



THE LEADING MAGAZINE FOR

ENDOCRINOLOGISTS

news

#### **Endocrine Society** Members in the Spotlight

# Endocrinology ICONS

Endocrine News welcomes 2025 with an issue praising **Endocrine Society members** who are making advances in endocrine research and improving human health around the world!

Winners' Circle: Meet the 2025 Endocrine Society Laureate Award winners!

Passion Meets Purpose: From medical school to healthcare innovation in rural New Hampshire.

Mentoring Without Borders: How Ellen Seely, MD, mentors endocrinologists and peers around the world.

Uniquely Vulnerable: Elizabeth Pearce, MD, MSc, researches the link between thyroid cancer and EDCs in pregnant women.



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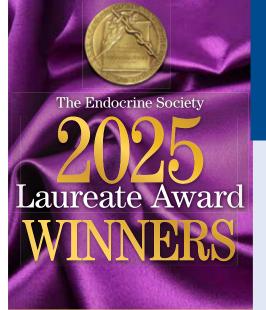
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#### www.endocrine.org





#### Society Provides Many Resources to Boost Members' Careers

key mission of the Society is to foster the next generation of endocrine clinicians, researchers, and educators. To this end, the organization offers many programs that not only encourage young scientists and doctors to join our specialty but also to support them on a successful career path.

As we enter a new year, I'd like to highlight the Society's earlycareer programs. These initiatives are crucial for developing a pipeline of promising professionals to enter our field. I would like all members to consider these, whether for themselves or to highlight them to others in their faculty.

#### **Competitive Programs**

One of our most visible professional development programs is the prestigious *Early-Career Forum (ECF)*, which is open to graduate and medical students, postdoctoral and clinical fellows, and internal medicine residents.

The ECF connects rising endocrinologists with today's leading endocrine professionals. Through these interactions, ECF attendees gain the tools and perspectives needed to navigate careers as physicians and scientists successfully.

This year's program will be held in person on July 11, 2025, prior to **ENDO 2025**. The Society's annual meeting takes place July 12–15, 2025, in San Francisco, Calif. The 2025 application period is open until January 15, 2025.

On the research side of the equation, the Society offers the *Research Experiences for Graduate and Medical Students* (*REGMS*) program. REGMS is geared toward medical and graduate students who have demonstrated commitment

to endocrine research. REGMS includes a comprehensive series of activities that span beyond the summer and include involvement in a variety of engaging programs for endocrine science trainees.

The 2025 application period also is open until January 15, 2025.

#### **Helping All Rising Professionals**

The Society also offers several competitive programs designed to help rising professionals from underrepresented communities.

One of these is the *Future Leaders Advancing Research in Endocrinology (FLARE)* program. This long-running program provides structured leadership development and indepth training on topics ranging from grantsmanship to lab management. It equips underrepresented minorities and junior faculty with essential leadership skills for success in biomedical research careers. Many FLARE interns are now independent leaders in their field and recognize the benefit of this program.

Another popular program is the *Excellence in Clinical Endocrinology Leadership (ExCEL)*, which offers comprehensive leadership training and mentorship to early-career physicians of communities underrepresented in medicine and science. Elements of the ExCEL program include an in-person training workshop to develop leadership competencies and management skills. The program also offers a year-round virtual mentoring course to guide the long-term success of the participants.

We look forward to hosting in-person workshops for this year's FLARE and ExCEL program participants this spring.

#### Awards Can Make You Stand Out

Nothing can jumpstart a career in science like winning an award for your research. The Society helps young researchers in this area by hosting the *Early Investigator Awards* at ENDO. These awards provide monetary support to assist in the development of early-career investigators and recognition of their accomplishments in areas of general endocrinology. I was lucky enough to meet the 2024 awardees at ENDO where they presented their work, received a \$1,000 award as well as complimentary meeting registration, one-year of free membership to the Society, and public recognition of research accomplishments in various Society platforms. The 2025 application period is open until January 15, 2025.

Another way to start building your resume in endocrinology is to serve as a reviewer for one of the Society's journals.

To this end, the Society provides an *Early-Career Reviewer Training Program*. To be considered for the training program, a participant must meet some basic requirements, including holding an MD, a PhD, or equivalent; and having published at least three first-authored original research articles in recognized peer-reviewed journals.

#### **Education and Training Is Fundamental**

The Society also provides several hands-on educational training programs that help prepare medical students for passing important exams needed to start their careers.

Our *Endocrine Board Review (EBR)* provides an intensive online learning program for fellows, practicing endocrinologists, and other healthcare professionals preparing for the American Board of Internal Medicine's (ABIM's) Endocrinology, Diabetes, and Metabolism Certification Exam. The EBR has assisted countless practitioners pass the exam, as it features insights directly from medical experts involved in developing the exam.

Similarly, the *Fellows Training Series* includes an In-Training Exam (ITE), which features 90 questions designed to gauge

how well a fellow is progressing through their clinical education. The exam is a case-based tool that covers all topics that appear on the Board Exam.

At an earlier career stage, our *Medical School Engagement Program (MSEP)* assists academic leaders in endocrinology to encourage medical student interest in endocrinology and recognize their best and brightest learners with opportunities to engage with leaders in our field. Watch for details on the next cycle of applications, which starts in early 2025.

#### **Mentors**

One also shouldn't underestimate the value of a mentor at the early stages of a career, and indeed mentorship across a career remains important.

To get a taste for the advantages of mentorship and being a mentor, students and early-career professionals who attend **ENDO** are encouraged to participate in *Endocrine Mentor Day (eMD)*. This program pairs medical students and residents with Society members who will "mentor" them for a day.

Mentors and mentees attend **ENDO's** signature programs, including poster presentations and a plenary session. The mentors also learn all about endocrinology and the latest scientific breakthroughs and practices.

These are some of the key programs the Society provides to help students and early-career professionals succeed in endocrine research and practice.

The Society's mission in this area is near and dear to my heart, and I personally feel proud and grateful knowing that the Society is working hard to ensure our field remains vibrant into the future.

John Newell-Price, MD, PhD, FRCP President, Endocrine Society FROM THE EDITOR

#### A New Year Is Upon Us

s we leave 2024 behind and look forward to the new year ahead, what better way to kick off 2025 than with a multi-page tribute to the latest class of Endocrine Society Laureate Award winners?

In "Meet the 2025 Laureates" on page 14, we feature this year's stellar array of legends of endocrinology from around the world. We've asked them for their advice to younger endocrinologists just starting out as well as the impact the Endocrine Society has had on their own careers. When asked what advice she would give to early-career endocrinologists, 2025 Sidney H. Ingbar Award for Distinguished Service recipient, Lori Raetzman, PhD, says that your career is an amazing journey to an unknown place. "Lean into opportunities and experiences that challenge you. Find mentors and sponsors that can give you advice, champion your career, and nominate you for awards," she says. "Belonging to a scientific society, like the Endocrine Society, can be a springboard to find mentors. The career development programs, both at the meeting and throughout the year via SIGs, will keep you connected to career trends and training as you embark on the next steps. It is never too early to start thinking about 'what next,' no matter what career stage you are at." Well said!

On page 30, Senior Editor Derek Bagley takes a closer look at a study presented last June in Boston during ENDO 2024 that shows some alarming statistics for pregnant women and how everyday chemicals have been proven to have an impact, specifically to the thyroid. In "Uniquely Vulnerable," Derek speaks with Elizabeth Pearce, MD, MSc, of the Boston University Chobanian & Avedisian School of Medicine, who discusses her research that found exposure to some endocrine-disrupting chemicals (EDCs) that harm the thyroid has been on the upswing over the past two decades. Not only has this alarming trend been found in U.S. women of childbearing age, but it seems to be especially prevalent in those women with a lower social and economic status. "The shifts in exposures to these thyroidal EDCs in pregnant women and women of reproductive age in the U.S. were variable, with most decreasing over time but exposure to some ... actually increasing," Pearce says. "Differences by socioeconomic status were variable. However, for most of the thyroidal EDCs, exposures were higher in those with lower socioeconomic status, which has the potential to exacerbate health disparities."

**JANUARY 2025** 

## Endocrine

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For this month's Early-Career Corner article, Kelly Horvath — fresh from her massive Eureka! science wrap up of 2024 talks to three medical students who are not waiting to get their MDs to start reaching out to their local community.

In "Passion Meets Purpose" on page 34, Kelly talks to Diya Mathur, Frida Velcani, and Shivesh Shah who took community service to the next level when they developed a program in rural New Hampshire to combine healthcare screening with patient education for immigrant communities. They discuss this potentially life-changing initiative as well as their thoughts on mentorship, endocrinology, and their future plans. According to one of the students, Diya Mather, much of the project evolved along the way. "We received a great deal of feedback from people in the community, from the free clinic, from our mentors, and we have slowly been able to create a better and more impactful project than what we had started with," she says. "A large reason we were able to visit communities and make any sort of impact is because of the partnerships with so many incredible community leaders. It has also been incredibly gratifying to have let our curiosity lead us to this point, all thanks to all of the support."

On page 44, Endocrine Society member Michael Morkos, MD, shares some tips on dealing with something that we all find confounding at one time or another: the email in-box! He gives tips to practicing clinicians in **"The In-Basket: A Friend or Foe?"** with a number of pointers for making your patient portal a little less daunting and easier to combat on a regular basis. As Morkos writes, life gets in the way sometimes, and the inbox can become overwhelming and extremely busy. "It is not uncommon for it to be flooded with requests after long weekends, off days, and annual vacations, necessitating hours of work," he writes. "As clinicians, we should strive to ensure this remains an exception rather than the norm. By implementing the strategies mentioned above, I hope your flooded inbox will gradually improve and become manageable."

Happy New Year to all and let's hope that 2025 brings us another year of remarkable stories about Endocrine Society members striving to improve human health around the world.

- Mark A. Newman, Executive Editor, Endocrine News

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#### INTOUCH

#### **Teresa Woodruff Awarded National Medal of Science**

PhD, joined an elite group of Americans who have received two national medals of honor when President Joe Biden presented her with the National Medal of Science at a White House ceremony held Jan. 3.

