PREVIEWING SHR 2024: OCTOBER 16 – 18

SEPTEMBER 2024 THE LEADING MAGAZINE FOR ENDOCRINOLOGISTS

Endocrine news

& Endocrinology Women's Health

Endocrine News focuses on the breakthroughs, successes, and challenges of researching women's health.

CUTTING-EDGE RESEARCH:

From **ENDO 2024**, we discuss studies of women with vasomotor symptoms and cardiac risk; the impact of semaglutide on taste and how it could affect obesity treatment; and why women who experience early menopause should undergo regular cancer screenings.

ON THE BASIS OF SEX:

A Q&A with **Monica M. Laronda, PhD**, and **Jane E. Reusch, MD**, about the ongoing efforts to fund women's health research.

LABORATORY NOTES Q&A:

David A. Katz, PhD, on receiving the 2024 Laureate for Outstanding Innovation

BILLS, BILLS, BILLS:

What clinicians need to know about navigating the revenue landscape

ENDOCRINE SOCIETY
Hormone Science to Health

AI IN HEALTHCARE VIRTUAL SUMMIT

NOVEMBER 8–9, 2024

VIRTUAL EVENT

Join the leading minds revolutionizing AI in patient care and discover how AI technologies are redefining diagnostics, treatment planning, and patient outcomes in endocrine healthcare.

- **DIAGNOSIS AND PREDICTION**
- **DRUG DISCOVERY AND DEVELOPMENT**
- **NATURAL LANGUAGE PROCESSING**
- **PERSONALIZED MEDICINE**

REGISTER NOW AT ENDOCRINE.ORG/AISUMMIT

ENDOCRINE SOCIETY

IN THIS ISSUE

SEPTEMBER 2024

24 | Women's Health Focus A Look at Some of the Cutting-Edge Research from ENDO 2024

As usual, **ENDO 2024** presented a wealth of cutting-edge science, much of which related to women's health. Here, we only scratch the surface as we discuss research that looks at women with vasomotor symptoms and cardiac risk; the impact of semaglutide on taste and how it could affect obesity treatment; and why women who experience early menopause should undergo regular cancer screenings.

BY KELLY HORVATH

18 | On the Basis of Sex The Ongoing Efforts to Fund Women's Health Research

Monica M. Laronda, PhD, and Jane E. Reusch, MD, have long been leading advocates for the importance of equity in scientific research, specifically as it relates to women's health. As they engage with national initiatives focusing on how this research is funded, they spoke to *Endocrine News* to discuss the latest in these efforts, their own research, and potential opportunities for future funding for studying women's health. **BY DEREK BAGLEY**

32 | Autumn in Albuquerque

Previewing the 1st International Conference on Steroid Hormones and Receptors

Building on a legacy that has lasted for a quarter of a century and now sponsored by the Endocrine Society, the 1st International Conference on Steroid Hormones and Receptors will be held next month at University of New Mexico Comprehensive Cancer Center in Albuquerque. Endocrine News talks to conference chairs Eric R. Prossnitz, PhD, and Carol A. Lange, PhD, about what attendees can expect, topics to be covered, and why the sessions should appeal to both endocrine scientists and clinicians. **BY DEREK BAGLEY**

www.endocrine.org

Follow us on Twitter: @Endocrine_News

ENDOCRINE SOCIETY

Hormone Science to Health

Embracing Change Along with the Change of Season

The seasons are a-changing, with fall coming to those of us in the northern hemisphere and springtime to our members and friends in the southern hemisphere. It's a wonderful time of year, as students in the north return to class, and students in the south start to look forward to summer vacation. For many colleagues, the academic year is well underway with delivery of the education essential to train the next generation of scientists and physicians.

This turning point in the calendar also gives us an opportunity to reflect on where we've been and where we're headed.

The Society, for its part, continues moving forward on a wide range of initiatives. Among these I would like to highlight areas where our volunteer leaders and dedicated staff have been working hard in recent months to extend our global outreach, create new joint clinical guidelines, recognize our members for their outstanding achievements, and develop new and innovative meetings.

Let me bring you up to date on some of these efforts.

All Around the World

The Society is making significant strides in its new focus on international collaboration and global outreach. Several recent achievements come to mind.

First and foremost is our partnership with the European Society of Endocrinology (ESE) to produce joint clinical guidelines. These are produced to the highest "GRADE"-compliant standards, founded on evidence-based systematic reviews around key questions of clinical need and equipoise. Guideline development at each society is overseen by a clinical committee, and all guidelines are subject to a rigorous review process before being published. Guidelines represent a huge amount of work to those involved, and to these dedicated individuals I offer my heartfelt appreciation.

The first joint guideline "Diagnosis and Therapy of Glucocorticoid-induced Adrenal Insufficiency," was released in May 2024 issues of the Societies' respective journals, *The Journal of Clinical Endocrinology & Metabolism* and the *European Journal of Endocrinology*, and presented at both the ESE meeting in Stockholm in May 2024 and at **ENDO 2024** in Boston, ensuring the widest possible visibility to members of both societies, and clinicians and advanced practice providers (APPs) in general. This guideline is designed to help management of a very common clinical problem — patients who have or are at risk of developing glucocorticoid-induced adrenal insufficiency.

Our societies aim to publish a new joint guideline each year to maximize outreach as well as to cover potential differences in clinical practice between Europe and the United States, while considering the wider global context.

This commitment to global partnership was underscored by the robust attendance at our Global Endocrine Leadership Coalition (GELC) meeting at **ENDO 2024**. More than 40 leaders from 27 international societies gathered for the in-person meeting to discuss a wide range of possible collaborative efforts. This is a very exciting initiative for our organization and the whole field of endocrinology.

> **“Our presence at international conferences is important to show our commitment to serving endocrine research and clinical communities around the world. Roughly 35% of our 18,000 members are from more than 120 countries on six continents.”**

Also on the international front is the upcoming 36th Brazilian Congress of Endocrinology and Metabolism (CBEM 2024), taking place October 11 – 15 in Recife, Brazil. Several of us from the Society are making an official visit to this important conference with our peers from Brazil.

Our presence at international conferences is important to show our commitment to serving endocrine research and clinical communities around the world. Roughly 35% of our 18,000 members are from more than 120 countries on six continents.

Recognizing Achievements

Seasonal change also coincides with the announcement of our Laureate Award winners. Many congratulations to our truly deserving, inspirational, and impressive 2025 awardees!

The winners will receive their awards at **ENDO 2025**, taking place July 12 – 15, in San Francisco, Calif.

Laureate Awards recognize endocrinologists for seminal research, meritorious service, leadership and mentorship, innovation, international contributions, public service, translation of science to practice, and lifetime achievement.

(Visit the Laureate Awards webpage for details: **https://www.endocrine.org/awards/laureate-awards.**)

Innovative Meetings

The new season also is a time for meetings. Thank you to everyone who attended and helped organize and deliver our highly successful Endocrine Board Review and Clinical Endocrinology Update meetings taking place this month, where, at the time of this writing, there were hundreds of attendees registered for EBR 2024 and CEU 2024.

As mentioned in my letter last month, we also have two brand-new meetings in the near future.

The 1st International Conference on Steroid Hormones and Receptors (SHR 2024) will be held October 15 – 18 at the University of New Mexico Comprehensive Cancer Center, in Albuquerque (and is detailed on page 32). The agenda is packed with exciting topics, from advances in steroid hormone action in biology and medicine to their roles in biology, chemistry, pharmacology, oncology, neurology, metabolism, cardiovascular biology, and endocrinology. The effects of steroid hormone and receptor functions on various cancers also will be a focus of this meeting. (Learn more at: **www.endocrine.org/meetings-and-events/shr-2024**.)

This meeting will quickly be followed by the **Artificial Intelligence (AI) in Healthcare Virtual Summit**, to be held November 8 – 9. We've all heard about the potential of AI to transform various aspects of our lives. The summit will explore the transformative potential of AI to revolutionize patient care and shape the future of medicine, as well as what it means specifically for healthcare providers, professionals, researchers, technologists, industry stakeholders, and educators. (Learn more at: **www.endocrine.org/meetings-and-events/ai-summit**.)

So let the seasons change. At the Society, we embrace change and always seek new opportunities. EN

John Newell-Price, MD, PhD, FRCP
President, Endocrine Society

A Fall Focus on Women's Health Research

I've said it before and I'll keep saying it: when it comes to cutting-edge endocrine research, **ENDO** is the "gift that keeps on giving." Nowhere is that truer in the issues of *Endocrine News* that are published in the wake of this internationally recognized endocrinology conference.

For example, on page 24 Kelly Horvath has corralled three studies presented in Boston in June for the article, **"Women's Health Focus: A Look at Some of the Cutting-Edge Research from ENDO 2024."** As anyone who's attended **ENDO** knows, simply covering three studies on a single topic only scratches the surface of the number of trailblazing research presented each year. Here, Kelly discusses research that looks at women with vasomotor symptoms and cardiac risk; the impact of semaglutide on taste and how it could affect obesity treatment; and why women who experience early menopause should undergo regular cancer screenings.

As important as women's health research continues to be, getting funding for that research is a top priority for Endocrine Society members. To highlight the importance of this often-challenging endeavor, Senior Editor Derek Bagley spoke to two Endocrine Society members, Monica M. Laronda, PhD, and Jane E. Reusch, MD, who have played an important role in securing funding for a variety of research into women's health issues with a Q&A in **"On the Basis of Sex: The Ongoing Efforts to Fund Women's Health Research"** on page 18. Laronda and Reusch have long been leading advocates for the importance of equity in scientific research, specifically as it relates to women's health. They continuously engage with national initiatives focusing on how this research is funded, and they discuss the latest in these efforts, their own research, and potential opportunities for future funding for studying women's health. When asked why it's important for the field of endocrinology to have a voice in the future direction of women's health research, Laronda responded that endocrinologists understand the systemic impact of hormones on health and therefore are "forced to think holistically," she says, adding that, "Those who are not cisgender men have been historically overlooked as more complicated or challenging to study, which has resulted in women developing adverse effects to medications or taking medications with an unknown risk."

Did you know that the Endocrine Society is hosting a new meeting focusing on steroid hormones and receptors? You can read all about it

SEPTEMBER 2024

Endocrine news

THE LEADING MAGAZINE FOR ENDOCRINOLOGISTS

Executive Editor: **Mark A. Newman**
mnewman@endocrine.org

Senior Editor: **Derek Bagley**
dbagley@endocrine.org

Art Director/Production: **Anthony S. Picco**
aspicco.wixsite.com/graphicdesigner

Designers: **Catherine C. Neill, Petra Domingo**

Prepress & Printing: **The Sheridan Group**
www.sheridan.com

Endocrine News is a registered trademark owned by the Endocrine Society.

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

Endocrine News® is published 12 times a year by the Endocrine Society, 2055 L Street, NW, Suite 600, Washington, DC 20036
Phone 202-971-3636 • Fax 202-736-9708
www.endocrine.org.

Print ISSN 2157-2089 Online ISSN 2157-2097

- Please send letters to the editor, comments, and suggestions for Endocrine News® to *mnewman@endocrine.org.*
- Product print and product online display advertising, by Pharmaceutical Media, Inc., contact Joe Schuldner, *jschuldner@pminy.com,* or John Alberto, *jalberto@pminy.com.*
- For classified print advertising by Pharmaceutical Media, Inc., Dan Simone, *dsimone@pminy.com*
- For classified online advertising by *endocareers@endocrine.org*

in **"Autumn in Albuquerque"** on page 32, as Derek gets the details on this new conference, the 1st International Conference on Steroid Hormones and Receptors, scheduled to take place October 15 – 18, in Albuquerque, N.M. He talks to conference chairs Eric R. Prossnitz, PhD, and Carol A. Lange, PhD, about what attendees can expect, topics to be covered, and why the sessions should appeal to both endocrine scientists and clinicians.

In this month's Advocacy column, there's a piece about Endocrine Society members being included at a White House ceremony that marked the one-year anniversary of the Inflation Reduction Act which lowered insulin prices for people on Medicare.

Joshua J. Joseph, MD, was a part of that celebration and stopped by the Society offices before heading to the White House. As you can see from the photo, he was also able to pick up a very unique Washington D.C. souvenir during his visit!

In this month's Laboratory Notes on page 36, regular contributor Glenda Fauntleroy-Shaw speaks to David A. Katz, PhD, the recipient of the Endocrine Society's 2024 Laureate for Outstanding Innovation Award. Katz, the founder and chief scientific officer of Sparrow Pharmaceuticals, Inc., discusses his career or, as he put it, **"A Long Series of Mostly Unintended Events,"** where he discusses his mission to find solutions for patients living with cortisol excess, his career's defining moments, as well as his recommendations for achieving entrepreneurial success. He talks about how gratifying it has been that the Endocrine Society recognized him for his company's therapeutic approach, which has even motivated him further: "The award increased my resolve to do everything possible to finish the translation of our understanding of glucocorticoid action to new therapies."

Feel free to let me know what you think of this month's content, and what sort of suggestions you have for future issues. You can always contact me at: **mnewman@endocrine.org**.

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

BY DEREK BAGLEY
Senior Editor

Circulating microRNAs Likely as Effective as A1C for Predicting Type 2 Diabetes in Youth

Measuring the circulating abundance of microRNAs is likely as effective as measuring the level of sugar in the blood for determining how a young person with the condition will fare, according to a study recently published in *The Journal of Clinical Endocrinology & Metabolism*.

Researchers led by Jeanie Tryggestad, MD, an associate professor of pediatrics at the University of Oklahoma College of Medicine, point out that type 2 diabetes is an especially aggressive disease when it presents in youth and that the ability to timely predict which youth will develop treatment failure or have a decline in beta cell function has been challenging.

This study showed that the microRNAs, at baseline, were nearly as effective as A1C measurement (average level of blood sugar) when predicting who would fail to respond to treatment for type 2 diabetes. Treatment failure was defined as having an A1C of greater than 8% for six months or a circumstance that caused the study participant to go back on insulin without the ability to come back off. Circulating microRNAs also predicted a 20% decrease in beta cell function during the first six months of the study.

Currently, microRNAs can be measured only in a research setting, not in a clinic, but that may change in the future, Tryggestad says. The study's implications are important not only for the predictive potential of microRNAs but because they represent a mechanism, or part of the process by which type 2 diabetes develops and worsens.

The samples analyzed in this research came from participants in the landmark TODAY study (Treatment Options for Type 2 Diabetes in Adolescents and Youth). Polymerase chain reaction analyses were carried out for 17 miRNAs from 365 participants from samples at baseline, 24, 60, 96, and 120 months. The authors write that this is the largest study of circulating miRNAs to date from an extensively phenotyped group of individuals with miRNA data over a 10-year period.

"In conclusion, we have identified miRNAs that predict treatment failure and beta cell function decline in youth-onset type 2 diabetes as well as those that are associated with markers of beta cell function," the authors write. "Circulating miRNAs may prove to be predictors of beta cell failure but may also provide key insights into potential mechanisms underlying beta cell failure. Future work should examine the potential mechanisms that are implicated by these miRNA species as well as the ability of newer therapies to alert their expression."

"Circulating miRNAs may prove to be predictors of beta cell failure but may also provide key insights into potential mechanisms underlying beta cell failure. Future work should examine the potential mechanisms that are implicated by these miRNA species as well as the ability of newer therapies to alert their expression."

