the risk of perioperative eKA was 11% higher for patients using SGLT2i than their matched counterparts. However, there was a 31% reduction in postoperative acute kidney injury and a 30% reduction in 30-day mortality.

These results, the researchers say, open the door to reevaluating how strictly SGLT2i need to be withheld before surgery. They also suggest that continued use of these medications in acute settings may be safer than previously thought.

Still, experts urge caution. In an accompanying editorial, clinicians emphasized the need for further research, particularly involving elective surgeries, where patients can intentionally stop their medications ahead of time. Furthermore, the authors state that the data were observational in nature — the exact timing the patients took the medication was unknown. Additionally, the patient group composed of white males over 60 years old, which makes it difficult to generalize the results to women and other age and ethnic groups.

For now, the findings are unlikely to change clinical practice overnight. But they highlight a growing recognition that blanket policies may need refinement as evidence evolves, and that individualized risk assessment could become the new gold standard in perioperative diabetes care. EN – *Jackie Oberst*

"We found a statistically significant increase in postoperative eDKA risk among SGLT2 inhibitor users — albeit modest — which was associated with prolonged hospital length of stay. This risk was present both in elective and emergent procedures even though they likely did not stop the medication."

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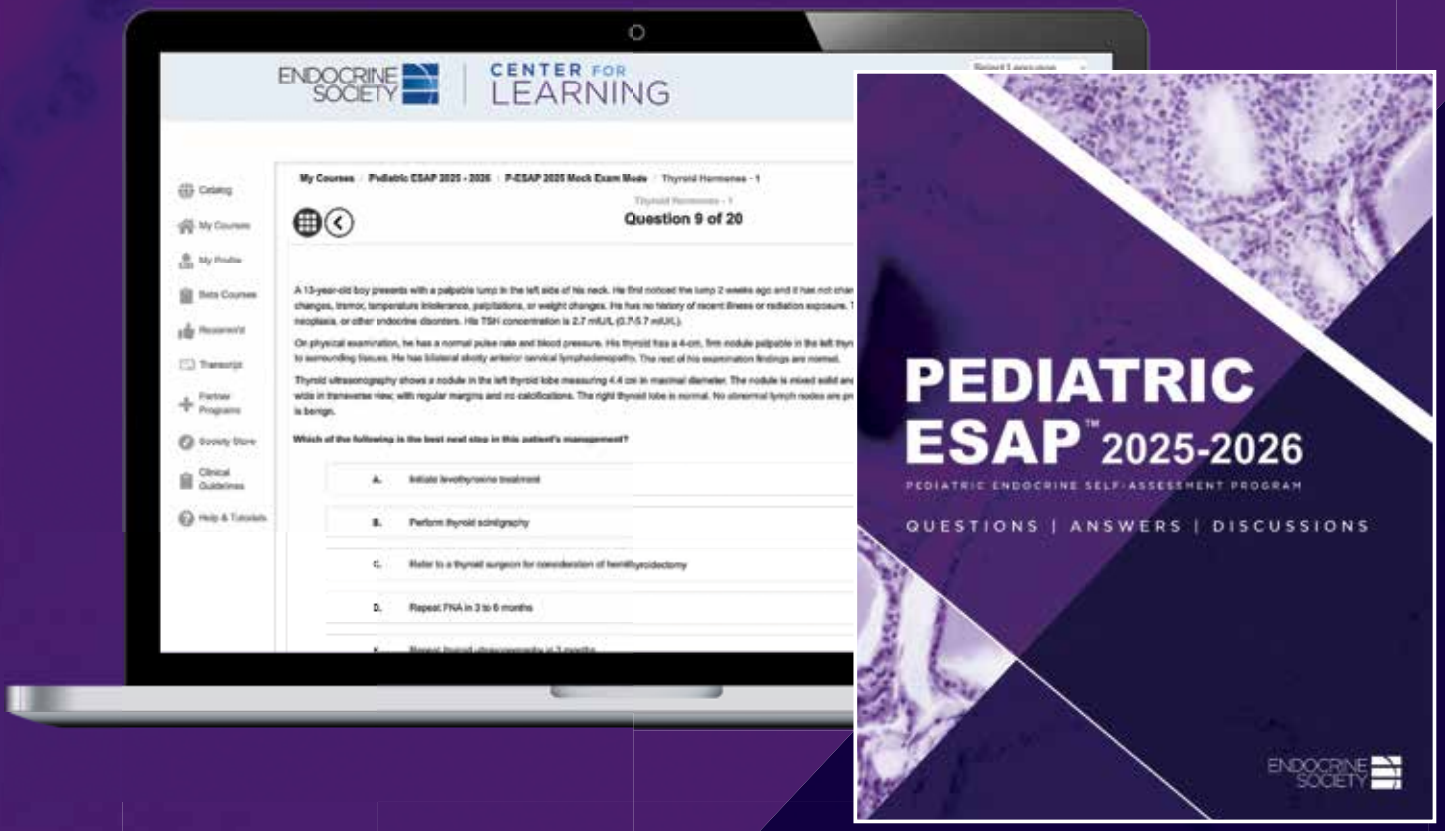

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> We as medical providers also have to be careful about our messaging around weight loss: Weight loss should be attempted to improve health or prevent future complications of excess weight, **rather than to look good/conform to society pressure. We do not want to trigger eating disorders or other mental health issues related to fat-shaming or bias."**

Lisa L. Morselli, MD, PhD, Medical College of Wisconsin, Milwaukee, Wis., discussing her session, "Balancing Weight and Wellness: Obesity Management in Women During Reproductive Years," which is part of the **ENDO 2025** symposium "Obesity Management Across the Lifespan: Special Considerations" taking place July 15, 2025, from 10:45 a.m. to 12:15 p.m. in Room 216, in **"Tightrope: Obesity Management in Women During Reproductive Years"** on page 40.

36.7 million to 69.5 million

The global increase of polycystic ovary syndrome (PCOS) between 1990 and 2021 with adolescents ages 15 to 19 years showing the largest incidence of increase, largely influenced by diagnostic improvements and environmental changes.

SOURCE: *REPRODUCTIVE BIOMEDICINE ONLINE*

1996

The year Congress ordered the U.S. Environmental Protection Agency (EPA) to test all pesticides used on food for endocrine disruption by 1999 — something that still hasn't been done.

SOURCE: *ENVIRONMENTAL HEALTH NEWS*

7%

The percentage of people with prediabetes already showing signs of diabetic retinal disease, a leading cause of blindness around the world.

SOURCE: *SURVEY OF OPHTHALMOLOGY INTERNATIONAL REVIEW JOURNAL*

12%

Residents in areas where there is no practicing endocrinologist face a 12% higher mortality from endocrine-related diseases such as diabetes and obesity. **SOURCE:** GOODRX

25%

In data collected from 470,000 children from 2022 to 2024, ages seven to nine years from 48 European countries, 25% were overweight and 10% were considered obese.

SOURCE: WHO EUROPEAN CHILDHOOD OBESITY SURVEILLANCE INITIATIVE (COSI)

1 in 4

A quarter of operating rural hospitals are at risk of closing their doors. 60 million Americans (19% of the population) live in rural areas, and many already experience limited access to care, specifically in dealing with access to specialists such as endocrinologists.

SOURCE: AMN HEALTHCARE

$173 billion

The amount obesity-related medical costs can be reduced with improved access to anti-obesity medications. **SOURCE:** OBESITY PLAYBOOK

2025 Clinical Endocrinology Update/Endocrine Board Review

EBR 2025

ENDOCRINE BOARD REVIEW

Sept. 5 – 7, 2025/Virtual Only

EBR is an intensive online learning program for fellows, practicing endocrinologists, and other healthcare professionals preparing for the American Board of Internal Medicine's (ABIM's), Endocrinology, Diabetes, and Metabolism Certification Exam.

In use for more than a decade, EBR stands out as a leading program for invaluable insights directly from medical experts involved in developing the exam. These specialists understand the exam's nuances and will share essential strategies for success. EBR features case-based questions aligned with the ABIM blueprint, complemented by highly effective tools to bolster your confidence as you gear up for your board exam.

Join us for an immersive review of endocrinology to advance your knowledge and succeed in your board certification exam!

https://www.endocrine.org/meetings-and-events/ebr-2025/

CEU 2025

CLINICAL ENDOCRINOLOGY UPDATE

Oct. 23 – 25, 2025/Virtual Only

Join endocrinologists and other healthcare professionals for updates on how to treat various endocrine conditions based on the latest expert guidelines in hormone care. With recent breakthroughs in different areas of the ever-evolving field of endocrinology, staying abreast of innovative practices is essential for optimal patient treatment.

CEU 2025 provides a convenient solution for busy professionals by delivering first-rate education they can immediately implement into their practice. For over a decade, our program has been led by renowned endocrinologists, offering a case-based agenda and evidence-based disease management strategies to equip practitioners with the tools they need to address daily clinical challenges.

CEU is virtual, ensuring accessibility through our online platform. Our expert faculty will cover important endocrinology topics, including adrenal, calcium and bone, diabetes, pituitary, obesity and lipids, female reproduction, male reproduction, transgender care, and thyroid.

With Meet the Professor sessions and a symposium filled with expert insights, this program offers a valuable learning experience for endocrinologists worldwide. Do not miss this opportunity to enhance your knowledge and skills in hormone care. Join us online, and stay ahead in the field of endocrinology!

https://www.endocrine.org/meetings-and-events/ceu-2025

WEBINAR

ENDOCRINE SOCIETY

Hormone Science to Health

Endocrine Society Webinars

The Endocrine Society holds webinars throughout the year on many topics, from clinical practice and basic research to career development, advocacy, and more. Check below for information on upcoming webinars and links to previous events. Visit our Center for Learning for a full list of Society educational offerings.

Past webinars have included The Complexities of Cushing's Syndrome: Diagnosing and Managing Patients; Utilizing Nurse Practitioners and Physician Assistants to Optimize Patient Care: How to Build Effective Teams; Genetics in Pituitary Disease; Facts and Controversies of Testosterone Replacement Therapy in Male Hypogonadism; and so much more! Most of the webinars are free for Endocrine Society members, but some do require a small registration fee.

https://education.endocrine.org/Public/Catalog/Main.aspx

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San Francisco, California
July 9 – 11, 2025

The 19th International Pituitary Congress will include distinguished clinicians and clinical researchers, fellows in training, and experts in basic science. As usual, we will present cutting-edge in-depth topics that will permit each attendee to become familiar with the latest trends in pituitary endocrinology. The format of the meeting is intended to facilitate maximum interaction and free exchange of ideas among the participants and speakers. The focus of the Congress is on current concepts; future strategies; and options for the investigation; diagnosis, and treatment of pituitary diseases.
https://pituitarysociety.org/

ASBMR 2025 Annual Meeting

Seattle, Washington
September 5 – 8, 2025

The ASBMR Annual Meeting is the world's largest and most diverse meeting in the bone, mineral, and musculoskeletal research field, attracting more than 2,500 attendees from more than 50 countries, including clinicians and researchers, representing all career levels and specializing in a variety of disciplines. The ASBMR Annual Meeting boasts nearly 100 education sessions and 1,000 poster presentations in four information-filled days. Upon returning home from the meeting, attendees will be able to discuss with confidence the most current and significant advances in biomedical and clinical research and develop and apply new and enhanced strategies for treatment and care of patients.
https://www.asbmr.org/annual-meeting

2025 ATA Annual Meeting

Scottsdale, Arizona
September 10 – 14, 2025

The 2025 American Thyroid Association Annual Meeting will be the largest gathering of thyroidologists in the world! With a diverse program planned, attendees can customize their experience by attending sessions that are most important to their professional development. Whether you're an endocrinologist, a surgeon, an advanced practice provider, a fellow in training, or a medical student, the topics covered during the meeting will provide you with in-depth information about thyroid diseases and disorders.
https://www.thyroid.org/2025-annual-meeting/

INTERNATIONAL **ITINERARY**

Adipose Biology Conference

Montreal, Quebec, Canada
August 19 – 20, 2025

The Adipose Biology Conference is a dynamic platform that unites scientists at all career stages, fostering collaboration, knowledge exchange, and mentorship to propel groundbreaking advancements in mechanisms of adipose tissue biology.
https://www.adiposebiology.com/