Woodruff was also awarded the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring by President Barack Obama in an Oval Office ceremony in 2011.

Woodruff was recogonized for her significant global contributions in scientific research, improvements to the scientific process, and broadening of research teams. Woodruff is an MSU Research Foundation Professor in the Department of Obstetrics, Gynecology and Reproductive Biology at MSU College of Human Medicine and the Department of Biomedical Engineering at MSU's College of Engineering. She was named provost of MSU in August 2020 and served as the university's interim president from 2022 to 2024.

Woodruff served as president of the Endocrine Society from 2013 to 2014, and as editor-in-chief of *Endocrinology*. In 2021, Woodruff received the Endocrine Society's Gerald D. Aurbach Laureate Award for Outstanding Translational Research for "seminal discoveries about gonadal structure, function, and hormones, as well as female fertility and its regulation."

Woodruff created an entirely new field of science — oncofertility — that combines oncology and reproductive health. And she has rallied to include more women in the scientific process, leading to awards for mentorship. She is now one of the world's leading fertility experts.

"I'm humbled to receive this award," Woodruff says. "I have had the honor and pleasure to work with so many students and collaborators throughout my career. My fundamental belief is science should help tomorrow's patients be treated better than

Then-President Barack Obama presents Teresa K. Woodruff with the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring in an Oval Office ceremony in 2011.



Teresa Woodruff (right) is awarded the National Medal of Science by Arati Prabhakar, director of the White House Office of Science and Technology Policy, at a ceremony at the Eisenhower Executive Office Building in Washington, D.C., on, Jan. 3

today's. This means we need to take our discoveries and turn them toward patient needs. And that includes broadening the pipeline of researchers in the field, advancing our discoveries from the bench to the bedside, and expanding the corridors of communication between physician groups and others who are in healthcare."

Woodruff's scientific work is focused on the female reproductive system. She has made breakthroughs in molecular science, reproductive medicine, and cancer research. Three independent discoveries from her lab have been cited as "Discoveries of the Year" by *Discover* magazine and one by the Chinese Academy of Medicine. She has more than 30 years of experience in leadership roles, including interim president at Michigan State University.

Photo: Pete Souza



For 65 years, the president of the United States has bestowed the National Medal of Science on those deserving of special recognition for their outstanding contributions to science in service to the United States. This medal was established by Congress in 1959 and is administered by the U.S. National Science Foundation. Since it was first awarded in 1985, the National Medal of Technology and Innovation has recognized American innovators whose vision, intellect, creativity, and determination have strengthened America's economy and improved our quality of life. The medal was established by Congress in 1980 and is administered by the U.S. Patent and Trademark Office.



Paul Stewart, MD, FRCP

#### JCEM Editor-in-Chief Paul Stewart, MD, FRCP, Receives CBE

**P**aul Stewart, MD, FRCP, editor-in-chief of *The Journal of Clinical Endocrinology & Metabolism* (JCEM) has received a CBE as part of the British New Year Honours that recognizes merit in terms of achievement and service.

Stewart, an emeritus professor of medicine at Leeds University in the U.K., was acknowledged for his services to medical science. A former dean of Leeds Medical School and executive dean of Leeds' Faculty of Medicine and Health, he previously supervised a translational research group that focused on corticosteroids, specifically cortisol metabolism via  $11\beta$ -hydroxysteroid dehydrogenases. His work has led to new discoveries in hypertension, obesity, aging, and polycystic ovary syndrome.

Since 2020, Stewart has led the editorial team of JCEM and received the Endocrine Society's 2018 International Excellence in Endocrinology Laureate Award. A past member of the Endocrine Society Council, he has served on six Endocrine Society committees over the years and was an associate editor of the *Journal of the Endocrine Society* from 2017 to 2019. He has spent four decades in clinical service in the U.K.'s National Health Service (NHS) as a consultant endocrinologist, which included 13 years of executive leadership in medical schools and health faculties at the Universities of Leeds and Birmingham.

Stewart tells *Endocrine News* that when he first learned of the honor, he was delighted, not only for himself, "but for his family and all the fellows, colleagues, and patients without whom this recognition would not have happened. Secondly," he continues,

"I had a feeling of humility. The U.K. Honours system has its origins as far back as the Norman conquest in 1066. To be nominated and supported by one's own peer group and endorsed by the U.K. Cabinet and King is a very special moment in my career."

In the U.K., Stewart has been actively involved in nurturing and supporting early research careers as a former chair of the U.K.wide Clinical Academic Training Forum and a fellow of the Royal College of Physicians and the Academy of Medical Sciences. His many key roles on health boards and networks have included vice chair of Prostate Cancer U.K., as well as acting president and member of the Council of the Academy of Medical Sciences.

As for the CBE perhaps raising the profile of endocrinology, Stewart says that, at least in the U.K., "endocrinology/ diabetes tends to be one of the more academically based clinical disciplines," he says, adding "I don't have any data but anecdotally I suspect that this discipline of medicine does very well in the U.K. Honours system." Stewart notes that several other endocrinology/diabetes peers also received 2025 King's Honours.

A CBE is the Commander of the Most Excellent Order of the British Empire, a grade within the British order of chivalry. The New Year Honours is a part of the British honours system, with New Year's Day being marked by naming new members of orders of chivalry and recipients of other official honors.

Stewart says that individuals living outside the U.K. can be nominated for a U.K. Honour as well as individuals living within the U.K. who have made exceptional international contributions. "There are many such individuals, a few of whom I know have an endocrine home," he says.



BY DEREK BAGLEY Senior Editor



Chronic treatment with supraphysiologic glucocorticoids can cause a number of short- and longterm health consequences. such as obesity, hypertension, and osteoporosis, so the ability for patients with CAH to lower their glucocorticoid dose to a more physiologic level can have profound benefits.



#### TRENDS & INSIGHTS

#### FDA Approves Crinecerfont Treatment for Children and Adults With Classic CAH

ast month, the U.S. Food and Drug Administration (FDA) approved crinecerfont capsules and oral solution adjunctive treatment to glucocorticoid replacement to control androgens in adult and pediatric patients four years of age and older with classic congenital adrenal hyperplasia (CAH). Crinecerfont is a selective oral corticotropin-releasing factor type 1 receptor (CRF1) antagonist that directly reduces excess adrenocorticotropic hormone (ACTH) and downstream adrenal androgen production, allowing for glucocorticoid dose reduction. Neurocrine Biosciences is marketing the drug as CRENESSITY.

The FDA approval is supported by the largestever clinical trial program of classic CAH, the CAHtalyst Pediatric and Adult Phase 3 global registrational studies. CAHtalyst Phase 3 data results in pediatric and adult patients with classic CAH were published in *The New England Journal of Medicine*.

In both CAHtalyst studies, CRENESSITY enabled lower steroid doses and decreased androgen levels.

"In this phase 3 trial," the authors the authors of the pediatric study write in their "crinecerfont conclusion, was superior to placebo reducing elevated in androstenedione levels in pediatric participants with CAH and was also associated with a decrease in the glucocorticoid dose from supraphysiologic to

physiologic levels while androstenedione control was maintained.

The authors of the adult trial conclude: "Among patients with CAH, the use of crinecerfont resulted in a greater decrease from baseline in the mean daily glucocorticoid dose, including a reduction to the physiologic range, than placebo following evaluation of adrenal androgen levels."

"The clinical results across both CAHtalyst studies support the efficacy and safety profile of CRENESSITY and its ability to reduce the overproduction of adrenal androgens, allowing for a meaningful reduction in glucocorticoid dosage, while maintaining or enhancing control of these androgens," says Richard Auchus, MD, PhD, a professor at the University of Michigan Health, and principal investigator. "Chronic treatment with supraphysiologic glucocorticoids can cause a number of short- and longterm health consequences, such as obesity, hypertension, and osteoporosis, so the ability for patients with CAH to lower their glucocorticoid dose to a more physiologic level can have profound benefits."



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#### Study Examines Disparities in Postpartum Maternal Health

Researchers have provided vital insights into social determinants such as government support, stable housing, and employment opportunities on postpartum health among Louisiana mothers during stressful periods including COVID-19, hurricanes, and the infant formula shortage. The study, "The role of government assistance, housing, and employment on postpartum maternal health across income and race: a mixed methods study," was published in *BMC Public Health*.

Researchers led by Leanne Redman, PhD, associate executive director for Scientific Education and director of the Reproductive Endocrinology & Women's Health Laboratory, point out that the first 1,000 days of life —- pregnancy to 24 months - are a critical time for both the mother's and the child's physical and mental health. "For birthing individuals, depression during the perinatal period is associated with increased maternal morbidity and mortality, including pregnancy complications," the authors write. "For the infant, maternal postpartum anxiety and depression may lead to difficulties breastfeeding in the short term, and negatively impact infant growth and development in the long term. These impacts necessitate supporting birthing individuals for immediate and lasting benefit."

On top of that, the authors continue, large-scale stressful events like a pandemic or natural disaster may further impact mental health, and the ability to care for people to care for their newborns. They write that the COVID-19 pandemic led to a higher risk of developing anxiety and depression, especially in prenatal individuals. The authors also point to other stressors including employment disruptions and income loss. "COVID-19 hardships may have been amplified by a coinciding shortage of infant formula and local natural disasters (i.e., Hurricanes Laura [2020] and Ida [2021]); these hardships may have especially impacted individuals with low-income and people of color, including Black individuals, who are already at risk for mental health problems and adverse pregnancy outcomes," the authors write.

The study utilized a mixed methods approach, combining quantitative data analysis with qualitative interviews to shed light on the disparities that disproportionately affect lowerincome and minority mothers. It underscores the need for targeted policy interventions to improve maternal health equity and strengthen postpartum care.

"The postpartum period is a critical time for both mothers and their infants," Redman says. "This study demonstrates the profound impact that social support systems and economic stability have on maternal health outcomes after birth. By addressing these factors, we can make meaningful strides toward reducing health disparities and improving the well-being of families across our nation."

The study's findings highlight the urgent need for policymakers, healthcare providers, and community organizations to collaborate on initiatives that ensure equitable access to resources for all mothers, regardless of income or race.

