

AUGUST 2023

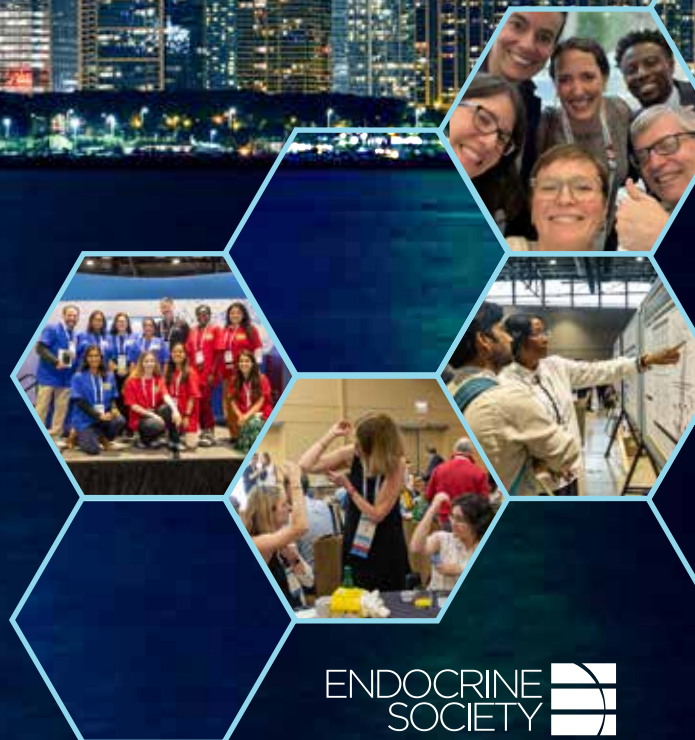
THE LEADING MAGAZINE FOR ENDOCRINOLOGISTS

Endocrine news

ENDO 2023 ENCORE

ENDO 2023 triumphed in Chicago as endocrinologists from across the globe reveled in the most prestigious endocrinology conference in the world. And *Endocrine News* was there for it all!

- **BETTER THAN EVER:** An overview of just some of the scientific breakthroughs presented at ENDO 2023 in a triumphant return for the Endocrine Society's first all in-person meeting since 2019.
- **HEAD START:** When Endocrinology Mentor Day debuted in Chicago, early-career endocrinologists were inspired by what they saw and who they met!
- **RESEARCHERS ROUNDTABLE:** The Endocrine Society's 2023 Early Investigator Award winners discuss what the award means to them, their research, and what's next.
- **MAKING A STATEMENT:** Fatima Cody Stanford, MD, discusses the Endocrine Society's recent Scientific Statement that was highlighted at ENDO 2023.



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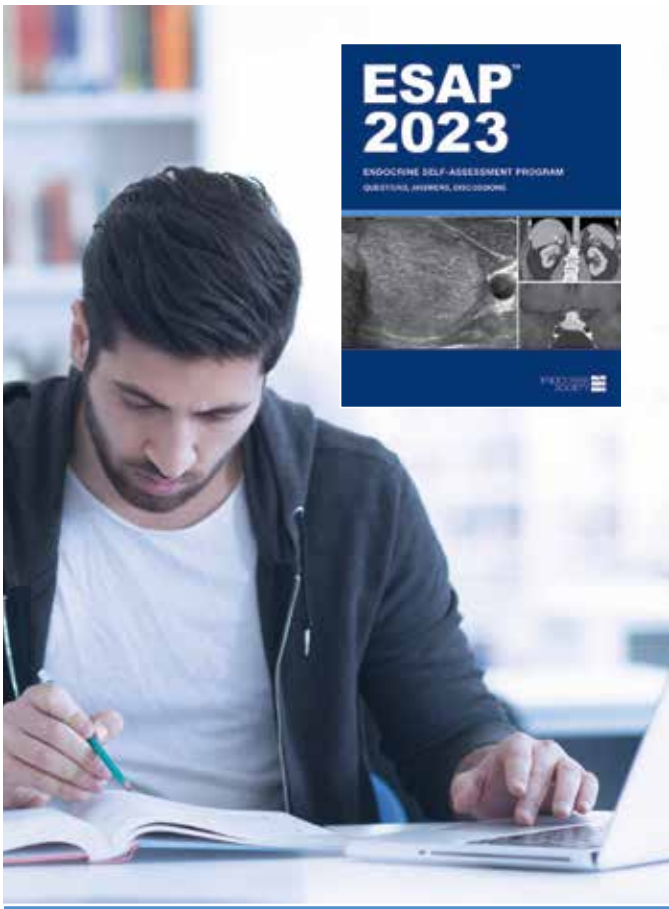
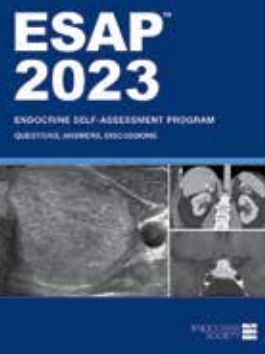
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30 | ENDO 2023: Better Than Ever:

The Endocrine Society returns to Chicago for its first all in-person meeting since 2019.

Scientists and clinicians descended upon the Windy City in droves from near and far to take part in the biggest endocrinology meeting in the world. From the latest research to the newest patient therapies to networking with colleagues, or simply hugging longtime friends, **ENDO 2023** turned out to be one of the most triumphant conferences in recent history. **BY DEREK BAGLEY**

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

BY MARK A. NEWMAN

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The brainchild of the Endocrine Society's Clinical Affairs Core Committee to ensure the pipeline of future endocrinologists keeps flowing, Endocrinology Mentor Day launched in Chicago during **ENDO 2023**.

BY DEREK BAGLEY

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Released in May, "Endocrine Health and Health Care Disparities in the Pediatric and Sexual and Gender Minority Populations: An Endocrine Society Scientific Statement," was a featured session on the last day of **ENDO 2023**. *Endocrine News* spoke to some of the authors about these updated treatment protocols.

BY DEREK BAGLEY

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Endocrine Society educates Congress about childhood obesity and fights proposed cuts to the NIH, other public health agencies; and CMS releases proposed physician fee schedule rule for CY 2024 resulting in a potential 3% increase for endocrinology.

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Access Our CEU and EBR Virtual Content at Your Convenience

Education should fit easily into your professional life, with options that are accessible whenever and wherever you need them. To help, the Endocrine Society is offering this fall's Clinical Endocrinology Update (CEU) and Endocrine Board Review (EBR) meetings in convenient, both synchronous and asynchronous, virtual formats.

Holding the meetings online makes it easier for our members from around the globe to connect with leading experts in our field. CEU 2022 drew almost 1,000 attendees from more than 30 countries.

This year's CEU program will explore diverse topics including adrenal and pituitary imaging, the emergence of new anti-obesity medications, and management of thyroid eye disease. We are offering nine hours of live programming across nine topical areas September 21 – 23. Participants can earn 27.75 AMA PRA Category 1 Credits™ or nine ABIM MOC Points for taking part.

CEU offers amazing opportunities to hear about the latest developments in our field directly from the experts. You don't even need to leave your home or office to access the program. If a session's time isn't convenient for your schedule, the recording will be available within 72 hours for viewing at a time of your choosing.

For those who are preparing for the ABIM's Endocrine Board Exam taking place on October 24, EBR offers an opportunity to learn directly from experts involved in developing the exam. Our case-based questions that are aligned with the ABIM blueprint help build participants' knowledge and confidence. Attendees will be able to interact with our faculty and ask them questions during our virtual Topical Live Q&A Sessions September 8 – 10.


Our EBR program features a new interactive practice exam to help participants identify their strengths and weaknesses

and to gear up for the live question and answer sessions. Our participants can access the on-demand format using our Center for Learning mobile app as well as the online portal. The practice exam can even be downloaded to the app for use in locations without internet access.

Users can bookmark any questions they want to revisit, take notes, and highlight key points. Like the ABIM's new exam model, our practice exam gives users the chance to rate their confidence in their answers. The interactive platform even allows users to generate customized practice exams focused on a certain topic or with specific length and time restrictions.

Registered participants also receive the *Endocrine Board Review 15th Edition (2023)* to help evaluate their understanding of the exam content. Our goal is to ensure participants feel self-assured and thoroughly prepared going into the Endocrine Board Exam.

Make sure you register now to join us for these important clinical education opportunities (<https://www.endocrine.org/meetings-and-events>).

For basic researchers, be sure to look out for our team at the Neuroscience 2023 meeting this fall. Wherever your meeting schedule takes you, we would love to connect with you. Our staff enjoyed catching up with many of you at the European Congress of Endocrinology. In addition to Neuroscience 2023, we'll also be on the ground at the American Thyroid Association's Annual Meeting this fall. Stop by our booth to renew your membership, check out our latest resources, or chat with our team. We look forward to seeing you soon! 

Stephen R. Hammes, MD, PhD
President, Endocrine Society



CEU

CLINICAL ENDOCRINOLOGY UPDATE

2023

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FROM THE **EDITOR**

ENDO 2023: Reunited and It Felt So Good!

While last year was the first time we devoted an entire issue of *Endocrine News* to **ENDO**, we're doing it again this year since **ENDO 2023** was the first completely in-person conference since 2019 in New Orleans! Since thousands of endocrinologists descended on Chicago from around the world to see firsthand the amazing amount of research that was presented, the connections that were made, and the events that took place, even an entire issue won't cover it all!

While in Chicago, both Senior Editor Derek Bagley and I were feverishly live Tweeting every chance we got. Whether it was updates from the many scientific sessions we attended, photos from the **ENDO** Expo floor, or just advice on how to best navigate McCormick Place, we ended up scoring in the top three Tweeters for the #**ENDO2023** hashtag with only the Endocrine Society ahead of us, and Joy Wu gaining on us! With millions of Twitter impressions, it was easy to see why **ENDO 2023** was so popular.

On page 30, we have an overview of some of the press conferences conducted by the Endocrine Society that highlighted a wide range of topics from the impact of bariatric surgery on wrist fractures, the most recent Society Scientific Statements, to the impact of endocrine-disrupting chemicals on subsequent generations. In "**ENDO 2023: Better Than Ever**," Derek takes a look at some of these groundbreaking studies and speaks to researchers about what their findings mean for the future of patient care. With plenty of photographs mixed in with the breaking science that was highlighted at **ENDO 2023**, we hope that this will serve as a souvenir for those of you who were in Chicago or an encouragement for those of you who missed out to go ahead and register for **ENDO 2024** in Boston next year!

While each of the press conferences could easily be stories unto themselves, we grouped them together for the sake of space and timeliness. However, in "Making a Statement" on page 26, Derek did expand on one of the sessions surrounding the Endocrine Society's recent Scientific Statement, "Endocrine Health and Health Care Disparities in the Pediatric and Sexual and Gender Minority Populations: An Endocrine Society Scientific Statement." This statement identifies areas for future endocrine research to reduce health disparities in pediatric and sexual and gender minoritized populations and expands the Society's 2012 statement by focusing on pediatric and adult lesbian, gay, bisexual, transgender, queer, intersex, and asexual (LGBTQIA) people. The writing group covered prevalent conditions such as growth

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Endocrine News informs and engages the global endocrine community by delivering timely, accurate, and trusted content covering the practice, research, and profession of endocrinology.