54th Annual Conference of Endocrine Society of India

Kolkata, West Bengal, India
September 4 – 7, 2025

ESICON 2025 promises to be a confluence of ideas, innovation, and interaction, bringing together leading experts, researchers, and clinicians interested in endocrinology. The recent advances in molecular endocrinology, diabetes care, obesity, bone health, and reproductive endocrinology have redefined our approach to patient care. India, and particularly academic centers across the country, have contributed significantly to global endocrine research — ranging from the epidemiology of metabolic disorders to novel insights into thyroid and adrenal pathophysiology. As we gather in Kolkata, we look forward to fruitful scientific exchanges, forging new collaborations, and exploring the city's timeless charm.
https://esicon2025.com/

7th International Symposium on Pheochromocytoma

Montreal, Quebec, Canada
September 18 – 20, 2025

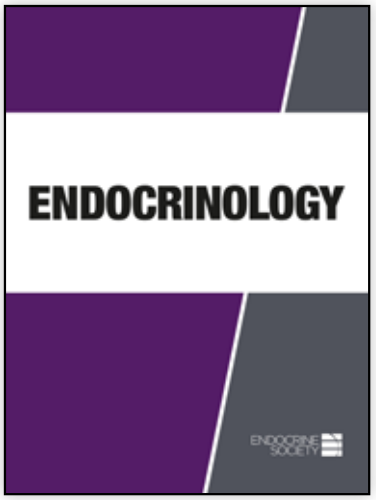
Following the previous very successful meetings held around the world, we will again gather internationally prominent clinicians and scientists to pursue cross-continental partnerships. Under the auspices of the Pheochromocytoma and Research and Support Organization (PRESSOR), the International Scientific Committee has gathered worldwide experts and young investigators to present novel discoveries, discuss and explore therapeutic options, novel genetic and metabolomic approaches, diagnostic imaging, translational research efforts, and exchanges with patient groups in order to foster further progress in the fields of pheochromocytomas and paragangliomas.
https://na.eventscloud.com/website/70776/

Starting in January 2026, the masthead of the Endocrine Society's flagship basic science journal *Endocrinology* will have a new name at the top: Manuel Tena-Sempere, MD, PhD. He speaks to *Endocrine News* about his new role, how the journal has impacted his own research career, and how he plans to make the journal more appealing for endocrine scientists around the world.

masthead maestro

Q&A with Manuel Tena-Sempere, MD, PhD, the next editor-in-chief of *Endocrinology*

BY GLENDA FAUNTLEROY SHAW



Sitting in his office in Cordoba, Spain, Manuel Tena-Sempere, MD, PhD, was still reeling from the massive blackout that knocked out power to everything from offices, homes, communication systems, to transportation for millions of people across Spain and Portugal on April 28. Nearly 24 hours later, power was finally restored — which was a great moment because Tena-Sempere is a very busy man these days.

In April, the Endocrine Society announced that Tena-Sempere would be the next editor-in-chief of its flagship journal *Endocrinology* starting January 2026. He is also a professor of physiology at the University of Cordoba, a research group leader at the biomedical research institute of Cordoba (IMIBIC), and a principal investigator at the Spanish network of Research on Obesity and Nutrition (CIBEROBN) in Cordoba.

Tena-Sempere is no stranger to *Endocrinology*. He served as the journal's associate editor for four years (2013 – 2017) and has published 67 papers in the journal since 1993. He has also published more than 380 articles in international peer-reviewed journals and has served as a member of editorial boards of more than 15 scientific journals.

Endocrine News spoke with Tena-Sempere to learn more about his visions for the journal as he takes over the helm and what challenges may come along the way.

Endocrine News: **What was your reaction when you first heard the news of your new role?**

Manuel Tena-Sempere: Well, I was amazed and also a bit stunned. Of course, it's a big honor and responsibility at the same time. It is true that I applied for the position,

Tena-Sempere (far left) with University of Cordoba and Biomedical Research Institute of Cordoba (IMIBIC) collaborators Francisco Ruiz-Pino, Alexia Barroso, and Juan Roa.

> “The landscape of publications has changed over the last two decades because more journals, with different profiles, are coming into the field and it’s getting more and more competitive, **I continue to consider that its combination of history, prestige, reputation, and scientific rigor makes *Endocrinology* a top research journal, particularly for those working in the domain of basic and experimental endocrinology.**”
>
> — MANUEL TENA-SEMPERE, MD, PHD, PROFESSOR OF PHYSIOLOGY, UNIVERSITY OF CORDOBA; RESEARCH GROUP LEADER, BIOMEDICAL RESEARCH INSTITUTE OF CORDOBA (IMIBIC); PRINCIPAL INVESTIGATOR; SPANISH NETWORK OF RESEARCH ON OBESITY AND NUTRITION (CIBEROBN), CORDOBA, SPAIN

Tena-Sempere (rear, center) is pictured here with his entire research group from the University of Cordoba and Biomedical Research Institute of Cordoba (IMIBIC) outside the facility during the spring 2024.

but it’s also true that I was not expecting this sort of outcome. I’m trying to adjust to the idea that I will become the editor in a few months. I’m already working on that, of course, because the transition period is very critical to keep the journal moving and growing at the same time. I am in the process of choosing new editors, and we will start handling new journal submissions from September and October 2025 onward. I have already been in contact with the present editor-in-chief, Zane Andrews, and deputy editor, Gail Prins, of the journal, who are being extremely helpful and friendly. The publication staff is also helping to navigate through this transitional period, but it’s a big responsibility.

EN: What prompted you to apply for the big challenge?

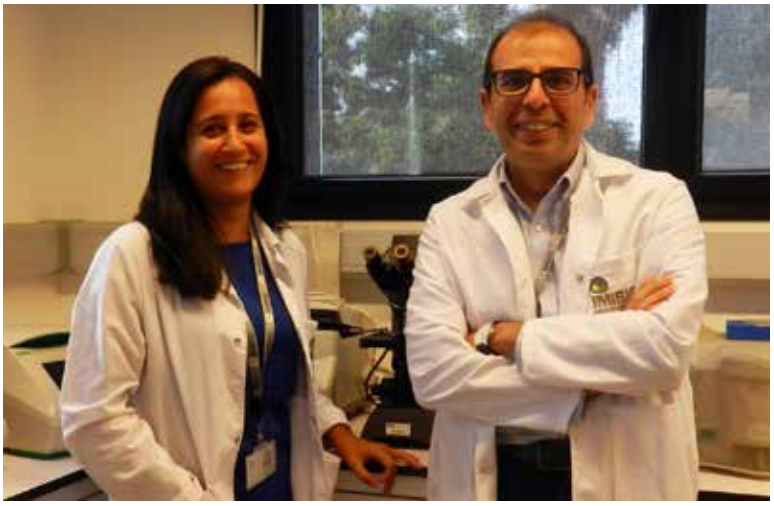
Tena-Sempere: I knew the position was open and there was a call for applicants, and at the beginning, I did not apply. But I was informally approached by the head of the search committee who suggested the possibility. Initially, I did not consider that as an option because I have many other commitments, including European projects and other academic activities at my home university and research institute.

At the same time, I realized this is a big and very exciting professional challenge because my primary activity is research, and I see this as a kind of continuation of that — being able to contribute to the consolidation and the growth of a journal that I consider a top reference in the field.

While I have collaborated with different scientific journals, I can say that I would have not considered becoming editor-in-chief of any other journal, because of *Endocrinology*'s long tradition and my long contact with the journal, both as author and as associate editor when Andrea Gore was editor-in-chief. That was quite a fantastic period because I learned a lot. I had the experience of interacting with amazing people, evaluating groundbreaking papers, and working with a large body of reviewers. So, altogether, it made me consider the possibility of becoming, or at least applying, to become editor-in-chief.

***EN:* How has *Endocrinology* impacted your professional career? Why has it been the sought-after outlet for publishing your research?**

Tena-Sempere: While I am an MD by training, after completing my degree, I undertook a doctoral program and always stayed in basic and translational science since then. For me, working in endocrinology, publishing in *Endocrinology*, as the flagship journal in basic science of the Endocrine Society, has been always a top achievement. I do believe several of the most impactful papers from my group have been published in *Endocrinology*. And although the landscape of publications has changed over the last two decades because more journals, with different profiles, are coming into the field and it's getting more and more competitive, I continue to consider that its combination of history, prestige, reputation, and scientific rigor makes *Endocrinology* a top research journal, particularly for those working in the domain of basic and experimental endocrinology.



Tena-Sempere is pictured with one of his collaborators, Maria Jesus Vazquez at the University of Cordoba and Biomedical Research Institute of Cordoba (IMIBIC).

> "The Endocrine Society is a global society, with members and programs around the world. **We must keep the reputation of *Endocrinology* as a top-tier international journal that is the destination for groundbreaking papers from all countries worldwide, for our 18,000 members as well as for the many non-members who publish with us."**
>
> — MANUEL TENA-SEMPERE, MD, PHD, PROFESSOR OF PHYSIOLOGY, UNIVERSITY OF CORDOBA; RESEARCH GROUP LEADER, BIOMEDICAL RESEARCH INSTITUTE OF CORDOBA (IMIBIC); PRINCIPAL INVESTIGATOR; SPANISH NETWORK OF RESEARCH ON OBESITY AND NUTRITION (CIBEROBN), CORDOBA, SPAIN

With continuous online publishing for a global readership — as is the case for all journals in the Endocrine Society's portfolio — *Endocrinology* is among the most cited journals in its Endocrinology and Metabolism subject category of 187 journals, with that category's longest median citation half-life, 14.8 years.

EN: What is your vision for the journal? Is there anything you might want to change in the first couple of issues?

Tena-Sempere: I think that we have a very solid base in that *Endocrinology* is a journal with a big tradition and reputation. While there is always room for improvement, I do not think we have to revolutionize the whole thing because previous editors-in-chief and editorial teams have done a superb job. However, we must realize that the publication landscape has evolved, and this always brings new angles that could help improve the journal. We must be attentive to this dynamic process to balance the solid ground and evolution within the journal in the coming years.

At the same time, we must become more attractive to a wider audience, worldwide. I believe *Endocrinology* is seen as a very reputable journal for those, as is my case, who know it already as a reference in the field. But, especially outside the U.S., there is more to be done to familiarize the new generation of endocrinologists with the journal as their publication venue of choice.

So, the challenge is to make *Endocrinology* the first choice of submission for top papers in the field of basic endocrinology. And we have opportunities to widen our target audience, and at the same time attract more authors on more topics. For instance, *Endocrinology* is fundamentally based in relatively classical areas, but now new cross-organ interactions or novel technologies are becoming hot topics in endocrinology more and more. Among the initiatives to move these expansions forward, the journal is introducing Focused Collections of articles, organized around a common topic, with a guest editor who is a prominent name in that field and in a position to reach out to other experts in that field to submit papers for peer review. The collections are snapshots of the selected topics, with impactful original articles from prominent active scholars, serving as a resource for experts, students, and senior researchers alike.

It's also important to bring in early-career researchers. When I go to commissions or evaluation panels in Spain or Europe, the younger generation of researchers are not necessarily familiar with *Endocrinology*. We will be working on ways to make the journal more attractive for early-career researchers wherever they are located, including highlighting their authorship of articles and expanding the journal's ongoing program to train early-career researchers as reviewers.

EN: With U.S. federal grant funding for research in a precarious spot at the moment, do you think researchers will have a difficult time maintaining their global partnerships and collaborations?