"Black and low-income birthing individuals experienced a different COVID-19 pandemic and subsequent mental health outcomes relative to White and high-income counterparts," the authors conclude. "Postpartum individuals' employmentrelated stress was related to poor mental health, and related to receipt of government assistance, housing changes, and employment disruptions. Ultimately, nimble government assistance packages, stable housing, and varied employment and childcare options to reduce employmentrelated stress are needed to support pregnant individuals during natural disasters. Multi-level supports and social policies are required to reduce adverse macrosystem factors, and racial disparities, to ultimately improve maternal mental health for long-term benefit." 🗈



This study demonstrates the profound impact that social support systems and economic stability have on maternal health outcomes after birth. By addressing these factors, we can make meaningful strides toward reducing health disparities and improving the well-being of families across our nation.

**?**?

## END 2025



We hope to see you at **ENDO 2025**, taking place July 12 – 15, 2025, in San Francisco, Calif. With more than 7,000 attendees, nearly 2,000 abstracts, and more than 200 other sessions, **ENDO** is the top global meeting on endocrinology research and clinical care. **ENDO** provides the opportunity to collaborate with an unparalleled list of endocrinologists, healthcare practitioners, and leading scientists from around the world. Through sharing our experience, advice on patient care, and new advances in research, we move the needle forward in hormone health and science.

Our outstanding slate of world-renowned speakers will showcase the most cutting-edge advances in research and medicine, with presentations spanning the spectrum of science, clinical care, and social implications.

https://www.endocrine.org/meetings-and-events/endo-2024

Abstract submission period: December 5, 2024 – January 30, 2025

2025 CDEI 60th Annual CME Conference Vail, Colorado

#### January 24 – 28, 2025

The Clinical Diabetes and Endocrinology Institute 60th Annual CME Conference will be a dynamic, interactive experience with highly relevant clinical endocrinology sessions including the fast-changing landscape of type 2 and type 1 diabetes. diabetes technology, prevention of type 1 diabetes, obesity, hypercortisolism, disorders of thyroid function, thyroid cancer, diabetes complications including kidney disease, lipid disorders, and cardiovascular risk, bone health including osteoporosis and hypoparathyroidism, acromegaly, genetic testing for endocrine neoplasms, and vasopressin disorders. The faculty are nationally and internationally renowned experts who will present sessions filled with the latest research, clinical insights, and practical tips for the clinician and also highlight clinical guidelines. https://www.eventsquid.com/

event.cfm?id=24172



#### NASIT 2025 Washington, D.C. January 31 – February 1, 2025

The North American Society for Interventional Thyroidology (NASIT) is the largest, multidisciplinary group in the United States dedicated to the field of interventional thyroidology. The society was created to promote safe integration of ablative thyroid technologies into clinical practice and a collaborative environment that supports education and research efforts in interventional thyroidology. NASIT holds an annual meeting that includes 1.5 days of expert panel sessions, scientific presentations, and the most up-to-date information on innovative technologies in the field. https://nasit.org/event-5795114

**BPS 2025** 

#### Los Angeles, California February 15 – 19, 2025

As science becomes increasingly interdisciplinary, the Biophysical Society Annual Meeting continues its long-held reputation for bringing together leading scientists from all over the world who work at the interface of the life, physical, and computational sciences. The dynamic five-day meeting provides attendees with opportunities to share their latest unpublished findings and learn the newest emerging techniques and applications. Despite its nearly 5,000 attendees, the meeting is noted for maintaining its "small meeting" feel beginning with the Saturday Subgroup symposia, which allow attendees to meet within their scientific communities. It is also known for its vitality, demonstrated by the over 600 highly interactive daily poster presentations, the more than 500 speakers selected from submitted abstracts, the many career development programs for those working in academia, industry, and agencies throughout the world, and its advocacy and education programs. https://www.biophysics.org /2025meeting#/

#### Lab Manager Leadership Summit Denver, Colorado April 29 – May 1, 2025

The program's expert speakers will provide you with the tools you need to reach higher levels of engagement and efficiency among your lab teams. Topics will include dealing with burnout, incorporating automation into your lab, lab operations, effective communication, and much more. An interactive Q&A will follow each session. Attendees will also be able to participate in handson workshops and roundtable discussions where they will receive focused advice and learn from reallife examples of leadership success. This event will also feature a special track focused on lab safety, as well as a track geared toward those who work in the clinical lab.

https://www.labmanager.com/labmanager-leadership-summit-30946

#### AAES 2025 Annual Meeting Milwaukee, Wisconsin May 17 – 19, 2025

American Association of Endocrine Surgeons 2025 Annual Meeting attendees can look forward to dynamic speakers, presentations of innovative research, opportunities to connect with colleagues, and informative panel discussions. The AAES Annual Meeting is dedicated to the advancement of the science and art of endocrine surgery through exchange of knowledge and fostering collaboration. The upcoming 2025 event promises to deliver innovative programming that will enrich attendees' clinical practices, provide networking opportunities, and facilitate scholarly pursuits. We cordially invite you to join us in Milwaukee for this exciting event. It will be an excellent opportunity to dive into new topics, share expertise, and connect with peers who share similar interests.

https://www.endocrinesurgery.org/ 2025-annual-meeting

#### INTERNATIONAL ITINERARY

#### SIMBA Adrenal 2025 Birmingham, United Kingdom February 6 – 7, 2025

The conference will feature scenario-based assessments based on the SIMBA model (Simulation via Instant Messaging Birmingham Advance), providing a realistic and interactive learning experience. There will also be lectures focusing on glucocorticoid-induced adrenal insufficiency, pheochromocytoma/paraganglioma, primary aldosteronism, and adrenal cancer. Attendees will also benefit from opportunities to network in a peerfocused environment, fostering professional growth and collaboration. https://www.ese-hormones.org/education-and-training/events-key-dates/simba-adrenal-2025/

#### **Obesity and Adipose Tissue** Banff, AB, Canada

#### February 23 – 26, 2025

Obesity is a major risk factor for type 2 diabetes, nonalcoholic fatty liver disease, cardiovascular disease, and many types of cancer. Collectively, these associated diseases are the leading causes of morbidity and mortality worldwide. A deeper understanding of the biology of adipose tissue and pathophysiology of obesity will be critical to address this major threat to human health. This conference will be held jointly with the Keystone Symposium on MASH Pathogenesis and Therapeutic Approaches to encourage cross-disciplinary insights and collaborations toward understanding underlying mechanisms of how obesity leads to liver disease. https://www.keystonesymposia.org/conferences/conferencelisting/meeting?eventid=7106

#### **SfE BES 2025**

#### Harrogate, United Kingdom March 10 – 12, 2025

SfE BES is the annual conference of the Society for Endocrinology, bringing together the best of basic science, translational research, clinical investigation, and clinical practice over a three-day program.

https://www.endocrinology.org/events/sfe-bes-conference/sfe-bes-2025/

#### **ATTD 2025**

#### Amsterdam, The Netherlands March 19 – 22, 2025

ATTD is the ultimate meeting to discover the latest worldwide research, devices, and developments in the diabetes field. Join the community of experts, clinicians, researchers, and industry professionals to stay up to date with the latest advancements in our field. Together, we can continue driving revolutionary changes and making a positive impact on those battling diabetes.

https://attd.kenes.com/

#### The Endocrine Society

# Laureate Award WINNERS

For more than 80 years, the Endocrine Society has recognized the achievements of endocrinologists worldwide with the annual Laureate Awards. These awards recognize endocrinologists for seminal research, meritorious service, leadership and mentorship, innovation, international contributions, education, translation of science to practice, and lifetime achievement.

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 distinguished recipients on the following pages join a prestigious list of past award recipients, all of whom have advanced scientific breakthroughs, medical practice, and human health around the world. Award categories honor the achievements of endocrinologists at all stages of their careers, recognizing those at the pinnacle of the field as well as young endocrinologists who are making a mark.

The dedication, commitment, and achievements of current and past award recipients have earned them a place in Endocrine Society history as well as the history of the practice and science of endocrinology.

This year, we've asked 2025 Laureates how the Endocrine Society has helped shape their careers as well as what advice they have for those aspiring, early-career endocrinologists.

The Endocrine Society will present the awards to the winners at **ENDO 2025**, taking place in San Francisco, Calif., July 12 – 15, 2025. This year, we've asked 2025 Laureates how the Endocrine Society has helped shape their careers as well as what advice they have for those aspiring, early-career endocrinologists."

# Fred Conrad Koch Lifetime Achievement

**Daniel Drucker, MD, FRCPC,** professor of medicine at the Lunenfeld-Tanenbaum Research Institute, Mount Sinai Hospital, Toronto, Canada, has made seminal contributions to understanding fundamental biology of incretin hormones that have led directly to three new classes of drugs for the treatment of diabetes and metabolic disorders.

His discovery of the actions of gut hormones such as GLP-1 and GLP-2, and characterization of the enzyme DPP4, have enabled the development of innovative classes of medications that have improved the health of people living with type 2 diabetes, obesity, and intestinal failure. Drucker discovered that GLP-1 directly stimulates insulin secretion,  $\beta$ -cell cAMP accumulation and insulin gene expression and identified new aspects of GLP-1 action in multiple tissues, supporting the development of GLP-1 based therapies for type 2 diabetes and obesity. Drucker's studies showed these agents control glucose with less hypoglycemia and promote weight loss, while reducing rates of cardiovascular disease.

Using basic science approaches, he demonstrated that the DPP4 enzyme was essential for GLP-1 degradation, insulin secretion, and glucose homeostasis, enabling development of DPP4 inhibitors for treatment of type 2 diabetes. Drucker discovered the actions of GLP-2 as a regulator of nutrient absorption, intestinal growth and mucosal defense against enteric pathogens. He identified the GLP-2 analogue teduglutide, now approved as the only long-term therapy for clinical use in the treatment of adults and children with short bowel syndrome.