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I actually had my own “fan boy” moment during **ENDO 2023**’s Early Career forum when I ran into two previous *Endocrine News* cover subjects: Dequina Nicholas, PhD, and Stanley Andrisse, PhD.



disorders, puberty disorders, bone conditions, diabetes, and obesity.


Obviously, the *Endocrine News* staff was all over the place during **ENDO 2023** since we have another feature from Derek who spent all day at the debut of Endocrinology Mentor Day on Saturday, June 17. This program was the brainchild of the Endocrine Society’s Clinical Affairs Core Committee to ensure that the endocrine workforce remains solid. In “Head Start: Endocrinology Mentor Day Debuts at **ENDO 2023**” on page 20, it’s obvious that the next generation of endocrinologists is eager and excited about the future and being a part of the endocrine field. “It’s a very intellectually stimulating field, and I like that it always keeps me on edge,” attendee Marah Alsayed Hasan, MD, an internal medicine resident at Lankenau Hospital in Wynnewood, Pa., tells Derek. “I also like that fact that you have the opportunity to do a lot of preventative care and be able to follow patients over a long period of time and develop relationships [with them].”

But what **ENDO** wrap-up issue would be complete without a roundtable article? This year, I finally managed to catch the presentations of the Endocrine Society’s 2023 Early Investigator Award Winners who are featured in “Researchers Roundtable: Talking to the 2023 Early Investigator Award Winners” on page 14. All five of the award researchers presented their research on a variety of topics ranging from the development of human germline and urogenital organs to novel genes; pathways associated with congenital hypopituitarism; platforms for affordable genetic testing; the molecular mechanisms of regulated secretion and the use of genetic and pharmacological tools; and innovations in diabetes

technology that could hopefully further advance the treatment.

While they all discussed their research and the challenges they’ve faced as endocrine scientists (Spoiler alert: It’s funding!), they all appreciate the recognition by the Endocrine Society and realize that this award could be a huge boost to their research. In fact, one recipient said that the Early Investigator Award has heightened his enthusiasm for science. “Ultimately, I hope that my research will have an impact and positively influence the care for people with diabetes,” says Peter van Dijk, MD, PhD, a clinical academic endocrinologist from the University Medical Center of Groningen in The Netherlands, who adds that to achieve this collaboration with other research groups is key and that the “platform provided by the Endocrine Society through the Early Investigator Award contributes to this goal.”

Even though I think all of us here in the Endocrine Society offices have finally recovered from the whirlwind that was **ENDO 2023**, we’re also still buzzing about what a fantastic conference it was and how joyous it was to be back together once more, face to face. In fact, the atmosphere was so celebratory that the only “problem” I had was arriving at packed sessions late because I ran into so many of you on my way to get hugs and handshakes that I Tweeted out advice to other attendees that they might want to leave 15 minutes early! But, as they say, that’s a “good problem to have!”

Enjoy this issue devoted to **ENDO 2023**, and let’s see if we can exceed the expectations of **ENDO 2024** in Boston! 

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



BY DEREK BAGLEY
Senior Editor



TRENDS & INSIGHTS

Researchers Discover Hormonal Pathway that Increases Calorie Burning During Weight Loss

Researchers at McMaster University have uncovered a key mechanism for promoting weight loss and maintaining the burning of calories during dieting, according to a paper published recently in *Nature*.

Researchers led by Gregory R. Steinberg, PhD, a professor of the Department of Medicine at McMaster University and co-director of the Centre for Metabolism, Obesity, and Diabetes Research, and Dongdong Wang, PhD, a postdoctoral research fellow, studied growth differentiating factor 15 (GDF15). GDF15 has been shown to lower adiposity by primarily suppressing food intake in rodents and non-human primates, but the authors write that other distinctions must be considered before concluding this is the sole reason for weight loss.

The researchers point out that the most important of these distinctions is that “energy intake, energy expenditure and body weight are interdependent variables that are dynamically linked to each other, in that, reductions in energy intake and weight loss can both lead to reduced energy expenditure.” Specifically, previous studies in mice treated with recombinant GDF15 and calorically matched controls were conducted over a relatively short period (7 – 14 days) before potential reductions in energy expenditure, a process known as adaptive thermogenesis, may have occurred. In addition, previous studies had been completed in mice housed at room temperature (21 degrees Celsius — below the thermoneutral zone for rodents), which may have also masked potential changes in adaptive thermogenesis. “Collectively, these studies indicate that it is important to consider the interrelationships between caloric intake, duration of intervention and housing temperature

when studying weight loss and pharmacological interventions in mice,” the authors write.

For this study, the researchers analyzed mice housed at thermoneutrality (29 degrees Celsius) that were fed a Western-style diet that promotes obesity, insulin resistance, and non-alcoholic steatohepatitis (NASH). The mice were then injected with recombinant human GDF15 at the start of the light cycle (the time period when mice eat fewer calories, as opposed to previous studies where mice were injected at the start of the dark cycle).

The researchers found that like previous studies, over the first two weeks GDF15 suppressed food intake and weight loss was comparable to mice that were fed the same amount of food and injected with a vehicle control. However, after two weeks, the mice treated with GDF15 continued losing weight while those consuming the same number of calories stopped losing weight, indicating that GDF15 was blocking the reductions in energy expenditure (adaptive thermogenesis) that occurs during caloric restriction. This maintenance of energy expenditure in GDF15 treated mice, occurred in their muscles but not fat tissue and was related to increases in calcium futile cycling.

More research is needed to confirm these findings in humans, says Steinberg. He says that understanding how GDF15 levels impact muscle energy burning in humans could help explain why people have diverse levels of success in losing weight with dieting. Further research on GDF15 might also provide new ways to help individuals who struggle to lose weight through traditional diets and may extend the benefits of exercise or recently approved appetite suppressing drugs that target the GLP1 receptor.

“

These studies indicate that it is important to consider the interrelationships between caloric intake, duration of intervention and housing temperature when studying weight loss and pharmacological interventions in mice.

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Duration and Poor Quality of Sleep Associated with Greater Risk for Diabetes

Fewer than six hours or more than 10 hours of sleep, and poor quality of sleep are associated with a greater risk for diabetes, according to research presented at **ENDO 2023**.

Previous studies have looked at poor sleep quantity and quality, and its impact on the risk for diabetes or obesity. However, this study sought to explore the longitudinal effects.

“Most previous studies did not examine changes in various glycometabolic parameters, like over 14 years. The pattern of changes in various glycemic parameters may provide clues to the mechanism underlying the association between sleep duration and incident diabetes mellitus,” says first author Wonjin Kim, MD, PhD, of CHA Gangnam Medical Center and associate professor at CHA University School of Medicine in Seoul, South Korea.

For this study, the researchers collected data from 8,816 of 10,030 healthy participants of the ongoing Korean Genome and Epidemiology Study (KoGES) – Ansung and Ansan Cohort Study. They identified diabetes cases and sleep duration and quality. Sleep duration was categorized into four groups: fewer than six hours, six to seven hours, eight to nine hours, or nine hours per day. Sleep quality was measured among those with a sleep duration of fewer than 10 hours per day.

During the 14-year follow-up period, 18% (1630/8816) were diagnosed with diabetes. The researchers observed a U-shaped relationship between sleep duration and incident diabetes, with the greatest

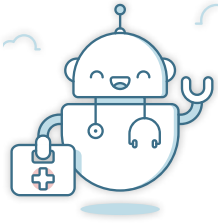
risk when sleep duration was ≥ 10 hours per day. During the study, this group also showed decreased insulin glycoemic index, which is a marker of insulin secretory function.

The risk for incident diabetes increased among study participants who slept < 10 hours per day when their Epworth Sleepiness Scale (ESS) — which measures how likely a person is to fall asleep in situations like watching TV or being a passenger in a car in contrast to how tired that person is — score was greater than 10. (A score of 10 or greater may mean a need for more sleep or an improvement in sleep quality.)

“We found that the association between sleep duration and incident DM was U-shaped; both short (≤ 5 hours) and long (≥ 10 hours) sleep durations were associated with an increased risk for the occurrence of incident [type 2 diabetes mellitus (DM)],” the authors conclude. “When sleep duration was 10 hours or longer per day, there was a tendency to develop DM due to decreased insulin secretory function. Even if the sleep duration is less than 10 hours, the likelihood of developing diabetes is greater when the quality of sleep decreases.”



“
Even if the sleep duration is less than 10 hours, the likelihood of developing diabetes is greater when the quality of sleep decreases.”



Study Finds “Robotic Pill” Can Safely Deliver Injectable Osteoporosis Drug

A proven and effective medication for osteoporosis, which is currently only available as an injection, can be administered orally using a novel “robotic pill,” according to a study presented at **ENDO 2023**.

Researchers led by Arvinder Dhalla, PhD, who heads Clinical Development at Rani Therapeutics, the San Jose, Calif.-based company that developed the technology and funded the study, point out that teriparatide, an effective osteoanabolic agent, requires a chronic regimen of daily subcutaneous (SC) injections, representing a burden for patients that may interfere with compliance and quality of life. “We have developed a novel oral robotic pill (RP) to deliver biotherapeutic agents with bioavailability rivaling or surpassing that of parenteral injections. Here, we present data from a Phase 1 study in healthy women volunteers designed to evaluate the safety, tolerability, and pharmacokinetics (PK) of 20- and 80 µg of hPTH (1-34) administered orally via RP (RT-102) at single doses,” the authors write.

When a person swallows the robotic pill, it moves through the stomach intact. In the intestine, the pill releases a self-inflating balloon with a microsyringe, which injects a drug-filled microneedle and delivers the medication.

The Phase I study of 39 healthy women evaluated the safety, tolerability, and movement through the body of the robotic pill known as RT-102, containing a dose of the drug teriparatide (PTH 1-34). Teriparatide is a synthetic form of the natural human parathyroid hormone. It has been in clinical use for decades as an injectable medication (under the brand name Forteo®) for rebuilding brittle bones of osteoporosis patients. It is taken as a daily injection for up to two years.

Study participants were divided into three groups. Two groups received either a lower or higher



dose delivered with the robotic pill, and the third group received a standard injection of teriparatide. Fluoroscopic imaging was used to track the robotic pill through and out the body. Drug concentrations were measured in blood samples collected over six hours. The study found the bioavailability of the drug delivered by the robotic pill was comparable to or better than the drug given via the injection.

“This study provides the first clinical evidence of safe and successful delivery of hPTH (1-34) via an orally administered RP with high reliability and bioavailability,” the authors conclude. “These data suggest that RT-102 can potentially offer an easier and more convenient treatment option to osteoporosis patients, and given the high bioavailability, RT-102 may be effective at doses lower than the currently approved 20 µg SC dose of teriparatide.” **EN**

“
These data suggest that RT-102 can potentially offer an easier and more convenient treatment option to osteoporosis patients, and given the high bioavailability, RT-102 may be effective at doses lower than the currently approved 20 µg SC dose of teriparatide.”
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The Endocrine Society's *Journal of the Endocrine Society* (JES) received its first Impact Factor score in 2022, while the Society's other journals maintained high rankings on the prestigious measure of scholarly publishing.