Scientists Discover New Hormone that Can Build Strong Bones

A newly discovered hormone that keeps the bones of breastfeeding women strong could also help bone fractures heal and treat osteoporosis in the broader population. Researchers at UC San Francisco and UC Davis showed that in mice, the hormone known as Maternal Brain Hormone (CCN3) increases bone density and strength.

Their results, published in *Nature*, solve a long-standing puzzle about how women's bones remain relatively robust during breastfeeding, even as calcium is stripped from bones to support milk production.

"One of the remarkable things about these findings is that if we hadn't been studying female mice, which unfortunately is the norm in biomedical research, then we could have completely missed out on this finding," says Holly Ingraham, PhD, the senior author of the new paper and a professor of cellular molecular pharmacology at UCSF. "It underscores just how important it is to look at both male and female animals across the lifespan to get a full understanding of biology."

Ingraham's lab previously discovered that in female mice, but not male mice, blocking a particular estrogen receptor found in select neurons in a small area of the brain led to huge increases in bone mass. They suspected that a hormone in the blood was responsible for the super-strong bones but, at the time, could not find it — a quest that was further protracted during the worldwide pandemic.

For this study, Ingraham and collaborators carried out an exhaustive search for this bone-building hormone and finally pinpointed CCN3 as the factor responsible in mutant females. Initially, the team was surprised by this result, as CCN3 did not fit the typical profile of a secreted hormone from neurons.

Their doubts vanished after they found CCN3 in the same brain region in lactating female mice. Without the production of CCN3 in these select neurons, lactating female mice rapidly lost bone, and their babies began to lose weight, confirming the importance of the hormone in maintaining bone health during lactation. Based on this discovery, they now refer to CCN3 as Maternal Brain Hormone (MBH).

When strategies to increase circulating CCN3 were implemented in young adult and older female or male mice, their bone mass and strength increased dramatically over the course of weeks. In some female mice who lacked all estrogen or were very old, CCN3 was able to more than double bone mass.

When Ingraham's scientific collaborator, Thomas Ambrosi, PhD, of UC Davis, tested these bones, he was surprised by their strength. "There are some situations where highly mineralized bones are not better; they can be weaker and actually break more easily," he says. "But when we tested these bones, they turned out to be much stronger than usual."

Ambrosi looked closely at the stem cells within the bones that are responsible for generating new bone and found that when these cells were exposed to CCN3, they were much more prone to generate new bone cells.

"Bone loss happens not only in post-menopausal women but often occurs in breast cancer survivors that take certain hormone blockers; in younger, highly trained elite female athletes; and in older men whose relative survival rate is poorer than women after a hip fracture."

> To test the ability of the hormone to assist in bone healing, the researchers created a hydrogel patch that could be applied directly to the site of a bone fracture, where it would slowly release CCN3 for two weeks.

To test the ability of the hormone to assist in bone healing, the researchers created a hydrogel patch that could be applied directly to the site of a bone fracture, where it would slowly release CCN3 for two weeks. In elderly mice, bone fractures don't usually heal well. However, the CCN3 patch spurred the formation of new bone at the site of the fracture, contributing to youthful healing of the fracture.

"We've never been able to achieve this kind of mineralization and healing outcome with any other strategy," Ambrosi says "We're really excited to follow it up and potentially apply CCN3 in the context of other problems, such as regrowing cartilage."

The researchers plan to carry out future studies on the molecular mechanisms of CCN3, its levels in breastfeeding women, as well as the potential of the hormone to treat a variety of bone conditions.

Muriel Babey, MD, a co-first author and mentored physician-scientist in the Division of Endocrinology at UCSF, is keen to begin asking how CCN3 impacts bone metabolism in clinically relevant disease settings. Partnering with the UCSF Catalyst program, William Krause, PhD, a senior scientist and co-lead on this project will begin translating these new results.

"Bone loss happens not only in post-menopausal women but often occurs in breast cancer survivors that take certain hormone blockers; in younger, highly trained elite female athletes; and in older men whose relative survival rate is poorer than women after a hip fracture," Ingraham says. "It would be incredibly exciting if CCN3 could increase bone mass in all these scenarios." EN

REFER A FRIEND FOR MEMBERSHIP AND YOU BOTH SAVE

IT WORKS IN THREE EASY STEPS!

REFER

Invite your friends to become members. Give them your Endocrine Society Member ID and promo code MGAM2024 to include when they join.

REWARD

Your friends will save 10% on their membership registration and you will receive a discount on your 2025 renewal based on the referral IDs provided.

REPEAT

The more friends who register, the greater your renewal savings!

LEARN MORE AT ENDOCRINE.ORG/REFER

ENDOCRINE SOCIETY

Endocrine Society Honors Endocrinology Field's Leaders with 2025 Laureate Awards

The Endocrine Society today announced it has chosen 14 leading endocrinologists as winners of its prestigious 2025 Laureate Awards, the top honors in the field.

Endocrinologists are scientists and medical doctors who specialize in unraveling the mysteries of hormone disorders to care for patients and cure diseases. These professionals have achieved breakthroughs in scientific discoveries and clinical care benefiting people with hundreds of conditions, including diabetes, thyroid disorders, obesity, hormone-related cancers, growth problems, osteoporosis, and infertility.

Established in 1944, the Society's Laureate Awards recognize the highest achievements in the endocrinology field, including groundbreaking research and innovations in clinical care. The Endocrine Society will present the awards to the winners at **ENDO 2025**, being held July 12 – 15 in San Francisco, Calif.

The Endocrine Society's 2025 Laureate Award winners are:

Daniel Drucker, MD

Fred Conrad Koch Lifetime Achievement Award

The Society's highest honor, this annual award recognizes lifetime achievements and exceptional contributions to the field of endocrinology. Drucker is a senior investigator at the Lunenfeld-Tanenbaum Research Institute, Sinai Health, and a university professor in the Department of Medicine at the University of Toronto's Temerty Faculty of Medicine in Ontario, Canada. He is being honored for his role as one of the pioneers in advancing next-generation treatments for diabetes and weight loss. He has greatly contributed over the years to the development of a new class of drugs, including Ozempic and Wegovy, based on his discoveries about gut hormones known as glucagon-like peptides (GLP-1 and GLP-2). These medications have been life changing for people living with type 2 diabetes, obesity, and intestinal failure. Drucker has served the Endocrine Society in various roles and on numerous committees, most recently as an editorial board member for the *Journal of the Endocrine Society*, as editor-in-chief of *Endocrine Reviews*, and as a member of the Society's Nominating Committee.

V. Krishna Chatterjee, MD

Gerald D. Aurbach Award for Outstanding Translational Research

This annual award recognizes outstanding contributions to research that accelerates the transition of scientific discoveries into clinical applications. Chatterjee is a professor of endocrinology, based at the Institute of Metabolic Science at the University of Cambridge, a consultant endocrinologist at Cambridge University Hospitals, and director of the National Institute for Health Research (NIHR) Cambridge Clinical Research Facility in Cambridge, U.K. He is distinguished for his contribution to the molecular basis of endocrine disorders and its application to clinical medicine. His research focuses on genetic and molecular endocrinology, exploring disorders including resistance to thyroid hormone and PPARgamma gene defects associated with lipodystrophic insulin resistance. He has translated his research into biochemical and genetic tests and biomarkers that constitute an internationally recognized diagnostic service for disorders of thyroid hormone action, and which inform therapeutic approaches in these disorders.

David Mangelsdorf, PhD, and Steven Kliewer, PhD

Edwin B. Astwood Award for Outstanding Research in Basic Science

Originally awarded from 1967 and renamed to honor the scientific contributions of the late Dr. Edwin B. Astwood, this award recognizes individuals who have made significant contributions to the field of endocrinology via their outstanding basic science research. Mangelsdorf, distinguished chair in pharmacology and in molecular neuropharmacology at University of Texas Southwestern Medical Center in Dallas, Texas, and Kliewer, distinguished chair in developmental biology at UT Southwestern Medical Center, have made groundbreaking discoveries in endocrine signaling through nuclear receptor research. Their discoveries include the elucidation of the key signaling pathways governing cholesterol, lipid and bile acid homeostasis, the identification of a conserved mechanism controlling the way in which animals react to nutritional stress, and the characterization of the mechanism underlying parasitic nematode infections. Their work has led to the creation of life-saving drugs with FDA approval and impacted human health on a global scale. Their contributions have expanded our understanding of metabolic pathways, physiological regulators, and potential therapeutic interventions, demonstrating immense potential for human health, agricultural applications, and beyond.

Syed Abbas Raza, MD

International Excellence in Endocrinology Award

This award is presented to an endocrinologist who has made exceptional contributions to the field in geographic areas with underdeveloped resources for hormone health research, education, clinical practice, or administration. Raza currently serves as a consultant endocrinologist and physician at Shaukat Khanum Hospital and Research Center in Lahore, Pakistan. He is an outstanding clinician, educator, and advocate for global endocrinology. His passion is to educate the public and healthcare providers about the prevention and treatment of diabetes and obesity. He leads several initiatives to raise awareness of obesity and to promote a healthier lifestyle for youth in the South Asian region. He has published extensively and lectured regionally and internationally on these initiatives, many of which have been to healthcare providers in underserved areas of the region. He served as vice president and president of the Pakistan Endocrine Society and is currently the president of the International Society of Endocrinology.

JoAnn Manson, MD, PhD

Outstanding Clinical Investigator Award

This annual award honors an internationally recognized clinical investigator who has contributed significantly to understanding the pathogenesis and therapy of endocrine and metabolic diseases. Manson, who is the chief of the Division of Preventive Medicine at Harvard Medical School, a physician at Brigham and Women's Hospital,

and a professor at Harvard T.H. Chan School of Public Health in Boston Mass., is one of the most influential clinical investigators in endocrinology and women's health. She has made pivotal and trailblazing contributions to elucidating the benefits and risks of estrogen therapy in early versus later menopause, and to understanding the role of vitamin D supplementation in prevention of major chronic diseases. She launched the investigator-initiated VITamin D and OmegA-3 TriaL (VITAL), the largest randomized clinical trial of vitamin D supplementation in the world and the only primary-prevention randomized trial of marine omega-3 fatty acids and cardiovascular disease.

Whitney Woodmansee, MD

Vigersky Outstanding Clinical Practitioner Award

This annual award recognizes extraordinary contributions by a practicing endocrinologist to the endocrine and/or medical community. Woodmansee is a professor of medicine at the University of Florida's Division of Endocrinology, Diabetes, and Metabolism in Gainesville, Fla., and the director for the university's Neuroendocrine/Pituitary Program. She specializes in neuroendocrine diseases and is also very knowledgeable in general medicine and general endocrinology. She meets all her patients' needs and ensures systems are in place to efficiently deliver care. The latter is exemplified by her expertise in developing a pituitary testing center at Brigham and Women's Hospital and then ensuring such practices were in place at other centers where she worked. Many patients have followed her as her practice has moved to different centers. Woodmansee is also thoroughly committed to patient education. She keeps up with the latest clinical and basic science research and then translates it for patients to understand.

Alice Levine, MD

Outstanding Educator Award

This annual award recognizes exceptional achievement as an educator in the discipline of endocrinology and metabolism. Levine is a professor of medicine and oncological sciences at the Icahn School of Medicine at Mount Sinai in New York, N.Y., and director of the school's Adrenal Center and the Pituitary Center. She is also the system-wide director of the Endocrinology, Metabolism, and Diabetes Fellowship at the Mount Sinai Health System, the largest endocrine fellowship program in the country. Levine was the course director for the Icahn School of Medicine at Mount Sinai Endocrine Pathophysiology Course for 25 years, inspiring generations of medical students to pursue careers in the field. She received the Icahn School of Medicine at Mount Sinai's Teaching Award in 2011 and the Jacobi Medallion in 2017, the highest award conferred by its Alumni Association. She is a highly sought-after speaker at national and international meetings for her research into prostate cancer and adrenal diseases. Her publications are highly cited, and she has edited three textbooks that serve to educate endocrinologists in the fields of hormonal neoplasia and adrenal diseases.

Ilene Fennoy, MD, MPH

Outstanding Leadership in Endocrinology Award

This annual award recognizes outstanding leadership in fundamental or clinical endocrinology. Fennoy is a professor of pediatrics at Columbia University's Valegos College of Physicians & Surgeons in New York, N.Y. She is a pioneer, innovator, and leader in the field of pediatric obesity and in the realm of diversity, equity, and inclusion. Fennoy directs key programs at Columbia University focused on obesity and related cardiovascular morbidity, with a particular emphasis on care for underserved populations. She was appointed to the Endocrine Society's Pediatric Obesity Guidelines Committee and co-authored the resulting Clinical Practice Guideline. Her leadership in this field is also reflected in her being appointed to the Pediatric Endocrine Society's (PES) Obesity Task Force. After having served on the Endocrine Society's Minority Affairs Committee, she established and co-chairs PES's Equity, Diversity, and Inclusion (EDI) Task Force. Fennoy also initiated collaboration with the Endocrine Society's Commitment to Diversity, Equity, and Inclusion (CoDI) to support dissemination of the Endocrine Society's FLARE and ExCEL programs to PES members.

Ellen Seely, MD

Outstanding Mentor Award

This annual award recognizes a career commitment to mentoring and a significant positive impact on mentees' education and career. Seely is the director of the Clinical Research, Endocrinology, Diabetes, and Hypertension Division in the Department of Medicine at Brigham & Women's Hospital, and a professor of medicine at Harvard Medical School in Boston, Mass. Besides being world renowned for her studies of hypertensive disorders of pregnancy, Seely selflessly dedicates a substantial part of her academic career to nurture the intellectual and professional growth of peers and juniors alike. She has supported faculty development and well-being, medical student teaching, training in grant writing and clinical investigation, FDA advisory committees, student thesis review committees, and many more initiatives. Her approach to mentoring is one "without borders," reaching mentees in Europe and the Middle East. She has been rewarded for her commitment with the A. Clifford Barger Excellence in Mentoring Award at Harvard Medical School, the Distinguished Member of the Society of Teaching Scholars at the Brigham and Women's Hospital, the William Silen Lifetime Achievement in Mentoring Award, and the Mentoring Award from Women in Endocrinology.

Christos Mantzoros, MD, DSc, PhD

Outstanding Scholarly Physician Award

This annual award recognizes outstanding contributions to the practice of clinical endocrinology in academic settings. Mantzoros is a professor of medicine at Harvard Medical School and has a longstanding successful and highly recognized research program of clinical and translational endocrinology at Beth Israel Deaconess Medical Center, where he is the founding director of the Department of Human Nutrition. He also serves as the chief of Endocrinology, Diabetes, and Metabolism at the Veterans Affairs Boston Healthcare System and is adjunct professor at the Boston University School of Medicine in Boston, Mass. As a practicing internist, endocrinologist, and dedicated educator, he is a pioneer and worldwide expert in obesity and metabolism. During his career, he has treated tens of thousands of patients, mentored over 200 trainees and collaborators, and published over 1,000 peer-reviewed articles. He is also a stellar educator who created and leads novel clinical training and education programs. His work has improved our understanding of the underlying pathophysiological mechanisms related to obesity, energy balance, and metabolism. His past and ongoing work has defined the role of the adipocyte-secreted hormone leptin in humans, and over the past years, the Mantzoros lab research has expanded to understand the physiology and the role of gastrointestinal hormones as well as the role of myokines and mitokines in obesity and obesity-related disorders.