Drucker's discoveries encompass molecular biology, physiology, drug discovery, and clinical investigation, reproducible science that has delineated novel mechanisms of gut hormone action with immense clinical impact. Drucker has served the Endocrine Society in various roles on numerous committees, including as a member of Council, and more recently as editor-in-chief of *Endocrine Reviews*.

His sustained international scientific leadership in endocrinology represents a wonderful example of bench-to-bedside endocrine science providing multiple transformational novel medicines that greatly improve the quality of life for people with metabolic and intestinal disorders.

 Mitchell Lazar, MD, PhD, Willard and Rhoda Ware Professor in Diabetes and Metabolic Diseases, Perelman School of Medicine; founding director, Institute for Diabetes, Obesity, and Metabolism, University of Pennsylvania, Philadelphia

How has the Endocrine Society supported your professional development/career journey? The Endocrine Society has served as a professional home for me, whether it be attending meetings, contributing to committees, or serving on editorial boards, it represents a wonderful opportunity to meet colleagues, learn, and advance one's science.

As a Laureate Award recipient, do you have any advice for those just beginning their careers? I am a firm believer in the tortoise and the hare concept; while flashy amazing stories are exciting, over the long run, reproducible solid data, often published in Society journals, that incrementally and continuously builds a field is a winning strategy for a productive and respectable career.

#### **ABOUT THE AWARD**

The Fred Conrad Koch Lifetime Achievement Award — the Society's highest honor — recognizes the lifetime achievements and exceptional contributions of an individual to the field of endocrinology. Fred Conrad Koch, PhD, the Society's 19th president, is best remembered for his elucidation of testicular function.

**Ellen W. Seely, MD,** professor of medicine, Brigham and Women's Hospital (BWH), Harvard Medical School (HMS), is an accomplished investigator, with seminal contributions to gestational diabetes, preeclampsia, and their impact on future cardiometabolic health.

Seely selflessly dedicates a substantial part of her academic career to nurture the intellectual and professional growth of peers and juniors alike, and her approach to mentoring is one "without borders." Her multifaceted mentoring initiatives transcend individuals, departments, institutions, and geographies, having reached Europe and the Middle East. Besides being internationally recognized for her studies of hypertensive disorders of pregnancy, Seely has supported faculty development and well-being, as well as medical student teaching, and training in grant writing and clinical investigation. She has also served on FDA advisory committees, been an NIH study section member, served on various student thesis review committees, and has been a member of various journal editorial boards and served as an ad hoc reviewer.

She has been rewarded for her commitment with multiple awards, including 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.

She has served on a host of Endocrine Society committees and most recently serves as president-elect of Women in Endocrinology. What stands out in her mentorship behavior is her commitment to collecting mentees and helping them, providing constructive feedback and sponsorship for their next roles.

- Ann E. Taylor, MD, vice president, Global Clinical Development, Medimmune, Inc., Gaithersburg, Md.

#### How has the Endocrine Society supported your professional development/career

**journey?** The Endocrine Society has provided me with an important academic home and community of support. I have had leadership opportunities on committees of the Society and opportunities to develop and participate in educational programs. Important to me has been my membership in Women in Endocrinology that, although not directly part of the Endocrine Society, I was introduced to through the Society. There I have found a peer-mentoring group, an avenue to provide support to other women in endocrinology as well as further leadership opportunities (for example, serving as current president of Women in Endocrinology).

As a Laureate Award recipient, do you have any advice for those just beginning

**their careers?** My general advice is to join the Endocrine Society for its potential importance in career development. I would also like to encourage endocrinologists to join Women in Endocrinology — any gender invited to join. In terms of my perspective as the recipient of the Society's Mentor Award, I would like to encourage individuals at all stages to create mentoring networks to support their different career goals. Mentoring networks are particularly important for those early in their careers.

#### **ABOUT THE AWARD**

Established in 2013, the Outstanding Mentor Award is presented to an individual in recognition of a career commitment to mentoring, a significant positive impact on his/her mentees' education and career, and who, through his/her mentees, has advanced research or patient care in the field of endocrinology.

Gerald D. Aurbach Award

V. Krishna K. Chatterjee, CBE, FRS, FRCP, FMedSci, professor of endocrinology at the University of Cambridge and director of the Cambridge Clinical Research Centre of the National Institute for Health Research (NIHR), is distinguished for his contribution to the molecular basis of endocrine disorders and its application to clinical medicine.

He has delineated a multisystem disorder with a thyroid signature due to deficiency of selenocysteine-containing proteins, encompassing phenotypes due to oxidative damage (life-threatening aortic aneurysm, photosensitivity, hearing loss) or lack of specific selenoproteins (azoospermia, muscular dystrophy) in tissues. He was first to identify a defect in a nuclear genome encoded, transfer RNA causing selenoprotein deficiency.

Chatterjee has made important discoveries in clinical understanding of resistance to thyroid hormone, delineating cardiac hyperthyroidism, dyslipidemia, and hepatic steatosis, and increased cardiovascular morbidity and mortality in RTH. He has shown that RTH is a form of congenital hypothyroidism associated with near-normal thyroid function tests, which is underdiagnosed.

His observation that thyroxine therapy can prevent many adverse consequences of RTH, highlights a need for increased, future ascertainment of this condition. 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 (for example, selective thyromimetics) in these disorders. His research, which spans the basic-clinical interface, is an exemplar of translational investigative science.

– J. Larry Jameson, MD, PhD, interim president, University of Pennsylvania, Philadelphia

How has the Endocrine Society supported your professional development/ career journey? Since joining the Endocrine Society when I was a research fellow in the Thyroid Unit at Massachusetts General Hospital, it has supported my scientific and clinical development. Specifically, its activities in basic science (for example, nuclear receptors) and clinical endocrinology (for example, disorders of thyroid hormone action) have been the basis for gaining and sharing information with the endocrine community worldwide, without which our research would not have been possible.

As a Laureate Award recipient, do you have any advice for those just beginning their careers? Throughout my career, I have sought to keep up with knowledge of advancements in both basic science and clinical practice in my field of interest. Although this takes much time and effort, I think it has been the basis of our most fulfilling contributions to knowledge and understanding.

#### **ABOUT THE AWARD**

The Gerald D. Aurbach Award for Outstanding Translational Research is presented in recognition of outstanding research that accelerates the transition of scientific discoveries into clinical applications. Translational research supported with this award will typically involve expertise, collaboration, and engagement across disciplines. **Christos Mantzoros, MD, DSc, PhD, h.c. Mult.,** is a professor of medicine at Harvard Medical School with a longstanding successful and highly recognized research program of clinical and translational endocrinology at Beth Israel Deaconess Medical Center (BIDMC), 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 holds the position of adjunct professor at the Boston University School of Medicine.

Mantzoros has published close to 1,000 peer-reviewed scientific articles. 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 and mentored over 200 trainees and collaborators, ranging from students to physicians and fellows, to full professors and company executives all over the world.

He is also a stellar educator who has created and leads novel clinical training and education programs. It should be noted that this body of work has provided considerable new information illuminating 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 last years, the Mantzoros lab research has expanded to understand the physiology and the role of gastrointestinal hormones, i.e., the proglucagon-derived peptides in obesity and metabolic health as well as the role of myokines and mitokines in obesity, and obesity-related disorders such as diabetes, NASH, CVD, and obesity-related malignancies.

- Ann E. Taylor, MD, vice president, Global Clinical Development, Medimmune, Inc., Gaithersburg, Md.

How has the Endocrine Society supported your professional development/ career journey? The Endocrine Society has been my scientific home since I was in training. It has been an invaluable venue for learning, exchanging and developing ideas, presenting and discussing science, and getting recognized by peers.

#### As a Laureate Award recipient, do you have any advice for those just

**beginning their careers?** Dedicate your life to serving those in need, listen to your patients empathetically, be curious, find the right mentors, never stop studying, and ask important questions. Work persistently hard and smart until you find the right answers that you can apply at the bedside to help ease the suffering of your fellow human beings so that they can live better, healthier, and longer lives.

#### **ABOUT THE AWARD**

The Outstanding Scholarly Physician Award is presented in recognition of outstanding contributions to the practice of clinical endocrinology in an academic setting.



# mustanding Researc for y O. Greep Award

**Barbara Kahn, MD,** vice chair for research strategy at the Beth Israel Deaconess Medical Center is internationally recognized for her path-breaking discoveries that have helped to 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. She has elucidated cellular mechanisms by which adipose tissue regulates systemic insulin action and type 2 diabetes pathogenesis. Her seminal studies demonstrated that expression of the major insulin-regulated glucose transporter, GLUT4, is down-regulated in adipocytes in insulin-resistant states. This led to her paradigm-shifting discovery that reducing adipocyte-GLUT4 levels impairs insulin action in muscle and liver and that adipocytes are master regulators of whole-body insulin sensitivity.

Mechanistically, she discovered two classes of metabolically important adipose-secreted molecules: Her lab showed retinol-binding-protein-4 is elevated in insulin-resistant states and drives insulin-resistance and type 2 diabetes through proinflammatory effects. Her lab also discovered, with collaborator Alan Saghatelian, a novel class of evolutionarily conserved signaling lipids (FAHFAs) with anti-diabetic and anti-inflammatory actions that are tightly linked with insulin-sensitivity in humans and rodents. Kahn also discovered that AMP-activated-protein kinase is a critical cellular "fuel gauge" that acts in peripheral tissues and brain to regulate energy balance and adiposity. Kahn has trained numerous highly successful leaders in endocrinology and metabolism around the world. Her innovative, translationally important research has reshaped the metabolism field over three decades.

- Shingo Kajimura, PhD, Howard Hughes Medical Institute, Beth Israel Deaconess Medical Center, Boston, Mass.

#### **ABOUT THE AWARD**

Roy O. Greep Award for Outstanding Research is presented for meritorious contributions to research in endocrinology.

**David Mangelsdorf, PhD**, distinguished chair in pharmacology and in molecular neuropharmacology, and **Steven Kliewer, PhD**, 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. Mangelsdorf and Kliewer separately pursued investigations into nuclear receptors and joined forces in 2002 when Kliewer was recruited to UT Southwestern.