The 2022 Impact Factors were released June 28 by *Journal Citation Reports*, an annual publication of Clarivate Analytics.

JES, which launched in 2017, is an open access journal providing rapid publication of clinical research, clinical practice information, and basic research in all areas of endocrinology. The publication also features mini-reviews, commentaries, perspectives, and articles on images, databases, and methods.

JES received an Impact Factor of 4.1 and ranked 62 out of more than 180 journals in Clarivate's "Endocrinology & Metabolism" scientific category.

"We are delighted to see JES join our other publications in gaining recognition on the widely regarded Impact Factor rankings," says Bruno Ferraz-de-Souza, MD, PhD, chair of the Endocrine Society's Publications Core Committee.

"This designation is a true testament to the rigor and commitment of our authors, reviewers, and editors," he continues. "It also underscores the dedication of our entire editorial team led by Chief Publications Officer Richard O'Grady, PhD, along with our excellent past and current editors-in-chief. The Society publishes the most innovative and relevant research in our field."

This year marks some technical changes in how Clarivate calculates its rankings. In general, however, the Impact Factor in 2022

still reflects the number of citations a journal received for its articles published in 2020 and 2021.

The Society's *Endocrine Reviews* received a 2022 Impact Factor of 20.3, ranking it fifth among journals in the "Endocrinology & Metabolism" scientific category. The journal publishes bimonthly comprehensive, authoritative, and timely review articles balancing both experimental and clinical endocrinology themes.

The Journal of Clinical Endocrinology and Metabolism (JCEM) received an Impact Factor of 5.8. JCEM is the world's leading peer-reviewed journal for endocrine clinical research and clinical practice and continues to be the most cited journal in its Clarivate category.

The Society's flagship basic science journal, *Endocrinology*, received an Impact Factor of 4.8. *Endocrinology*, which was founded more than 100 years ago, provides insights into the physiological and pathophysiological processes relevant to endocrine systems and endocrine-related diseases at the molecular, cellular, tissue, and organismal level of hormone function.

Read the Society's 2022 Journal Citations Report on our website.

The Society also recently launched a new open access journal, *JCEM Case Reports*. Since it opened for submissions in August 2022, and published its first issue in January 2023, this open access publication — free to read online worldwide — is off to a strong start: with more than 260 submitted manuscripts from clinicians in 39 countries.



Journal of the Endocrine Society Earns First Impact Factor

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EBR 2023

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Endocrine Board Review (EBR) 2023 is the leading online training program for fellows, residents, and physicians preparing for board certification exams. EBR's comprehensive curriculum will ensure you maximize your score and succeed in the Endocrinology, Diabetes, and Metabolism Exam.

EBR provides you with case-based questions aligned with the ABIM blueprint and the most effective tools for building confidence as you prepare for the endocrine board exam.

<https://www.endocrine.org/ebr/ebr2023>



CEU 2023

CLINICAL ENDOCRINOLOGY UPDATE

Sept. 21 – 23, 2023/Virtual Only

The Endocrine Society's Clinical Endocrinology Update (CEU) provides an annual update on the latest diagnosis and treatment recommendations for various endocrine conditions, delivering educational value for clinicians, and ensuring optimal patient care worldwide.

Our program is the best way to stay updated on the latest developments in patient diagnosis and treatment in endocrinology. Esteemed faculty from across the globe will present a comprehensive, case-based agenda to help you gain knowledge to improve your practice in an intimate atmosphere where you have direct access to experts in hormone health. Our faculty will cover key endocrinology topics, including adrenal, calcium and bone, diabetes mellitus, pituitary, obesity and lipids, reproduction, and thyroid.

This year's program will be delivered online and will be accessible via our virtual meeting platform.

<https://ceu2023.endocrine.org>

RELAXIN 2023: 9th International Conference on Relaxin and Related Peptides

Canmore, Alberta, Canada
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This conference is designed for basic, translational, and clinical scientists around the world who are interested in relaxin and related peptides, and their receptors. Featured presenters cover all aspects of basic biology and physiology, plus potential clinical applications of relaxin and related peptides. Additional topics include receptor function and signaling, reproductive and

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<https://www.relaxinconferences.com/>

2023 American Thyroid Association Annual Meeting

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September 27 – October 1, 2023

The ATA Annual Meeting is the world's preeminent event for those interested in thyroid diseases and disorders and provides an opportunity for peer-to-peer learning and

collaboration through lectures, interactive discussions, meet the professor sessions, and abstracts. This year, the ATA will celebrate its centennial anniversary with a culmination of the celebration and the largest gathering of thyroidologists in the world. 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 in-depth information about thyroid diseases and disorders. With a diverse program planned, attendees can customize their experience by attending sessions

that are most important to their professional development.

<https://www.thyroid.org/2023-annual-meeting/>

ObesityWeek® 2023

Dallas, Texas

October 14 – 17, 2023

The preeminent international conference for obesity researchers and clinicians, ObesityWeek® is home to the latest developments in evidence-based obesity science: cutting-edge basic and clinical research, state-of-the-art obesity treatment and prevention, and the latest efforts in advocacy and public policy. Overcoming obesity requires multidisciplinary approaches. This is the conference that encompasses the full spectrum of obesity science from basic science research, to translational research and clinical application, to public policy; diet, exercise, lifestyle, and psychology to medical and surgical interventions; from pediatric to geriatric to underserved populations.

<https://obesityweek.org/>

4th Annual Mayo Clinic Thyroid and Parathyroid Disorders Course 2023

Orlando, Florida

November 9 – 11, 2023

The 4th Annual Mayo Clinic Thyroid and Parathyroid Disorders Course 2023 is a three-day CME course offering a comprehensive review of diagnostic techniques and medical and surgical management of thyroid and parathyroid disorders.

<https://ce.mayo.edu/endocrinology/>

Neuroscience 2023 – Society for Neuroscience (SfN)

Washington, D.C.

November 11 – 15, 2023

Each year, scientists from around the world congregate to discover new ideas, share their research, and experience the best the field has to offer. Attend so you can: Present research, network with scientists, attend session and events, and browse the exhibit hall. Join the nearly half a million neuroscientists from around the world who have propelled their careers by presenting an abstract at an SfN annual meeting – the premier global neuroscience event.

<https://www.sfn.org/meetings/neuroscience-2023>

INTERNATIONAL ITINERARY

The 61st Annual ESPE Meeting 2023

The Hague, The Netherlands

September 21 – 23, 2023

The theme for the European Society for Paediatric Endocrinology's (ESPE) 61st Meeting is "Global Challenges in Pediatric Endocrinology," which will address several important challenges from around the world: carbon dioxide-driven climate change; global but also local inequality with large differences in access to basic needs and medical care; and a recent pandemic. Climate change calls for more sustainable medical care in the field of pediatric endocrinology and also raises ethical questions. Another big challenge is the ever-rising prevalence of obesity, with low- and middle-income countries quickly catching up with high-income countries. Although considerable advances are made with respect to medical treatment, these are not automatically available for large groups of affected individuals. Both experienced colleagues and younger trainees will have the opportunity to present their work in oral sessions with ample opportunities for further presentations and discussion in the poster sessions, which will include both physical and electronic posters. The meeting will be held in World Forum, an iconic international event venue located between the beach and the city center in the "City of Peace and Justice."

<https://www.eurospe.org/events-espe/espe-2023-annual-meeting/>

EndoBridge 2023

Antalya, Turkey

October 19 – 22, 2023

Co-hosted by the Endocrine Society and the European Society of Endocrinology in collaboration with the Society of Endocrinology and Metabolism of Turkey, EndoBridge will be held in English with simultaneous translation into Russian, Arabic, and Turkish. Accredited by the European Accreditation Council for Continuing Medical Education (EACCME), this three-day scientific program includes state-of-the-art lectures delivered by world-renowned faculty and interactive sessions covering all aspects of endocrinology. EndoBridge® provides a great opportunity for physicians and scientists from around the world to interact with each other, share their experience and perspectives, and participate in discussions with global leaders of endocrinology.

www.endobridge.org

Third Euro Diabetes and Endocrinology Congress

Paris, France

December 11 – 12, 2023

The Third Euro Diabetes and Endocrinology Congress is a unique forum for diabetologists and endocrinologists with comparable levels of experience and education to present, exchange ideas, and develop collaborative networks in both academia and industry.

<https://diabetic.plenareno.com/>

Researchers **ROUNDTABLE**

Discussing endocrine science
with the 2023 Early Investigator
Award Winners

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

BY MARK A. NEWMAN

When the recipients of the Endocrine Society's 2023 Early Investigator Awards presented their research at ENDO 2023, the atmosphere in the packed room at McCormick Place was electric; there were no empty seats, and it was truly "standing room only" (including a couple of Endocrine Society past presidents).

As this year's winners got up to speak, it was easy to see why this was such a "hot ticket" because their presentations covered a dynamic spectrum of endocrine research, from the development of human germline and urogenital organs; novel genes and pathways associated with congenital hypopituitarism; platforms for affordable genetic testing; the molecular mechanisms of regulated secretion and the use of genetic and pharmacological tools; and research focused on diabetes and innovations in technology that advance the treatment of type 1 diabetes.

The 2023 winners are: **Michael Kalwat, PhD**, an assistant investigator in the Lilly Diabetes Center of Excellence within the Indiana Biosciences Research Institute's Diabetes Center and a member of the Indiana University School of Medicine's Center for Diabetes and Metabolic Diseases; **Peter van Dijk, MD, PhD**, a clinical academic endocrinologist who specializes in diabetes and general endocrinology at the University Medical Center Groningen (UMCG), Groningen, The Netherlands; **Laura Hernandez-Ramirez, MD, PhD**, an associate researcher at National Autonomous University of Mexico, Mexico City, Mexico; **Louise Gregory, PhD**, a postdoctoral research scientist at University College London Great Ormond Street Institute of Child Health (ICH), London, U.K.; and **Kotaro Sasaki, MD, PhD**, an assistant professor in the Department of Biomedical Sciences at the University of Pennsylvania School of Veterinary Medicine and of Laboratory Medicine at the University of Pennsylvania Perelman School of Medicine.

Endocrine News was fortunate enough to catch their presentations in Chicago and caught up with them to learn more about their research, the unique challenges they've each faced, and what the award means for their work.

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

Michael Kalwat: My lab is working on projects related to both type 1 and type 2 diabetes, as well as broad understanding of hormone-secreting cells. We've used high-throughput screening to find new chemicals that alter the function of insulin-secreting beta cells, and we hope these chemical tools will help identify new biology and disease treatment strategies. After starting my independent lab at the Indiana Biosciences Research Institute's Diabetes Center (IBRI), I was fortunate to publish multiple manuscripts in *Endocrinology*. I appreciate the



Michael Kalwat, PhD, assistant investigator, Lilly Diabetes Center of Excellence, Indiana Biosciences Research Institute's Diabetes Center; member, Indiana University School of Medicine's Center for Diabetes and Metabolic Disease, Indianapolis, Indiana

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I strive to contribute new discoveries in pancreatic islet biology that lead to better detection and treatment of diabetes and other endocrine disorders. I consider the support that the Endocrine Society provides to early-career basic researchers like me as critical for achieving these outcomes.