Erik Nelson, BSc, PhD

Richard E. Weitzman Outstanding Early-Career Investigator Award

This annual award recognizes an exceptionally promising young clinical or basic investigator. Nelson is an associate professor of molecular and integrative physiology at the University of Illinois at Urbana-Champaign in Champaign, Ill. His work has defined biochemical links between dyslipidemia/hypercholesterolemia and the pathobiology of osteoporosis and breast cancer. His findings have contributed to novel therapeutic approaches being explored as breast cancer treatments and preventatives. Nelson's work establishing cholesterol-derived oxysterols as agents that influence the pathology of disease is groundbreaking and clinically impactful. His work highlights the importance of studying biological processes at their most fundamental level to appreciate the best ways to intervene for therapeutic benefit. He is currently a member of the Society's Annual Meeting Steering Committee and an editorial board member for the basic science journal *Endocrinology*.

Barbara Kahn, MD

Roy O. Greep Award for Outstanding Research

This annual award recognizes meritorious contributions to research in endocrinology. Kahn is the vice chair for research strategy at Beth Israel Deaconess Medical Center in Boston, Mass., and is internationally recognized for her groundbreaking discoveries that have helped shape the fields of diabetes and endocrinology research for over three decades. Her pioneering discoveries have illuminated the molecular mechanisms

underlying obesity and type 2 diabetes, including the regulation of insulin sensitivity through inter-tissue communication and adipocyte biology. Her lab has made several novel discoveries in this area of research, and she has trained numerous highly successful leaders in endocrinology and metabolism around the world. She has served as an editor for the Endocrine Society journal *Endocrine Reviews* and on the editorial board for *Endocrinology*.

Lori Raetzman, PhD

Sidney H. Ingbar Distinguished Service Award

This award recognizes distinguished service to the Endocrine Society and the field of endocrinology. Raetzman is a professor of molecular and integrative physiology and the associate director for the School of Molecular and Cellular Biology (MCB) PhD Programs at the University of Illinois Urbana-Champaign, School of MCB in Champaign, Ill. Since joining the Endocrine Society in 2001, she has served on numerous committees. Her initiatives, including incorporating social media for enhanced trainee engagement and organizing workshops on critical professional development topics, have amplified the Society's reach and inclusivity. She has also been instrumental in fostering diversity and leadership through programs like FLARE, supporting underrepresented minorities in basic and clinical research. She is currently a member of the Endocrine Society's Adrenal and Pituitary Special Interest Group, the Editor-in-Chief Search Committee for *Endocrinology*, and the Endocrine-Disrupting Chemicals Clinical Strategy/Resources Task Force, as well as co-chair of the Research Affairs Core Committee.

Nominations are being accepted for the 2026 awards cycle until January 21, 2025. Any submissions received after that will be considered for the following year.

Maria I. New, MD

Remembering Maria I. New, MD

Maria I. New, MD, who served as the Endocrine Society's president from 1991 to 1992, passed away on July 26, 2024.

New was revered for her studies of congenital adrenal hyperplasia (CAH), which subsequently led to treatments to correct the disorder prior to childbirth. Her groundbreaking identification of mineralcorticoid excess resulted in a new area of receptor biology, and she was also the first to describe dexamethasone-suppressible hyperaldosteronism, another form of low resin hypertension.

The daughter of Italian musicians who came to the U.S. to perform, New grew up speaking Italian before she learned to speak English. Therefore, her parents and the rest of her family prepared her for a life in the music profession. "I saw what it took to be a good musician in my family, and it's very difficult," New said in a 2008 oral history. "You're either at the top or you're nothing; there's no room for mediocrity, and I didn't think I could cut the mustard" in the world of music. "So, I thought there was a lot of room for mediocrity in medicine, so I went into medicine, but you better not quote me on that!"

New easily avoided any "mediocrity in medicine" as her seminal research on the mechanism and genetics of steroid disorders established new standards for prenatal and postnatal care for patients with CAH and apparent mineralocorticoid excess. This research and the many fellows she mentored throughout her career have made her a stalwart of endocrinology for six decades.

An Endocrine Society member since 1967, New's most recent position was professor of pediatrics and human genetics and director of the Adrenal Steroid Disorders Program with the Mount Sinai School of Medicine in New York City, where she was born and raised. Aside from her tenure as the Society's president, New was also the editor-in-chief of *The Journal of Clinical Endocrinology & Metabolism* from 1994 to 1999.

Throughout her 57-year membership in the Endocrine Society, her service to the organization and the field of endocrinology seemed unending. Among the committees on which she served were the Membership Task Force, Nominating Committee, Board of Directors, Executive Committee, Finance and Audit Committee, and the Laureate Awards Committee, among many others. From the Endocrine Society, she received the Rhone-Poulenc Rorer Clinical Investigator Award in 1995; the Robert H. Williams Distinguished Leadership Award in 1988; and in 2003, she was the recipient of the Fred Conrad Koch Lifetime Achievement Award, the Endocrine Society's most prestigious honor.

During the year of her presidency, New spearheaded the development of the Women's Caucus, which was a forum for "women to meet and discuss issues that affect women, not only in endocrinology but in their careers as well," New said in the oral history, adding that it was a big help to women to further their careers as well as find suitable mentors.

New said that the Endocrine Society was her "scientific family" and added that she was very glad she chose endocrinology as her career so she could combine her passion of genetics with endocrinology. When asked about the state of the field of endocrinology in 2008, New replied that she thought it was moving at a very fast pace. "It's probably moving faster than most other fields. I'm glad to be part of it!"

To watch an Endocrine Society oral history interview with New conducted in 2008, go to: **https://www.youtube.com/watch?v=RDuKLVzi-mQ**.

2024 Clinical Endocrinology Update

CEU2024

CLINICAL ENDOCRINOLOGY UPDATE

Sept. 19 – 21, 2024/Virtual Only

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

Clinical Endocrinology Update (CEU) 2024 provides a convenient solution for busy professionals by delivering a first-rate education they can immediately implement into their practice. For over a decade, our program has been led by renowned endocrinologists, offering a case-based agenda and evidence-based disease management strategies to equip practitioners with the tools they need to address daily clinical challenges.

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

With Meet the Professor sessions and a symposium filled with expert insights, this program offers a valuable learning experience for endocrinologists worldwide. Do not miss this opportunity to enhance your knowledge and skills in hormone care. Join us online, and stay ahead in the field of endocrinology!
https://ceu2024.endocrine.org/

ASBMR 2024

Toronto, Ontario, Canada
September 27 – 30, 2024

The ASBMR Annual Meeting boasts nearly 100 education sessions and 1,100 poster presentations in four information-filled days. The conference includes hands-on workshops focused on the latest technologies and research tools using model data sets, Meet-the-Professor sessions, the ASBMR Discovery Hall, an exhibition hall that provides attendees with a truly immersive experience, with access to new science, new knowledge, new tools, and new contacts all in one location.
https://www.asbmr.org/annual-meeting

Neuroscience 2024

Chicago, Illinois
October 5 – 9, 2024

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 sessions 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-2024

American Thyroid Association 2024 Annual Meeting

Chicago, Illinois
October 30 – November 4, 2024

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/

ObesityWeek 2024

San Antonio, Texas
November 3 – 6, 2024

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; from diet, exercise, lifestyle, and psychology to medical and surgical interventions; from pediatric to geriatric to underserved populations.
https://obesityweek.org/

26th Davidson Mestman Intensive Course

Miami, Florida
December 11 – 14, 2024

Presented entirely in Spanish, the main objective of this intensive course is to provide physicians with specialized and advanced training in the diagnosis, treatment, and comprehensive management of patients with endocrine disorders, diabetes, and associated cardiovascular diseases, obesity, and endocrine cancers. The program will focus on updating and

honing participants' clinical skills, enabling them to deliver cutting-edge, personalized medical care in these specialized areas.
https://www.cursodavidsonmestman.com/

INTERNATIONAL **ITINERARY**

EndoBridge 2024

Antalya, Turkey
October 18 – 20, 2024

EndoBridge will be held in English with simultaneous translation into Russian, Arabic, and Turkish. 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

FROM THE **ENDOCRINE SOCIETY**

1st International Conference on Steroid Hormones and Receptors (SHR 2024)

Albuquerque, New Mexico • October 15 – 18, 2024

STEROID HORMONES AND RECEPTORS

SHR 2024 will be held at the University of New Mexico Comprehensive Cancer Center and will be chaired by Eric Prossnitz (University of New Mexico) and Endocrine Society incoming President Carol Lange (University of Minnesota). SHR 2024 is an international biomedical conference that builds on a 25-year legacy of highly successful conferences: the Steroid Hormones and Receptors in Health and Disease Conference hosted by FASEB Science Research Conferences (SRC) and the Rapid Responses to Steroid Hormones (RRSH) International Meetings hosted by the International RRSH Committee. A joint FASEB-RRSH conference held in 2021 recognized the evolution of the field in which physiological and cellular effects of steroid hormones are frequently the result of the combined effects of rapid and genomic signaling. These advances in steroid hormone and receptor biology highlighted the need for a new series of international meetings. The SHR conferences will explore state-of-the-art advances in steroid hormone and receptor functions, both rapid and genomic, in various aspects of biology and medicine in terms of normal physiology and pathophysiology.
https://www.endocrine.org/meetings-and-events/shr-2024

Artificial Intelligence in Healthcare

Virtual Meeting • November 8 – 9, 2024

AI IN HEALTHCARE VIRTUAL SUMMIT

The Endocrine Society's AI in Healthcare Virtual Summit is an innovative two-day virtual event designed to inform providers, healthcare professionals, researchers, technologists, industry stakeholders, and educators on the capabilities of artificial intelligence in the healthcare field. This summit offers a unique opportunity to delve into the transformative potential of AI in revolutionizing patient care and shaping the future of medicine. Attendees will discover how AI technologies are redefining diagnostics, treatment planning, and patient outcomes in healthcare in addition to exploring the latest advancements in AI-driven healthcare, from predictive analytics to machine-learning algorithms. The summit will be held in conjunction with Matchbox Virtual, which provides an innovative user experience that mimics attendance at a physical conference site. Major content areas include Diagnosis and Prediction, Drug Discovery and Development, and Natural Language Processing (NLP).
https://www.endocrine.org/meetings-and-events/ai-summit

WEBINAR
ENDOCRINE SOCIETY
Hormone Science to Health

Endocrine Society Webinars

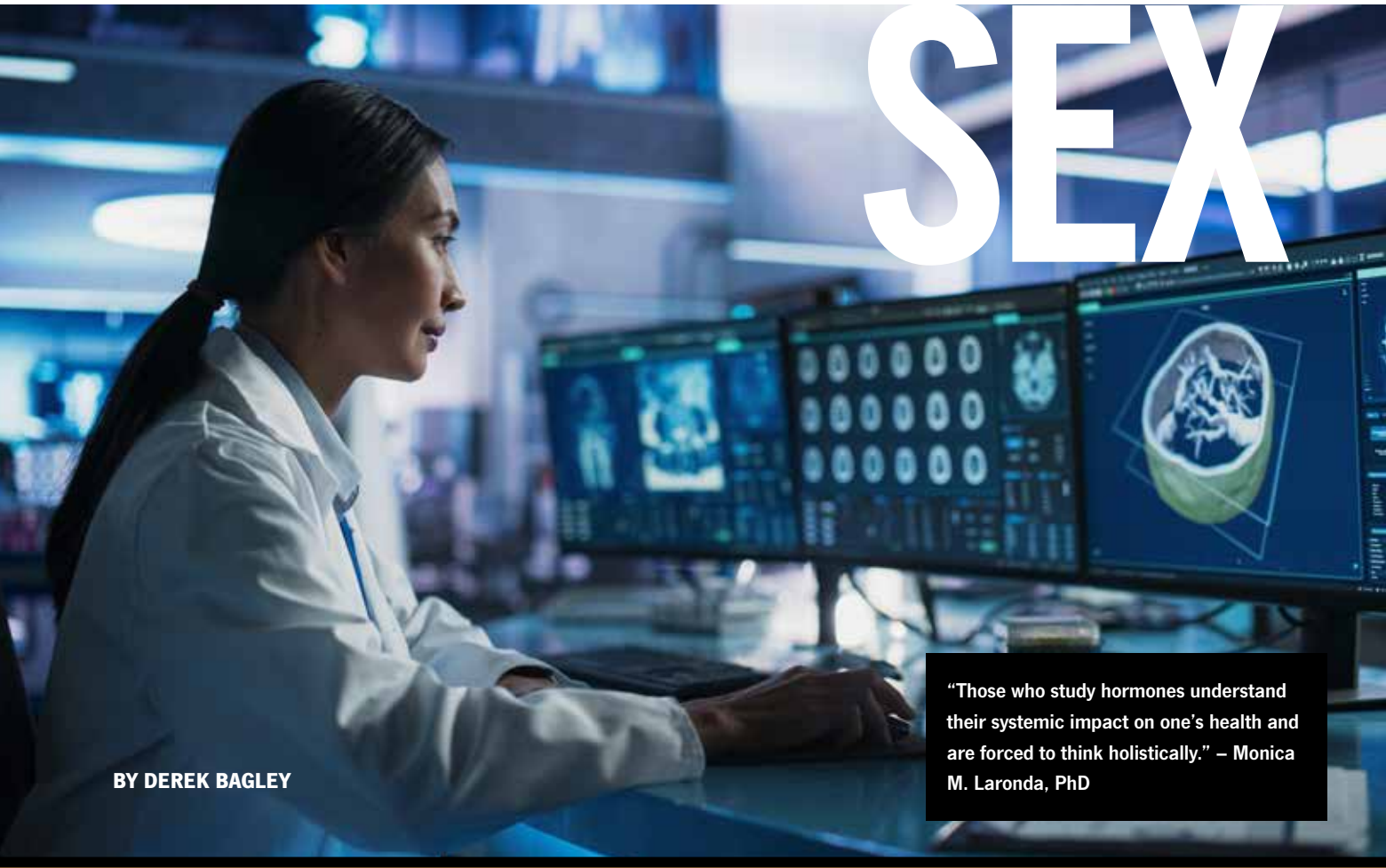
The Endocrine Society holds webinars throughout the year on many topics, from clinical practice and basic research to career development, advocacy, and more. Check below for information on upcoming webinars and links to previous events. Visit our Center for Learning for a full list of Society educational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

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

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

The Ongoing Efforts to Fund Women's Health Research

On The Basis Of SEX



"Those who study hormones understand their systemic impact on one's health and are forced to think holistically." – Monica M. Laronda, PhD

BY DEREK BAGLEY

First Lady Jill Biden (center) on a visit to the Ludeman Family Center for Women's Health Research at the University of Colorado Anschultz Medical Campus. Pictured, left to right are: Aurora,Colo., Mayor Mike Coffman; Colorado Lt. Gov. Dianne Primavera; Biden; CU President Todd Sliman; Judith Regensteiner, PhD; and Endocrine Society member and FLARE alumnus, Maigen Bethea, PhD.