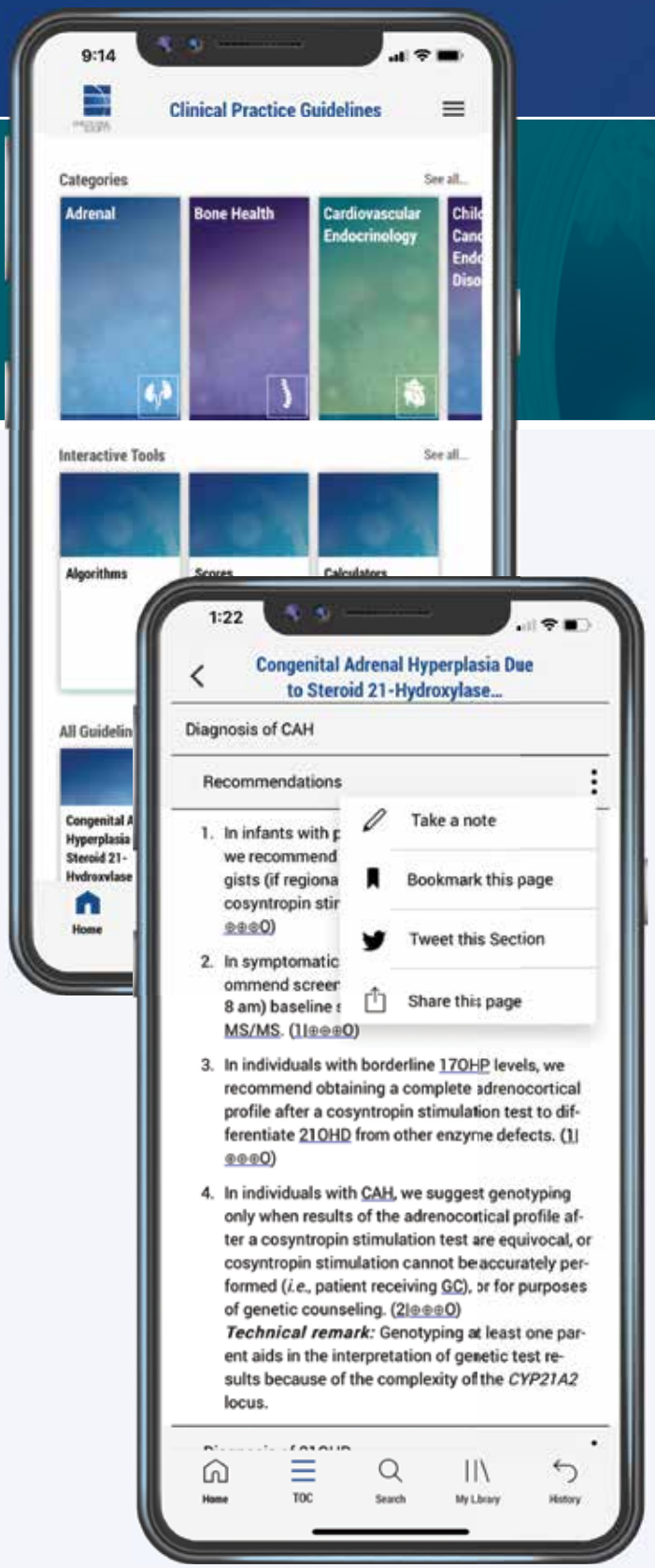
Tena-Sempere: It's a big challenge. But the Endocrine Society is a global society, with members and programs around the world. We must keep the reputation of *Endocrinology* as a top-tier international journal that is the destination for groundbreaking papers from all countries worldwide, for our 18,000 members as well as for the many non-members who publish with us. In this sense, besides maintaining its solid science, we can learn from what authors experience during the submission and peer-review process to make *Endocrinology* even more friendly and attractive. And for Endocrine Society members, it must be remembered that regular publication fees are waived, which may be very useful these days.

Of course, the evaluation and standards must remain as strict as ever because this is key to keeping the reputation of solid science. We must do our best to translate the reputation of the journal into higher international impact and visibility. The challenge is how to cope with this dynamic and changing landscape of the publication business that is making us, the scientists, a little bit crazy.

EN: You have an extremely full plate, but when you're not at work, what do you do to unwind?

Tena-Sempere: I have to say as scientists, we do not separate very well between work and private life. But when I do have free time, I really enjoy spending it with the family and traveling. I also like a lot of movies, but I also have to say, I don't have too much time to go to cinema these days. EN

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



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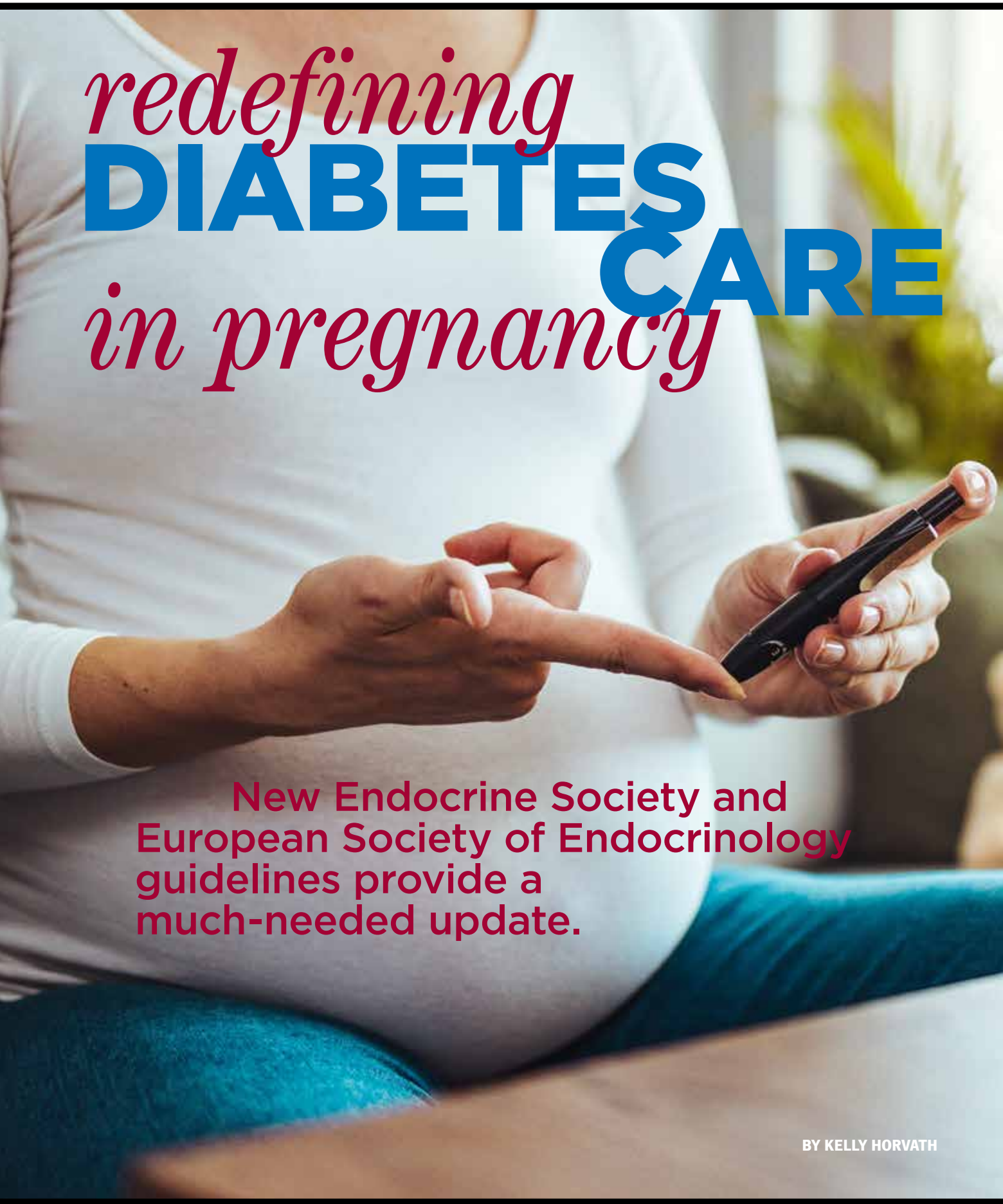
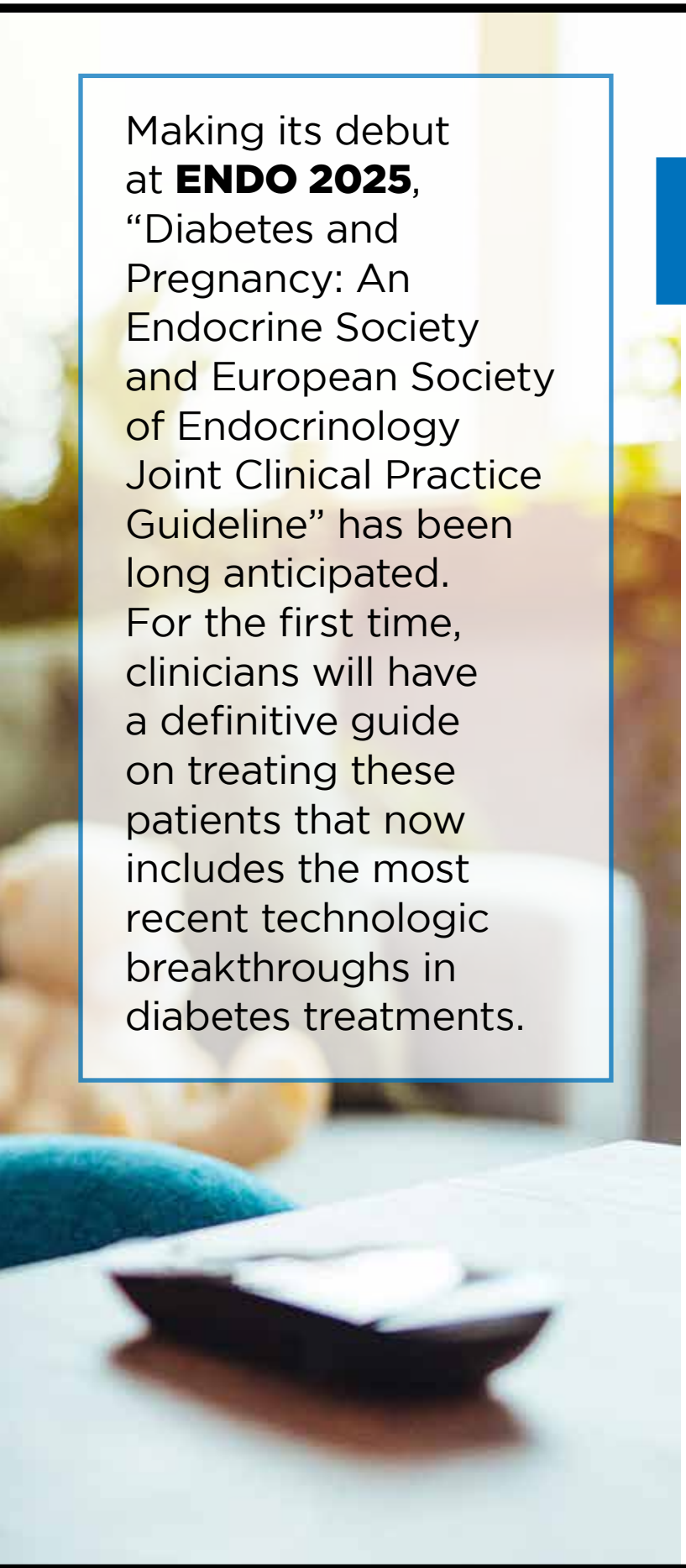


redefining DIABETES CARE *in pregnancy*

New Endocrine Society and European Society of Endocrinology guidelines provide a much-needed update.

BY KELLY HORVATH



Making its debut at **ENDO 2025**, "Diabetes and Pregnancy: An Endocrine Society and European Society of Endocrinology Joint Clinical Practice Guideline" has been long anticipated. For the first time, clinicians will have a definitive guide on treating these patients that now includes the most recent technologic breakthroughs in diabetes treatments.

Making its much-anticipated debut at **ENDO 2025** in San Francisco, Calif., this July, the Endocrine Society's new clinical practice guidelines on diabetes and pregnancy represent a watershed moment for endocrinologists and specialists in maternal-fetal medicine.

The guidelines arrive at a pivotal time when both type 1 and type 2 diabetes as well as gestational diabetes mellitus (GDM) rates are surging among women of reproductive age, offering clinicians contemporary, evidence-based recommendations that address the latest technologic advances and therapeutic developments in diabetes care. "Diabetes and Pregnancy: An Endocrine Society and European Society of Endocrinology Joint Clinical Practice Guideline" aims to dramatically improve outcomes for mothers with preexisting diabetes and their infants.