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Peter van Dijk, MD, PhD, clinical academic endocrinologist, University Medical Center Groningen, Groningen, The Netherlands

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I hope that my research will have an impact and positively influence the care for people with diabetes. To achieve this, collaboration with other research groups and promoting my work are essential. The platform provided by the Endocrine Society through the Early Investigator Award contributes to this goal.

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Laura Hernandez-Ramirez, MD, PhD, associate researcher, National Autonomous University of Mexico, Mexico City, Mexico

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As a new faculty member, I am constantly looking for opportunities to showcase my lab's research. Given the international recognition of the Endocrine Society, this award appealed to me as a great opportunity to put my recently established lab on the map.

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Kalwat says he hopes for multiple outcomes regarding his work, including training new scientists as well as the “overall advancement of scientific knowledge and improving human health.”

support from academic publishers like the Endocrine Society, and I was looking for ways to become more connected with the organization and increase my scientific network. The Early Investigator Award provided an opportunity to accomplish those goals.

Peter van Dijk: Diabetes has a profound impact on the daily lives of individuals living with the condition. I firmly believe that technological advancements will continue to push the field of diabetes care forward in the coming decades, offering opportunities to enhance self-management, empower patients, improve glycemic control, and ultimately enhance overall well-being. As a clinical academic endocrinologist, my ambition is to leverage these technological innovations to improve the lives of individuals with diabetes.

My clinical work and research have primarily focused on exploring the effects of (implantable) insulin pumps and glucose

sensors on glycemia, including glycemic variability, quality of life, disease burden, and broader endocrine and vascular aspects such as growth hormone, oxidative stress, and vascular calcifications. More recently, my research has increasingly centered on the in-hospital use of glucose sensor technology. The outcomes of these studies are interesting and exciting.

Laura Hernandez-Ramirez: Presenting my work and networking at conferences has always helped me to stay in touch with other researchers and to meet new potential collaborators. As a new faculty member, I am constantly looking for opportunities to showcase my lab's research. Given the international recognition of the Endocrine Society, this award appealed to me as a great opportunity to put my recently established lab on the map.

Louise Gregory: My research investigates novel genes and pathways in congenital hypopituitarism and related disorders.



I use a multitude of laboratory and bioinformatic techniques to identify and functionally test variants that are present in children. Through molecular diagnosis we can help control their disease progression and enable an earlier introduction of targeted therapies. I applied for this prestigious Early Investigator Award due to my long-standing interest in this area of life science and my contribution to this field of research that spans 14 years of hard work and dedication.

Kotaro Sasaki: We are interested in generating human adrenal gland organoids in petri dishes using pluripotent stem cells. Our approach is to carefully recapitulate the normal developmental process through directed differentiation of human pluripotent stem cells. After the numerous iterations of trial and error over the last four years, we finally built a robust method to generate the world's first human adrenal organoids, which closely resemble the fetal stage of the human adrenal gland. This platform allows us to study how the human adrenal gland develops normally and what happens if it goes awry. I also envision that this technology will mature further and eventually enable us to transplant for the cell therapy of adrenal insufficiency.

I am relatively new in this field, and this is my second year as a member of the Endocrine Society. I was hoping that this award and presentation of my research would allow me the opportunity to network with more people working in the field.



Louise Gregory, PhD, a postdoctoral research scientist, University College London Great Ormond Street Institute of Child Health, London, U.K.

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The Endocrine Society has been imperative in facilitating my relationships with world-renowned experts and has definitely given me a platform to reach a wider audience and initiate collaborations with others that I will take forward into my future career.

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Kotaro Sasaki, MD, PhD, assistant professor, Department of Biomedical Sciences, University of Pennsylvania School of Veterinary Medicine; Laboratory Medicine, University of Pennsylvania Perelman School of Medicine, Philadelphia, Pennsylvania

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After the numerous iterations of trial and error over the last four years, we finally built a robust method to generate the world's first human adrenal organoids, which closely resemble the fetal stage of the human adrenal gland.

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What have been some of your biggest challenges at this point in your career as a scientist and researcher?

Kalwat: Learning to run an independent academic research lab is a challenge that I must meet daily. Earlier in my career, my focus was on my own work and projects, but as a principal investigator those concerns are multiplied by each scientist in the lab. Luckily, I have very talented and dedicated lab members as well as support from the IBRI, which helps keep our research moving forward.

van Dijk: Every phase of a researcher's career comes with challenges. So far, I have been able to learn from and overcome all these challenges. The assistance of experienced mentors has been crucial in this regard. Currently, there is significant interest in my research, and my research group is growing. It is



a challenge to find a balance between growth and maintaining high quality.

A more general challenge is to provide equal opportunities for individuals in scientific research. For instance, the increasing demands and regulations in research, as well as the requirements for open access publishing and the need for data experts to analyze big data, place higher demands on research teams. While I strongly believe that all these developments are necessary to uphold the quality of scientific research, they also create barriers, particularly for young researchers who lack access, experience, and the budget to develop the expertise required for compliance. I am fortunate that my university center provides this expertise. However, I am concerned about the potential loss of talent among other young and ambitious colleagues who do not have such access.

Hernandez-Ramirez: There's never a "perfect" moment, but I obtained my first job as a principal investigator right in the middle of the pandemic. I could not say "no" to such a great opportunity, so I packed my stuff and moved back to my home country (Mexico), after 10 years working abroad. Setting up a new lab, starting translational research projects, and recruiting

According to Hernandez-Ramirez, her research projects are on track thanks to "marvelous collaborators, the great attitude of patients, and brave national and international funding bodies."

students during these strange times has been anything but easy. Funding opportunities are quite scarce in my country, so I have to appeal to international agencies, meaning that competition is fierce. Going through this adaptive process during such unprecedented times has definitely put to the test my resourcefulness and resilience. Nevertheless, thanks to the help of marvelous collaborators, the great attitude of patients, and brave national and international funding bodies, my research projects are already on track.

Gregory: Obtaining funding is a struggle for all scientists in all areas, and this has been no different for me. I have continued on short-term contracts with no promise of further funding from one year to the next, which has definitely been the most difficult thing working as a researcher. I do what I do because I love my job and have a passion for scientific discovery, but it has not always been the easiest in terms of job security.



Gregory in the lab where she investigates novel genes and pathways in congenital hypopituitarism and related disorders where she uses "a multitude of laboratory and bioinformatic techniques to identify and functionally test variants that are present in children."

About the Early Investigator Award

The Endocrine Society presents the annual Early Investigator Awards to members who hold an MD, PhD, or MD/PhD and are a third- or fourth-year post-doctoral fellow or a newly appointed faculty member.

Recipients receive a monetary award, one-year complimentary membership to the Society, one-year complimentary access to the Society's online journals, and public recognition of research accomplishments in various Society platforms.

Learn more about the application process and when to apply for 2024 at: endocrine.org/awards/early-investigators-awards

Sasaki: Raising funds is not easy, of course, but otherwise, I do not see many challenges. As you know, adrenal organoid research is a new field that has not been well studied. It is the blue ocean. Every day is full of surprises and new discoveries. It is truly exciting and rewarding to work in this exciting research area with talented scientists on my team.

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

Kalwat: I hope for multiple outcomes from our work. One is to train scientists, providing them opportunities to grow and pursue careers they enjoy. Another is the overall advancement of scientific knowledge and improving human health. More specifically, I strive to contribute new discoveries in pancreatic islet biology that lead to better detection and treatment of diabetes and other endocrine disorders. I consider the support that the Endocrine Society provides to early-career basic researchers like me as critical for achieving these outcomes.

van Dijk: The honor and appreciation that come with the Early Investigator Award from my Endocrine Society family are tremendous and fuel my enthusiasm for science. Ultimately, I hope that my research will have an impact and positively influence the care for people with diabetes. To achieve this, collaboration with other research groups and promoting my work are essential. The platform provided by the Endocrine Society through the Early Investigator Award contributes to this goal.

Hernandez-Ramirez: I really appreciate the recognition from national and international peers that I have obtained through this award. My lab is currently small, and there are not many other researchers working in the same field in my geographical location. Establishing connections with other groups is particularly important for me. Therefore, the Endocrine Society is a great intermediary to connect with the rest of the international endocrine research community.

Gregory: Winning this award is a great honor, and I hope it demonstrates to the funding bodies that my research is really making a difference and brings hope to the patients in this area of research, which is so understudied but yet is affecting more and more people worldwide. I have presented at the Endocrine Society meetings for many years now and wish to continue to attend and present at future meetings. The Endocrine Society has been imperative in facilitating my relationships with world-renowned experts and has definitely given me a platform to reach a wider audience and initiate collaborations with others that I will take forward into my future career.

Sasaki: I hope it will raise awareness of the adrenal gland organoid research and usefulness of this technology for understanding human adrenal development and diseases, drug screening, and potential cell therapy.

The Endocrine Society has several basic and clinical scientists working in various disciplines. It is an excellent opportunity for me to update my knowledge and obtain feedback. I am a basic scientist so interaction with the clinicians I met at [ENDO 2023] is particularly insightful. ^{EN}

HEADstart

BY DEREK BAGLEY



Endocrine Society Past-President Carol H. Wysham, MD, demonstrates the proper placement of the Libre Freestyle 2 continuous glucose monitor so the attendees can gauge their own blood sugar levels throughout the day.

Endocrinology Mentor Day Debuts at ENDO 2023



The entire group toured the ENDO Expo Hall to see product demonstrations and speak with faculty members from around the world.

The brainchild of the Endocrine Society’s Clinical Affairs Core Committee to ensure the pipeline of future endocrinologists keeps flowing, Endocrinology Mentor Day launched in Chicago during ENDO 2023.

“There are a few things I like about endocrinology,” says Marah Alsayed Hasan, MD, an internal medicine resident at Lankenau Hospital in Wynnewood, Pa. “It’s a very intellectually stimulating field, and I like that it always keeps me on edge. I also like the fact that you have the opportunity to do a lot of preventative care and be able to follow patients over a long period of time and develop relationships [with them].”

It’s the inaugural Endocrinology Mentor Day at ENDO 2023 in Chicago, and Alsayed Hasan is one of several early-career and potential endocrinologists who came to the Hyatt Regency Grant Park meeting room on a bright Saturday morning, eager to get guidance and inspiration from some of the more established endocrinologists in the field, who are just as eager to pass their knowledge and expertise on to the next generation. Even before breakfast is over, other ENDO 2023 attendees are popping their heads in to catch a glimpse of the excitement, riding the buzz from other corners of Chicago’s McCormick Place.

“Endocrinology has a bright future, and we hope you are a part of it,” Dan Mihailescu, MD, an endocrinologist based in Chicago, tells the room full of trainees, residents, and medical school students. “We’re sure that

by the end of the day, the only career path for you will be endocrinology.”