Kliewer's prior work at GlaxoSmithKline identified thiazolidinediones as ligands for the orphan nuclear receptor PPAR and elucidated the nuclear xenobiotic receptor PXR's role in drug interactions. Mangelsdorf's work at UT Southwestern identified liver X receptors (LXRs), revealing a sought-after mechanism responsible for the body's detection and removal of cholesterol. Mangelsdorf and Kliewer concurrently discovered the bile acid receptor FXR and demonstrated the role of bile acids as hormones regulating their own metabolism, a groundbreaking revelation that culminated in the development of an FDA-approved medication for primary biliary cholangitis. Overall, 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.

– Donald McDonnell, PhD, Glaxo-Wellcome Professor of Molecular Cancer Biology, Department of Pharmacology and Cancer Biology, professor of medicine, co-director, Women's Cancer Program, Duke Cancer Institute, Duke University School of Medicine, Durham, N.C.

How has the Endocrine Society supported your professional development/career journey? Mangelsdorf: The Endocrine Society has been our home since we were students, making it an invaluable venue for supporting and highlighting our work. It has been quite fulfilling and appropriate that our careers have never wandered far from our roots in nuclear endocrine receptor biology.

As a Laureate Award recipient, do you have any advice for those just beginning their careers? Mangelsdorf: Don't be risk adverse. To answer a big question, you have to ask a big question.

#### **ABOUT THE AWARD**

The Edwin B. Astwood Award for Outstanding Research in Basic Science honors the scientific contributions of the late Dr. Edwin B. Astwood, and recognizes individuals who have made significant contributions to the field of endocrinology via their outstanding basic science research.

and Steven Kliewer,

lichard E. Weitzman

**Erik Nelson, BSc, PhD,** is associate professor of molecular and integrative physiology at the University of Illinois at Urbana-Champaign. His work has defined biochemical links between dyslipidemia/hypercholesterolemia and the pathobiology of osteoporosis and breast cancer. He demonstrated that 27-hydroxycholesterol (27HC), an oxysterol that is produced in a stoichiometric manner from cholesterol, functions as an endogenous selective estrogen receptor modulator (SERM) exhibiting cell selective ER-agonist and antagonist activities. Using pharmacologic and genetic approaches in animal models he demonstrated that 27HC opposes ER action in bone resulting in osteoporosis/osteopenia. In follow-up studies, he and his collaborators developed an assay to evaluate 27HC in humans that was used in studies that concluded that elevated cholesterol/27HC could account for a significant number of osteoporotic fractures in postmenopausal women.

In other studies, he and his collaborators demonstrated that statins effectively lowered circulating 27HC suggesting that the use of cholesterol-lowering medications may improve bone health in patients with hypercholesterolemia. He developed mouse models to study the impact of hypercholesterolemia on breast cancer and determined that 27HC, mimicked endogenous estrogens to drive the growth of ER-positive breast tumors.

Recently, he has determined that 27HC may have activities on tumor biology beyond its ability to regulate cancer cell intrinsic ER-signaling as in animal models of ER-negative breast cancer. He demonstrated that this oxysterol reprogrammed innate immune cell function in tumors in a manner that favored tumor growth. He has defined the signaling pathways responsible for these activities and has developed novel therapeutic approaches that are currently being explored as breast cancer treatments/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. For this important work, he is a deserving awardee of the 2025 Weitzman Award.

- J. Larry Jameson, MD, PhD, interim president, University of Pennsylvania, Philadelphia

#### How has the Endocrine Society supported your professional development/career

**journey?** I was fortunate to participate in the first "trainee day" that the Endocrine Society hosted, which was also the first Endocrine Society meeting I attended. That experience really opened my mind to the breadth of our field, new emerging technologies, and how the Society fostered the continuum from basic science to translational science to clinical practice. Since then, the Endocrine Society has been my home. We have been able to showcase our research, form new collaborations, and learn of the clinical shortfalls that basic scientists are charged with solving. It has come full circle now, as the Society fosters the development of my trainees through opportunities to present their work and scholarships to travel to the annual meeting.

As a Laureate Award recipient, do you have any advice for those just beginning

**their careers?** 1. Persistence. If you have an idea you are passionate about, it might be that the world is not ready to receive it. Be persistent and slowly convince people of why it is important. 2. Don't be afraid of change. Adopt new strategies, technologies, and collaborators. 3. Choose your team and be a good teammate. From mentors to trainees, surround yourself with excellence — and a team that you enjoy being around! Give more than you receive.

#### **ABOUT THE AWARD**

Established in 1982, this award recognizes an exceptionally promising young clinical or basic investigator based upon the contributions and achievements of the nominee's own independent scholarship performed after completion of formal training and on the recipient's entire body of work, rather than a single work.

**Ilene Fennoy, MD, MPH,** professor of pediatrics at Columbia University's Valegos College of Physicians & Surgeons, is a pioneer, innovator, and leader in the field of pediatric obesity and in the realm of equity, diversity, and inclusion (EDI).

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 having been appointed to the Pediatric Endocrine Society's (PES's) Obesity Task Force and through her selection to co-author a review, entitled: "The History of Obesity Research" in commemoration of the 50-year anniversary of the founding of the PES.

Perhaps Fennoy's most compelling leadership in endocrinology is through her work in the realm of EDI. After having served on the Endocrine Society's Minority Affairs Committee, she established and co-chairs the PES's EDI Task Force. She created the mission statement for this task force, played a key role in selecting topics and speakers for EDI symposia, and led efforts to create an award through PES for fellows or junior faculty with a focus on developing new, high-impact approaches to EDI. In addition, Fennoy initiated collaboration with the Endocrine Society's CoDI to support dissemination of the Endocrine Society's FLARE and ExCEL programs to PES members. She is a true champion of the rights of all children, trainees, and her colleagues.

- Stephen M. Rosenthal, MD, professor of pediatrics and medical director of the Child and Adolescent Gender Center (CAGC) at the University of California, San Francisco

#### **ABOUT THE AWARD**

The Outstanding Leadership in Endocrinology Award is presented in recognition of outstanding leadership in fundamental or clinical endocrinology as exemplified by the recipient's contributions and those of his or her trainees and associates to teaching, research, and/or administration.

Outstanding Leadership Endocrinology Award Ilene Fennoy, MD, MPH Lori Raetzman, PhD, is a professor of molecular and integrative physiology and associate director for the MCB PhD Programs at the University of Illinois Urbana-Champaign, School of Molecular and Cellular Biology. Raetzman's research journey, spanning over two decades, has focused on neuroendocrinology. Her significant contributions include seminal work on pituitary transcription factors and the elucidation of Notch signaling in pituitary and hypothalamic development. Her research, reflected in 67 publications, has received substantial funding from esteemed sources like the National Institutes of Health. As an educator, Raetzman's impact extends across various educational levels. Her prowess in teaching, evident in diverse subjects from genetics to research ethics, has garnered consistent acclaim and several teaching awards. She has mentored numerous students across undergraduate, graduate, and postgraduate levels, guiding them toward prestigious fellowships and impactful careers in academia, private sector, government, and healthcare.

Raetzman has made stellar achievements in research and education, and she has exhibited exceptional leadership and commitment to multiple scientific communities. However, her exceptional service to the Endocrine Society stands out prominently. Since joining in 2001, she has served on numerous committees, showcasing remarkable leadership skills as committee chair. 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. Raetzman has also been instrumental in fostering diversity and leadership through programs like FLARE, supporting underrepresented minorities in basic and clinical research. Beyond the Endocrine Society, her commitment extends to other scientific communities, facilitating the exchange of best practices and broadening outreach for trainees and career development.

– Sally Camper, PhD, professor, Department of Human Genetics and Internal Medicine, University of Michigan, Ann Arbor

#### How has the Endocrine Society supported your professional development/

**Career journey?** The Endocrine Society is my scientific home, where I go for cutting-edge work in my field. However, the biggest impact the Endocrine Society has had is on my professional development. I've worked with and learned from amazing member leaders to envision the future of endocrinology and create programming for career development. I've learned how important advocacy is for both clinicians and researchers in our field and how to be an effective communicator for our needs. I've also seen how important thoughtfully thinking about governance is for an organization. All of these experiences have helped train me to be a leader in my home institution. I'm playing critical roles in graduate education and training programs. I've learned skills from my Endocrine Society service, certainly, but also have developed a network of colleagues that act as a fantastic support system and sounding board for any crazy idea I might have.

As a Laureate Award recipient, do you have any advice for those just beginning their careers? Your career is an amazing journey to an unknown place. Lean into opportunities and experiences that challenge you. Find mentors and sponsors that can give you advice, champion your career, and nominate you for awards. Belonging to a scientific society, like the Endocrine Society, can be a springboard to find mentors. The career development programs, both at the meeting and throughout the year via SIGs, will keep you connected to career trends and training as you embark on the next steps. It is never too early to start thinking about "what next," no matter what career stage you are at.

#### **ABOUT THE AWARD**

The Sidney H. Ingbar Award for Distinguished Service is presented in recognition of distinguished service to the Endocrine Society and the field of endocrinology. Supported by the Sidney H. Ingbar Memorial Fund.

**Alice Levine, MD,** is director of the interdisciplinary Adrenal and Pituitary Centers, where she serves as mentor and educator to trainees and faculty in internal medicine, nuclear medicine, radiology, pathology, endocrine, and neurosurgery. She is the program director for the Endocrinology, Metabolism, Diabetes Fellowship, which has become the largest and one of the most competitive programs in the nation consistently attracting top-ranked applicants.

Levine was the course director for the Icahn School of Medicine at Mount Sinai (ISMMS) endocrine pathophysiology course for 25 years, inspiring generations of medical students to pursue careers in the field. She received ISMMS's Teaching Award in 2011 and the Jacobi Medallion in 2017, the highest award conferred by its Alumni Association. Levine has also mentored legions of high school, college, PhD, and MD students in translational research, many of whom have gone on to successful academic careers and credit her as their inspiration.