Why now? "The last Endocrine Society Guidelines for Diabetes and Pregnancy were published more than a decade ago," explains guideline first author Jennifer Wyckoff, MD, of the University of Michigan in Ann Arbor, Mich. "Advances in glucose monitoring, insulin delivery, and new medications have occurred in that time, which have changed the standard of care for diabetes outside of pregnancy significantly. These guidelines seek to provide direction on how these new advances in diabetes care apply in the setting of pregnancy as well as to review new data that reinforce some of the previous recommendations."

With rates of type 1 and type 2 diabetes having doubled from 1990 to 2020 (National Institutes of Health) and that of GDM increasing from 6.0% to 8.3% from 2016 to 2021 (Centers for Disease Control and Prevention), the need for disseminating these clinical updates is clear. Coauthor Annunziata Lapolla, MD, of the University of Padova, Padua, Italy, says, "Obesity, hypertension, and other diabetes complications determine risks of adverse outcomes of pregnancy. So it is strongly necessary to provide recommendations for the care of individuals with preexisting diabetes in order to reduce maternal and neonatal adverse outcomes."

JENNIFER WYCKOFF, MD

UNIVERSITY OF MICHIGAN, ANN ARBOR, MICH.

"Advances in glucose monitoring, insulin delivery, and new medications have occurred in that time, which have changed the standard of care for diabetes outside of pregnancy significantly. These guidelines seek to provide direction on how these new advances in diabetes care apply in the setting of pregnancy as well as to review new data that reinforce some of the previous recommendations."

Both Wyckoff and Lapolla are longtime experts in the field and look forward to sharing the new guidelines at **ENDO 2025**.

GRADE Methodology and Guideline Development

Importantly, the new guidelines were created based on the Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) methodology recently embraced by the Endocrine Society to assess the certainty of evidence and guide recommendations. GRADE also incorporates perspectives from patient representatives and considers patient values, costs and resources required, acceptability and feasibility, and impact on health equity of the proposed recommendations. This two-pronged approach pairs the highest level of scientific rigor with patient lived experience to ensure that a broader range of patient needs are being met.

While previous guidelines were certainly also carefully researched and thoughtfully delivered, GRADE demands more focused parameters. "Previous Endocrine Society guidelines were comprehensive recommendations for an area of clinical practice," Wyckoff notes. "More recently, the Endocrine Society has opted for evidenced-based guidelines, based on strict GRADE methodology supported by meta-analyses, if possible, to provide in-depth understanding of a number of key questions in a specific area."

As such, a Guideline Development Panel (GDP) of a multidisciplinary panel of clinical experts, along with experts in guideline methodology and systematic literature review, came together to identify the 10 most important clinical questions related to the care of individuals with preexisting diabetes before, during, and after pregnancy. To provide the best answers possible to these 10 questions, the GDP combed the available research, prioritizing randomized, controlled trials (RCTs) from which to extract the most thoroughly investigated findings.

Summary of the Recommendations

The 10 clinical questions centered on preconception planning (PCP), technology, glucometrics, delivery timing, medications, and diet.

Preconception Imperative. First and foremost, the new guidelines for diabetes in pregnancy recommend that clinicians ask about pregnancy plans at every visit and advise using contraception until pregnancy is desired.

"There is clear evidence in women with preexisting diabetes that

PCC, which includes achieving strict glycemic goals, reduces the risk of congenital malformations and other adverse pregnancy outcomes," states Lapolla. "However, only a minority of women receive PCC."

Glucometrics and Technology. Of course, in any patient with diabetes, glucose monitoring is critical, so several questions looked at how this is best achieved in various pregnancy settings. The guidelines make a key recommendation against replacing traditional blood glucose targets with a single continuous glucose monitoring (CGM) target range of 63 mg/dL to 140 mg/dL (3.5–7.8 mmol/L), citing a lack of direct evidence to support such a change. Instead, they reaffirm the long-established fasting (<95 mg/dL [5.3 mmol/L]), one-hour postprandial (<140 mg/dL [7.8 mmol/L]), and two-hour postprandial <120 mg/dL [6.7 mmol/L]) standard-of-care targets. Moreover, adopting a single time in range (TIR) target could obscure the important contribution of fasting/overnight hyperglycemia to adverse outcomes (for example, large-for-gestational-age [LGA] infants). The panel identified indirect evidence supporting the need to achieve overnight/fasting glucose values as required in traditional targets.

Indeed, different circadian patterns of dysglycemia were associated with different adverse outcomes. Using a well-controlled mean glucose level 123 mg/dL (6.83 mmol/L) as a reference point, suboptimal control with high variability (mean glucose 154 mg/dL [8.6 mmol/L]) was associated with higher rates of LGA infants; suboptimal control with minimal circadian variation (mean glucose 148 mg/dL [8.3 mmol/L]) was associated with higher rates of preterm birth, cesarean delivery, and neonatal intensive care unit (NICU) admissions (but no significant increase in LGA infants, neonatal hypoglycemia, or maternal preeclampsia); and poor control with peak overnight hyperglycemia (mean glucose 166 mg/dL [9.2 mmol/L]) was associated with higher rates of maternal preeclampsia, LGA infants, neonatal hypoglycemia, and NICU admissions. Thus, not all hyperglycemia is equal, and different patterns of dysglycemia may require individualized management strategies.

Despite these findings supporting maintaining standard-of-care targets, with CGM use increasing, TIR becomes an important supplementary metric. "Some recommendations already present in the previous version have been implemented and updated," Lapolla explains, "in particular those related to the use of CGM and insulin pump administration, due to the fact that in the last few years these technologies have been implemented." For those with type 1 diabetes, maintaining more than 70% TIR is recommended; for those with type 2 diabetes, 80% to 90% TIR is recommended. Nevertheless, while CGM provides valuable data, interpreting that data with an understanding of how different patterns affect outcomes remains essential for optimizing pregnancy care in diabetes.

Another notable recommendation in this category regards the use of hybrid closed loop (HCL) systems. The panel conditionally recommended that women with

AT A GLANCE

- **New guidelines emphasize screening for pregnancy intention at every health care visit and providing contraception counseling until pregnancy is desired, as preconception care significantly reduces congenital malformations (by ~70%) and improves pregnancy outcomes yet remains severely underutilized.**
- **First-ever recommendations endorse hybrid closed-loop insulin pump systems for pregnant women with type 1 diabetes, showing benefits of increased time in range and reduced hypoglycemia; for type 2 diabetes in pregnancy, the guidelines caution against replacing standard glycemic targets (fasting/postprandial) with a single 24-hour CGM target.**
- **New guidance addresses discontinuation timing for GLP-1 receptor agonists (before conception rather than during early pregnancy) and cautions against routinely adding metformin to insulin in pregnant patients with type 2 diabetes due to concerns about fetal growth and potential long-term metabolic programming effects.**

ANNUNZIATA LAPOLLA, MD

UNIVERSITY OF PADOVA, PADUA, ITALY

"Obesity, hypertension, and other diabetes complications determine risks of adverse outcomes of pregnancy. So, it is strongly necessary to provide recommendations for the care of individuals with preexisting diabetes in order to reduce maternal and neonatal adverse outcomes."

type 1 diabetes — but not type 2 diabetes — might benefit from this technology. The recommendation arises from the (albeit, limited) evidence indicating improved TIR (and correspondingly less time below range [TBR]) as well as overnight control. The recommendation remains conditional based on potential higher costs and the need for support (education, training) to implement the technology.

Delivery Timing. Delivery before 39 weeks (38 0/7 to 38 6/7 weeks) rather than expectant management is conditionally recommended. This recommendation based on very low certainty evidence reflects the panel's careful approach to this complex decision, with the risks of continued pregnancy (stillbirth, birth trauma, maternal complications, and hypertensive disorders) outweighing those of early delivery (neonatal morbidity related to prematurity, including respiratory distress, hypoglycemia, and NICU admission).

Importantly, this recommendation represents a nuanced evolution from previous guidance from the American College of Obstetricians and Gynecologists (ACOG), which formerly recommended delivery at 39 0/7 to 39 6/7 weeks for well-controlled diabetes without complications and delivery at 36 0/7 to 38 6/7 weeks for vascular complications, poor glucose control, or prior stillbirth. The new guidelines emphasize a more risk-stratified approach toward early term delivery (38 0/7 to 38 6/7 weeks) based on individualized risk assessment.

Navigating Carbohydrate Intake. "Given the increase in type 2 diabetes associated with obesity worldwide and women with this pathology who become pregnant, these recommendations have also addressed the issues related to correct nutrition and therapeutic approach in such women," Lapolla notes.

With carbohydrate being the main macronutrient that determines postprandial hyperglycemia, the panel judged that either carb-restricted diets (<175g) or regular diets are acceptable (based on limited evidence). This balanced recommendation reflects the uncertainty in the current evidence and recognizes that different approaches may be appropriate for different individuals. The 175-g threshold relates to the Institute of Medicine's (IOM's) nutrition guidelines, which recommend that pregnant women consume at least 175 grams of carbohydrates daily to promote fetal growth and brain development. Some experts even suggest 220 grams to account for the estimated 35 grams of carbohydrate required by the placenta in the third trimester. However, the IOM threshold may overestimate the true requirement (97.5% of the population requires less) and does not account for glucose derived from gluconeogenesis.

Thus, while the guidelines do not recommend a specific carbohydrate intake, they highlight maternal and fetal dangers at both extremes: Restriction (<100 g/day) can lead to, for example, fetal neural tube defects (NTDs); excess (>200 g/day) can double the risk of, for example, poor maternal glycemic control with the associated cascade of deleterious effects.

Medication Considerations. Although insulin resistance naturally increases during pregnancy, adding metformin to insulin as a low-cost way to improve insulin sensitivity is not routinely recommended. Metformin crosses the placenta readily, achieving fetal levels at least as high as maternal levels and thus might increase rates of small-for-gestational-age (SGA) infants, while simultaneously increasing rates of childhood overweight/obesity at ages five to 10 years.

Another key recommendation regards the use of glucagon-like peptide-1 (GLP-1) receptor agonists in pregnancy, for the first time. The panel faced the core dilemma of weighing potential unknown risks of GLP-1RA exposure to the developing embryo/fetus with the dangers of rebound maternal hyperglycemia and weight gain with medication discontinuation after conception (and potential fetal consequences such as NTDs and cardiac and other congenital anomalies, among others).

Therefore, the panel recommends that GLP-1 medications should be stopped before conception rather than during early pregnancy to balance medication safety concerns with risks of sudden

blood glucose changes, while acknowledging that the timing is not one size fits all. The panel also explicitly recognized that in real-world settings, many women will be exposed to GLP-1RAs in early pregnancy despite this recommendation, emphasizing the importance of developing contingency protocols for this scenario.

Evidence Gaps and Research Horizons

Despite the panel's rigorous approach, many recommendations rest on limited evidence. "Some of the questions we sought to answer have limited data on which to base recommendations," Wyckoff acknowledges. "GRADE methodology relies heavily on RCTs, but much of the evidence available to support recommendations in this field is indirect." This evidence limitation creates space for debate. "I expect there will be great discussions around several of these recommendations," Wyckoff adds, "which will hopefully lead to stronger evidence and a clearer picture for best practices."

Looking ahead, Lapolla also identifies critical research needs: "RCTs to define the optimal glycemic targets in pregnancy and implementation of the technologies to achieve those targets are mandatory. Data on optimal nutrition and obesity management in pregnancy are lacking, so clinical studies in this context are necessary."

Bottom Line for Clinicians

For clinicians, the message is clear: Comprehensive management that begins before conception is key. "The implementation of PCC is crucial to prevent the negative maternal and fetal outcomes in women with preexisting diabetes," Lapolla says. This includes not only glycemic control but also managing obesity, hypertension, and other complications that influence pregnancy risks.