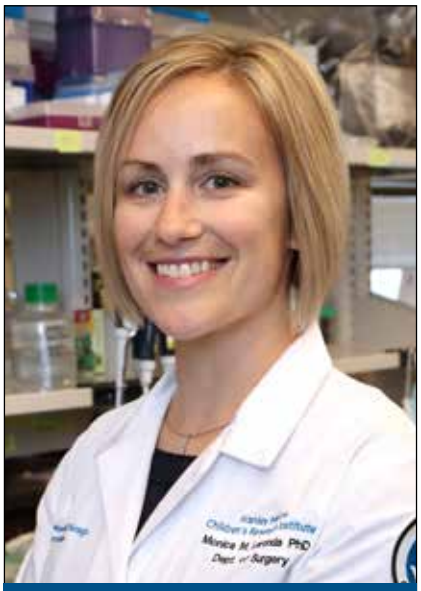
Monica M. Laronda, PhD, and Jane E. Reusch, MD, have long been leading advocates for the importance of equity in scientific research, specifically as it relates to women's health. As they engage with national initiatives focusing on how this research is funded, they spoke to *Endocrine News* to discuss the latest in these efforts, their own research, and potential opportunities for future funding women's health studies.

Last November, President Joe Biden and First Lady Jill Biden, EdD, launched the White House Initiative on Women's Health Research to "to fundamentally change how our country approaches and funds research on women's health." A few months later, in January 2024, a National Academies of Sciences, Engineering, and Medicine (NASEM) committee held a public workshop with the task of developing recommendations regarding the structure of the National Institutes of Health (NIH) and to ensure optimal funding for women's health. The NASEM also announced it was convening an ad hoc committee to address the wide and persistent gaps in women's health research across all of the NIH.

These efforts are long overdue. Women, of course, make up half the population, but most research is focused on men's bodies — often those data and results wouldn't apply to women. "Research on women's health is drastically underfunded, leading to significant research gaps, with serious consequences for the health of women across the country," the White House said in a statement. "This lack of investment limits our understanding of conditions that are specific to women, predominantly affect women, or affect women differently."

Meanwhile, the NASEM committee will make recommendations to the NIH on funding priorities, education, and training programs to build and support a "robust women's health research workforce," review processes, and allocation of funding to address gaps in women's research.

Because hormones are one major contributor to what makes men and women develop disease — and respond to treatment — differently, the Endocrine Society has responded to both of these efforts, giving its own recommendations to the



Monica M. Laronda, PhD

Jane E. Reusch, MD

White House and the NASEM, while a couple of members were given the opportunity to take a more personal and intimate approach to be involved with these initiatives.

In March, Monica M. Laronda, PhD, an investigator at Ann & Robert H. Lurie Children's Hospital of Chicago and assistant professor of pediatrics and obstetrics and gynecology at Northwestern University Feinberg School of Medicine, representing the Society's Research Affairs Core Committee, shared the Society's perspective on women's health research at the NASEM stakeholder meeting.

On April 20, Jill Biden visited the Ludeman Family Center for Women's Health Research at the University of Colorado Anschutz Medical Campus, where she met Jane E. Reusch, MD, associate director of the Ludeman Center and professor of medicine in the Division of Endocrinology, Metabolism, and Diabetes, where Reusch was able to explain the sex differences in diabetes.

Endocrine News caught up with Laronda and Reusch to discuss these efforts to address women's health research, how their own work is shaping those efforts, and, how endocrinology will play a role in narrowing, and perhaps even eliminating, these gaps.

Endocrine News: **Dr. Laronda, can you discuss your research, and why basic research on reproductive biology is a critical need for women's health?**

MONICA M. LARONDA: Our research aims to understand human gonadal biology to inform how we preserve and restore fertility and gonadal hormones in patients that will undergo gonadal insufficiency because of a treatment — as in cancer patients — or disease — as in differences in sex development/intersex patients. Our main focus has been on ovarian biology and engineering a bioprosthetic ovary to restore fertility and ovarian hormone function. We develop processing, anatomy, and cell annotations standards for cryopreservation and collaborative analyses; engineer our own materials with specific physical and biochemical components; use omics and spatial technologies to map the human ovary across the lifespan; and use human induced pluripotent stem cells and human tissue to translate this research into clinical practice.

While we study organs that are important for reproduction, it is important to think of the effects of ovarian or testicular hormones on all organs and across the lifespan.

EN: **Dr. Reusch, tell us about your research, and why it's so important to better understand sex differences in diabetes.**

JANE E. REUSCH: The NIH and VA sponsored research that I do with my lab in collaboration with Drs. Judy Regensteiner and Kristen Naduea, and is focused on understanding the molecular underpinnings of diabetes-related decline in cardiorespiratory fitness in adults and youth with type 1 and type 2 diabetes.

PHOTO: Ryan Wuller from the University of Colorado Anschutz Medical Campus

Jane Reusch (far left) meets with Jill Biden during the First Lady's visit to the Ludeman Family Center for Women's Health Research at the University of Colorado Anschutz Medical Campus.

Decreased cardiorespiratory fitness is the No. 1 predictor (stronger than LDL cholesterol) of premature morbidity and mortality. In our lab, but not all labs, this defect in cardiorespiratory fitness is worse in girls and in women. In addition, girls and women are less physically active thereby compounding the physiological impairment and negative health consequences. We have employed youth, adults, and pre-clinical animal models to gain understanding into the defect and to define strategies to restore fitness. We have learned that prior to any classic microvascular or macrovascular complications of diabetes, there is a change in the function of the heart and the skeletal muscle related to insulin resistance and changes in perfusion. We are using animal models and interventions in people with diabetes (including exercise training and pharmacological intervention) to restore function and improve cardiorespiratory fitness. Responses to these interventions are specifically different in female animal models, and our research is working to discern sex differences in people with diabetes.

Very important for the field of women's health research is the epidemiological observation that when a woman develops diabetes prior to menopause, she loses the gender-related delay in cardiovascular event that is usually present in women prior to menopause. Loss of this female-specific delay in cardioprotection, enhances the deleterious effects of diabetes in women. In addition, women with diabetes have worse outcomes when they suffer a cardiovascular event, such as a myocardial infarction, and they are less likely to be treated with the interventions that are evidence-based and routinely afforded to men.

Finally and tragically, two-thirds of type 2 diabetes in youth presents in adolescent girls compared to boys. Younger onset diabetes accelerated cardiovascular and microvascular complications compared to adult onset (after the age of 40) type 2 diabetes. As such, adolescent girls and young women are exposed to a lifetime of risk. Simply stated, it is important to study sex differences in diabetes.

***EN:* Dr. Laronda, can you tell us more about your experience sharing the Endocrine Society's perspective with the National Academies Committee**

> "Women's health research has often been pigeon-holed by narrowing women's health to primarily include reproductive organs during the reproductive lifespan. **An endocrinology perspective is critical as gonadal hormones are vital before and after reproductive age and for biological processes beyond reproduction."**
>
> **MONICA M. LARONDA, PHD,** INVESTIGATOR, LURIE CHILDREN'S HOSPITAL OF CHICAGO; ASSISTANT PROFESSOR OF PEDIATRICS AND OBSTETRICS AND GYNECOLOGY, NORTHWESTERN UNIVERSITY FEINBERG SCHOOL OF MEDICINE, CHICAGO, ILLINOIS

> Very important for the field of women's health research is the epidemiological observation that when a woman develops diabetes prior to menopause, **she loses the gender-related delay in cardiovascular event that is usually present in women prior to menopause."**

JANE E. REUSCH, MD,
ASSOCIATE DIRECTOR, LUDEMAN CENTER; PROFESSOR OF MEDICINE, DIVISION OF ENDOCRINOLOGY, METABOLISM AND DIABETES, UNIVERSITY OF COLORADO ANSCHUTZ MEDICAL CAMPUS, AURORA, COLORADO

on the Assessment of NIH Research on Women's Health and what the key messages were?

MML: Several key members of the Research Affairs Core Committee (RACC) met to identify key areas that we wanted to emphasize. We chose to emphasize the importance of understanding sex as a biological variable, consideration for women's health research across the lifespan, increasing diversity and inclusion across the biomedical research enterprise, and encouraging researchers to study women's health. It was a pleasure to represent the Society at this meeting and listen in on other testimonies from physicians, scientists, and patients. While there was a clear consensus with the White House's statement, each individual or group there had a unique emphasis, and it was important that our perspective was noted.

EN: **Dr. Reusch, what were some of the important issues you shared with Dr. Jill Biden during her visit to your institution to discuss the White House Initiative on Women's Health Research, and what do you hope the Initiative will achieve?**

JER: Our visit was specifically focused on cardiovascular disease in women and highlighting the need to understand similarities and differences in disease pathogenesis and response to therapeutics in women and men/girls and boys.

A point of discussion was that we need sophisticated study design and methodology to disentangle the effects of sex and gender on disease development and outcomes. We need to prepare study sections and manuscript reviewers to fairly address sex differences and sex as a biological variable (SABV) — research such that it is field changing and truly informative. We need to normalize the expectation that basic and clinical investigation as well as randomized clinical trials will include thoughtful study design to address sex/gender differences and SABV.

Finally, we discussed the need to leverage the evolution of large data sets to begin to understand the interaction of sex and gender on outcomes, treatments, and health. Incorporating gender into big-data, real-world analyses is only possible in as much as these data are collected. As such, one priority is the need to create electronic health records and large clinical data set infrastructure that is refined to include parameters that capture the impact of gender on health. First, the factors need to be carefully identified and thoughtfully built into randomized control trials (RCTs) and epidemiological data sets.

EN: **Can you share why it's important for the field of endocrinology to have a voice in the future direction for women's health research?**

JER: It is critical for endocrinology to lead the field of sex differences and SABV, as we are known as the "hormone doctors." Whether true or not, sex differences are often attributed solely to hormones.

To that end, endocrinology needs to provide expertise on how to evaluate the contributions of sex hormones, genetic sex, gender, and other factors into the study of women's health research.

The field of endocrinology has defined the impact of sex and sex hormones from before conception through aging. We need to support the field to effectively move observations and small studies into the mainstream for our understanding of sex differences across the lifespan.

MML: Those who study hormones understand their systemic impact on one's health and are forced to think holistically. Those who are not cisgender men have been historically overlooked as more complicated or challenging to study, which has resulted in women developing adverse effects to medications or taking medications with an unknown risk.

Women's health research has often been pigeon-holed by narrowing women's health to primarily include reproductive organs during the reproductive lifespan. An endocrinology perspective is critical as gonadal hormones are vital before and after reproductive age and for biological processes beyond reproduction. Additionally, hormones from other organ systems may be made, released, or affect tissues differently depending on the chromosomal sex or gonadal hormone milieu of the individual. Endocrinology provides an important perspective to identify and address these gaps. We must continue to use our voice to address these gaps in knowledge.

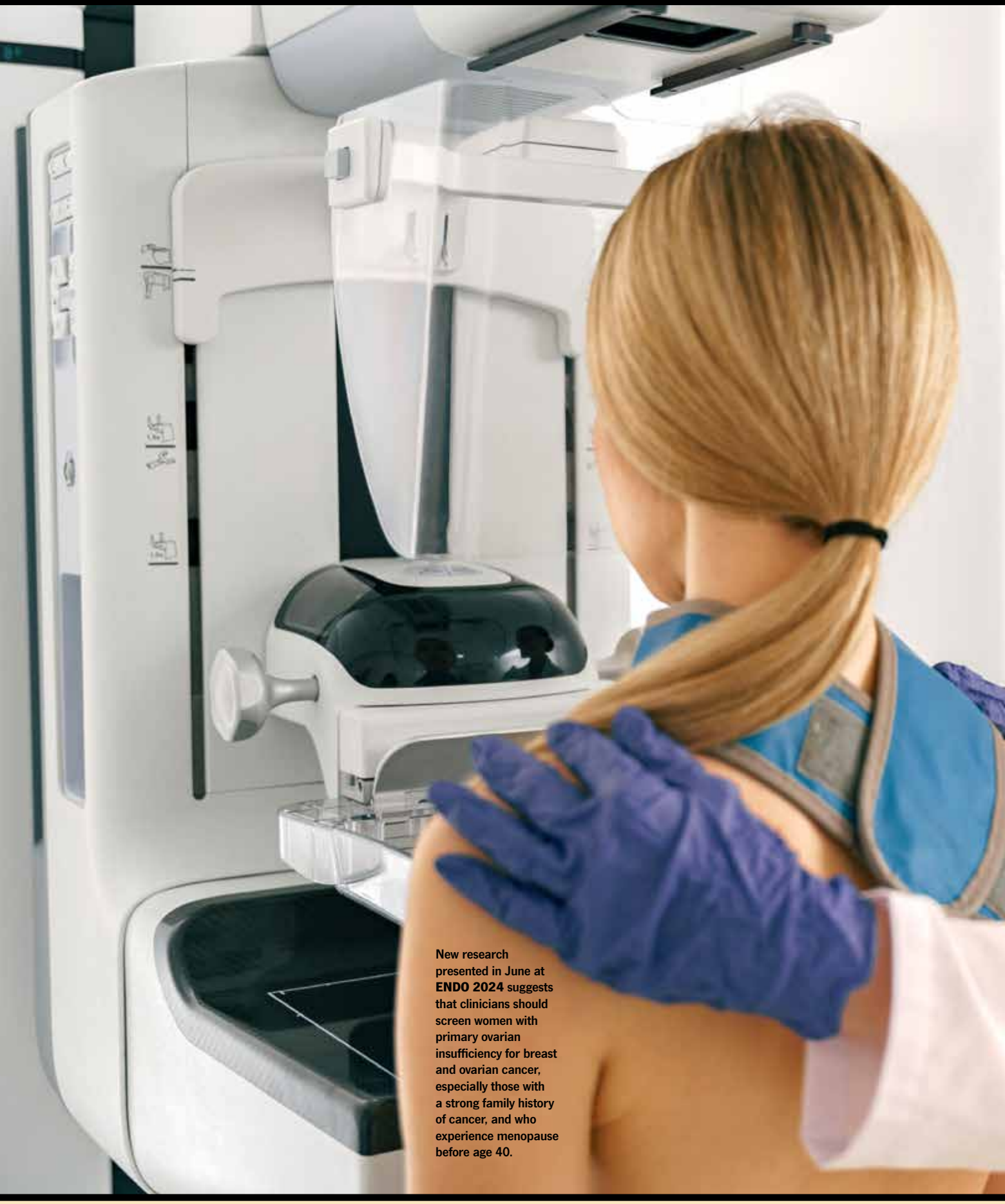
EN: What are some critical research opportunities that funding agencies should consider as they develop plans and priorities to advance women's health?

MML: Inclusive and expansive women's health research should be encouraged across all NIH institutes and centers. There should be incentives to considering sex as a biological variable and for considering women's health across the life course. Clinical targets and goals that are inclusive and precise in this way should be prioritized. Replication studies may be necessary in some fields to ensure a more rigorous sex-specific analysis and improve outcomes for historically marginalized groups, including women.

JER: I will mention a few crucial research priorities in my area of work. Research needs to carefully interrogate the parameters that change with menopause that permit accelerated cardiovascular disease progression; define the maladaptive response to diabetes that negates cardioprotection in the pre- and perimenopause; understand why girls develop diabetes in youth more commonly than boys; develop sophisticated methodology for genetics, metabolomics, transcriptomics, and epigenomics to assess data based upon the impact of genetic sex and sex hormones; and most importantly, to consistently include women in randomized controlled trials with a pre-specified analysis plan to address sex differences and incorporate gender-related parameters. EN

*Special thanks to **Joseph M. Laakso, PhD,** the Endocrine Society's director of science policy, who conceived of this idea and worked with the editorial staff to formulate the appropriate questions and provided valuable guidance for this article.*

– BAGLEY IS THE SENIOR EDITOR OF *ENDOCRINE NEWS*. HE WROTE ABOUT SOME OF THE HIGHLIGHTS FROM **ENDO 2024** IN THE AUGUST ISSUE.