She is a highly sought-after speaker at national and international meetings for her research in the areas of prostate cancer and adrenal diseases and has been repeatedly invited to give symposium presentations at the Endocrine Society annual meetings, most recently at **ENDO 2024** on adrenal cortical cancer. 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. She is the quintessential educator who conveys her enthusiasm and excitement for the field of endocrinology to trainees, colleagues, and patients.

- Andrea Dunaif, MD, system chief, Division of Endocrinology, Diabetes, and Bone Disease, Mount Sinai Health System; Lillian and Henry M. Stratton Professor of Molecular Medicine, Icahn School of Medicine, Mount Sinai, New York, N.Y.

**How has the Endocrine Society supported your professional development/career journey?** I have been a career-long member of the Endocrine Society, attending my first annual meeting during my fellowship in 1985 in Baltimore, Md. I remember the excitement of that first meeting and all the others up to and including Boston in 2024. It is my professional home. The meetings, the online resources, the Meet the Professor sessions and books, have been an integral part of my development as a scientist, clinician, and teacher. Regarding teaching, I steal from the best, including my many colleagues in the Society. I have forged lifelong friendships and networks around the globe — individuals I can turn to for help and advice in real time, especially regarding challenging cases.

As a Laureate Award recipient, do you have any advice for those just beginning their careers? All of us who choose endocrinology as a field have a general fascination with the puzzle of hormones. However, it is a broad field, and, as careers develop, be it on a clinician or scientist path, it is important to choose an area of focus to become a master. This is essential not only for career building but also for career satisfaction going forward, as the more you know, the more you enjoy it. I feel as excited about my career now as I did back in 1985, perhaps more so. I attribute that lifelong passion to delving deep into certain areas, in my case hormonal neoplasia, prostate, adrenal, and pituitary. In terms of what area to focus in, I tell trainees to shop in their own closet; reflect on which cases you did extra reading about or chose to do a presentation on. There is no accounting for taste or where your eyes go, but you should definitely listen to what your actions have been telling you and go deep. You will be a happy endocrinologist for many years to come.

#### **ABOUT THE AWARD**

The Outstanding Educator Award is presented in recognition of exceptional achievement as an educator in the discipline of endocrinology and metabolism.

**Outstanding Clinical Practitioner A** 

Whitney Woodmansee, MD, is professor of medicine in the University of Florida's Division of Endocrinology, Diabetes, and Metabolism, and is also the director for the Neuroendocrine/ Pituitary Program. Woodmansee is a specialist endocrinologist who is highly valued for her expertise in neuroendocrine diseases. However, she is also very knowledgeable in general medicine and general endocrinology. She is the kind of clinician that ensures she does everything the patient needs and ensures the systems are in place to most efficiently and completely 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.

Woodmansee's high value is evident by the fact that many patients have even followed her as her practice has moved from different centers. She is also thoroughly committed to patient education, a critical skill for an outstanding clinician. Keeping up with and interpreting the latest clinical and basic science research, and then translating it for patients to understand, requires a thorough understanding of basic investigation and clinical trials, a critical mind, and a thorough understanding of the questions patients are asking and what is important for patient care.

Woodmansee is never too busy to do the right thing for her patients, and her patients always come first on top of her personal, family, and professional obligations. Even though she may have been exhausted by the extra clinical demands on a practicing clinician during the COVID-19 pandemic, she did not let her patients see her stress but helped them feel heard and cared for.

- Ann E. Taylor, MD, vice president, Global Clinical Development, Medimmune, Inc., Gaithersburg, Md.

#### How has the Endocrine Society supported your professional development/

**Career journey?** The Endocrine Society has played a critical role in my professional and personal development ever since I entered the endocrinology field as a fellow. The Endocrine Society has supported me in so many ways by offering a wide range of experiences including attending and presenting at the Annual Meeting, serving on Society committees, and reading the many educational materials and publications. There are so many ways to become involved. I have had the great pleasure of attending every meeting since 1997, apart from 2020 when the meeting was cancelled due to the pandemic. Every year I look forward to **ENDO** as a wonderful time to connect with friends and colleagues and to share everything from research discussions and clinical debates to social events. As a member of Women in Endocrinology, I have also benefited immensely from participation in this organization and from the long-term support the Endocrine Society has given to this group. Most of all, I am grateful for all the lifelong connections I have made with so many wonderful people through all our Endocrine Society interactions.

As a Laureate Award recipient, do you have any advice for those just beginning their careers? Always strive for excellence in whatever career path you choose, and remember, the patient will always tell you what's wrong; you just have to listen and investigate carefully. I thank all my patients for allowing me to share in their medical journey and for the inspiration they provided. Finally, please enjoy the many wonders of your career and work hard but be sure to instill balance in your life.

#### **ABOUT THE AWARD**

The Vigersky Outstanding Clinical Practitioner Award is presented in recognition of extraordinary contributions by a practicing endocrinologist to the endocrine and/or medical community. The recipient spends the majority of his or her time in the practice of clinical endocrinology.

**JoAnn Manson, MD, PhD,** 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 the role of vitamin D supplementation in preventing major chronic diseases.

She provided the first randomized trial evidence that the benefit-to-risk profile of hormone therapy for clinical events is more favorable in early rather than later menopause. She also initiated and led the largest randomized trial of vitamin D and chronic disease prevention in the world, influencing the field of precision prevention. She has led impactful and highly cited publications on the benefit/risk profile of menopausal hormone therapy and 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.

Manson's clinical research has had extraordinary impact on clinical medicine and women's health. She has more than 1,200 original report publications in medical literature. She has received innumerable awards for her work, including the American Heart Association's (AHA) Distinguished Scientist Award, the AHA's Research Achievement Award, the Woman in Science Award, election to the Institute of Medicine of the National Academies (National Academy of Medicine), membership in the Association of American Physicians, and many others.

- Andrea Dunaif, MD, system chief, Division of Endocrinology, Diabetes, and Bone Disease, Mount Sinai Health System; Lillian and Henry M. Stratton Professor of Molecular Medicine, Icahn School of Medicine, Mount Sinai, New York, N.Y.

How has the Endocrine Society supported your professional development/career journey? The first scientific conference I ever attended was the Endocrine Society's annual meeting in San Antonio, Texas, in 1983, and I was hooked! I loved attending the scientific sessions, looking at posters and talking to the investigators, having an opportunity to present my work, meeting researchers in my field, and as much networking as I could ever have hoped for. The annual meetings, whenever I was able to attend, were invaluable to me as an early-career investigator and have remained so throughout my career. I've also learned so much from reading the Endocrine Society journals most relevant to my field, having the opportunity to publish several papers in these journals, receiving regular communications from the Endocrine Society has been a key supporter and catalyst of my professional development and career journey since my earliest days as an endocrine fellow.

As a Laureate Award recipient, do you have any advice for those just beginning their careers? My main advice to those beginning their careers: 1. Be willing to take risks with learning unfamiliar skills — don't be afraid to fail; 2. Seek out a mentorship network (including peer mentorship) both inside and outside your program; and 3. Don't let setbacks derail you or deter you from your chosen path. Disappointments and setbacks are inevitable and provide the most powerful lessons possible for personal improvement and course corrections. Facing and overcoming obstacles will make you stronger and better equipped to meet your goals.

#### **ABOUT THE AWARD**

The Outstanding Clinical Investigator Award is presented to an internationally recognized clinical investigator for meritorious contributions to clinical research related to pathogenesis, pathophysiology, and therapy of endocrine diseases.

**Syed Abbas Raza, MD,** currently serves as a consultant endocrinologist and physician at Shaukat Khanum Hospital and Research Center, in Lahore, Pakistan. Raza 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 led an effort by the Pakistan Endocrine Society in collaboration with the International Society of Endocrinology (ISE) to produce MED Buzz, short educational videos sent to primary providers across the region delivered via What's App and YouTube. He leads "Run For Healthy Life" to raise awareness of obesity and to promote a healthier lifestyle for youth in the South Asian region.

In his position at the Shaukat Khanum Hospital and Research Center and National Defense Hospital in Pakistan, Raza has published extensively and lectured regionally and internationally on these initiatives, many of which have been for healthcare providers in underserved areas of the region. He has served as president of the Pakistan Endocrine Society and is currently the president of the ISE. In this role, Raza is expanding efforts to promote preventative health measures to integrate global efforts to educate both the public and front-line providers, and to harness the regional efforts of South Asia to improve the health of patients with diabetes and endocrine disorders.

He rose through the ranks of the South Asian Federation of Endocrine Societies (SAFES), which includes endocrine societies of Afghanistan, Bangladesh, India, Maldives, Nepal, Pakistan, and Sri Lanka, serving as president. The Pakistan Endocrine Society honored Raza with a Lifetime Achievement award.

- Margaret E. Wierman, MD, professor in medicine, physiology, and biophysics and OBGYN, University of Colorado, Aurora

#### **ABOUT THE AWARD**

This International Excellence in Endocrinology 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.



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**BY DEREK BAGLEY** 

# VUIDERAD E

How a lower socioeconomic status could raise pregnant women's risk of thyroiddisrupting chemicals exposure

Elizabeth Pearce, MD, MSc, discusses her **ENDO 2024** presentation, which found that exposure to some endocrine-disrupting chemicals that harm the thyroid gland has increased over the past 20 years among U.S. women of childbearing age and pregnant women, especially among those with lower social and economic status.

Izabeth Pearce, MD, MSc, of the Boston University Chobanian & Avedisian School of Medicine recently saw a patient who brought in her own per- and polyfluoroalkyl substances (PFAS) measurements along with thyroid test results, opening up a discussion between doctor and patient about how to avoid exposure to endocrine-disrupting chemicals (EDCs).

"I do not find that patients bring up this topic very often, but I think this will likely change as there is more and more press about EDCs," Pearce says.

And the Endocrine Society is generating some press on this topic. While exposure to some EDCs that harm the thyroid gland has decreased over the

Unfortunately, exposure to many toxins can occur from simply walking outside and being exposed to car exhaust fumes.

past 20 years among U.S. women of childbearing age and pregnant women, exposure to others has actually increased, and there is particular concern about these exposures among those with lower social and economic status, according to a study presented at **ENDO 2024**. The researchers focused this study on women who may be particularly vulnerable to negative effects of EDCs on the thyroid: women in their childbearing years and pregnant women.