By bringing together the latest evidence on technology use, medication management, and risk assessment, these guidelines offer a roadmap for navigating the complex terrain of diabetes care during pregnancy — while acknowledging that work is still to be done to achieve optimal evidence-based practice and that individual patient factors must always be considered. EN

Other members of the guideline writing committee were:

Bernadette D. Asias-Dinh, University of Houston, Houston, Texas; Linda A. Barbour, University of Colorado School of Medicine and Anschutz Medical Campus, Aurora, Colo.; Florence M. Brown, Joslin Diabetes Center, Boston, Mass.; Patrick M. Catalano, Massachusetts General Hospital and Harvard Medical School, Boston, Mass.; Rosa Corcoy, Hospital de la Santa Creu i Sant Pau, Barcelona, Spain; Gian Carlo Di Renzo, PREIS International School and Meyer Children's University Hospital, Firenze, Italy; Nancy Drobycki, University of Texas Southwestern Medical Center of Dallas, Dallas, Texas; Alexandra Kautzky-Willer, Medical University of Vienna, Vienna, Austria; M. Hassan Murad, Mayo Clinic Evidence-Based Practice Center, Rochester, Minn.; Melanie Stephenson-Gray, National Health Service, Cardiff, UK; Adam G. Tabák, Semmelweis University of Medicine, Budapest, Hungary and University College London, London, UK; Emily Weatherup, University of Michigan, Ann Arbor, Mich.; Chloe Zera, Beth Israel Deaconess Medical Center, Boston, Mass.; and Naykky Singh-Ospina, University of Florida, Gainesville, Fla.

The American Diabetes Association (ADA), American College of Obstetricians and Gynecologists (ACOG), Society for Maternal-Fetal Medicine (SMFM), the International Association of the Diabetes and Pregnancy Study Groups (IADPSG), European Association for the Study of Diabetes (EASD), Association of Diabetes Care and Education Specialists (ADCES), and the American Pharmacists Association (APhA) co-sponsored the development of these guidelines.

– HORVATH IS A FREELANCE WRITER BASED IN BALTIMORE, MD. IN THE JUNE ISSUE, SHE WROTE ABOUT THE **ENDO 2025** SESSION "BARIATRIC SURGERY AND EMERGING MEDICATIONS: REDEFINING ROLES AND MECHANISMS."

Advancing Diabetes Care for Patients with Difficult-to-Control Type 2 Diabetes and Hypercortisolism

From CATALYST *to Real-World Practice*

BY BRADLEY EILERMAN, MD, MHI, AND CHRISTOPHER P. LUCCI, MD, BC-ADM

Bradley Eilerman, MD, MHI

Christopher P. Lucci, MD, BC-ADM

Translating clinical trial discoveries into patient care is often challenging. Two leading experts from the community discuss how recent breakthroughs from the CATALYST study in type 2 diabetes and hypercortisolism are already driving real-world impact for patients with the most urgent need for transformative care.

24% Prevalence of Hypercortisolism in Difficult-to-Control Type 2 Diabetes: Why Screening Matters

Hypercortisolism is increasingly being recognized as one of the factors that can contribute to unmet glycemic targets in patients being treated for type 2 diabetes [1-5]. Recently published results from CATALYST, a prospective multicenter study that included >1,000 patients with difficult-to-control type 2 diabetes, add to the body of evidence on the prevalence and clinical characteristics of endogenous hypercortisolism in this population [6]. In CATALYST, difficult-to-control type 2 diabetes was defined as an HbA1c of 7.5% – 11.5% despite the patient taking multiple antihyperglycemic medications, with or without micro- or macrovascular complications (Fig. 1) [6,7]. The diagnosis of hypercortisolism was based on the

> ***Based on these criteria, 24% of patients with difficult-to-control type 2 diabetes were found to have hypercortisolism,*** *with an even higher prevalence rate (>30%) in certain at-risk patients, such as those with cardiac disorders or those taking three or more blood pressure–lowering medications [6].*

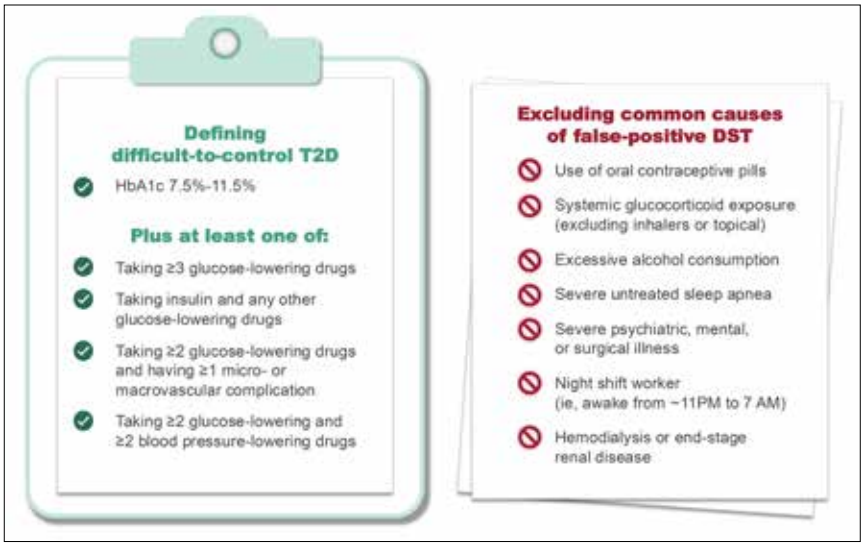


Figure 1. Criteria used in the CATALYST study to identify patients with difficult-to-control type 2 diabetes with a high pretest probability of hypercortisolism [6,7].

> ***Some clinicians may be reluctant to screen for hypercortisolism due to misconceptions about its rarity.*** *The CATALYST findings challenge these misconceptions and underscore the need to consider hypercortisolism more routinely during differential diagnosis in those with difficult-to-control type 2 diabetes.*

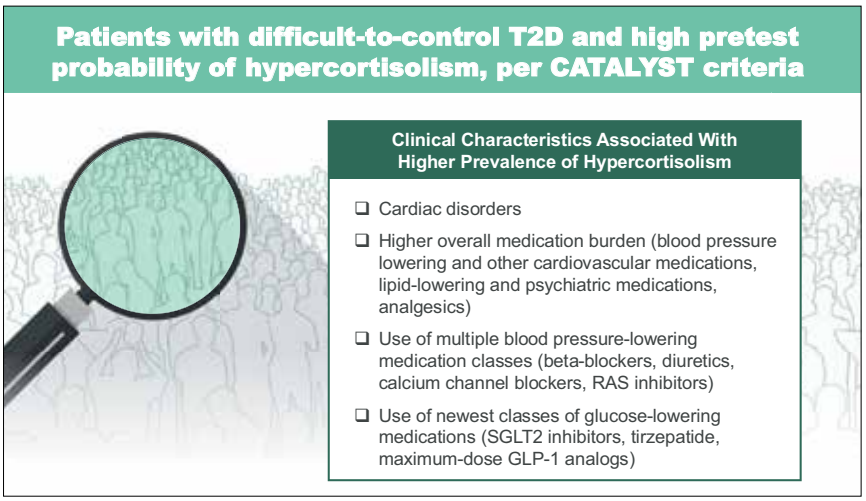


Figure 2. Clinical characteristics of patients with difficult-to-control type 2 diabetes at high risk for hypercortisolism [6].

1-mg overnight dexamethasone suppression test (DST) with a diagnostic post-DST cortisol cutoff of >1.8 µg/dL and concomitant dexamethasone ≥140 ng/dL to ensure adequate suppression [6]. Common causes of false-positive DST results, such as oral contraceptives, were excluded (Fig. 1).

Based on these criteria, 24% of patients with difficult-to-control type 2 diabetes were found to have hypercortisolism, with an even higher prevalence rate (>30%) in certain at-risk patients, such as those with cardiac disorders or those taking three or more blood pressure–lowering medications [6]. The prevalence rate from CATALYST is in line with previous, smaller studies that have reported a prevalence of hypercortisolism ranging from 17% to 33% using similar diagnostic criteria [1-5]. Moreover, it is consistent with our own clinical observations, especially when hypercortisolism is screened in patients with difficult-to-control diabetes despite multiple antihyperglycemic mediations and additional morbidities (recent weight gain, hypertension) [8]. Some clinicians may be reluctant to screen for hypercortisolism due to misconceptions about its rarity. The CATALYST findings challenge these misconceptions and underscore the need to

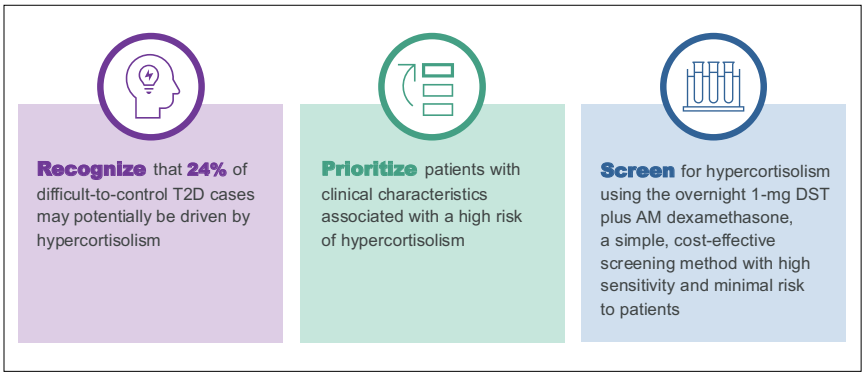


Figure 3. Calls to action for clinicians.

consider hypercortisolism more routinely during differential diagnosis in those with difficult-to-control type 2 diabetes.

Who Should We Screen for Hypercortisolism? Look Closer at High-Risk Patient Populations

The CATALYST study identified several characteristics independently associated with hypercortisolism that clinicians can use to prioritize their screening strategy (Fig. 2). For example, within the CATALYST population of patients with difficult-to-control type 2 diabetes, the prevalence of hypercortisolism was 33% in those with cardiac disorders and 37% in those taking ≥3 antihypertensive medications, highlighting a population for whom hypercortisolism screening should be prioritized. Additionally, use of SGLT2 inhibitors, maximum-dose GLP-1 receptor agonists, or tirzepatide were each significantly associated with increased risk of hypercortisolism [6]. These characteristics align with the established clinical profile that should prompt further evaluation of patients with difficult-to-control type 2 diabetes, like hypertension and metabolic syndrome.

How to Screen for Hypercortisolism? Practical Considerations for Clinicians

We recommend the overnight 1-mg DST with confirmation of adequate serum dexamethasone levels as the first-line screening method for hypercortisolism. It is highly sensitive, convenient, inexpensive, and poses minimal risk to patients. The late-night salivary cortisol (LNSC) test can serve as a reasonable confirmatory second test. However, it may have low sensitivity and high variability in patients with adrenal autonomous cortisol secretion, which may be common in patients who present with difficult-to-control type 2 diabetes as the CATALYST population [6,9,10]. Similarly, urinary free cortisol (UFC) is an inconvenient test that also has insufficient sensitivity to exclude adrenal autonomous cortisol [11]. Relying on these tests alone could thus leave patients undiagnosed and untreated. A comprehensive screening approach should balance diagnostic accuracy with practical considerations, making the DST a preferred initial method.

Additional adrenocorticotropic hormone (ACTH) and dehydroepiandrosterone sulfate (DHEAS) testing can help determine the cortisol source. For example, a low to low-normal ACTH level suggests an adrenal source. Once clinicians have identified the likely source of hypercortisolism, appropriate imaging of that location should be performed. CATALYST revealed that 35% of patients with hypercortisolism had adrenal abnormalities, of which 65% had unilateral adrenal nodules, representing a significant number of patients who were potential surgical candidates [6].

Translating CATALYST to Real-World Practice: A Call to Action for Clinicians

We need to adjust our approach to managing difficult-to-control type 2 diabetes by embracing hypercortisolism as a critical but often overlooked factor (Fig. 3). It is

We recommend the overnight 1-mg DST with confirmation of adequate serum dexamethasone levels as the first-line screening method for hypercortisolism. *It is highly sensitive, convenient, inexpensive, and poses minimal risk to patients.*

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important to recognize that, as noted above, 24% of difficult-to-control type 2 diabetes cases (per CATALYST criteria) may potentially be driven by excess cortisol, underscoring the need for hypercortisolism screening. Since mass screening for hypercortisolism is not practical in the real-world setting, screening can be prioritized in high-risk patients based on the clinical characteristics identified in CATALYST (Fig. 2). The overnight 1-mg dexamethasone DST — which ensures sufficient cortisol suppression through dexamethasone measurement — is a simple, cost-effective, and highly sensitive screening test for hypercortisolism.