As Mihailescu speaks, a representative from Abbott passes out the company’s Libre 2 continuous glucose monitoring (CGM) devices for the attendees to wear for the day, a display of the new technology this next wave of endocrinologists will have access to, and a way to put them in their potential patients’ shoes. Almost immediately, phones start chirping out alerts as the devices sync and attendees begin evaluating their own levels as they finish their breakfasts.

One of the day’s mentors, Ricardo Correa, MD, EdD, FACP, FAPCR, FACMQ, fellowship director, Endocrinology, Diabetes and Metabolism; director, Health Equity Center, Cleveland Clinic, Cleveland, Ohio, will later say that this hands-on approach to CGMs and talking to the mentees about what wearing these devices meant was one of the most impactful parts of the day for him. “They enjoyed learning how to wear a CGM and about its purpose,” he says.

Alsayed Hasan says that this advancement in technology is another thing she likes about endocrinology. “It means there will always be more learning opportunities for us,” she says. “As a person who’s very driven by learning, I feel like that always keep me interested and engaged in the field.”



Ricardo Correa, MD, EdD, FACP, FACPR, FACMQ, fellowship director, Endocrinology; director, Health Equity Center, Cleveland Clinic, speaks to future endocrinologists.

Making Early Connections

In 2014, a paper by Vigersky, et al., appeared in *The Journal of Clinical Endocrinology & Metabolism* that concluded, “There are insufficient adult endocrinologists to satisfy current and future demand. A number of proactive strategies need to be instituted to mitigate this gap.” A 2022 paper in *JCEM* by Tsai, et al., reported that there are about 8,000 currently active endocrinologists in the United States, “which amounts to 41,460 individuals in the general population who may receive potential care by each endocrinologist.”

About two years ago, the Endocrine Society Clinical Affairs Core Committee (CACC) began talking about ways to increase the number of endocrinologists and found that one way to do that was to have trainees, residents, and medical students attend **ENDO** and devote a day to them. The committee arranged for mentors in the Society to engage with mentees and help them network so that they could have a positive experience at the annual meeting and hopefully set them down the path to a career in endocrinology. And so, Endocrinology Mentor Day was born.

“I presented two posters here, but I also wanted to meet people in the field and see the research in endocrinology,” says Maria Tsikala Vafea, MD, an internal medicine resident at the University of Pittsburgh Medical Center with an interest in endocrinology. “I wanted to make connections and expand my network, which is always very important in what we do.”

According to Joshua Joseph, MD, assistant professor of medicine at the Ohio State University Wexner Medical Center in Columbus, Ohio, and chair of CACC, the committee initially thought they would just bring in future endocrinologists from the Chicago area, but attendees came from around the world. “I was sitting with someone from Italy and Ireland earlier, and the person I was walking around with was from Russia,” he says.

“I was very surprised also to see international trainees attending the mentorship program — that highlights the impact of having this type of event in our conference,” Correa says. “I really believe that this type of mentorship program should continue in every meeting. In addition, I think that with the success that we had this year, more and more trainees will come and be attracted to endocrinology, and more mentors will be available to guide these future endocrinologists.”

Ensuring a Wonderful Journey

With everyone's CGM sensors affixed firmly to their arms and synced to the apps on their phones, the mentors and mentees attend the session, "Clinical Pearls from *JCEM Case Reports*," in which the journal's editor-in-chief William F. Young, Jr., MD, Tyson Family Endocrinology Clinical Professor and professor of medicine in the Mayo Clinic College of Medicine and Science at the Mayo Clinic in Rochester, Minn., and deputy editor Adina Turcu, MD, MS, associate professor of medicine at the University of Michigan in Ann Arbor, have the authors of the highest-ranked articles published in *JCEM Case Reports* present their cases. These cases cover a wide span of clinical endocrinology, from a rare case of thyroglossal duct cyst cancer and pituitary macroadenoma to recurrence of primary aldosteronism after surgery.

Then it's on to the ENDO 2023 expo floor, where attendees view product demonstrations and speak with faculty members from around the country. Later, back in the Grant Park meeting room, Joseph says that he and his group talked to seven endocrinologists in their hour on the floor, who spoke about their institutions, their careers, and what excites them about endocrinology. That excitement seemed to be contagious, as Joseph says he could see the trainees' eyes light up. "One of the trainees said to me, 'I would've never gotten to meet all these individuals. How do you know all these people?'" he says.

“ I really believe that this type of mentorship program should continue in every meeting. In addition, I think that with the success that we had this year, more and more trainees will come and be attracted to endocrinology, and more mentors will be available to guide these future endocrinologists.”

— RICARDO CORREA, MD, EDD, FACP, FAPCR, FACMQ, FELLOWSHIP DIRECTOR, ENDOCRINOLOGY, DIABETES AND METABOLISM; DIRECTOR, HEALTH EQUITY CENTER, CLEVELAND CLINIC, CLEVELAND, OHIO



Joshua Joseph, MD, assistant professor of medicine, Ohio State University, and Rob Lash, MD, chief medical officer, Endocrine Society, share their passion for endocrinology.



One of the highlights of the day was the mentees trying out continuous glucose monitors.

THANK YOU to our members who served as mentors and helped make Endocrinology Mentor Day a success: Nadia Barghouthi, MD, MPH; Francesco Celi, MD, MHSc; Ricardo Correa, MD, EdD, FACP, FAPCR, FACMQ; Cyrus Desouza, MD; Laura Dichtel, MD; Yannis Guerra, MD; Chase Hendrickson, MD, MPH; Joshua Joseph, MD, MPH; Sara MacLeod, DO, MPH; Dan Mihailescu, MD; Noura Nachawi, MD; Elif Oral, MD; Monica Rodriguez, MD; Amy Rothberg, MD, DABOM; Sabine Hannema, MD, PhD; Sabyasachi Sen, MD, FRCP, FACP; and Carol Wysham, MD.



Endocrine Society Past-President Carol H. Wysham, MD (far right), leads a roundtable discussion on what the field of endocrinology has to offer.

“ I think [Endocrinology Mentor Day] demystified the conference in many ways It broke down some of those barriers to how do you engage at a big conference. And ultimately, hopefully one of the things that we can do is kind of create a family, because now they are the inaugural Endocrinology Mentor Day participants.”

— JOSHUA JOSEPH, MD, ASSISTANT PROFESSOR OF MEDICINE, OHIO STATE UNIVERSITY WEXNER MEDICAL CENTER, COLUMBUS, OHIO

“That gave me an opportunity to talk about the Endocrine Society, networking, building relationships — all these things that are so critical to having a successful career in endocrinology,” Joseph continues. “I think it demystified the conference in many ways for [this trainee]. It broke down some of those barriers to how do you engage at a big conference. And ultimately, hopefully one of the things that we can do is kind of create a family, because now they are the inaugural Endocrinology Mentor Day participants.”

Joseph is an alum of the Society’s Future Leaders Advancing Research in Endocrinology (FLARE), a program that was initiated in 2013 and just celebrated its tenth anniversary. He says he feels like a part of a family — again, a sense of camaraderie that he hopes will extend to this first class of Endocrinology Mentor Day participants. “I think that that’s going to keep people engaged and involved and integral to the Society long term and have successful endocrine careers,” he says.

During **ENDO 2023**, Joseph announced that he had been promoted to associate professor of internal medicine with tenure at Ohio State. He credits the Society as an avenue for him to lead on a national level and to be able to serve when called upon. “I’m a big believer in servant leadership and in how we lead, how we’re serving other individuals, and Endocrinology Mentor Day is an example of that, right? How do we serve the next generation and get them on their path and make their journey a wonderful one?”

Preparing the Next Generation

After lunch and touring some of the posters, the mentors and mentees sit in for the final plenary of **ENDO 2023**, “The Future of Endocrine Therapies: Personalized Organoids And Gene Editing — Is This The Real-Life or Just Fantasy?” highlighting the journey from the bench where the fundamental science begins, to the therapeutic applications currently under investigation, as well as ethical implications as these therapies become more widely adopted in practice.



Syncing the continuous glucose monitors, so attendees can check their levels throughout the day.



Ursula B. Kaiser, MD, discusses her own path to endocrinology to close the day, in one of her last acts as Endocrine Society president.

Insoo Hyun, PhD, director of Research Ethics and a faculty member of the Center for Bioethics and senior lecturer on global health and social medicine at Harvard Medical School, speaks about the ethical issues of stem cell and organoid research, and Jeffrey Millman, associate professor of medicine and biomedical engineering at Washington University School of Medicine in St. Louis, discusses using stem cells to treat type 1 diabetes and just how far away that reality is. Treatments that could be just over the horizon, dovetailing with the next generation of endocrinologists.


Holding the Future

At the end of the day, in one of her final acts as president of the Endocrine Society, Ursula B. Kaiser, chief of the Division of Endocrinology, Diabetes and Hypertension, George W. Thorn, MD, Distinguished Chair in Endocrinology at Brigham and Women's Hospital, professor of medicine at Harvard Medical School, and director of the Brigham Research Institute in Boston, Mass., addresses the attendees by detailing her own path to endocrinology, from her first encounter with a patient with acromegaly to her current focus on reproductive neuroendocrinology, as well as the myriad ways to get involved with the Endocrine Society. "When you see that you have a passion for something that's very meaningful, so you can really

know that if you suddenly feel you love something, don't second guess yourself," she tells her captive audience.

Toward the end of Kaiser's speech, more and more CGM alarms begin to go off, eliciting laughter from the crowd. Because after a day like today, they could be interpreted as celebratory bells.

By all accounts, the day was a success. Chase D. Hendrickson, MD, MPH, assistant professor of medicine at Vanderbilt University in Nashville, Tenn., says that it was great for medical students and residents to be exposed to the breadth and excitement of endocrinology that is readily on display at ENDO. "I enjoyed getting to talk to them about what they can be doing now to prepare for applying in the future for fellowship training. Being able to mentor in this unique way was quite enjoyable and one I hope will have a positive impact on the 'pipeline' into endocrinology," he says.

Elif Oral, MD, professor of internal medicine at the University of Michigan in Ann Arbor and one of the day's mentors, tells *Endocrine News* that great people have inspired her during her career and that she wanted to pay forward all the enthusiasm and love for the work that she gleaned from her own mentors. "If there's anything similar that I could do, that would be worthwhile," she says. "That's what brought me here today. I always have trainees and students, but it's always great to meet new people, hear new perspectives. Younger people hold the future." 

— BAGLEY IS THE SENIOR EDITOR OF *ENDOCRINE NEWS*. IN THE JULY ISSUE, HE WROTE ABOUT A NOVEL APPROACH TO TREATING HYPOTHYROIDISM THAT DOWNPLAYS THE IMPORTANCE OF TSH LEVELS.



Released in May, “Endocrine Health and Health Care Disparities in the Pediatric and Sexual and Gender Minority Populations: An Endocrine Society Scientific Statement,” was a featured session on the last day of **ENDO 2023**. *Endocrine News* spoke to some of the authors about these updated treatment protocols.