Pearce, a senior author of the study presented at **ENDO**, tells *Endocrine News* that pregnant women are uniquely vulnerable to the effects of thyroidal endocrine disruption because thyroid dysfunction during pregnancy has been linked to adverse obstetric outcomes, and because suboptimal maternal thyroid function in pregnancy may adversely affect fetal brain development. "Therefore, we opted to focus on studying trends in thyroidal EDC exposures in pregnant women and women of reproductive age," she says.

Here, we'll take a look at how, as the researchers point out, exposure to thyroidal EDCs is ubiquitous and may adversely affect brain development as well as increasing risks for thyroid dysfunction and thyroid cancer. What's



more, Pearce says, "Exposure to these EDCs has the potential to exacerbate health disparities."

#### **Two Decades of Data**

For this study, Cheng Han, MD, of the Boston University Chobanian & Avedisian School of Medicine analyzed data from the U.S. National Health and Nutrition Survey (NHANES) from 1999 to 2020 for 25,320 reproductive-age women and 2,525 pregnant women. He assessed trends over the past two decades in levels of multiple thyroid-disrupting



66 Our research underscores the importance of addressing socioeconomic disparities in EDC exposure among women of reproductive age and pregnant women to mitigate potential adverse effects on thyroid health. In addition to counseling patients, endocrinologists have important roles to play as scientists improving our understanding of EDC effects, and as powerful advocates for regulation."

- ELIZABETH PEARCE, MD, MSC, BOSTON UNIVERSITY CHOBANIAN & AVEDISIAN SCHOOL OF MEDICINE, BOSTON, MASS.

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However, for most of
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- ELIZABETH PEARCE, MD, MSC, BOSTON UNIVERSITY CHOBANIAN & AVEDISIAN SCHOOL OF MEDICINE, BOSTON, MASS. chemicals in blood and urine samples. Statistical tests helped him to evaluate changes in EDC exposure over time and to identify the effect of socioeconomic status on this exposure.

Han is a visiting scholar from China who spent the past two years with Pearce studying the problem of thyroidal EDCs. Han and Pearce looked at the effects of dioxin exposures on the thyroid gland using the NHANES database, which led to their interest in better understanding changes in exposures to thyroidal EDCs over time.

Han found that exposure to many of the EDCs decreased for both groups of women over the 20-year study period. However, exposure to some thyroid-disrupting chemicals increased. Both reproductive-age women and pregnant women had increased exposure to two types of polyaromatic hydrocarbons over time.

Han says that low-income women who were pregnant or of reproductive age had the greatest increase in exposure to thyroiddisrupting chemicals, especially polyaromatic hydrocarbons. "This increased exposure has the potential to worsen disparities in health outcomes among low-income people," he says.

"The shifts in exposures to these thyroidal EDCs in pregnant women and women of reproductive age in U.S. were variable, with most decreasing over time but exposure to some (two polyaromatic hydrocarbons and one personal care product chemical) actually increasing," Pearce says. "Differences by socioeconomic status were variable. However, for most of the thyroidal EDCs, exposures were higher in those with lower socioeconomic status, which has the potential to exacerbate health disparities."

#### **Naturally Occurring Toxins**

Exposure can happen just from stepping out of the front door. Polycyclic aromatic hydrocarbons occur naturally in coal, crude oil, and gasoline. Exposure can occur from breathing air contaminated with motor vehicle exhaust, cigarette smoke, wood smoke, or fumes from asphalt roads. People can also ingest polycyclic aromatic hydrocarbons (PAHs) particles in grilled or charred meats or foods.

And it's not just from these polycyclic aromatic hydrocarbons: Some EDCs (for example, pesticides and isoflavones) inhibit thyroid hormone synthesis through inhibition of thyroperoxidase activity, Pearce says. Others (perchlorate, thiocyanate, and PFAS) inhibit the activity of the sodium iodide transporter (NIS), which will impair thyroid hormone synthesis by reducing iodine uptake into the thyroid. Polychlorinated biphenyls (PCBs), triclosan, bisphenol A, polybrominated diphenyl ethers (PBDEs), and PFAS have chemical structures with a similarity to thyroid hormone and can bind to and either activate or inactivate thyroid hormone receptors, Pearce continues. Pesticides, dioxins, and PBDEs decrease the half-life of circulating thyroid hormone by enhancing thyroid hormone metabolism in the liver. EDCs may also alter binding of thyroid hormone into cells, and alter the activity of deiodinases.

"Finally, exposure to some EDCs has been linked to thyroid cancer risk," Pearce says.

#### **Threat Mitigation**

So, what can be done? Avoiding EDCs altogether is impossible, but Pearce says that avoiding the use of plastic containers, bottles, and packaging and consuming fresh and organic food can help. She also points to the Endocrine Society website as an excellent resource for patients because it includes recommendations to thoroughly wash fruits and vegetables before consumption, avoid microwaving plastic food containers, replace older nonstick pans with newer ceramic-coated ones, avoid personal care products containing phthalates and fragrances, minimize handling of receipts printed on thermal paper, and clean floors and remove household dust regularly.

"Optimizing iodine nutrition may also help mitigate the effects of some thyroidal EDCs (particularly those that are inhibitors of NIS)," Pearce says. "It is currently recommended that individuals planning pregnancy or those who are pregnant or breastfeeding should take a daily supplement containing 150  $\mu$ g of iodine."

Beyond that, Pearce says that she hopes as awareness grows about the dangers of EDCs, government regulation and consumer backlash may incentivize industry to phase out EDCs in favor of safer alternatives.

#### **EDC Discussions**

Pearce — a deputy editor of *The Journal of Clinical Endocrinology & Metabolism* and member of the Annual Program Steering Committee, and daughter of Catherine Niewoehner Galbraith, MD, an emeritus professor of medicine at the University of Minnesota — credits the Society for the opportunity to meet friends and colleagues. For Pearce, **ENDO** is an annual opportunity not just for great science but for some mother/daughter bonding time. "There is definitely a genetic component to my interest in endocrinology," she says.

And just as the patient brought in test results to open up a discussion about EDCs, Pearce did the same at **ENDO** in Boston last June. "Our research underscores the importance of addressing socioeconomic disparities in EDC exposure among women of reproductive age and pregnant women to mitigate potential adverse effects on thyroid health," she says. "In addition to counseling patients, endocrinologists have important roles to play as scientists improving our understanding of EDC effects, and as powerful advocates for regulation."

– BAGLEY IS THE SENIOR EDITOR OF *ENDOCRINE NEWS*. HE WROTE THE DECEMBER 2024 COVER STORY ABOUT STEVEN KLIEWER, PHD, AND DAVID MANGELSDORF, PHD, THE 2025 RECIPIENTS OF THE ENDOCRINE SOCIETY'S EDWIN B.

ASTWOOD AWARD FOR OUTSTANDING RESEARCH IN BASIC SCIENCE.

#### AT A GLANCE

- A recent study presented at ENDO found that lower socioeconomic status increases the risk of exposure to thyroiddisrupting chemicals in pregnant women and women of childbearing age.
- Avoiding exposure to EDCs is all but impossible, but there are steps people can take to mitigate exposure, and exposure should lessen as awareness around EDCs grows.
- Government regulation and public backlash could see industry seeking safer alternatives to EDCs.

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From Medical School to Healthcare Innovation Medical students Diya Mathur, Frida Velcani, and Shivesh Shah took community service to the next level when they developed a program in rural New Hampshire to combine healthcare screening with patient education for immigrant communities. They tell *Endocrine News* about this potentially life-changing initiative as well as their thoughts on mentorship, endocrinology, and their future plans.

n the United States, diabetes affects more than 38 million people — roughly 11.6% of the population. While this disease touches all communities, its impact is particularly worrisome in rural and migrant populations, where healthcare access, education, and resources can be limited.

In New Hampshire's Upper Val region, three students are workin to improve this situation, having developed a program that combines healthcare screening and education. In medicine, some of the most innovative solutions come from those who see healthcare challenges with fresh eyes. At Dartmouth's Geisel School of Medicine in Hanove N.H., these students are proving 1 premise, developing creative approx to healthcare delivery while still in their formative medical training years.



The students heralded healthier foods as part of their outreach program to educate the underserved migrant communities.

perspective — from research and clinical experience to personal connections," Shah says.

Shah, in fact, grew up watching each of his grandparents manage their diabetes and spent several months in India conducting research focused on developing lowcost, affordable glucometers to serve underserved populations. Similarly, Velcani spent two years working at the diaTribe Foundation, a diabetes nonprofit, where she raised awareness and empowered those with diabetes through educational initiatives. The trio was fascinated by the impact of diabetes on so many organ systems, causing everything from retinopathy to foot ulcers. They became good friends on starting medical school, and "everything snowballed from there," Shah says.

# Transforming Diabetes Care in Rural Communities

Medical students Diya Mathur, Frida Velcani, and Shivesh Shah view community outreach as an essential component of medical education. In their second year of medical school in 2022, they recognized a critical gap in healthcare access for migrant populations in the Upper Valley. Motivated to address this disparity, they initiated efforts to help make a difference. In this population, the prevalence of prediabetes was their primary concern. "Initially, the three of us (along with other medical students) came to Dartmouth with a shared interest in diabetes, each bringing a unique

Opposite: At one of the events, the team taught area migrant workers how to measure blood glucose levels using glucometers, which was funded by a Geisel School of Medicine CSL grant. So, they put their heads together and proposed a screening and education project to Dartmouth's Health Equity Scholar's program that would address the gaps they had identified. This project was part of Geisel's Making a Difference (MAD) curriculum. "The MAD curriculum gave us the opportunity to collaborate with our professors to build ideas from the ground up...working directly with our community and providers at Dartmouth Hitchcock Medical Center (DHMC) and California Pacific Medical Center (CPMC) helped us create a strong platform for meaningful impact," Shah says. "A lot of us also had an interest in diabetes and endocrinology going into this project and saw that there was a substantial need in an area we were really passionate about."