Hypercortisolism is a serious and underrecognized condition, and its timely identification and management are critical to improving patient outcomes. Part 2 of CATALYST, which was a randomized, double-blind, placebo-controlled 24-week study assessing the effects of treatment with Korlym® (mifepristone, Corcept Therapeutics) in the CATALYST population, showed a statistically significant reduction of hemoglobin A1c by 1.47% from baseline, compared to only a 0.15% reduction with placebo. Complete results were presented at a symposium as part of the American Diabetes Association's 85th Scientific Sessions (June 23, 2025) [12]. EN

This article was sponsored by Corcept Therapeutics Incorporated.

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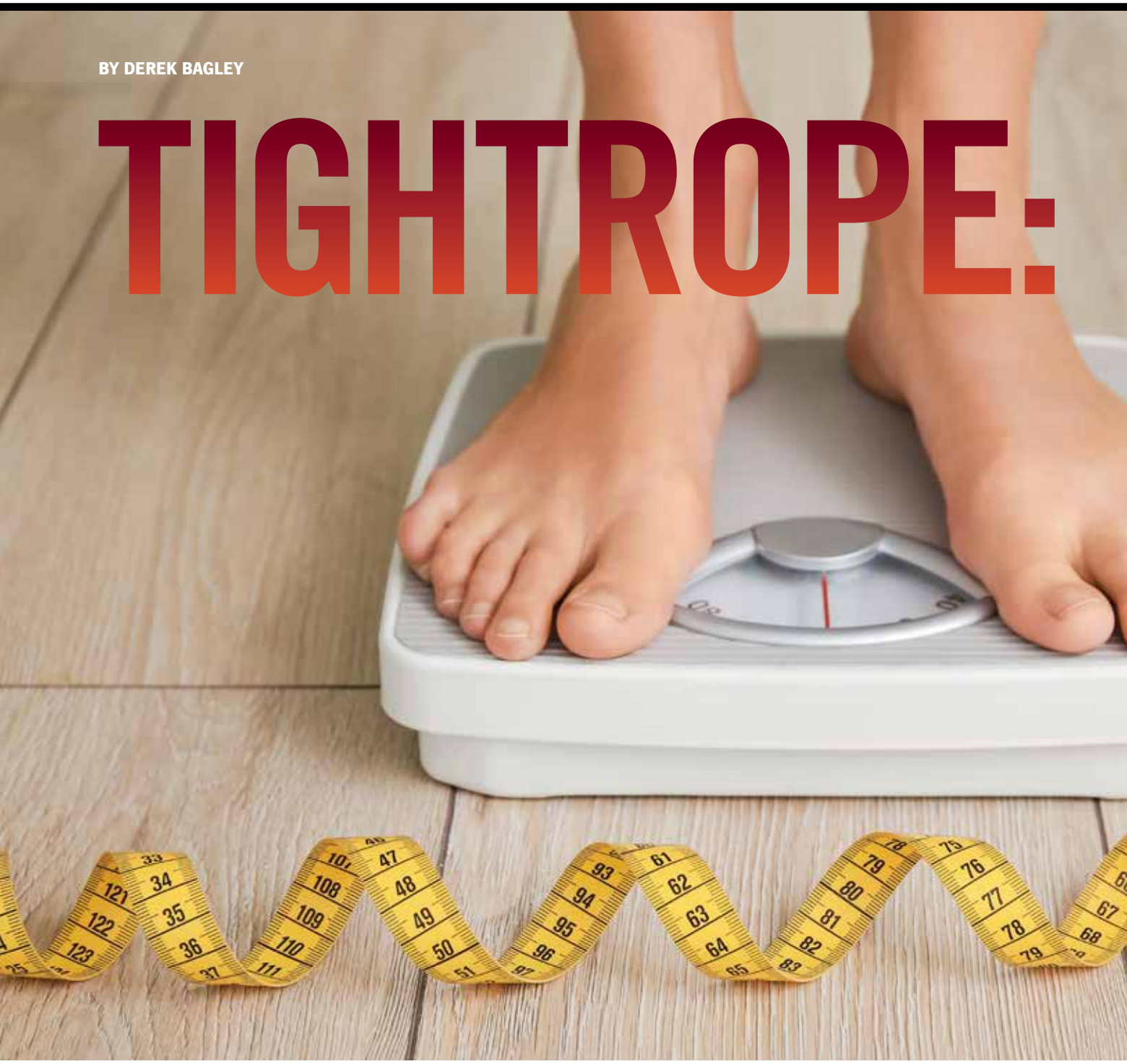
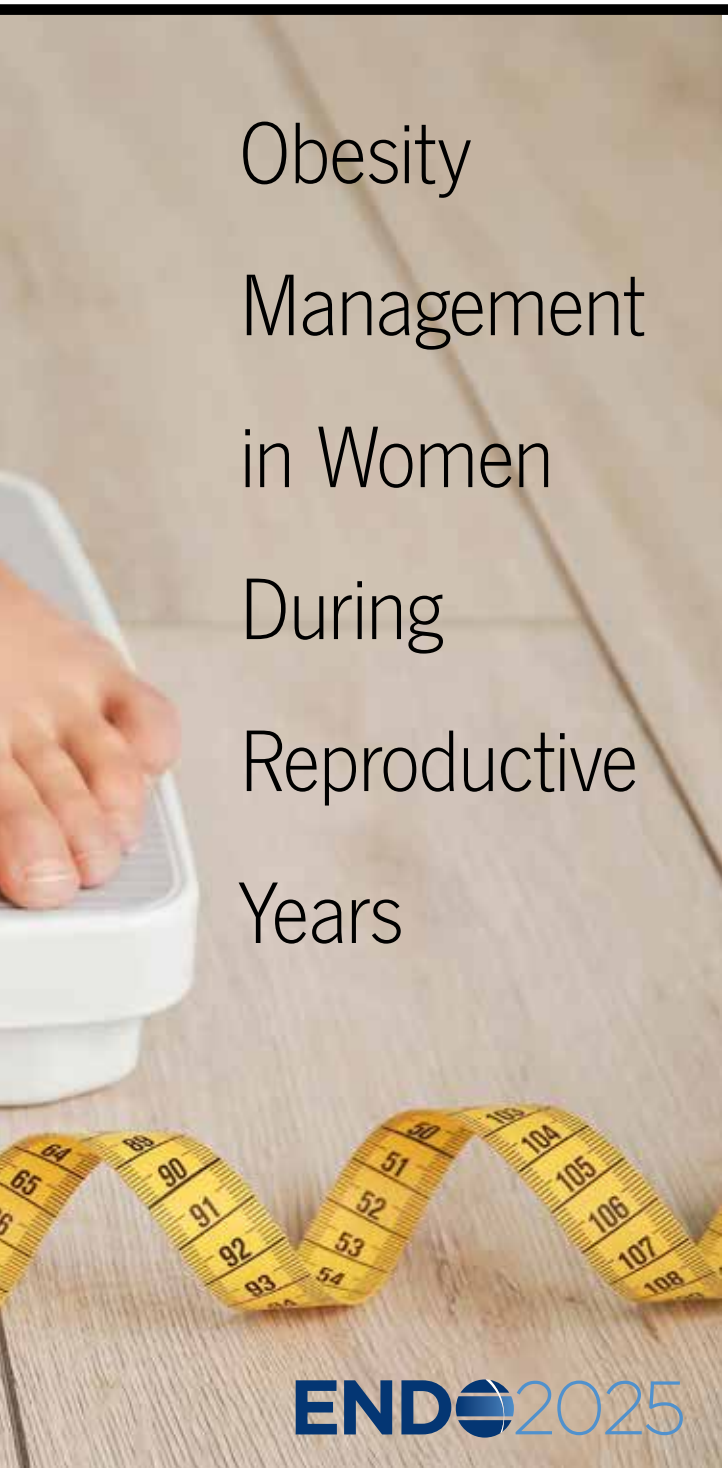


As part of the **ENDO 2025** session, "Obesity Management Across the Lifespan: Special Considerations," Lisa Morselli, MD, PhD, DABOM, will talk about the unique challenges in obesity management in women during their reproductive years.



Obesity Management in Women During Reproductive Years

Lisa Morselli, MD, PhD, DABOM

On Tuesday, July 15, **ENDO 2025** in San Francisco, Calif,. will feature a session titled, "Obesity Management Across the Lifespan: Special Considerations." As the title suggests, the session will cover obesity management in special situations and age groups – promoting lifelong healthy behaviors in children and adolescents, addressing the challenges faced by women who have obesity during their reproductive years, and understanding the unique considerations of obesity management in the elderly.

For her part of the session, Lisa L. Morselli, MD, PhD, DABOM, of the Medical College of Wisconsin in Milwaukee, will deliver the talk on obesity management in women in their reproductive years, especially how obesity affects fertility, pregnancy itself, and overall wellness. "I will give an overview of issues specific to women of reproductive age when it comes to obesity and weight loss."

> We as medical providers also have to be careful about our messaging around weight loss: Weight loss should be attempted to improve health or prevent future complications of excess weight, rather than to look good/conform to society pressure. **We do not want to trigger eating disorders or other mental health issues related to fat-shaming or bias."**
>
> — LISA L. MORSELLI, MD, PHD, DABOM, MEDICAL COLLEGE OF WISCONSIN, MILWAUKEE, WIS.

More than 40% of women in the U.S. live with obesity, and many countries have rates of more than 20%, so this talk is not just clinically relevant to many in the endocrine field, it comes at the right time as these new popular weight loss drugs may offer the chance to slim down, sure, but pregnancy and fertility need to be taken into consideration as well.

Drugs like tirzepatide can interfere with the absorption of oral contraceptives, says Morselli, and women should be counseled about the risk of unexpected pregnancy. At the same time, some forms of birth control can promote weight gain. Funambulism to be sure, but Morselli and her colleagues working in this area hope to at least provide a safety net.

Contraindications

Morselli tells *Endocrine News* that women living with obesity should ideally lose weight before conceiving and limit their weight gain during pregnancy to decrease the risk of harmful consequences for themselves and their offspring.

However, all anti-obesity medications (AOM) are contraindicated in pregnancy. "Then, an important question is: How do we balance the benefits of weight loss induced by AOM with the risk of significant weight regain due to stopping these drugs in preparation for pregnancy?" Morselli says. "We know that significant weight gain during pregnancy increases the risk of harmful consequences for the mother herself (gestational diabetes, pregnancy-induced hypertension, need for C-section,

ENDO2025

Obesity Management Across the Lifespan: Special Considerations

July 15, 2025 • 10:45 a.m. – 12:15 p.m.

This symposium will describe the importance of early identification and intervention in pediatric obesity, outline effective strategies for prevention and management, and apply evidence-based approaches to promote lifelong healthy behaviors in children and adolescents.

Chairs: Roja Fallah, MD, MPH, Indiana University Riley Hospital for Children, Indianapolis, Ind., and Ilene Fennoy, MD, MPH, Columbia University, New York, N.Y.

Balancing Weight and Wellness: Obesity Management in Women During Reproductive Years — Lisa L. Morselli, MD, PhD, DABOM, Medical College of Wisconsin, Milwaukee, Wis.

Early Interventions: Tackling Pediatric Obesity for Lifelong Health — Justin R. Ryder, PhD, Lurie Children's Hospital, Chicago, Ill.

Navigating Obesity in the Elderly: Strategies for Healthy Aging — Shenbagam Dewar, MD, ABOM, University of Michigan Medical School, Ann Arbor, Mich.

postpartum weight retention) and for the offspring (macrosomia, childhood obesity)." The other side of this issue is that obesity is associated with decreased fertility. Morselli says that some of that is related to polycystic ovary syndrome (PCOS), but severe obesity can also impair the function of the hypothalamus-pituitary-gonadal axis.

"The literature on this topic consistently suggests that weight loss can improve fertility, i.e., the ability to become pregnant," Morselli says. "Unfortunately, data about the rate of live birth or miscarriage is not as clear. Again, if using AOM in women of reproductive age, we need to understand the risk of weight regain when stopping medications in preparation for pregnancy."