New research presented in June at ENDO 2024 suggests that clinicians should screen women with primary ovarian insufficiency for breast and ovarian cancer, especially those with a strong family history of cancer, and who experience menopause before age 40.

A Look at Pioneering Research from **ENDO 2024**

WOMEN'S HEALTH Focus

BY KELLY HORVATH

As usual, ENDO 2024 presented a wealth of cutting-edge science, much of which related to women's health. Here, we only scratch the surface as we discuss research that looks at women with vasomotor symptoms and cardiac risk; the impact of semaglutide on taste and how it could affect obesity treatment; and why women who experience early menopause should undergo regular cancer screenings.

For the past several years — several decades, if we're being completely honest — women's health issues have been front and center in not only recent news cycles but also in laboratories and clinics around the world. Once again, ENDO 2024 served as a medium to disseminate so much of the innovative research related to women's endocrine health.

This article encompasses three important studies presented in June that explore various aspects of sex-dependent (and other health issues) with implications that are both timely and compelling. Making the trip from Slovenia to Boston, Mojca Jensterle Sever, PhD, an associate professor in the Laboratory for Molecular Biology at the University Medical Centre in Ljubljana discussed her research on the impact of semaglutide on taste, which could impact obesity treatment among many other therapies.

Jensterle Sever praised the amount of clinical, translation, and basic endocrine science at **ENDO 2024**, saying that it was "perfectly balanced in the program, reaching young colleagues just entering the world of endocrinology as well as the best experts and world's

Semaglutide improved taste sensitivity, changed gene expression in the tongue that's responsible for taste perception, and changed the brain's response to sweet tastes, according to new research from **ENDO 2024**.

leading scientists in the field." She adds that gender equality has also been well achieved, and multinational and multicontinental dialogue on clinical and scientific approaches has been vigorously facilitated. "Being a member of the Endocrine Society is one of my best professional investments," she continues, "as it provides me with continuous personalized learning experiences."

Corrine Welt, MD, chief of the Division of Endocrinology, Metabolism, and Diabetes at the University of Utah Health in Salt Lake City, was at **ENDO** discussing her research linking early menopause to the occurrence of breast and possibly ovarian cancer in women with a family history of cancer. Like Jensterle Sever, she regards the annual conference as the premier venue for endocrine research from around the world. "The Endocrine Society has been my scientific home for my whole career," Welt says. "The science presented, the networking, and collaborations with my colleagues in the Endocrine Society has been invaluable."

Primary Ovarian Insufficiency and Cancer

In "Breast Cancer Is Increased in Women With Primary Ovarian Insufficiency," now also published in *The Journal of Clinical Endocrinology & Metabolism* in July, Welt and team hypothesized that women who experienced menopause before age 40 years would also have an increased risk of cancer. "DNA damage repair genes that are known to cause cancer risk are also important for recombination during meiosis in the oocytes. Therefore, we hypothesized that the risk for ovarian insufficiency and cancer might be shared because mutations in the same genes would affect both processes," explains Welt.

The team identified 613 women with primary ovarian insufficiency (POI) using ICD codes (loss of oocytes/menopause before or at age 40 years) in Utah's two major healthcare systems that serve 85% of the state's population as well as the women's first-, second-, and third-degree relatives using the Utah Population Database (a genealogy database). They then noted all reproductive (breast, ovarian, endometrial, testicular, and prostate) cancer and colon cancers in the women with POI and their relatives and compared that rate to the rate in the rest of the Utah population.

The results provided strong support for their hypothesis: Women with POI had double the risk for breast cancer and the suggestion of a quadruple risk for ovarian cancer. This risk extends to the relatives, which Welt and team suspect to be caused by the genetic variants. Aunts, uncles, grandparents, nieces, or nephews (second-degree relatives) had a 1.3-fold and 1.5-fold increased risk of breast cancer and colon cancer, respectively. First-degree through third-degree relatives (great-grandfathers and first cousins) had a 1.3-fold to 1.6-fold increased risk of prostate cancer.

AT A GLANCE

- **Data suggest common genetic risks for POI and reproductive cancers, so women who have infertility from low egg numbers or experience early menopause should be regularly screened, especially if they have family members with cancer.**
- **The GLP-RA1 semaglutide improved taste sensitivity, changed gene expression in the tongue, and altered the brain's response to sweet tastes, which could become part of a multifaceted approach to treating obesity.**
- **Because of the association between vasomotor symptom severity and metabolic dysfunction–associated steatotic liver disease, women with vasomotor symptoms should be evaluated for cardiovascular risk.**

Mojca Jensterle Sever, PhD, assistant professor, Laboratory for Molecular Biology, University Medical Centre, Ljubljana, Slovenia

> “At this point, we cannot generalize and confirm that those taking semaglutide do not crave sweets or that eating sweets doesn’t give the same pleasure. Obesity is a highly complex and heterogeneous disease, and findings from a specific population cannot be applicable to other populations living with obesity. One of the limitations of the study is that it assessed only a specific taste in a study environment, which may not reflect everyday experience.”

Interestingly, these results seem independent of hormone replacement therapy use, which some studies have shown to confer increased risks of certain cancers and cardiovascular disease. Welt explains that “the women who had the earliest breast cancer diagnoses did not take hormone replacement, and only two of the women took hormone replacement beyond the recommended time frame. Therefore, hormone replacement might have a role in some of the cases, but the earliest cancers were unrelated to hormone therapy.”

The takeaway is clear — clinicians should screen women with POI for breast and ovarian cancer, especially those with a strong family history of cancer. “We also believe that our data provide additional support for genetic testing in women with POI,” Welt says.

Semaglutide and Obesity

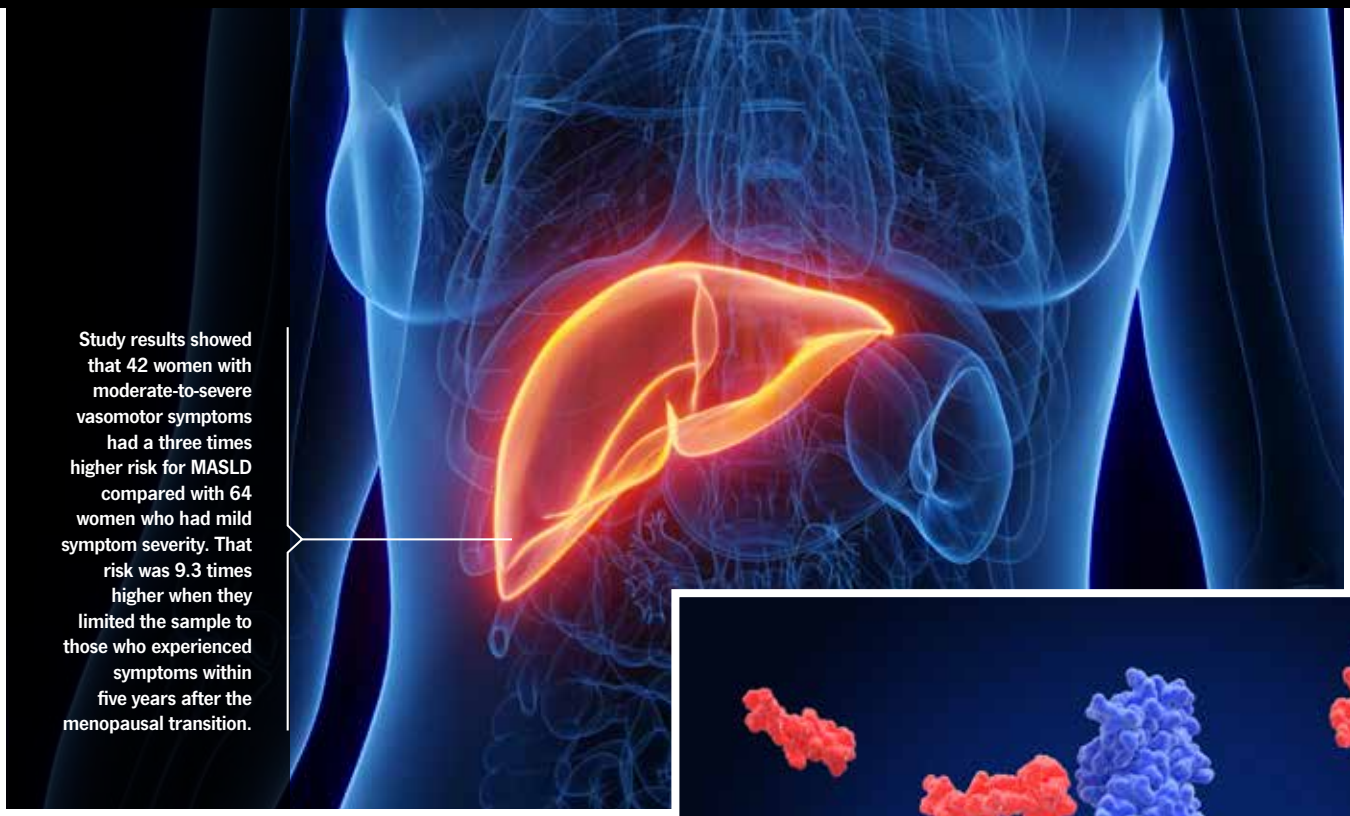
Jensterle Sever presented her team’s results from a proof-of-concept study on the impact of semaglutide (a glucagon-like peptide receptor agonist [GLP-RA]) on taste perception.

Building on the findings from preliminary animal studies showing that central administration of GLP-1RA impacts taste aversion to sweetness and that GLP-1 receptor knock-out mice exhibited a dramatic reduction in sweet taste sensitivity, the team also drew on the similarity in the signaling pathways (which include GLP-1) that are involved in the perception of sweetness in the taste buds and in the gut.

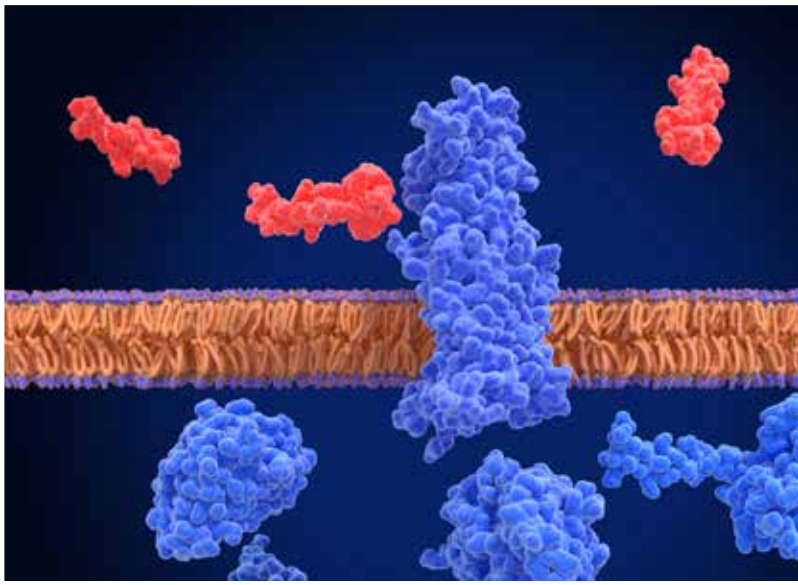
“Moreover,” explains Jensterle Sever, “previous studies reported that patients treated with semaglutide have reduced intensity of desire for sweet, savory, and salty foods, yet the mechanisms behind these observations are not well elucidated.” People with obesity tend to have reduced taste sensitivity and in turn a heightened desire for energy-dense foods that overcome that lowered sensitivity threshold, so a medication that reverses the taste desensitization (the team calls this “renewal of taste buds”) could theoretically lead to reduced intake.

Whether taste insensitivity is a causative factor in obesity, or the opposite is true, that obesity leads to taste insensitivity, is unknown, but there is probably an interplay at work, with each factor compounding the other. Jensterle Sever explains it this way: “Although this relationship remains complex and methodology dependent, several studies reported that obesity is associated with reduced perception of taste, which is reversible with weight loss. The density of fungiform papillae was found to be inversely related to adiposity in young adult men. In genetic studies, obesity has been linked to altered gene expression in human tastebuds. However, it is important to note that people with obesity may also seek out more palatable tasting agents to compensate for depressed reward caused by decreased dopamine signaling from food intake.”

Although obesity and taste perception affect both females and males, this study focused on women only. “The eligibility criteria in our study aimed to control for as many covariates as possible that, alongside obesity, could affect taste perception, including sex, aging, diabetes, other serious chronic diseases, and smoking. Therefore, we selected



Study results showed that 42 women with moderate-to-severe vasomotor symptoms had a three times higher risk for MASLD compared with 64 women who had mild symptom severity. That risk was 9.3 times higher when they limited the sample to those who experienced symptoms within five years after the menopausal transition.



GLP-1 receptor, inactivated and surrounded by an agonist (semaglutide, red) and G-proteins.

a homogeneous group of women with obesity but without serious chronic diseases or lifestyle habits that could influence taste perception," Jensterle Sever says.

To measure taste sensitivity, the team conducted a 16-week, single-blinded, randomized, placebo-controlled study in which 30 women with obesity were randomized to semaglutide 1 mg versus placebo. Taste sensitivity for the basic tastes, gene expression in tongue tissue, and the brain's response to a sweet solution as shown by functional magnetic resonance imaging (MRI) were evaluated before and after the intervention.

Taste strips (a validated examination method) were placed on the participants' tongues to determine their perception of sweetness, sourness, saltiness, and bitterness in four concentrations each, and participants were asked to identify the taste of each strip as either "sweet," "sour," "salty," "bitter," or "no taste." The team took tongue biopsies to evaluate mRNA expression. The genes that exhibited differential mRNA expression in the tongue tissue of the semaglutide group were connected to potential improvements in taste transduction, neural maturation and plasticity, and the renewal of taste buds in the tongue.

Finally, the functional MRI revealed insights into the changes in the brain's response after intervention with semaglutide, particularly in the angular gyrus, a known GLP-1 receptor location.

The results are promising but not without some important qualifications. "We found that the effect of semaglutide on taste was clinically detectable, but we do not know if it is also clinically meaningful," Jensterle Sever says. "At this point, we cannot generalize and confirm that those taking semaglutide do not crave sweets or that eating sweets doesn't give the same pleasure. Obesity is a highly complex and

Corrine Welt, MD,
chief, Division of Endocrinology, Metabolism, and Diabetes, University of Utah Health, Salt Lake City, Utah

> "The women who had the earliest breast cancer diagnoses did not take hormone replacement, and only two of the women took hormone replacement beyond the recommended time frame. Therefore, hormone replacement might have a role in some of the cases, but the earliest cancers were unrelated to hormone therapy."

heterogeneous disease, and findings from a specific population cannot be applicable to other populations living with obesity. One of the limitations of the study is that it assessed only a specific taste in a study environment, which may not reflect everyday experience."

The team encourages future studies to address these limitations and clarify whether the efficacy of semaglutide in treating obesity is also a "matter of taste." "If confirmed, the contribution of this mechanism to weight loss is likely to be small. The key mechanisms of action of incretin-based therapy in the treatment of obesity remain appetite suppression and better control of eating through the homeostatic centers and reward circuitry in the hypothalamus and midbrain," Jensterle Sever says. Nevertheless, she explained, "our study provides 'food for thought'. A deeper understanding of the science behind obesity and improved phenotyping of patients living with obesity will facilitate new approaches to the treatment of obesity."