BY DEREK BAGLEY

Making a Statement

“We need to expand our definitions of puberty,” first author Alicia Diaz-Thomas, MD, MPH, tells the audience at **ENDO 2023**. “We need to make sure we’re including diverse youth experiences when we’re talking about puberty, not just in the clinic, but also in our research. We need to include sexual intimacy and gender identity as parts of the things that we talk about as pubertal developmental milestones. And we need to avoid heteronormative tethering.”

Year after year, the Endocrine Society’s annual conferences have proven to be an ideal venue to expound upon the Society’s own statements and treatment updates. **ENDO 2023** was certainly no exception as the final day of the event saw a presentation devoted to a new Scientific Statement on healthcare disparities in often underserved sexual and gender patient populations.

The Statement, “Endocrine Health and Health Care Disparities in the Pediatric and Sexual and Gender Minority Populations: An Endocrine Society Scientific Statement,” was originally published online in *The Journal of Clinical Endocrinology & Metabolism* in May.

This Scientific Statement expands the Society’s 2012 statement by focusing on endocrine disease disparities in the pediatric and sexual and gender minoritized populations, including pediatric and adult lesbian, gay, bisexual, transgender, queer, intersex, and asexual (LGBTQIA) people. The writing group focused on prevalent conditions such as growth disorders, puberty disorders, bone conditions, diabetes, and obesity.

“I am thrilled to see the Endocrine Society’s commitment to equitable healthcare with this broadened Scientific Statement,” says first author Alicia M. Diaz-Thomas, MD, MPH, pediatric endocrinologist at the University of Tennessee Health Science Center in Memphis, Tenn., and chair of the Society’s Committee on Diversity & Inclusion. “This statement provides a foundation on which to build and grow our training, research, clinical and advocacy endeavors in the area of endocrine health disparities.”

Capturing an Expanded Worldview

Fatima Cody Stanford, MD, MPH, MPA, MBA, associate professor of medicine and pediatrics at Harvard Medical School and an obesity medicine physician at Massachusetts General Hospital, chaired the session at **ENDO 2023** and is co-author of the Statement. She tells *Endocrine News* that while it was challenging to distill down a very dense Scientific Statement with more than 500 references into a small session, they were successful in highlighting key points and changes that have been made since the 2012 statement on which [Sherita Hill Golden, MD, MHS, of Johns Hopkins University School of Medicine in Baltimore, Md.] was senior author. (Golden retained senior authorship of the current Statement.)

During the **ENDO** session, Diaz-Thomas reminded the audience that the presentations were a “very high-level summary” and she urged interested attendees to read the Statement.

“[Golden] brought in different people who had different perspectives like myself, specifically speaking to the obesity piece of the puzzle and experts like [Joshua Safer, MD, executive director of the Mount Sinai Center for Transgender Medicine and Surgery in New York], who deals with gender minorities, and touching on things that if you look back at 2012 weren’t as in vogue I would say in terms of the conversation in endocrinology,” Stanford says. “As we’ve expanded our worldview, our goal was to capture that.”

Empathy Amid Politicization

That expanded worldview does unfortunately carry with it a rise in unnecessary politicization of people’s health, especially in already marginalized communities. Stanford says the Statement authors were mindful and inclusive when writing the draft and displaying the piece at **ENDO**. “I don’t think there



“ In the endocrine community, if we have a great understanding of the complex pathophysiology of these diseases, much in a way that we don’t see as much in other specialties, **we should be more understanding.**”

— FATIMA CODY STANFORD, MD, MPH, MPA, MBA, ASSOCIATE PROFESSOR OF MEDICINE AND PEDIATRICS, HARVARD MEDICAL SCHOOL; OBESITY MEDICINE PHYSICIAN, MASSACHUSETTS GENERAL HOSPITAL, BOSTON, MASS.

was anything specifically that would’ve triggered any controversy other than people not believing that we should even talk about gender minorities or people that don’t believe obesity is a disease still,” she says. “In the endocrine community, if we have a great understanding of the complex pathophysiology of these diseases, much in a way that we don’t see as much in other specialties, we should be more understanding.”

And ultimately, understanding is the linchpin of this work. No two people live the same lives, and people from some communities might not even speak the same language. Something as simple as translated signs in the office could make a difference. For Stanford, the patient’s voice is the important one in the room. Stanford points out that her patients have a disease she doesn’t have — obesity — so she can’t pretend to share their everyday lived experiences. But she can listen.

“Something as simple as, ‘Oh gosh, I came in and Dr. Stanford, I realized that when I got to the waiting room, there wasn’t a seat for me,’” she says. “And you’re like, ‘What? There’s not a seat?’ And then, you realize that the seats are confining. I would make sure my space, when a person enters who has obesity, reflects a space where they’re able to come in, have a seat — they can be weighed respectfully; they have appropriately sized gowns. I listen to them; I understand how to inform my space such that it’s a comfortable environment, and they’re willing to come back because they feel like they matter.”

And that understanding will need to extend outside the clinic, into studies where subjects are recruited to reflect the heterogeneity of ethnic groups. Researchers tend to lump groups together, which makes sense, because the participants from ethnic groups show up in smaller numbers or they’re not recruited as robustly, and to power studies appropriately, researchers will put them all in one category. But a non-Hispanic Black population might include descendants of the enslaved, Haitian Americans who immigrated, or second-generation Nigerian Americans.

“I think we need to be thoughtful if we want to recruit individuals from different backgrounds by going to where they exist and live and eat and pray,” Stanford says. “It’s going to take really diligent effort, and I think it’s going to take a diverse workforce of knowing how to go to where people are. As a Black woman born and raised in the South, I know that many of my community — descendants of enslaved — spend quite a bit of time in the faith-based community. That would be a good place for me to go but that may not be the same for Cape Verdeans who are very prominent here in Boston. I’ve not lived the experience of being from that community, so I wouldn’t be the best person to inform how we recruit and retain those individuals. We need to be thoughtful in that respect.”

Overcoming Biases

This Scientific Statement is almost three months old and will likely be updated again in another 10 years. In the meantime, Stanford encourages endocrinologists to take the Harvard Implicit Association Test, which can reveal preferences for things like racial ethnic background or body type. “Many people have blind spots, and say, ‘Oh, I don’t have any biases.’ But by the very fact that we’re human, we have biases.”

The first step in solving any problem is admitting there is one. Stanford says she hopes this Statement gets people to know where they may have their own deficits. “And when you look at yourself, begin to recognize that, ‘Wait a minute, I can do better. And then by that, I can do better for my research subjects, my patients,’” she says. “If you collectively do both, you can do better for both groups.”

The authors of the Statement are: **Alicia M. Diaz-Thomas**, MD, MPH, of the University of Tennessee Health Science Center in Memphis, Tenn.; **Sherita Hill Golden**, MD, MHS, of Johns Hopkins University School of Medicine in Baltimore, Md.; **Dana M. Dabelea** of the University of Colorado Anschutz Medical


Findings and Solutions

Among the many important findings from “Endocrine Health and Health Care Disparities in the Pediatric and Sexual and Gender Minority Populations: An Endocrine Society Scientific Statement,” include:

- ▶ Non-Hispanic white male youth are more likely to seek treatment for short stature than females and non-white children.
- ▶ Racially and ethnically diverse populations and male youth are underrepresented in puberty and bone mass studies.
- ▶ Racial and ethnic minoritized youth suffer a higher burden of disease from obesity and diabetes and have less access to diabetes technology and bariatric surgery.
- ▶ LGBTQIA youth and adults face discrimination and barriers to endocrine care due to bias in the healthcare system and policies limiting access to gender-affirming and gender-expansive care.

Solutions from the Statement are:

- ▶ Including more racial and ethnically diverse and LGBTQIA patients in clinical trials and clinical research studies related to growth, puberty, and bone health.
- ▶ Adopting policies that remove barriers to care for children with obesity and/or diabetes, and for LGBTQIA children and adults.
- ▶ Ensuring public health interventions include accurate population-level demographic and social needs data.
- ▶ Addressing the lack of diversity in the endocrine workforce.

Campus in Aurora, Colo.; **Adda Grimberg** of the Perelman School of Medicine at the University of Pennsylvania in Philadelphia, Pa.; **Sheela N. Magge** of Johns Hopkins University School of Medicine in Baltimore, Md.; **Joshua D. Safer** of Icahn School of Medicine at Mount Sinai in New York, N.Y.; **Daniel E. Shumer** of the University of Michigan School of Medicine in Ann Arbor, Mich.; and **Fatima Cody Stanford** of Massachusetts General Hospital in Boston, Mass. 

– BAGLEY IS THE SENIOR EDITOR OF *ENDOCRINE NEWS*. HE WROTE ABOUT A NEW APPROACH TO TREATING HYPOTHYROIDISM IN THE JULY ISSUE.



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The Endocrine Society returns to Chicago for its first all in-person meeting since 2019.

ENDO 2023

BY DEREK BAGLEY

Better Than Ever

Scientists and clinicians descended upon the Windy City in droves from near and far to take part in the biggest endocrinology meeting in the world. From the latest research to the newest patient therapies to networking with colleagues, or simply hugging longtime friends, **ENDO 2023** turned out to be one of the most triumphant conferences in recent history.

In his 1914 poem, “Chicago,” Carl Sandburg called his adopted home the “City of Big Shoulders,” referring to those who built and rebuilt Chicago into the industrial center of the Midwest. According to Norman Corwin’s *The World of Carl Sandburg*, the poet described his work as “a chant in defiance by Chicago... its defiance of New York, Boston, Philadelphia, London, Paris, Berlin, and Rome. The poem sort of says ‘maybe we ain’t got culture but we’re eatin’ regular.’”

And while modern Chicago certainly doesn’t lack culture — the city has inspired just as many works of literature, music, theater, and art as it has skyscrapers — the nickname “City of Big Shoulders” remains to this day, making it the perfect backdrop for **ENDO 2023**, four days when endocrinologists from around the world came together (finally, in person) to share the work that was inspired by the clinicians and researchers who came before them, work that will surely be carried on by the next generation.

Of course, while this piece will in no way do justice to the incredible depth and breadth of the program of the Endocrine Society’s annual meeting, however, *Endocrine News* hopes to offer a glimpse of the findings presented

at McCormick Place in Chicago’s South Loop, from basic science and clinical updates to scientific statements reflecting on the current landscape of endocrinology and where to go from here, whose big shoulders to stand on.



The ENDO Expo floor was abuzz with attendees checking out the latest new product developments as well as new research via electronic poster presentations.



“ This highlights that there are long-term deleterious skeletal effects which are more concerning in Roux-en-Y compared to gastric banding, which is in alignment with cross-sectional population-based studies evaluating fracture rates at the wrist.”

— BITA ZAHEDI, MD, CLINICAL PRACTITIONER, MASSACHUSETTS GENERAL HOSPITAL, BOSTON, MASS.

The “Trickle Down” Effects of EDCs

In yet another indictment of endocrine-disrupting chemicals (EDCs), a rat study out of the University of Texas at Austin presented at **ENDO 2023** showed that adverse cognitive effects linked to polychlorinated biphenyls (PCBs) exposure, a type of EDC, have the potential to be passed down through generations. PCBs can mimic the effect of estrogen on the body, contributing to a variety of neuroendocrine, metabolic, and reproductive problems.