Saboteurs

Balancing weight and wellness is another seemingly high-flying act that Morselli works to support, but there are some bad actors out there waiting to sabotage the tightrope. Morselli says that for her, wellness should be a holistic approach to general well-being and health. "However, nowadays, we are exposed to a lot of marketing from 'wellness' centers or companies offering weight loss treatments that are not necessarily evidence-based," she says.

Then there's social media: It can be a useful tool to help people lose weight. There can be great information on there, or even just inspiring posts to help people keep going. But these platforms are rife with misinformation regarding wellness and weight loss methods. The Endocrine Society had to host an entire webinar about how the TikTok trend of "hormone balancing" isn't a real thing, and, as Morselli says, it can be difficult to discern the good from the bad. "We as medical providers also have to be careful about our messaging around weight loss: Weight loss should be attempted to improve health or prevent future complications of excess weight, rather than to look good/conform to society pressure," she says. "We do not want to trigger eating disorders or other mental health issues related to fat-shaming or bias, which are more prevalent in women.

No One Path to Obesity

When young women come to her with the goal of losing weight to improve fertility, Morselli discusses the option of AOM, but also starts conversations about bariatric surgery, since, she says, that may be a more sustainable weight loss intervention and there is ample evidence for its long-term safety. "Bariatric surgery does carry a risk for small-for-gestational-age fetus but lower risk of other complications," she says. She starts conversations about bariatric surgery, since she says that may be a more sustainable weight loss intervention and there is ample evidence for its long-term safety.

These conversations speak to the importance of individualized medicine, since, according to Morselli, the path to obesity is different for every person. "As a consequence, while there is a general consensus to approach weight loss, there is no one-size-fits-all intervention," she says. "Weight-related comorbidities also need to be considered as they may impact ability to be physically active or which medications are more likely versus less likely to be useful." EN

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– BAGLEY IS THE SENIOR EDITOR OF *ENDOCRINE NEWS*. IN THE JUNE ISSUE, HE WROTE ABOUT HOW ENDOCRINE-DISRUPTING CHEMICALS AFFECT REPRODUCTIVE ENDOCRINOLOGY.

Collaboration Is PARAMOUNT

Ashley B. Grossman's Transatlantic Legacy

BY KELLY HORVATH

The recipient of the 2025 Transatlantic Alliance Award from the Endocrine Society and the European Society of Endocrinology (ESE) is Ashley B. Grossman, FMedSci, emeritus professor of endocrinology at the University of Oxford and a senior research fellow at Green Templeton College in Oxford, UK; he is also a consultant endocrinologist at the Royal Free London and a professor of neuroendocrinology at Queen Mary University of London in London, UK. He is currently the editor-in-chief of the Society's journal *Endocrine Reviews* as well as an annual contributor to *Endocrine News*' "Eureka!" article each December.

The Transatlantic Alliance Award, which launched in 2021, recognizes an international leader who has made significant advances in endocrine research on both sides of the Atlantic — in Europe and the United States. Grossman will present his award lecture during **ENDO 2025** in San Francisco, Calif.

In his more than 550 peer-reviewed journal articles (among other types of publication), Grossman's research has made vast contributions to improving the lives of patients with neuroendocrine tumors and pituitary disorders. *Endocrine News* asked him more about his illustrious career journey and the people he joined forces with along the way.

Endocrine News: What does this Transatlantic Alliance Award mean to you?

Ashley B. Grossman: It's really nice to be appreciated, but to me it's really about all the other people I have been working with over the years. I've never been someone who works quietly on their own in a

Honored by both the Endocrine Society and the European Society of Endocrinology with the 2025 Transatlantic Alliance Award, Ashley B. Grossman, FMedSci, has made significant contributions to endocrine research on both sides of the Atlantic. *Endocrine News* speaks with Grossman about what this award means to him, what drew him to endocrinology in the first place, and his "rather convoluted career."

corner — collaboration is paramount. It has been a wonderful experience working with people in Europe and the United States, working very collaboratively, sharing knowledge, sharing information, and, in the final analysis, to the ultimate benefit of our patients.

For example, I had started working on cell lines with a young German scientist named Svenja Nölting, and we really got going on pheochromocytomas. I went to a few meetings at the National Institutes of Health (NIH) and met Karel Pacak, and I thought this man sees more pheochromocytomas than anybody in the world, and so he must be the one whom she works with next. We "cross fertilized" and had information going back and forwards. Svenja then went back to Munich, and now she's in Zurich (as assistant professor for endocrine tumors and joint leader of the Neuroendocrine Tumor Board and the Endocrine and Neuroendocrine Tumor Center, ENETS Center of Excellence Zurich, at the University Hospital of Zurich and the University of Zurich, in Switzerland) leading her own team.

Karel and I remain long-standing friends and collaborators who share ideas and difficult patient cases. It's been a real joy to be able to work with people who are bright, informed, enthusiastic, and who really want the whole field to progress, not so much for personal honor, but to actually move forward the clinical science of pheochromocytomas and paragangliomas. That's been a great privilege when I look back on it all. Some people want to be the first to do XYZ, but I'm much more interested in trying to look at areas where other people aren't very interested at the moment or not pursuing in great detail. I think that's been the most enjoyable part of working with people at the NIH, which I've just seen in *Nature* is one of the most productive scientific organizations in biology in the world, and with enthusiastic young people as well. That makes you go to bed thinking, "Well, maybe I've done a little bit of good today after all."

EN: What attracted you to endocrinology?

Grossman: It's a rather convoluted career. I started doing a natural sciences degree at Cambridge but found that crystallography and the general theory of relativity didn't really turn me on. I went back to London to read psychology and social anthropology, then thought I'd do a PhD in psycholinguistics. I've always been very interested in language and its neurological basis, but in a chance meeting with a professor (of endocrinology!), he told me I should read medicine. I applied to St. Bartholomew's hospital, which is one the oldest hospitals in the world on the same site, but they turned me down! I was really irritated and wanted to "show them," so I went to another medical school in London where I planned to focus on neuroscience. But after a further degree in neurosciences, with amazing charismatic teachers, I decided I just first wanted to get my medical degree, ended up going into neuroendocrinology, and then it just became too fascinating to return to anything else. The irony is, which I only realized decades later, that the senior author of one of the first major papers I wrote was the dean of the medical school who turned me down for entry. So, maybe he did help me after all.

Most of my early work was on the hypothalamus and pituitary, very brain orientated. But over the years I fell more into endocrine oncology, and I suppose the message is: Follow your interests. Whatever you do, you've got to be enthusiastic and enjoy what you're doing. If something else glitters a little bit more brightly and you want to do that, then just go do it. That's really what I've done. Most endocrinology deals with quality-of-life issues, which is fine and very rewarding. But with cancer, you are dealing with quite tragic diseases, and maybe as I've gotten older I'm more comfortable dealing with the more serious aspects. That's the way it's worked out. But, as I said, working across the Atlantic with many people has always been a joy, and maybe I should be feeling guilty, as I've had fun.

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> — ASHLEY GROSSMAN, FMEDSCI, GREEN TEMPLETON COLLEGE, UNIVERSITY OF OXFORD, OXFORD, U.K.

EN: Is there a particular career highlight that comes to mind?

Grossman: The one that is the most serendipitous was not really part of my career trajectory. A pediatrician asked me to take over the case of an 18-year-old boy with adrenal failure, which his sister had too, and which was rather odd. I was on a flight and opened up *Science*, where I happened to read that Roger Cone from the Oregon Health Sciences University in Portland had just cloned the ACTH receptor. It occurred to me that everything about my patients could be explained if they had a mutation of the ACTH receptor. So, I met with a friend of mine called Adrian Clark, a superb researcher in the early days of molecular biology; in those days, we didn't have sequencers, we had bits of X-ray film, and we found the mutation hidden in his ACTH receptor as we predicted and in his sister. The parents were carriers of this gene but not affected. It sticks in my mind as being one of just chance and having an interesting thought. Most of the time, research is just slogging away but having the thought then coming straight back into the lab and saying, "let's try this," and seeing it work out was for me a highlight. I think it also shows the importance of seeing patients and how even a single patient can lead to novel findings.

Grossman (left) is pictured with Endocrine Society Immediate Past-President, John Newell-Price, MD, PhD, FRCP; and Roberto Salvatori, MD, at the Journals Reception during **ENDO 2024** in Boston last June.

EN: Can you tell us about other scientists you have mentored?

Grossman: A lot of young people came through my lab, and it reminds me of what a very ancient professor of pathology used to say to me: "What I'm most proud of is that 50 of my students have now become professors," and I know what he means. Patricia Dahia, who came from Brazil and is now at the University of Texas Health Science Center in San Antonio, Texas, defined the two major clusters of pheochromocytomas by detailed genetic analysis after she left me. She got "fired up" into research, and I feel I sort of helped in some small way to launch her into a major career. Mirjam Christ-Crain worked with me for a while and is now one of the world's foremost experts on vasopressin and oxytocin, and how to assess diabetes insipidus (as it used to be called). Gregory Kaltsas is a significant force in Athens, Greece; Andrea Isidori is a major endocrinologist at the University of Rome in Italy; and Dina Shrestha was very junior when she first came to me but is now head of the Endocrinology Department at Norvic International Hospital in Kathmandu, Nepal, and a major endocrine and diabetes force in South Asia. And very significantly, I was joined many years ago by Márta Korbonits, who has become an outstanding leader in international endocrinology.

If it wasn't the work that they actually did with me, I feel that they got enthused enough to then go off and run their own careers. That old professor of mine used to say, "these are our metastases around the world" — maybe not the most felicitous

expression, but I can sort of understand. It's just lovely to see people launch out and become so academically successful.

EN: Who would you credit for mentoring you?

Grossman: Probably the major influence was who I first went to work for. Michael Besser was a consultant and professor at "Bart's," and he got into pituitary tumors and hypothalamic hormones right at the very beginning. He was tough, and he didn't bear fools gladly, but he was a really good clinician, and if you were loyal and worked hard, there was nothing he wouldn't do for you. I learned medicine from him. When I left medical school, I wasn't much of a clinical doctor, frankly, and he really taught me how to be a clinician.

The other person was Lesley Rees, who was professor of chemical endocrinology at Bart's. She was somebody who became dean of a medical school yet was always supportive, friendly, and charming. You don't often come across that in the academic world! So, both Mike and Lesley were the two formative influences on my "endocrine" life, really.

EN: Are you working on anything currently?

Grossman: I don't have a research group anymore, although I'm still attached to my old research group (and I go there once a week where I can ask the stupid questions that other people are too embarrassed to ask). So now I see myself as supporting other people rather than directly involved in hands-on research. Endocrinology has given me the opportunity to travel, which is the other great love of my life, and I can go anywhere in Europe, or to South America or South Asia, and help people by getting them to write articles, or show them how to get things published, as well as helping them to think through problems.

I was always rather better at the theory. I assure people — you can be terrible in the lab and still have a career. I was always dropping things and never getting things quite to work. I liked doing it, but I just wasn't that good, so you have to play to your strengths and push the other things to one side. I am not much of a gardener either!

EN: What will you talk about in your award lecture at ENDO 2025?

Grossman: I think I will simply pull together where we are in terms of these not particularly rare tumors — pheochromocytomas, paragangliomas — what's the state of the art and where we're going in the future. The area of new radionuclides as targeted therapy is very exciting, so I hope to start from the beginning and take us up to 2030 and beyond. [See box.]

I've been attending **ENDO** for 30 or 40 years, thanks to my old "prof," who would choose a group of us to go and expose us in this way to international influences in endocrinology at the very start of our careers. We were really quite privileged.

EN: What has the Endocrine Society meant to you over the years?

Grossman: First, the size and the breadth and being exposed to such a huge number of influences has always been exciting. In more recent years, it has become such an open and inclusive body, with such a diversity of people and efforts to actually exploit that. It's really now an "international society of endocrinology." I go [to **ENDO**] as much to network and meet up with my friends and colleagues or strike up new research relationships. It has increasingly become very internationalist, and I think that's to everyone's benefit. EN

ENDO 2025

Transatlantic Alliance Award in Endocrinology Presentation and Lecture

July 13, 2025 • 4:30 – 6:00 P.M.