Vasomotor Symptoms and Metabolic Dysfunction–Associated Steatotic Liver Disease

Eleni Armeni, MD, PhD, MSc, of the 2nd Department of Obstetrics and Gynecology at the National and Kapodistrian University of Athens, Greece, presented her team's findings on reproductive aging and increasing risk for liver and cardiovascular disease (CVD). Knowing that menopause can be associated with insulin resistance and higher rates of type 2 diabetes, the team sought to better understand this link through a cross-sectional study of 106 peri- and postmenopausal Greek women.

They focused on metabolic dysfunction–associated steatotic liver disease (MASLD), measuring the extent of disease with the fatty liver index that defines MASLD as a score of at least 60. The researchers refined this definition as the presence of one or more of the following in the setting of hepatic steatosis: BMI of ≥25 kg/m^2 or waist circumference ≥85 cm; fasting glucose of ≥100 mg/dL or type 2 diabetes; blood pressure of ≥130/85 mm Hg or antihypertensive treatment; triglycerides of ≥150 mg/ dL or related treatment; and HDL cholesterol of ≤40 mg/dL or lipid-lowering treatment. Those who were overweight or obese were more likely to have MALSD (17.1%).

They also measured vasomotor symptom severity with the Greene Climacteric Scale and categorized 42 participants with moderate to severe vasomotor symptoms and 64 with mild or none. Surprisingly, those with the moderate to severe vasomotor symptoms had triple the risk for MASLD. Even more surprisingly, women who were in menopause for five years or less with moderate to severe symptoms had nine times the risk for MASLD. These results persisted after adjusting for factors like age, physical activity, alcohol consumption, smoking, history of menstrual irregularity, and hormone replacement therapy.

Armeni explained that, although more research is needed on the prevalence of MASLD and the association with disruptive vasomotor symptoms like hot flashes and night sweats, the takeaway for clinicians is clear: Patients who are postmenopausal should receive a holistic assessment that includes cardiometabolic risk factors, particularly those with moderate to severe vasomotor symptoms. EN

— HORVATH IS A FREELANCE WRITER BASED IN BALTIMORE, MD. SHE WROTE THE PROFILE OF BRUNO FERRAZ-DE-SOUZA, MD, PHD, AND STEPHEN M. ROSENTHAL, MD, FOR THE JUNE LGBTQ+ ISSUE.

FLARE

FUTURE LEADERS ADVANCING RESEARCH IN ENDOCRINOLOGY

PROMOTING THE ADVANCEMENT OF EARLY CAREER INVESTIGATORS

FLARE PREPARES PROMISING GRADUATE STUDENTS, POSTDOCTORAL FELLOWS, CLINICAL FELLOWS, AND JUNIOR FACULTY FROM UNDERRECOGNIZED MINORITIZED GROUPS FOR LEADERSHIP ROLES AS INDEPENDENT BIOMEDICAL RESEARCHERS.

FLARE WORKSHOP

The FLARE Workshop is a two-day program that teaches the "business of research," providing leadership training that addresses the unique challenges faced by early career researchers. It provides trainees and junior faculty with the skills they need to successfully market themselves for employment, transition into full-time research positions, and sustain and advance their careers.

WORKSHOP HIGHLIGHTS

- Create Your Own Individual Development Plan (IDP)
- Craft A Strong Grant Proposal
- Build Your Lab and Research Team
- Networking and Collaborations

OTHER FLARE COMPONENTS

The **FLARE Internship** provides a year of service on one of the Endocrine Society's governance committees. Interns gain exposure to the Society's leadership and help shape the Society's programs.

The **FLARE Mentoring Network** offers a way to identify, connect with, and build lasting relationships with accomplished scientists.

The **Early Career Reviewer Program** connects FLARE fellows interested in honing their skills as journal peer reviewers with seasoned reviewers and editorial board members to co-review journal articles.

100% of FLARE participants say they'd recommend this program to their peers and colleagues.

We are accepting applications for our 2025 workshop until November 18, 2024.

PLEASE APPLY ONLINE AT ENDOCRINE.ORG/FLARE.

PLEASE SCAN HERE OR VISIT ENDOCRINE.ORG/FLARE FOR MORE INFORMATION.

FLARE IS FUNDED BY A GRANT FROM THE NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES.

ENDOCRINE SOCIETY

BY DEREK BAGLEY

autumn in ALBUQUERQUE

Previewing the 1st International Conference on Steroid Hormones and Receptors

Building on a legacy that has lasted for a quarter of a century and now sponsored by the Endocrine Society, the 1st International Conference on Steroid Hormones and Receptors will be held next month at the University of New Mexico Comprehensive Cancer Center in Albuquerque. *Endocrine News* talks to conference chairs **Eric R. Prossnitz, PhD,** and **Carol A. Lange, PhD,** about what attendees can expect, topics to be covered, and why the sessions should appeal to both endocrine scientists and clinicians.

Next month, from October 16 to October 18, the University of New Mexico will host the 1st International Conference on Steroid Hormones and Receptors (SHR 2024) in Albuquerque, N.M. The meeting was co-organized and is being co-chaired by incoming Endocrine Society President Carol A. Lange, PhD, of the University of Minnesota Masonic Cancer Center in Minneapolis, and Eric R. Prossnitz, PhD, of the University of New Mexico, with help from additional national and international co-organizers, Zeynep Madak-Erdogan (University of Illinois), Matthias Barton (UZH place), and Brian Harvey (RCSI place).

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

Endocrine News reached out to Lange and Prossnitz to learn more about the meeting — the excellent program and the buzz surrounding it, as well as its history and organization — and the duo responded jointly over email to properly convey their excitement.

Endocrine Society Steps In

In May 2021, after a delay due to COVID-19, Lange, Prossnitz, and their colleagues held a joint virtual research conference co-organized by the Federation

Eric R. Prossnitz, PhD

Carol A. Lange, PhD

of American Societies for Experimental Biology (FASEB) and the International Committee on Rapid Responses to Steroid Hormones (RRSH), as the "Steroid Hormones and Receptors in Health and Disease Conference."

Both FASEB and RRSH had organized their own steroid conferences over several decades, usually in alternating years, but in 2018, the groups decided to organize their first joint conference to be held in the United States in 2020. "With the success of that conference, with speakers from the U.S., Europe, and Asia and the recognition that the actions of steroids involve an interplay between rapid/non-genomic and genomic effects, the current organizing committee sought to organize a 'new' meeting in 2024 to highlight all integrated aspects of steroid hormone and receptor action, without making a distinction between 'rapid' and 'chronic' steroids effects any longer," Lange and Prossnitz write.

According to Lange and Prossnitz, the broad field of nuclear receptors used to be represented by a Keystone meeting held every two years. However, Keystone stopped supporting this topic, so the group felt there was a strong need within the field for a nuclear receptor/steroid receptor-focused meeting spanning all health disciplines that could touch upon diverse nuclear receptor actions, and so planning for this smaller, but high-quality steroid receptor-focused conference began "in earnest" in 2023.

"In January 2024, we became aware of the Endocrine Society's interest in exploring the creation of 'boutique conferences' for the research community," Lange and Prossnitz write. "We were also interested in affiliating our conference with a larger established organization to secure the long-term goals of this conference. In March, the Endocrine Society approved the sponsorship and support of our conference, as we both saw the mutual benefits of cooperating in this venture."

Vital Information for the Lab and the Clinic

The goal of SHR 2024 is to present and discuss advances in steroid hormone action in biology and medicine, exploring their role in biology, chemistry, pharmacology,

> "We're excited about the caliber of speakers that have agreed to participate, but we're also excited that numerous early-stage investigators and trainees will be in attendance to show off their work and interact with all those at the meeting. This meeting will be a key event for anyone interested in steroid and steroid receptor biology, including their roles in biochemistry, pharmacology, and molecular biology research, as well as in clinical medicine."
>
> — SHR 2024 CONFERENCE CHAIRS **ERIC R. PROSSNITZ**, PHD, AND **CAROL A. LANGE**, PHD

> "People should expect the presentation of exciting cutting-edge unpublished research by established leaders in the field as well as new and upcoming stars in the field. The environment will foster small-group informal discussions at the conference venue and at meals or coffee breaks during free time. We really look forward to this meeting!"
>
> — SHR 2024 CONFERENCE CHAIRS **ERIC R. PROSSNITZ**, PHD, AND **CAROL A. LANGE**, PHD

oncology, neurology, metabolism, cardiovascular biology, and endocrinology. The conference will feature plenary and keynote lectures, oral presentations and posters by prominent and emerging leaders, as well as trainees in the field. Conference proceedings will be published in *Endocrinology*, the Endocrine Society's premier peer-reviewed basic science journal.

Lange and Prossnitz write that, even though this meeting is geared more toward researchers, steroids and steroid receptors play an important role in the clinic. They point to the recent discussion around vitamin D and drugs that target steroid receptors — such as those used to treat hormone-sensitive cancers — as recent advances.

"Drugs targeting mineralocorticoid receptors have a firm place in the treatment of cardiovascular diseases, including heart failure and resistant arterial hypertension," Lange and Prossnitz write. "New drugs that reduce steroid hormone production are currently in clinical development with the goal to also reduce disease severity and improve survival in these patients."

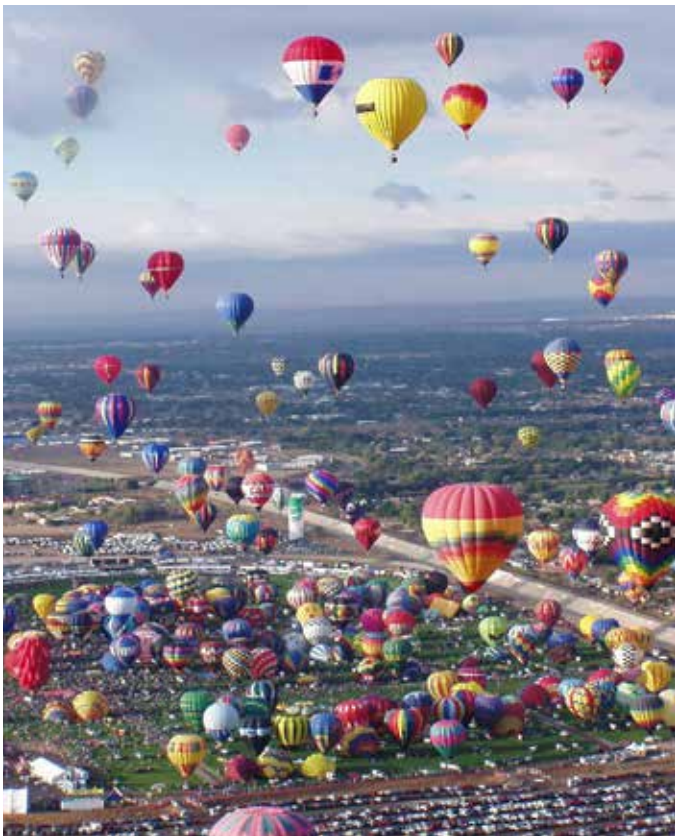
Lange and Prossnitz go on to write that in biology, the roles of steroids in diverse biological and physiological functions are constantly growing. They give examples of novel functions in macrophages and other immune cells including leukemia, androgen actions in breast cancer, estrogen action in the endothelium and cardiovascular system and kidney, glucocorticoid actions in breast and prostate cancer, mineralocorticoid receptor action in adipocytes, the actions of multiple steroids and their receptors in neurological function and behavior, and the crosstalk between steroids and microbiome, just to name a few.

"Steroids and their receptors are the targets of a wide range of drugs, and thus critically important to the treatment of both acute diseases and the long-term management of chronic illnesses," Lange and Prossnitz write. "An improved understanding of their complex actions throughout the body and in disease, beyond the traditional functions they are known for, will lead to novel therapies. Thus, signal pathway and cell/tissue specificity of action will be critical to these advancements and understanding the basic actions of these steroids and their receptors at the most fundamental levels is critical."

New Collaborations

SHR 2024 will bring together investigators from diverse specialties who share the common interest in understanding steroid receptor actions across a broad spectrum, both under physiological conditions and in disease. "We predict new collaborations will be formed," Lange and Prossnitz write. "We would like to feature

Top: The Albuquerque International Balloon Fiesta will take place October 5 - 13 this year, so SHR 2024 attendees may want to get to town a few days early. Bottom: Prickly pear cacti in the foothills of the Sandia Mountains. (Elena Gallegos Open Space)



many of our outstanding trainees at this meeting and introduce them to the leaders and mentors in our field as they present their work in posters and short talks and have the opportunity to network during our social hours, at meals, and during other informal breaks."

And there's already excitement among the community. Lange and Prossnitz tell *Endocrine News* that in addition to the level of enthusiasm in those agreeing to participate, registrations have been pouring in. "We're excited about the caliber of speakers that have agreed to participate, but we're also excited that numerous early-stage investigators and trainees will be in attendance to show off their work and interact with all those at the meeting," Lange and Prossnitz write. "This meeting will be a key event for anyone interested in steroid and steroid receptor biology, including their roles in biochemistry, pharmacology, and molecular biology research, as well as in clinical medicine."

"People should expect the presentation of exciting cutting-edge unpublished research by established leaders in the field as well as new and upcoming stars in the field," Lange and Prossnitz continue. "The environment will foster small-group informal discussions at the conference venue and at meals or coffee breaks during free time. We really look forward to this meeting!" EN

For more information, go to: https://www.endocrine.org/meetings-and-events/shr-2024.

– BAGLEY IS THE SENIOR EDITOR OF *ENDOCRINE NEWS*. HE WROTE ABOUT SOME OF THE HIGHLIGHTS FROM **ENDO 2024** IN THE AUGUST ISSUE.

Q&A with David A. Katz, PhD, Laureate for Outstanding Innovation Award

A Long Series of Mostly UNINTENDED EVENTS

Endocrine News catches up with David A. Katz, PhD, the Endocrine Society's 2024 Laureate for Outstanding Innovation and founder and chief scientific officer of Sparrow Pharmaceuticals, Inc., to learn more about his mission to find solutions for patients living with cortisol excess, his career's defining moments, as well as his recommendations for achieving entrepreneurial success.

BY GLENDA FAUNTLEROY SHAW

As an entrepreneur who is recognized as a visionary for providing new and better medicines for patients with hypercortisolism or rheumatic diseases, David A. Katz, PhD, knows what it takes to find unimaginable solutions to everyday problems. When asked to impart words of wisdom for future entrepreneurs, he offers, "Start with an end in mind, then figure out how to realize it."

Those words of advice have rung true for Katz's entire career, and now he has been honored as the Endocrine Society's 2024 Laureate for Outstanding Innovation — an award that recognizes an individual or team of people who

have demonstrated innovation to further endocrine research or practice in support of the field of endocrinology, patients, and society at large.

Katz is the founder and chief scientific officer of Sparrow Pharmaceuticals, Inc., in Portland, Ore., a pharmaceutical company developing targeted therapies for conditions of cortisol excess and to reduce the side effects of glucocorticoid medicines. During this summer's **ENDO 2024** conference, Katz presented the interim results from RESCUE, an ongoing Phase 2 clinical trial that is testing the efficacy and safety of Sparrow's oral small-molecule SPI-62, now being called clofutriben, for treating Cushing's syndrome. SPI-62 could be the first novel-mechanism drug in more than 30 years for people with the condition.