PCBs were banned in 1979 by the Toxic Substances Control Act (TSCA) but they remain in the environment and scale up the food chain — farmed fish and beef have high PCB concentrations, says Emily N. Hilz, PhD, a postdoctoral fellow in Andrea Gore’s laboratory at the University of Texas and first author of the abstract presented in Chicago.

The researchers write that in humans, PCBs are associated with sexually dimorphic and hormone sensitive neurobehavioral disorders including attention deficit hyperactivity disorder (ADHD) and mood disorders such as depression. Hilz says that through her previous research she came to believe that cognitive phenotypes like ADHD are organized early in life.

“I’ve always been interested in estrogen and its role in female cognition; some PCBs are estrogenic and have been in the environment for decades,” Hilz says. “This means we have multiple human generations that have been continually exposed in utero and early development. I thought there was a good chance this



Two teams faced off in the **ENDO Expo** for a game of **ENDO Feud** hosted by *Endocrine News* Executive Editor Mark A. Newman.

could at least partially explain the rise in ADHD and other cognitive disorder diagnoses we're seeing contemporarily. This isn't unique to PCBs — there are many estrogenic endocrine disruptors in the environment and in our products.”

For this study, the researchers administered a common PCB mixture called Aroclor 1221 to pregnant and nursing female rats. (The children and grandchildren were not given the chemicals.) The adults (n=40), their offspring (n=80), and their future grandchildren (n=80) were all tested on behavioral tasks to assess pleasure-seeking, attention, and cognitive flexibility. The team also took biological samples to determine what was happening physiologically to drive the behavior.

“Interestingly, we didn't see changes until the grandchildren,” Hilz says. “Some in the endocrine community have expressed surprise that the children (exposed as a fetus) did not have behavioral differences, but my research is not the only study to find this ‘emerging phenotype,’ where we start seeing effects in grandchildren and even great grandchildren. This highlights something unique and perhaps nefarious about EDCs compared to more overtly toxic chemical compounds. It can take multiple generations to see the effects of EDCs, and I think that's what we're coming to face now.”



Emily N. Hilz, PhD, a postdoctoral fellow at the University of Texas, discussing her abstract detailing how the impact of PCBs can be carried down through generations.



Presenting one's research via posters has been a longstanding highlight of all ENDO meetings for endocrinologists at all stages of their careers.

Grandchildren of rats that were exposed to the PCB mixture were more interested in eating for pleasure, according to the results of the sucrose preference test. While all of the tested animals preferred the sucrose solution to water, the grandchildren of mothers exposed to the PCB mixture consumed more of the sucrose solution.

“This might be analogous to an increased likelihood to overeat, as many EDCs are obesogens, and it is possible that eating for pleasure could represent a behavioral aspect of metabolic disruption by PCBs,” Hilz says. “Alternatively, or additionally, this may represent an increased likelihood of developing a substance use disorder.”

The same rats had an impaired ability to switch between tasks or learn new rules. However, only the male grandchildren were more likely to become fixated with a visual cue, which is common in disorders such as ADHD. “Many people with ADHD often have comorbidities with depression and self-medicate with substances of abuse,” Hilz says. “In rats, it’s hard to say based only on sucrose preference whether this is a caloric thing or a pleasure thing, so we’re following the result up in a new study looking at EDC mixtures.”

Hilz says that this study is only a drop in the bucket adding fuel to the connections between EDCs and adverse health



outcomes that emerge over generations, and that what it really highlights is that current toxicological screening techniques are not adequate for assessing EDC-like effects where the initial exposure occurs far away in time or even generations apart from the adverse health impact, or results from an extremely small exposure occurring during a developmentally sensitive time. “The endocrine community has been drawing a lot of attention to this issue, and I think we’re going to be seeing some big changes in the next decade regarding chemical manufacturing and safety testing,” she says.

“The biggest misconception that I get when I talk to people about EDCs is that their personal care products are undergoing rigorous safety testing,” Hilz continues. “That’s what I used to think too, but unfortunately that’s not the case especially when we’re talking about subtle effects emerging over generations.



The **ENDO 2023** gang's all here! The first all in-person meeting since New Orleans in 2019 provided an ideal way to network and learn, but it was the perfect way to reconnect with old friends, too! Getting into the spirit are: (clockwise from bottom center) Inga Harbuz-Miller, MD; Lori T. Raetzman, PhD; Katja Kiseljak-Vassiliades, DO; Lauren Fishbein, MD, PhD; Stanley Andrisse, PhD; and Cesar L. Boguszewski, MD, PhD. *Photo courtesy of Harbuz-Miller*

“ We need to be able to understand where the identification and management of endocrine disease is the same in older as in younger people and where it is different since we will be encountering an increasing number of older patients in our practice.”

— ANNE CAPPOLA, MD, PERELMAN SCHOOL OF MEDICINE, UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA



This was a common scene at McCormick Place during ENDO 2023; packed sessions that were often standing room only.

That type of thing isn't being tested. EDCs are real and contribute to current health epidemics we're seeing — not just in cognitive science, but in reproductive and metabolic realms as well.”

Can Obesity Remedies Impact Wrist Fractures?

As the obesity epidemic continues its upward march and bariatric surgery is becoming an option for more patients, one study presented at ENDO 2023 looked at these procedures' effects on bone health. In an oral abstract session on bone strength and fracture risk, Bitu Zahedi, MD, a clinical practitioner at Massachusetts General Hospital in Boston, shared her findings, titled, “Risk of Wrist Fracture in Gastric Bypass Compared to Gastric Banding as Estimated by the Load-to-Strength Ratio,” during which she described how Roux-en-Y gastric bypass (RYGB) and adjustable gastric banding (AGB) both decrease weight, but they both lead to long-term deficits in bone density. “Given that risk of fracture is dependent on both bone strength and the external force applied to bone, the clinical implications of these opposing effects are unclear,” Zahedi and her colleagues write. “The aim of this study is to compare the long-term skeletal impact of RYGB and AGB using a biomechanical evaluation of load-to-strength ratio at the wrist as a surrogate for fracture risk.”

“These two bariatric procedures are different in that RYGB is a metabolic surgery while AGB is a purely restrictive procedure.” Zahedi says. “Population-based retrospective analyses have shown an increase in fracture rates when comparing the Roux-en-Y patients to the gastric banding patients, in the short term. Although short-term bone loss has been demonstrated to be greater in the Roux-en-Y group, data regarding long-term effects on bone health and fracture risk is limited.”

Zahedi further explains that the results of this study expand on existing data that suggest mechanical unloading after weight loss surgery does not fully explain the extent of observed deficits in bone density, especially at non-load-bearing sites such as the wrist.

For this cross-sectional study, the researchers analyzed data from a cohort of 25 subjects who had RYGB surgery more than 10 years prior and compared that to data from another 25 individuals who had undergone gastric banding more than 10 years before. They did imaging to estimate load-to-strength ratio and analyzed body composition with DXA. They used high-resolution peripheral quantitative computed tomography (HR-pQCT) to measure volumetric bone mineral density, geometry, and microarchitecture at the wrist. Results were then adjusted for age, sex/menopausal status, and race/ ethnicity.

Story continues on page 38

ENDO2023

An Eye-Opening Experience



After more than a year of electronic communications, David Lui and Endocrine Society director of Media Relations, Jenni Gingery got the chance to meet in person at Chicago's McCormick Place during ENDO 2023.


After years of attending virtually, **David Lui, MBBS, MRCP, FHKCP, FHKAM (Medicine)**, shares his experiences of finally being able to attend **ENDO 2023** and present his research in person.

It has only been recently that the COVID-19 pandemic situation has stabilized. So, with the relaxation of travel restrictions, I am glad to have finally attended ENDO, the world's top endocrine conference, in person after three years of virtual attendance.

It was an eye-opening experience to physically attend ENDO 2023 and learn the latest important updates in the endocrine field from world-leading experts in the iconic McCormick Place. It was also fun attaching the colourful ribbons to our badges. I particularly enjoyed the Meet-the-Professor sessions, which were all well attended. The key advantage of attending these in-person sessions was interacting with the speakers for valuable advice relevant to my clinical practice.

It was a great honor to have my abstract selected for oral presentation in ENDO 2023 on the population-based study of the risk of diabetes following COVID-19 vaccination and infection. Incidentally, I also presented virtually at an ENDO 2022 press conference on the safety of COVID-19 vaccination among patients treated for hypothyroidism, thanks to arrangements by the Endocrine Society's Media Relations

team. Even so, there was no comparison to presenting physically in the meeting room where I could interact with the audience right after the presentation and meet new friends for potential collaborations. I was excited to meet Mark Newman, the executive editor of *Endocrine News*, and Jenni Gingery, the director of the Media Relations team, in the convention center for a catch-up after all the electronic communications during the past year. As a result of their tremendous effort, ENDO 2023 also received unprecedented social media impressions.

It goes without saying that sightseeing while exploring the food and culture in the Windy City was the bonus of attending ENDO 2023 in person, which added to my memorable ENDO experience. 

Lui is a clinical assistant professor in the Division of Endocrinology and Metabolism, Department of Medicine, University of Hong Kong, Hong Kong SAR, China.

Participant characteristics showed that BMI in the AGB group tended to be higher than the RYGB group, although this did not reach statistical significance. Serum calcium was similar in both groups, while the RYGB patients tended to have lower vitamin D and higher PTH levels. Both groups had greater than sufficient vitamin D, and even though there was a trend toward higher PTH in the RYGB group, neither PTH nor vitamin D levels reached statistical significance. “Nonetheless, sensitivity analyses were run to account for these two factors which did not alter our results,” Zahedi says.

The researchers next looked at DXA Z-scores (which already account for sex, age, and race) and found that although the RYGB cohort had slightly negative Z-scores at the femoral neck and total hip, the AGB group had positive Z-scores at the femoral neck, total hip, spine, and the wrist. “These were all statistically significant and showed that the gastric banding participants when compared to RYGB group had higher areal bone mineral density at the femoral neck, total hip, and spine,” Zahedi says.

The HR-pQCT data gave the team insight as to the volumetric bone mineral density (BMD), the microarchitecture, and geometry at the wrist. The results showed that total volumetric BMD, as well as trabecular and cortical vBMD were greater

in the AGB group; the geometry and microarchitecture showed greater deficits in the RYGB group particularly in evaluation of trabecular parameters. Estimated impact force was similar in both groups, although bone strength at the wrist was higher in the AGB group when compared to the RYGB cohort. Numerically, the load-to-strength ratio was greater in the RYGB group consistent with a higher risk of fracture at the wrist when compared to AGB, although this did not reach statistical significance. Zahedi says that other studies using this biomechanical measurement have used a threshold of greater than 0.75 to signify as high risk of fracture. “If this threshold is used, we can appreciate that RYGB group had a load-to-strength ratio of 0.824 and AGB 0.728 with the latter being at lower risk of fracture at the wrist.”