Ashley B. Grossman, FMedSci

For some years in London, Grossman worked in endocrine oncology with a particular interest in pheochromocytomas and paragangliomas, concentrating on their diagnosis, management, and molecular genetics. However, it was with initial meetings with Karel Pacak at the NIH and his research fellow Svenja Noelting from Munich, Germany, that Grossman was able to expand his basic research, especially into the use of cell models and of combinatorial drug manipulation and develop a much stronger and coordinated approach to these fascinating tumors.

Subsequent meetings, projects, and discussions between London, Oxford, Munich, and, more recently, Zurich, have allowed this transatlantic partnership to flourish and provide a systematic approach to these tumors, the establishment of guidelines, and the optimization of current and potential therapies. According to Grossman, the further development of peptide receptor radionuclide therapy, possibly using alpha particles, looks especially promising.

– HORVATH IS A FREELANCE WRITER BASED IN BALTIMORE, MD. IN THE JUNE ISSUE, SHE WROTE ABOUT THE **ENDO 2025** SESSION, "BARIATRIC SURGERY AND EMERGING MEDICATIONS: REDEFINING ROLES AND MECHANISMS."

The Hormone Games

In the arena of endocrine research, high-tech tools are the new power players.

COMPILED AND WRITTEN BY COURTNEY CARSON

In the ever-evolving landscape of endocrinology, the laboratory remains the engine of innovation. From uncovering new hormonal pathways to refining diagnostics and therapeutics, research labs are increasingly dependent on tools that offer speed, sensitivity, and scalability. In the complex environment of endocrine research, scientists are embracing next-generation tools to stay ahead of the game. Here, we'll take a look at some of those recent advancements.

Orbitrap Ascend Tribrid Mass Spectrometer

Thermo Fisher's Orbitrap platform brings unparalleled depth and speed to hormone and peptide analysis. With advanced real-time scanning and improved ion transmission, the Ascend is designed for high-sensitivity applications such as profiling low-abundance endocrine markers, identifying post-translational modifications on peptide hormones, and characterizing receptor-ligand interactions. Endocrinologists studying complex metabolic diseases or rare hormone disorders will benefit from enhanced clarity in the molecular fingerprint of circulating signals.

www.thermofisher.com

QX600 Droplet Digital PCR System

Droplet Digital PCR has already transformed molecular quantification, and the QX600 system takes it further with six-color multiplexing. This opens new possibilities in endocrine oncology, genetic screening, and pathway analysis — allowing for simultaneous measurement of multiple hormone-related genes or mutations from a single sample. For applications like thyroid cancer mutation tracking or insulin gene regulation in diabetic models, the QX600 offers robust, reproducible quantification from even minimal or degraded samples.

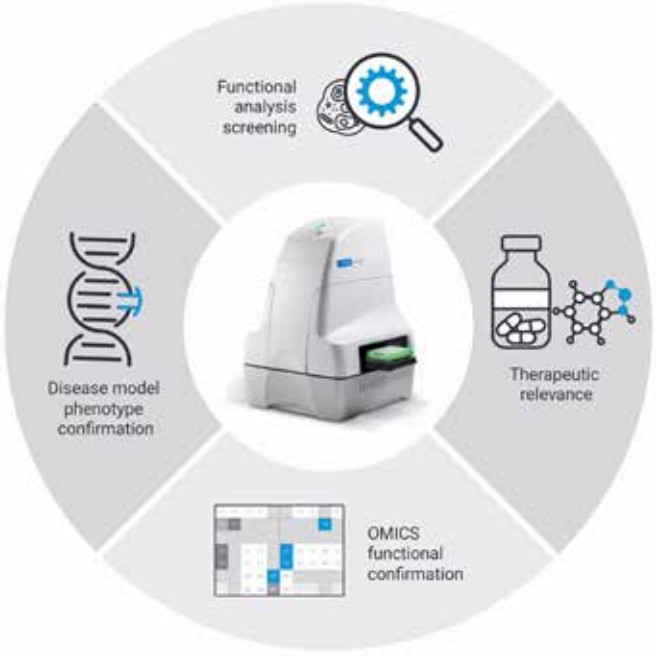
www.bio-rad.com

S-PLEX Ultra-Sensitive Immunoassays

Designed to detect proteins in the femtogram-per-milliliter range, S-PLEX assays provide increased sensitivity for elusive endocrine biomarkers. A highlight includes low detection limits, enabling the measurement of analytes at lower concentrations and reducing required sample volume. Detecting low-abundance hormones or early biomarker shifts can be pivotal for both translational research and preclinical studies — especially in conditions like Cushing's disease or neuroendocrine tumors. **www.mesoscale.com**

Seahorse XF Pro Analyzer

Cellular metabolism is at the heart of endocrine physiology — and dysfunction. The updated XF Pro Analyzer enables dynamic measurement of oxygen consumption and extracellular acidification in real time. It's a powerful asset for research into insulin resistance, thyroid hormone activity, mitochondrial function, and metabolic adaptation. In studying the metabolic impact of hormonal signals or testing the efficacy of new therapeutics, the Seahorse system helps dissect the cellular bioenergetic profile with precision. **www.agilent.com**



CryoCube F740 ULT Freezer

Proper storage remains foundational to any lab's success. The CryoCube F740 combines ultra-low temperature performance with smart monitoring and energy efficiency. A cloud-based interface allows researchers to track sample integrity remotely — an increasingly critical need for 24/7 operations. Whether preserving plasma for steroid panels or safeguarding rare tissue biopsies, this freezer ensures long-term sample stability with minimal risk of temperature excursions. **www.eppendorf.com**

For research endocrinologists, staying abreast of the latest tools isn't just about improving lab productivity — it's about accelerating the path from bench to bedside — and advancing on the frontlines of the fight against endocrine disease. EN

– CARSON IS A FREELANCE WRITER BASED IN BIRMINGHAM, ALA., AND HAS BEEN PROVIDING *ENDOCRINE NEWS* WITH VARIOUS TRAVELOGUES, ENDOGEAR COLUMNS, AND MORE FOR SEVERAL YEARS.

Congress Considers President's Budget, NIH Funding

In May, the federal budget process for Fiscal Year 2026 (FY 2026) kicked off in earnest as the White House Office of Management and Budget released the President's Budget Request (PBR) for the coming year.

The PBR calls for an overall 22% cut in non-defense discretionary spending and drastic cuts to the Department of Health and Human Services (HHS), which includes the National Institutes of Health (NIH). The HHS Budget in Brief reveals a nearly 40% proposed cut to the NIH budget compared with FY 2024 funding levels and outlines a significant reorganization of the NIH's 27 institutes and centers (ICs). The consolidation would leave the National Cancer Institute, the National Institute of Allergy and Infectious Diseases, and the National Institute on Aging in place; however, four ICs would be eliminated entirely: the National Institute for Environmental Health Sciences would move to a new Agency for a Healthy America (AHA), and the remaining ICs would be consolidated into eight new institutes.

While the proposed cuts would severely impact paylines across the NIH, there was less of an impact to the Special Diabetes Program (SDP), which funds type 1 diabetes research and type 2 diabetes treatment and education programs among American Indians and Alaskan Natives. Funding proposed for SDP in FY 2026 is $159 million, which would be a decrease of $1 million. The Society has urged Congress to reauthorize SDP at $170 million per-program per-year for at least two years.

While the president's budget illustrates the administration's priorities, it does not carry the force of law, and attention now turns to Congress and the annual appropriations process that sets discretionary funding for the next fiscal year. Bill text has not yet been drafted as this article was written; however, the budget process is heating up and members of Congress are in active discussions about funding priorities for the coming year. Last week, the NIH released documents demonstrating the impact of a 40% cut to overall funding. These Congressional Justifications (CJs) show, for example, how many grants the administration intends to fund, with significant reductions in the number of awards overall. The CJs assume a flat 15% facilities and administrative (F&A) cost cap, meaning that under current F&A rates the actual number of awards could be much lower.

Following the release of these budget documents, Jayanta Bhattacharya, MD, PhD, director of the NIH, testified at a Senate Appropriation's Labor, Health and Human Services, Education, and Related Agencies (L-HHS) Subcommittee hearing to discuss the administration's FY 2026 budget proposal for the NIH. Bhattacharya fielded questions from senators about a wide breadth of topics addressing the impact of cuts including the cancellation of grants, how the administration proposes to restructure NIH institutes, the NIH's overall direction for research, and F&A costs. Several senators expressed concern about the ability of the NIH to advance research and find treatments and cures for diseases like diabetes, cancer, and Alzheimer's given a proposed budget cut of 40%. Bhattacharya consistently noted that the budget is a collaborative effort between the administration and Congress but did not share many specific details about how the NIH will more effectively or efficiently advance medical research with a reduced budget.

The Endocrine Society is alarmed should the restructuring and funding cuts to the NIH take place, the nation's investment in medical research will be eroded and take years to recover. We understand that these cuts will directly affect our members

through reduced paylines and the reduction or elimination of support for grant programs that scientists depend on, and we are advocating to protect the NIH and biomedical research funding. As part of this effort, we submitted testimony to the Senate Appropriations Committee; we also organized a broad group of over 100 organizations that support medical research to urge Congress to protect funding for the NIH and to halt the proposed reorganization of the NIH until some rationale is provided for the massive changes. We urge members to take action on our advocacy campaign at: **www.endocrine.org/advocacy/take-action**, so that Congress can hear directly from you about the importance of your work and impact on public health.

AMA Passes Resolution Calling for Expanded Access to Anti-Obesity Medications

Endocrine Society champions resolution passed by House of Delegates

On June 10, the American Medical Association (AMA) House of Delegates today passed the Endocrine Society's resolution to improve access to anti-obesity medications.

In the resolution, the AMA committed to advocating for reducing the burden of prior authorization, when healthcare providers must seek insurance plan approval before prescribing anti-obesity medications. Currently, some insurers require approval before every dose change. Doses often need to be adjusted as patients become acclimated to taking GLP-1s, a new class of anti-obesity medication.

Research has shown these medications can help adults lose an average of 15% – 20% of their weight. Despite their effectiveness,

Above: The Endocrine Society's AMA delegates Barbara Onumah, MD, (left) and Amanda Bell, MD.

Left: Amanda Bell, MD, speaking on behalf of the Endocrine Society at the AMA House of Delegates meeting on June 10.

fewer than 20% of large employers cover the costs of GLP-1s to treat obesity, according to the Kaiser Family Foundation. Medicare is prohibited by law from covering these medications.

Expanded access would benefit many of the more than two in five adults nationwide who are living with obesity, according to the Society's Obesity Playbook. Obesity is caused by a complex mix of environmental and development factors, and it puts individuals at risk for other conditions such as heart disease and diabetes. Improved access to anti-obesity medications could help reduce obesity-related medical costs, which total $173 billion a year in the United States.

Learn how to be an Effective Endocrine Advocate!

Visit out our online advocacy toolkit at **endocrine.org/advocacy/advocacy-toolkit** to learn more about how to communicate with your lawmakers by email, phone, and in person. Your senators and representative answer to you, the constituent. Use your voice to share what's important to you.

"Many healthcare providers are delaying prescribing anti-obesity medications to avoid burdening their patients with high pharmacy bills," says Amanda Bell, MD, one of the Society's House of Delegates representatives. "Removing hurdles to accessing this treatment will help more patients receive the care they need to effectively treat this chronic disease."

In addition, the resolution supports the elimination of insurance requirements that force patients to obtain prescriptions only from contracted disease management companies. These measures would broaden access to anti-obesity medications.

The Endocrine Society, the American Association of Clinical Endocrinology, and the American Society for Reproductive Medicine introduced the resolution. Co-sponsors of the resolution include the American Society for Metabolic and Bariatric Surgery, the Obesity Medicine Association, and the American College of Physicians.

The adopted resolution builds upon the existing AMA policy of advocating access to bariatric surgery and other obesity treatments to improve patient care and reduce healthcare costs. EN

Visit us at ENDO 2025

The Government and Public Affairs team will be at the Endocrine Society booth in the Exhibit Hall in the Moscone Center during **ENDO 2025** in San Francisco to answer all of your questions about the latest in the policy world and how you can amplify our messages to protect funding for the National Institutes of Health, improve access to obesity and diabetes treatments, and ensure access to care. We hope to see you there!