Katz is also committed to mentoring the next generation of life sciences entrepreneurs and is currently an entrepreneur-in-residence at Oregon Health & Science University. He earned both his MPhil and PhD degrees in molecular biophysics and biochemistry from Yale University and completed his BA in chemistry at Pomona College.

Endocrine News wanted to learn more about Katz's valuable lessons for entrepreneurs as well as his team's goals for the future.

Endocrine News: What did news of the Laureate recognition mean to you?

David A. Katz: It's an important validation of the importance of providing new and better medicines for patients with hypercortisolism or rheumatic diseases. It's gratifying that the Endocrine Society recognized our therapeutic approach, particularly as it's based on the hypothesis that glucocorticoids act extensively in an autocrine manner rather than as a hormone or systemically acting drugs. The award increased my resolve to do everything possible to finish the translation of our understanding of glucocorticoid action to new therapies.

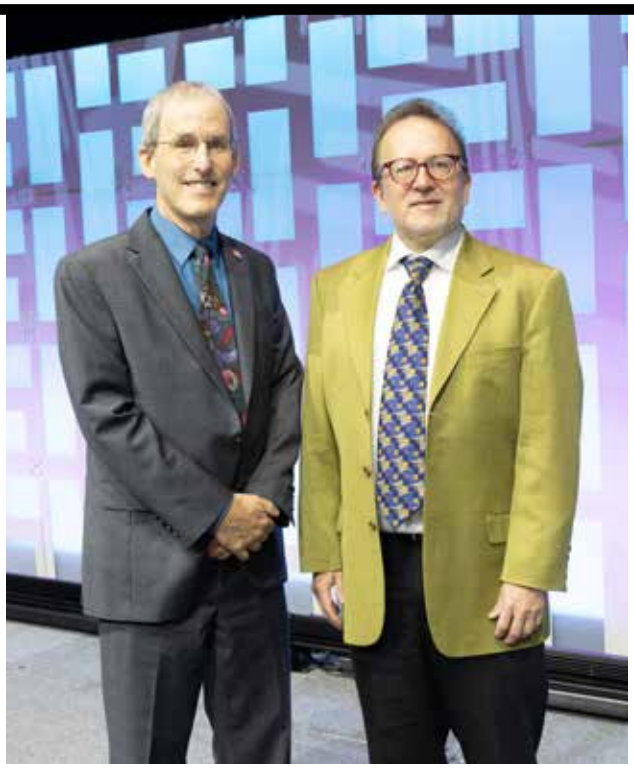
EN: You are recognized for developing targeted therapies for conditions of cortisol excess and to reduce the side effects of glucocorticoid medicines. How did this become your life's work? Was there a defining moment early in your career that sparked the trajectory into this area of research?

Katz: There's no single defining moment, rather a long series of (mostly unintended) events that turned my research focus to glucocorticoids and 11β-hydroxysteroid dehydrogenase type 1 (HSD-1) inhibitors. I'd wanted to be an academic scientist since I was a small child, according to my parents, at age five. But, after graduate school and a postdoctoral fellowship, my interests had evolved to work more directly to improve human health, and I decided to try the pharmaceutical industry. That was just when the industry started to think that genomics would revolutionize drug discovery. I asked how it might change drug development and utilization. That led to the opportunity to create the pharmacogenetics group at Abbott.

I became known as a geneticist within the company, even though genetics was a course I'd skipped in graduate school in favor of pharmacology. So, when we entered an

David A. Katz, PhD

> "It's gratifying that the Endocrine Society recognized our therapeutic approach, particularly as it's based on the hypothesis that glucocorticoids act extensively in an autocrine manner rather than as a hormone or systemically acting drugs. The award increased my resolve to do everything possible to finish the translation of our understanding of glucocorticoid action to new therapies."
>
> — DAVID A. KATZ, PHD, FOUNDER AND CHIEF SCIENTIFIC OFFICER, SPARROW PHARMACEUTICALS, PORTLAND, ORE.



Katz and Endocrine Society Past-President, Stephen R. Hammes, MD, PhD, at ENDO 2024 in Boston.

agreement with Myriad Genetics to discover new drug targets for depression medications, I was asked to lead the research collaboration and follow-up internal drug discovery. At the time, Abbott Neuroscience's most advanced depression program was arginine vasopressin receptor type 1b (V1b) antagonists for which the therapeutic principle was to reduce cortisol. Over the next few years, I transitioned to lead the translational and then early clinical development of two V1b antagonists for treatment of major depression and alcohol use disorders. A couple of years later, the company decided to repurpose its HSD-1 inhibitor program from diabetes to dementia of Alzheimer's type. I "inherited" that clinical development program that also focused on cortisol reduction (specifically, intracellular cortisol) to control disease. When I "retired" from AbbVie to start Sparrow, developing an HSD-1 inhibitor for conditions of glucocorticoid excess was of high interest but not the only potential direction. But we had good fortune to license clofutriben and maintain focus on glucocorticoids.

EN: You have made it a mission to mentor future science entrepreneurs. What do you see as key character/personality traits that fuel innovators like yourself? That is, do you notice a certain "it factor" in the students you mentor?

Katz: From my experiences, I can offer are several recommendations to achieve entrepreneurial success:

- Start with an end in mind, then figure out how to realize it.
- Always think about how we can, not why we can't.
- Be open to serendipity, consider how things you didn't expect can help toward the goal.
- Surround yourself with as many good people as possible.
- Remember that educational and position authority are no substitutes for good ideas.
- Embrace diversity of thought and all other kinds of diversity.
- Strive to have healthy conflict (creative tension) within your team.

EN: What's on the horizon for Sparrow Pharmaceuticals for 2025?

Katz: Lots! We plan to initiate Phase 3 clinical development of clofutriben for patients with hypercortisolism, a larger Phase 2 trial of SPI-47 (clofutriben + prednisolone) for patients with polymyalgia rheumatica, and Phase 2 trials of SPI-47 for patients with rheumatoid arthritis and additional rheumatic diseases.

In his recommendation for the 2024 Outstanding Innovation Laureate Award, *The Journal of Clinical Endocrinology & Metabolism* editor-in-chief Paul M. Stewart, MD, FRCP, FMedSci, referred to Katz as "one of a few scientists who correctly recognized that the best therapeutic potential for 11b-hydroxysteroid dehydrogenase type 1 (HSD-1) inhibitors would be to treat patients with glucocorticoid excess, whether cortisol excess related to a tumor or use of the glucocorticoid medicines," he wrote.

Stewart further lauded the Sparrow team's dedication to patients. "Among their foremost aims are to implement clinical trials that can fit into patients' lives and deliver results on health outcomes that patients endorse as relevant. Indeed, the co-production of these trials with patients themselves has been a genuine advance in this field," Stewart wrote. "A mantra of Dr. Katz is that Sparrow's drugs should be effective, safe, convenient, and cost-effective." EN

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

JOIN US AT SHR 2024

THE PREMIER CONFERENCE ON STEROID HORMONES AND RECEPTORS

DISCOVER, CONNECT, INNOVATE

OCTOBER 16–18, 2024

UNIVERSITY OF NEW MEXICO COMPREHENSIVE CANCER CENTER, ALBUQUERQUE, NM

WHY ATTEND?

CUTTING-EDGE RESEARCH
Engage with groundbreaking research presentations and discussions.

NETWORKING
Connect with peers and experts across diverse disciplines.

CAREER DEVELOPMENT
Learn from industry leaders and shape the future of steroid biology.

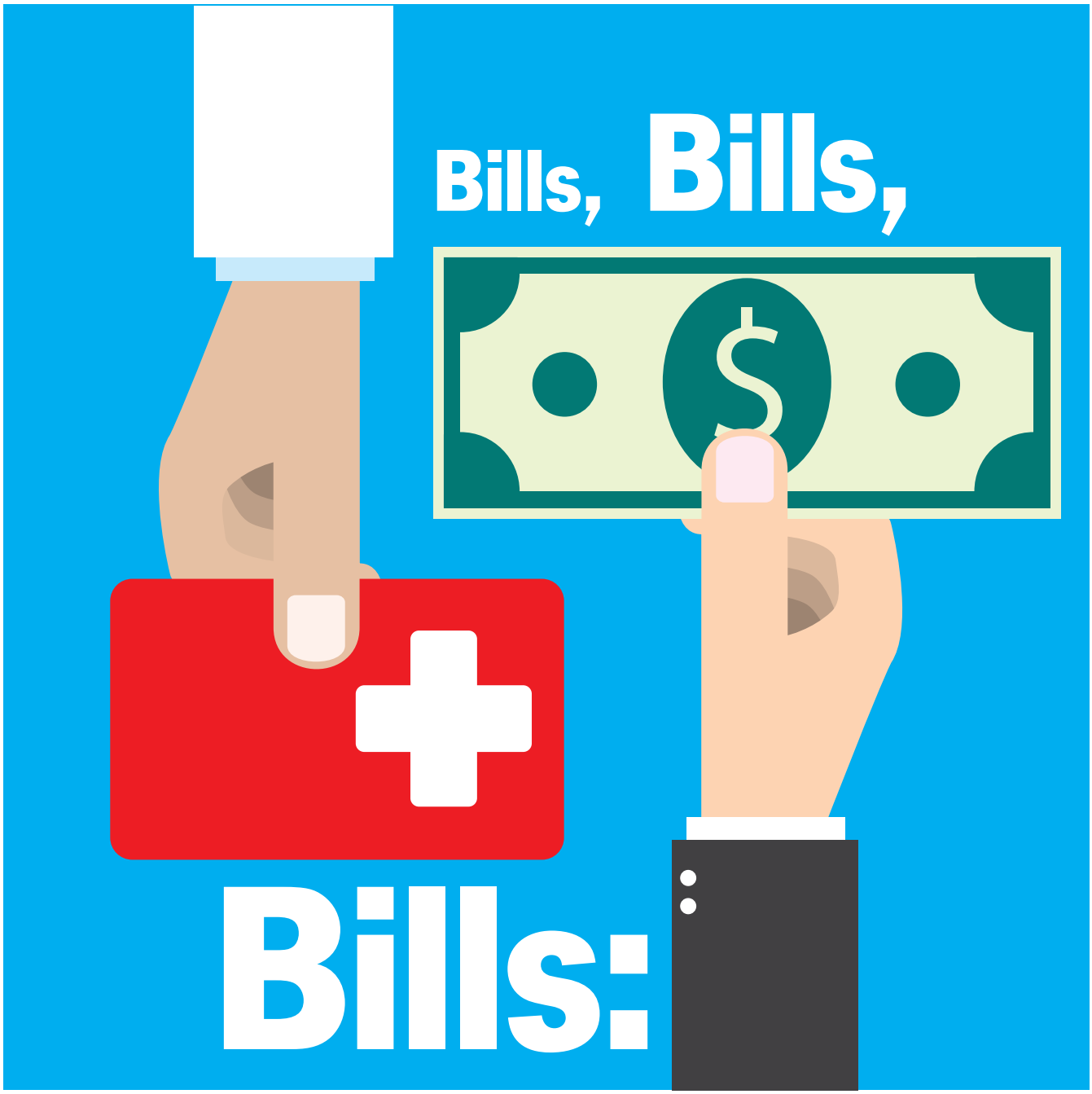
EXPOSURE
Showcase your innovations in steroid research to a global audience.

REGISTER TODAY:

SPACE IS FILLING UP! SECURE YOUR PLACE AT SHR 2024 TODAY.

VISIT ENDOCRINE.ORG/SHR2024 TO REGISTER AND FOR MORE INFORMATION.

ENDOCRINE SOCIETY



Tips for Navigating the Revenue Landscape

Michael Morkos, MD, MS, MHI, ECNU

Despite the reasons for pursuing medicine as a career, there will always be speed bumps that can lead to frustration, stress, burnout, or even a career or job change. Michael Morkos, MD, offers some tips on navigating the challenging and often confusing world of medical billing.

Many of us decided to pursue medicine for a humane, noble reason. You may have experienced the healing power of a physician or their impact on others' lives. It took a considerable investment to reach independent practice, including many years of schooling, training, and, frequently, humongous loans. Banks will not understand the human nature of medicine, and you must pay your loans back on time. Also, you deserve a good living.

Why Medicine?

Some chose medicine from the very beginning as it is one of the highest-earning jobs, which is valid from one point of view. Some also chose their specialties or subspecialties mainly for income potential. As an academic endocrinologist, I get many rotating internal medicine residents in my clinic and during inpatient service as part of their electives. Is endocrinology no longer attractive? I highly doubt it as the science of hormones is very intriguing, but it does not pay well. Therefore, it is rare that I see residents interested in endocrinology, but mostly, they are looking for high-earning specialties. Nephrology was a very competitive medical specialty years ago, and they used to charge for every dialysate adjustment, boosting their revenue. When the Centers for Medicare and Medicaid Services (CMS) took over the payment for dialysis and decided to make it a package payment, their income dropped significantly. Many unfilled nephrology fellowship spots are available yearly, even in the most prestigious programs. Although revenue doesn't come up in discussions as the primary influencer of specialty or subspecialty decisions, it is frequently a big reason for these choices.

Money Mindsets

Many emotions come up around productivity and money, and I find them fascinating. First is the guilt and shame in talking about money. It is as if physicians should continue to work and do tremendous humane service but dismiss the details of their revenue. Second is fear of insurance audits and the need to pay back money if overbilling was found. Next, on the opposite side of the spectrum is greed, with some physicians working for extended hours and pursuing inflated billing to maximize their revenue. The questions that come up are: What is fair billing? Do you understand the ins and outs of billing based on the complexity you are managing? Can you defend your billing in an audit?

Current Training

The billing and coding education provided to trainees is minimal. Attending physicians shouldn't be blamed, as no one taught them these basics. The above-mentioned shame, guilt, and fear likely play a role. And like beginners' training, they learn by trial and error. When simulated or actual audits happen, the feedback provides a learning opportunity that can be frequently painful. It usually results in more conservative billing due to fear of future audits, but

> When you build your practice, you will have more time to communicate well and be available to accommodate urgent patients promptly. As time passes and your patient panel is full, it will get more challenging. **You need some workflow engineering skills to ensure that you can accommodate urgent patients promptly, whether referrals from colleagues or your patients with urgent issues."**
>
> — Michael Morkos, MD, MS, MHI, ECNU

this is not how we learned medicine. To build a strong structure, you have to pour a strong foundation, which is the most expensive and hidden part. This foundation takes time, effort, dedication, and investment. The stronger the foundation is, the more stable this building will be. Before we could study the topics of internal medicine and surgery, we needed to digest the basics: physiology, biochemistry, anatomy, and pathology. We didn't get any lessons in billing and coding.

During my fellowship, I learned about a two-day billing and coding course provided by one of our endocrinology societies. I got excited about it and reserved a spot. I contacted my co-fellows and attendings, hoping they would join me in the learning journey. As you correctly anticipated, no one was interested. It was a hidden area of deficiency that no one realized. This course was a gem in my learning path, and I became the coding expert to my attendings for the remainder of my fellowship.