Zahedi notes that in summary “we found that the Roux-en-Y group had lower volumetric BMD, lower strength at the radius, and worse trabecular morphology and architecture. The RYGB cohort also showed a trend toward a higher load-to-strength ratio, consistent with a higher fracture risk at the wrist, although the latter was not statistically significant” Zahedi says. “This highlights that there are long-term deleterious skeletal effects which are more concerning in Roux-en-Y compared to gastric banding, which is in alignment with cross-sectional population-based studies evaluating fracture rates at the wrist.”



Erik Nelson, PhD, makes a point during the session, “Practical Advice for Foreign Medical Graduates or Scientists Planning to Come or Stay in the USA: Navigating the US Visa System,” as his co-presenters, Claudia Ramirez-Bustamante, MD; Antonio Lerario, MD, PhD; and Ricardo Correa look on.





One of the many highlights of the in-person meeting was the chance discuss the information presented with colleagues and speakers alike.

Estelle Everett, PhD, engages with the presenters at the Health Disparities poster session in the ENDO Expo.



Zahedi says that during her oral presentation at **ENDO 2023** she fielded a lot of thoughtful questions that helped guide her and her team in exploring the underlying mechanisms leading to bone loss in patients that have undergone bariatric surgery. Future studies are needed to evaluate the underlying pathophysiological mechanisms of these skeletal impacts in order to help determine clinical strategies to minimize bone loss post bariatric surgery.

Endocrine Society Statement Examines Hormones and Aging

A new Scientific Statement released during **ENDO 2023** highlights the differences between aspects of aging that are normal and sometimes over-treated, and those such as menopausal symptoms and osteoporosis that can be treated and deserve more attention.

“Hormones and Aging: An Endocrine Society Scientific Statement,” reviews the current state of research on hormonal changes with age. The Statement focuses on common endocrine-related changes in older people including menopause and the development of diabetes, osteoporosis, and thyroid disorders, with the goal of informing future research on the prevention and treatment of age-associated endocrine health problems. “The extent to which hormonal changes with age are deemed ‘normal aging’ versus ‘endocrine disease’ can be arbitrary and depends in part on whether treatment is currently indicated,” the Statement authors write. “Four hypothalamic-pituitary axes are presented: growth hormone, adrenal, gonadal

(divided into ovarian and testicular), and thyroid. These are followed by osteoporosis, vitamin D deficiency, diabetes, and water metabolism topics.”

“We wanted to look at a number of hormonal changes that occur with age, so that is why we have nine separate sections representing nine different areas,” says writing group chair Anne Cappola, MD, of the Perelman School of Medicine at the University of Pennsylvania in Philadelphia, Pa. “Our goal was to present the research on aging that has already been performed and identify where we think new research should be going.”

Key points from the Statement include:

- Menopausal symptoms are common, vary in degree of discomfort, and can be effectively treated with a variety of medications, yet these symptoms are still undertreated.
- More research is needed to decide when older adults should receive testosterone-replacement therapy and to understand the adverse effects of the treatment on heart and prostate disease.
- More data are needed to determine the optimal treatment goals in older people with diabetes.
- Fractures are often not recognized as being related to osteoporosis, and as a result, most older patients with a fracture are not treated to prevent their next fracture.
- Methods to distinguish between age-associated changes in thyroid function and early hypothyroidism are needed.



“ The biggest misconception that I get when I talk to people about EDCs is that their personal care products are undergoing rigorous safety testing. That’s what I used to think too, but unfortunately that’s not the case especially when we’re talking about subtle effects emerging over generations. That type of thing isn’t being tested.”

— EMILY HILZ, PHD, POSTDOCTORAL RESEARCHER,
UNIVERSITY OF TEXAS, AUSTIN, TEXAS

- No therapy to increase growth hormone secretion or action is currently approved as an anti-aging intervention, and the risks may outweigh the benefits.
- Some research has shown benefits of vitamin D supplementation in older adults, but standardized guidelines on appropriate vitamin D levels are lacking.

The authors of the Statement point out that this area will only expand in importance as the number of older individuals increases worldwide. “Current projections show an increase in those ages 65 years and older from 703 million (1 in 11 people) to 1.5 billion in 2050 (1 in 6 people),” they write.

“We need to be able to understand where the identification and management of endocrine disease is the same in older as in younger people and where it is different since we will be encountering an increasing number of older patients in our practice,” Cappola says.

And again, Cappola says that one important aspect of this Statement is to reinforce what the endocrinology community already knows, as well as point to what can be done as the community moves forward. For example, the Statement authors write that existing knowledge of hormones and aging is largely based on results of observational and uncontrolled studies. “We need randomized clinical trials to be able to provide the highest level of evidence,” Cappola says.

“The Statement discusses how menopausal symptoms and osteoporosis are often undertreated in the older population despite evidence that the treatments are both safe and effective,” Cappola says. “Treating these symptoms and screening for common endocrine conditions that develop or worsen with age could really improve the quality of life for older people.

“This statement is a one-stop place to get a brief summary of each of nine hormonal areas and understand what is already known and what is unknown,” she continues. “We had fantastic articles, so it is a really readable piece.”

The ENDO Expo floor was the perfect spot to meet up with friends and colleagues while checking out the latest new products, perusing posters, or even renewing your Endocrine Society membership!



Endocrine Society Past-President Susan Mandel, MD, MPH, chats with a group of attendees amidst the hustle and bustle of the ENDO Expo floor.

An Amazing Group of Diverse Individuals

And again, there's no way we could fit all the incredible things that happened in the McCormick Place into these pages — but it's never bad to have too much of a good thing. The return to Chicago was a triumph.

“From my perspective, **ENDO 2023** was a huge success,” says Stephen R. Hammes, MD, PhD, the Louis S. Wolk Distinguished Professor of Medicine, chief of the Division of Endocrinology, Diabetes and Metabolism, executive vice chair of the Department of Medicine at the University of Rochester in Rochester, N.Y., and new Endocrine Society president. “I could go on about the great plenary talks, the amazing symposia, and the informative Meet the Professor sessions, but, to me, the best thing was to see everybody back together again both in person and in full force.”

Hammes adds that he especially enjoyed the lively and interactive oral, poster, and rising star sessions, all of which featured the up-and-coming generation of endocrinologists. “I am looking forward to seeing more of the same in Boston next year, including the continued focus on the pipeline and our early-career members,” he says. “Our members are an amazing group of diverse individuals, and, when we are all together, great things will happen!” **EN**

— BAGLEY IS THE SENIOR EDITOR OF *ENDOCRINE NEWS*. HE WROTE ABOUT A NEW APPROACH TO TREATING HYPOTHYROIDISM IN THE JULY ISSUE.

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Society Educates Congress About Childhood Obesity

The Endocrine Society conducted a briefing to educate members of Congress and their staff about the impact of obesity on children and adolescents in the U.S. The panelists included Endocrine Society members and obesity experts, Fatima Cody Stanford, MD, and Mónica E. Bianco, MD. Society member Amy E. Rothberg, MD, moderated the briefing.

Panelists discussed several key issues regarding childhood and adolescent obesity, including:

- ▶ Why increases in childhood obesity have resulted in the rising prevalence of other chronic conditions like diabetes;
- ▶ How health inequities have contributed to these increased rates of childhood obesity, particularly among children of color and low-income children; and
- ▶ Policy solutions that Congress can take to address this epidemic.

The panelists also shared information about the other educational resources on obesity available on the Society's website, including the Obesity Playbook. The Obesity Playbook offers a "101" education about obesity in the U.S. and includes information about obesity prevalence, policy options that Congress can implement to treat obesity, existing programs from the administration and federal agencies that address this epidemic, and a list of Endocrine Society members who are obesity experts.

The briefing was well attended by congressional staff on both sides of the aisle. The full recording of the briefing is available on the Society's website.

Obesity research, prevention, treatment, and coverage are top policy priorities for the Endocrine Society, and we will continue to educate members of Congress and their staff about this important issue.

“

Obesity research, prevention, treatment, and coverage are top policy priorities for the Endocrine Society, and we will continue to educate members of Congress and their staff about this important issue.

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Endocrine Society Fights Proposed Cuts to NIH, Other Public Health Agencies



The Endocrine Society advocates every year for strong federal investments in biomedical research. The federal appropriations process that determines federal funding for agencies and programs is underway for Fiscal Year 2024. In July, the House Labor Health and Human Services and Education (LHHS) appropriations subcommittee released text for the LHHS appropriations bill, which, as expected, contains significant cuts to programs relevant to endocrine scientists, such as:

- ▶ \$3.8 billion in cuts to the National Institutes of Health (NIH).
- ▶ Cuts funding for the Advanced Research Projects Agency for Health (ARPA-H).
- ▶ Cuts funding for the Centers for Disease Control and Prevention (CDC) by \$1.6 billion.
- ▶ Eliminates funding for the Climate and Health program at the CDC.
- ▶ Eliminates Title X Family Planning grants and prohibits funding for Planned Parenthood-affiliated clinics.

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The proposed cuts are alarming to the biomedical research community; however, the appropriations process is far from over, and this bill is considered the low mark for funding compared to what the Senate is expected to propose.

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Take Action

The Endocrine Society is working hard to advocate on behalf of our members to protect deep cuts to health funding. The most powerful form of advocacy, however, comes from you. We invite our U.S.-based members to participate in our online advocacy campaign on NIH appropriations (visit: endocrine.org/takeaction).

With your help, we can convey the importance of investments in biomedical research funding to legislators and prevent significant cuts to public health agencies. We also will participate in the Rally for Medical Research Hill Day on September 13 – 14. If you are interested in participating, please contact: advocacy@endocrine.org.

▶ While the House subcommittee bill cuts funding for the NIH, the proposed cuts are not distributed evenly across NIH Institutes and Centers (ICs). Most ICs would receive flat funding, while the National Institute of Allergy and Infectious Diseases (NIAID) and the Office of the Director (which funds the Office of Women's Health Research) face deep cuts.

The proposed cuts are alarming to the biomedical research community; however, the appropriations process is far from over, and this bill is considered the low mark for funding compared to what the Senate is expected to propose. Additionally, there are many steps remaining in the appropriations process: Any appropriations bill must pass in the House of Representatives and the Senate, then be signed by the president to become law. This means that the funding levels proposed in the House bill are not final, and there will be more opportunities for public health advocates to weigh in. Finally, while the appropriations deadline for FY (Fiscal Year) 2024 is September 30, we expect negotiations to continue throughout the summer and into the fall.

CMS Releases Proposed Physician Fee Schedule Rule for CY 2024; New Policies Expected to Provide 3% Increase for Endocrinology

The Centers for Medicare and Medicaid Services (CMS) released its proposed CY 2024 Physician Fee Schedule on July 13.

The Endocrine Society is working with its Clinical Affairs Core Committee (CACC) to review and develop comments for CMS to consider while finalizing the rule. A detailed summary and analysis will be provided on the Society's website at: endocrine.org/improving-practice/macra. There are, however, a few things we want to highlight:

- ▶ CMS estimates that endocrinologists will see a 3% increase because of policies proposed in the rule.
- ▶ CMS proposes to implement the complex add-on payment for E/M services. Congress previously blocked its implementation.
- ▶ There is an extensive request for comment on how CMS can more regularly review E/M services.
- ▶ There are sections on an expanded Medicare diabetes prevention model and diabetes screening. ^{EN}