Additionally, the vast difference in compensation models makes it even more confusing: the wRVU (Work Revenue Value Unit) system, collections, bundled payments, and quality-based models in an insurance-driven system. These are different from the old straightforward fee-for-service model. The billing levels, various procedural Current Procedural Terminology (CPT) codes, and their requirements add to the system's complexity. Also, the different practice systems, including community-based institutions, academia, county hospitals, Veterans Affairs, and other private-practice models, can make choices challenging. The compensation section is frequently not detailed in the contracts, and a lucrative sign-on bonus and initial guaranteed salary may seal the deal. Compensation intricacies may be a reason for dissatisfaction down the road and result in the expensive decision to change jobs, which may affect many other aspects of physicians' lives. On the other hand, money can be very enticing and push physicians to oversee apparent mismatches. Of course, revenue is not the reason for all the job changes, but it can be a significant factor in many.

As physicians, our jobs are unique and fulfilling. It is gratifying to see healing happen through our hands. Yet, I feel brokenhearted when I see overwhelmed physicians with overflowing work before or after hours and the need to add more hours to achieve their desired income.

The Compound Effect

Based on the concept of compound effect, small changes add up significantly in the long term. If you have mastered the billing guidelines, precisely determining the billing level and documentation phrasing takes a few seconds. It also doesn't correlate with the time spent in the encounter if you rely on medical decision making. It is not uncommon to charge a high-complexity established patient (CPT 99215; 2.8 wRVU) for short encounters, like 5 – 15 minutes, and a high-complexity new patient (CPT 99205; 3.5 wRVU) for 15 – 25 minutes. There can also be add-on charges like continuous glucose monitoring interpretation (CPT 95251; 0.7 wRVU).

Two main ways to boost your revenue are more aggressive billing and higher volume, and it would be fantastic if you could do both. If you must choose one over the other, I suggest the volume. But they are not mutually exclusive, and you can work on both. Let us take a more extreme example from an endocrinologist's standpoint: If you see three established patients in an hour and charge high-complexity for two (99215; 2.8 wRVU each) and a moderate-complexity for one (99214; 1.92 wRVU), you reap a total of 7.52 wRVU. On the other hand, if you add a moderate-complexity patient and charge the four as moderate complexity, this will come up to 7.68 wRVU, which is higher than the previous example and with no high complexity charges. On the other hand, if you see four patients in an hour, with two being moderate and two being high complexity, the total will be 9.44 wRVU. This is why I believe that volume is more important, and if you compound it with higher complexity, it can significantly boost your revenue.

Some obstacles may cross your mind. The more higher-complexity charges you place, the more likely you will get flagged and audited. Another fear is that the higher the volume you see, the more you can get overwhelmed, burned out, behind in the clinic, and get a busier in-basket (or inbox) with patient messages, calls, labs, and scripts. An additional risk is that you may have much more work after hours to finish. So, you got more money, but it adversely affected your personal life.

If I were in your shoes, fear shouldn't be in my dictionary, but rather, how can I do it right? As for the other concerns, I believe in efficacy, the combination of efficiency and effectiveness. You can see more patients, understand the correct complexity of your current patients (not that you have to see many more new complex patients) based on the current CMS guidelines, and finish everything on time. You can't jump from seeing 14 patients per day to 28 overnight. This won't happen, and it is not healthy growth. But if you follow correct guidance and work on improving your workflow, it will happen slowly but surely.

Good Communicator

Imagine that you are a primary care physician and see a patient in the clinic with an incidental suspicious large thyroid mass noted incidentally on a CT chest scan. You want to get

> As physicians, our jobs are unique and fulfilling. It is gratifying to see healing happen through our hands. **Yet, I feel brokenhearted when I see overwhelmed physicians with overflowing work before or after hours and the need to add more hours to achieve their desired income."**
>
> — Michael Morkos, MD, MS, MHI, ECNU

this patient as soon as possible with endocrinology. You sent an EHR communication message to the endocrinologist, and surprisingly, they responded within an hour and took over the care of that person with the thyroid mass. How will you feel about that endocrinologist? If I were in your shoes, they would be my favorite, right? On the other hand, imagine that they responded two weeks later when the patient already found an outside endocrinologist as they were scared and didn't want to wait.

Having open communication channels and establishing good relationships with your colleagues and referral base is crucial. If you are consistent, trust builds over time. Specific, good automatic habits are necessary to ensure this happens. I prioritize EHR messages and communications from colleagues and strive to respond to them within minutes to a few hours, at most 24 hours.

I am not asking you to have no boundaries and to call others before, during, and after hours, as this will adversely affect your life and end up causing burnout. I guide them to use the EHR messages rather than pages as they are less disruptive. When I am not in the office, I use the out-of-office option. It gives the expectation that I will respond when I return, and they can use a backup for urgent issues.

Availability

Remember the patient with the suspicious thyroid nodule mentioned above? Imagine that the endocrinologist responded within a minute and told you what to do, but their first availability is in four months, and there is no way around it. How will you feel? Will you refer any patients to them? Their practice is busy, and they won't help when you need them the most. Availability is crucial.

When you build your practice, you will have more time to communicate well and be available to accommodate urgent patients promptly. As time passes and your patient panel is full, it will get more challenging. You need some workflow engineering skills to ensure that you can accommodate urgent patients promptly, whether referrals from colleagues or your patients with urgent issues.

I freeze 20% of my slots for urgent practice issues, so half will thaw in three weeks and the other a week beforehand. We have a well-run waitlist that will offer these slots to patients on the waitlist. This way, I ensure a well-established system of running an available practice while continuing to be busy.

My practice is heavily focused on thyroid disorders, and like any endocrine practice, I have a big panel of patients with diabetes on insulin therapy. Many of these patients need close follow-ups, frequently in four to six weeks. The frozen slots give me this luxury, and I see them as planned. If you don't have a good plan and are booked six months in advance, you will do a lot of unpaid work between the visits, take work after hours, and hasten your burnout.

Competent Clinician

Let's imagine two different scenarios. After the endocrinologist saw that patient, they ordered a thyroid ultrasound and a biopsy that showed papillary thyroid

cancer. The patient saw the recommended surgeon and had a total thyroidectomy. Unluckily, while preparing for radioactive iodine, the pre-therapy scan revealed a 4 cm highly suspicious lymph node, and the patient necessitated a second surgery. The patient and her primary care doctor got frustrated as the endocrinologist and surgeon could have easily picked it up if they had ordered a neck ultrasound preoperatively, which is the standard of care. The patient found another competent endocrinologist, and the primary care physician stopped referring patients to them.

Let's imagine the other scenario: The patient saw a competent endocrinologist who ordered a thyroid ultrasound and neck ultrasound for lymph node mapping at the same time along with baseline labs and got the patient back right after these studies to review the results. They reviewed the images together, and the patient saw the suspicious thyroid nodule and ipsilateral lymph node. The patient understood the high risk of metastatic cancer, and the biopsy of the lymph node and suspicious nodule confirmed it. The surgery and radioactive iodine happened as planned, and the patient and the primary care physician were grateful for the endocrinologist's high-quality care, excellent communication, and availability.

The first two components are like a salesman who may have great skills. The question is: Will you go back to them again or not? It depends on the product. If you have an excellent product, you will definitely go back and ensure everyone knows about them. On the other hand, if you receive a poor product, you will never go back, despite the convincing pitches.

In Conclusion

As much as I enjoy caring for patients, and it is very fulfilling, I find the billing and coding an exciting game. There is a learning curve, such as playing sports, board games, or video games. And when you finish one level, you move on to the next. The same applies to learning billing, coding, and various practice tweaks to improve your efficiency, effectiveness, and productivity. The good thing is that there is no finish line when you say you did it all 100%; it is a path of continuous improvement and progressive growth. I hope you will enjoy it as well. EN

Endocrine Society member Michael Morkos, MD, MS, MHI, ECNU, is co-director of the IUH Thyroid and Parathyroid Center, and assistant professor of clinic medicine in the Department of Endocrinology, Diabetes, and Metabolism at the Indiana University School of Medicine, in Indianapolis. An Endocrine Society member since 2015, he is an active member of the Society's Early-Career Special Interest Group. He has authored two books, No Work After Hours *and* Physician Revenue Secrets.

An Endocrine Society group shot while at the White House on August 12 to commemorate the one-year anniversary of the Inflation Reduction Act. Pictured left to right are: Priya Kundra, MD; Barbara Onumah, MD; Jason Wexler, MD; Rob Goldsmith, the Endocrine Society's director, advocacy and policy; Joshua Joseph, MD, MPH; and Stanley Andrisse, PhD, MBA.

Society Participates in White House Event to Commemorate Inflation Reduction Act and Insulin Co-Pay Cap

Breaking News!

New White House Agreement Significantly Reduces Diabetes Drug Costs for Medicare Beneficiaries

On August 15, the White House announced that it had reached an agreement for the 10 medications eligible for price negotiation under the Inflation Reduction Act (IRA).

There are significant savings for the diabetes drugs on the list. The prices of diabetes drugs fell between 66% and 79% when comparing the negotiated price to the list price. The new price of the insulins on the list is $119 for a 30-day supply, representing a 76% drop in price compared to the list price of $495 for the same amount.

This is a significant victory for Medicare beneficiaries living with diabetes who rely on these medications. The Society endorsed the IRA and advocated for its passage in Congress. We are continuing to urge Congress to expand that cap to the private insurance market.

The new prices will go into effect for people with Medicare Part D prescription drug coverage beginning on January 1, 2026. The pharmaceuticals currently covered are Januvia (Merck); Fiasp, NovoLog, etc. (Novo Nordisk); Farxiga (AstraZeneca AB); and Jardiance (Boehringer Ingelheim).

Last month, the White House invited the Endocrine Society to participate in an event to commemorate the two-year anniversary of the Inflation Reduction Act (IRA) and the landmark provision to cap co-pays of insulin at $35 per month for people on Medicare.

Joshua Joseph, MD, MPH, associate professor, endocrinology, diabetes, and metabolism at The Ohio State University, and former chair of the Society's Clinical Affairs Core Committee (CACC), spoke on a panel of patients and providers about the impact of the insulin co-pay cap. During the panel, Joseph talked about the improvements he has seen in his patients as a result of the co-pay cap. Other Endocrine Society members in attendance in addition to Joseph, were Priya Kundra, MD; Barbara Onumah, MD; Jason Wexler, MD; and Stanley Andrisse, PhD, MBA. We were thrilled to have a large presence at this event to commemorate this historic law.

Though there were other diabetes groups in attendance, the Endocrine Society was the only

While at the White House, Joshua Joseph, MD, MPH, took part on a panel of patients and healthcare providers who discussed the impact of the insulin co-pay cap.

diabetes organization to participate in the event program. The Society was the leader in the diabetes community to support the IRA, which also allows Medicare to negotiate lower prescription drug prices, including insulin.

This law represents a significant milestone in diabetes advocacy, but our work is not done. We continue to advocate for insulin affordability for all and support expanding the $35 insulin co-pay cap to the private insurance market.

The Society continues to work with congressional champions in the Senate Diabetes Caucus to advance the bipartisan INSULIN Act, a bill that addresses the underlying problems contributing to escalating insulin prices.

Clock Ticking for Congress to Finalize the Appropriations Process

The U.S. House of Representatives and Senate are back in session this month following August recess. With limited time for the House and Senate to pass all their funding bills before the end of the fiscal year on September 30, we expect that Congress will pass a temporary spending bill called a continuing resolution (CR) to avoid a government shutdown. CRs maintain funding at current spending levels, and though they do keep the government operating, they are disruptive to research and prolong the time it takes for a federal agency like the National Institutes of Health (NIH) to award new research grants or make other funding decisions. It is imperative that we keep pressure on Congress to complete the work on appropriations with a significant increase for the NIH.

This month, Endocrine Society members are going to Capitol Hill for the Rally for Medical Research. This event, supported by over 300 national organizations and institutions, brings hundreds of scientists, patients, and advocacy groups to Capitol Hill to meet with their elected representatives to discuss why biomedical research funding is critical for human health and to urge Congress to increase funding to support biomedical research, including the NIH.

The Endocrine Society continues to keep pressure on Congress to pass a full-year spending bill and advocates for increased NIH funding. We encourage our U.S. members to join our efforts to support the NIH research by participating in our online campaign.

Society Responds to NIH Reform Proposal Urging Thoughtful and Open Authorization Process

This past June, Representative Cathy McMorris Rodgers (R-WA), chair of the House Energy and Commerce Committee, which has jurisdiction over the National Institutes of Health (NIH), released a framework for reforming the NIH.

This framework takes an expansive view of biomedical research supported by the NIH and includes suggestions on grant review, oversight of animals in research, and funding mechanisms, among other issues. The framework also proposes to consolidate the existing 27 institutes and centers into 15 but lacks clear descriptions of how critical research strategies and priorities would be preserved in the proposed new structure.

Following a careful review of the framework, the Endocrine Society sent a letter to McMorris Rodgers expressing concern about the lack of detail in the proposed restructuring and the potential for unintended negative consequences on endocrine research. While we remain open to a discussion about how NIH reform could position this important agency for continued success, we urged Congress to ensure that critical research priorities such as developmental biology, women's health, diabetes, and the influences of environmental exposures on endocrine disease be explicitly maintained in any NIH reform efforts. We also encouraged the Committee to engage NIH leadership, scientific experts, patients, universities, patient advocacy groups, and scientific societies through a formal, bicameral authorization process.

> **“The Endocrine Society will work to ensure that lawmakers appreciate the priorities of our members should the next Congress seek to reauthorize and reform the NIH following the elections.”**

While it is unlikely that Congress will have time to act on legislation to restructure the NIH before the end of the year, the proposal reflects the priorities of many House Republicans. The Endocrine Society will work to ensure that lawmakers appreciate the priorities of our members should the next Congress seek to reauthorize and reform the NIH following the elections. EN

ExCEL
EXCELLENCE IN CLINICAL ENDOCRINOLOGY LEADERSHIP

SUPPORTING NEW LEADERS IN CLINICAL CARE

PHYSICIAN LEADERSHIP IS THE FUTURE OF HEALTHCARE

The Excellence in Clinical Endocrinology Leadership (ExCEL) program offers comprehensive leadership training and mentorship to early career physicians of communities underrecognized in medicine and science. Whether you are just beginning as an endocrine fellow or navigating the next steps in your career beyond fellowship, the ExCEL program will help you build leadership skills, explore opportunities for advancement, and expand your network of peers and colleagues.

ExCEL PROGRAM COMPONENTS

LEADERSHIP SKILLS BUILDING:
ExCEL awardees will participate in developing key leadership competencies and management training through a multi-day Clinical Endocrine Career and Leadership Workshop.

BUILDING PARTNERSHIPS AND EXPANDING NETWORKS:
ExCEL's mentoring network will connect fellows with a core team of mentors, provide quarterly virtual check-ins, and deliver continued training through seminars intended to continue skills development and community building.

LEADERSHIP SKILLS IN PRACTICE:
We will assist ExCEL awardees in enhancing their professional credentials through opportunities to volunteer within the Endocrine Society, travel awards to attend and network at the annual meeting, ENDO, and enhance speaking abilities and near-peer mentoring through a Visiting Physician Faculty series.

We are accepting applications for 2025 program until November 18, 2024.

PLEASE VISIT ENDOCRINE.ORG/EXCEL TO APPLY.

PLEASE SCAN HERE OR VISIT ENDOCRINE.ORG/EXCEL FOR MORE INFORMATION.

ENDOCRINE SOCIETY

ENDO2025

JULY 12–15, 2025 SAN FRANCISCO, CA

SAVE THE DATE

ENDOCRINE.ORG/ENDO2025

ENDOCRINE SOCIETY