The autonomy to develop and implement projects of this nature is partly due to Dartmouth's rural location. "Attending



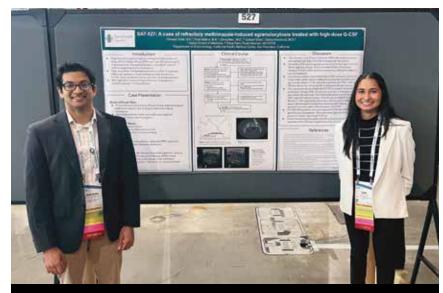
Frida Velcani

## 66

Dietary education was the most important, so we looked at which foods are available and helped design meals with a low glycemic index. We also talked about exercise and encouraged community members to be as active as possible, even if just by taking daily walks.



 FRIDA VELCANI, MEDICAL STUDENT, GEISEL SCHOOL OF MEDICINE, DARTMOUTH UNIVERSITY, HANOVER, N.H.



During **ENDO 2024** in Boston last June, Shivesh (left) and Mathur presented a poster highlighting a case study about a patient with Graves' disease treated with high-dose anti-thyroid drugs.

Geisel provides us with the unique opportunity to address the needs of underserved populations, and these structural programs really empower us to create meaningful change," says Velcani.

With the \$4,000 grant they were awarded, they put their two-pronged plan in motion.

To achieve their aim of diabetes education, they gathered both existing resources available from the endocrinology department at Dartmouth and designed their own pamphlets and flyers. Velcani said they needed to determine what type of information was important for the audience as well as their existing knowledge base and go from there. "Dietary education was the most important," she explains, "so we looked at which foods are available and helped design meals with a low glycemic index. We also talked about exercise and encouraged community members to be as active as possible, even if just by taking daily walks."

Mathur adds, "another component of this educational aspect was that we also started partnering with local organizations, like the Good Neighbor Health Clinic and food pantries such as the Haven. We created business card-like resources we could hand out so that people would know what's available." They also took note of the ingredients available at local food pantries to create dietary plans and recipes tailored to those items, while collaborating with food shelters to prepare healthy meals.

#### **Community Outreach**

Before they could provide any education to those who might need it, however, they had to know how and where to find their audience. "We talked to providers at Dartmouth Hitchcock Medical Center to establish a baseline understanding of where their patients lived and their specific living circumstances," Shah says. "But many members of migrant communities weren't typically seen at Dartmouth, so we visited those communities and talked to them directly. From this, we gained valuable insights into their level of diabetes education — what they knew and what they didn't."

## **ENDO 2024 Impressions**

As for Mathur and Shah, the diabetes-related programs are not the only initiatives they have undertaken together. They recently collaborated on

a research project centered around the treatment of patients with Graves' disease with methimazole, a medication that can lead to a host of complications. In the hopes of presenting these findings at **ENDO 2024** and as members of the Endocrine Society, they entered a CoDI (the Society's Committee on Diversity, Equity, and Inclusion) video contest.

To win the contest (and the chance to present), they rhapsodized about what drew them to endocrinology. "Endocrinology in general is very complex," Shah says. "Cases are like complex puzzles with lots of moving pieces and so many intricate pathways. This makes each case unique, which I

think has driven a lot of our interest in endocrinology." Mathur says they learned about endocrinology toward the end of their preclinical curriculum, which was good timing. "It was one of my favorite courses because it brought together many different pieces we had learned about throughout the year," Diya recalls. "It's fascinating how one hormone can affect many different pathways, and any imbalance can lead to a whole host of symptoms," she says. "Also, if you can get your patients on the right treatment, there can be very satisfying outcomes."

As for their experience at **ENDO 2024**, both were truly wowed. Mathur said she was especially grateful

to be there with a colleague; otherwise, the choice of which lecture to attend or which booth to visit may have been overwhelming. "As students, getting to learn



about innovations in the field of endocrinology is really exciting," she adds. The conference allowed them to connect their classroom learning with cutting-edge research and real-world applications. Shah sums it up this way: "There is so much to do and so much to see, and we had the freedom to go to the talks and lectures

that interested us. We planned out which ones we wanted to attend and then had the opportunity to talk to presenters afterwards. We could see what we've been learning about in the books firsthand."

#### LOCAL RESOURCE

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An example of the pamphlet the team created to inform the local migrant community about the food and health resources available to them.

To facilitate these in-community conversations, Mathur explains that they had the help of a liaison who had already built trust among the various communities. They also made sure they had team members who were proficient in Spanish, the primary language of much of the area migrant population. "It was exciting to see people with different interests band together like this," she says. "One of our team members was really interested in nutrition, and Velcani was interested in medical Spanish. So, as a group, we'd introduce ourselves and share what our goals were. Then, anyone who wished to learn more was welcome to do so."

When people did express interest in learning more, sometimes the team visited them in their homes, which afforded them even better opportunities to educate.



Shivesh Shah

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We had an incredible amount of support from faculty across numerous states. Without their support, we wouldn't have been able to make the impact that we did. Any amount of support you can give medical students — especially those who are really passionate can go a long way. It meant so much to us.

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- SHIVESH SHAH, MD CANDIDATE, GEISEL SCHOOL OF MEDICINE, DARTMOUTH UNIVERSITY, HANOVER, N.H. Mathur says they often even talked through nutrition labels on packaged foods. "That educational piece was helpful because a lot of people really care about their health and appreciated learning, for example, 'this is healthier than that.' Getting to talk through these decisions was powerful," she says.

Regarding the second prong of their project, screening, the real prevalence of prediabetes and diabetes among the communities they sought to reach was not easy to determine, given the nonclinical settings where they were conducting their outreach. With some of their grant funding, they purchased glucometers to record blood glucose values. This was because blood glucose is often less accurate of an indicator of overall health compared to HbA1c levels, which reflect average blood sugar over the course of a few months but can only be measured in clinical settings. Although many did have mildly elevated blood glucose, Shah says that could also be due to having just eaten a meal rather than a consistently prolonged elevation. "Diet is likely the biggest factor, and many times, the most accessible meals aren't necessarily the healthiest. They tend to be very high in carbohydrates, leading to have high blood sugar levels," he says.

#### **Evolution and Innovation**

Their thoughtful, respectful approach has been effective, and, as its success has grown, so has the team. In fact, they are passing the project down to the class below them, for a variety of reasons. One reason is to be able to obtain tangible results. "A number we're working to obtain is how many people we've been able to screen as well as blood glucose levels before and after education ... but there are a lot of moving parts and a lot of confounding variables that make this difficult," Velcani says. So, they are content to let this project become longitudinal. "We're aiming to make an impact through education for now, but, down the road, we'd definitely like to gather more quantitative metrics on the impact our project has made," Mathur says.

Another reason they are passing the baton is that both are currently taking a year off medical school to pursue additional training. Mathur and Velcani are both pursuing an MD-MBA degree at the Tuck School of Business, while Shah conducts ophthalmology research at Massachusetts Eye and Ear (of Harvard Medical School Department of Ophthalmology), specializing in diabetic retinopathy. In fact, this trio is also working on a primary care screening program at the Good Neighbor Health Clinic already mentioned. They aim to facilitate retinopathy screening and prevent the progression of undiagnosed diabetic retinopathy.

#### **Power of Mentorship**

These students credit mentorship for getting them to where they are today — with regards to both their Endocrine Society membership and their success in medical school. Faculty members at Dartmouth and elsewhere encouraged them to join the Society to provide them with plenty of career opportunities. As part of their clinical rotations, they worked at California Pacific Medical Center in San Francisco, where mentors there also touted membership usefulness.



Pictured (I to r) at one of the team's community outreach and education events are: Diya Mathur, Frida Velcani, Phuong Pham, Natalie Chen, Jamie Park, Vincent Busque, and Shivesh Shah.

When asked for a message for working endocrinologists, the two shared: "We had an incredible amount of support from faculty across numerous states. Without their support, we wouldn't have been able to make the impact that we did. Any amount of support you can give medical students — especially those who are really passionate can go a long way. It meant so much to us," Shah says. "I echo that," Mathur says. "Much of our project evolved along the way. We received a great deal of feedback from people in the community, from the free clinic and from our mentors, and we have slowly been able to create a better and more impactful project than what we had started with. A large reason we were able to visit communities and make any sort of impact is because of the partnerships with so many incredible community leaders. It has also been incredibly gratifying to have let our curiosity lead us to this point, thanks to all of the support."

#### **Future Directions**

As for what's next for these firebrands, Mathur and Velcani graduate business school in 2026 and then plan to apply for residency in anesthesia and ophthalmology, respectively. "In the way endocrinology intrigued me with how all the different organ systems act together to make a patient feel a certain way, I've found similar roots of that intricacy in anesthesia, with how each drug affects many organ systems," Mathur says. For Shah, an ophthalmology residency is also in the offing. Inspired by his current research in diabetic retinopathy, he says, "ultimately I want to pursue a career that lets me treat patients with diabetes because that's something I've been passionate about for a long time." You could say he's maintaining his connection to diabetes care through a different lens.

Although their career paths are branching, each credits the field of endocrinology as the springboard of their successes and future hopes.

#### EARLY-CAREER CORNER



**Diya Mathur** 



Much of our project evolved along the way. We received a great deal of feedback from people in the community, from the free clinic, and from our mentors, and we have slowly been able to create a better and more impactful project than what we had started with. A large reason we were able to visit communities and make any sort of impact is because of the partnerships with so many incredible community leaders



 DIYA MATHUR, MD-MBA STUDENT, GEISEL SCHOOL OF MEDICINE, DARTMOUTH UNIVERSITY, HANOVER, N.H.

- HORVATH IS A FREELANCE WRITER BASED IN BALTIMORE, MD. SHE TOOK ON THE ANNUAL HERCULEAN TASK OF COMPILING THE EUREKA! FEATURE IN THE DECEMBER ISSUE ONCE AGAIN.

# MENTORING Without Borders

Q&A with Ellen Seely, MD The Endocrine Society's 2025 Outstanding Mentor Laureate Award recipient Ellen Seely, MD, mentors both early-career endocrinologists as well as peers both in the U.S. and abroad. She discusses this unique arrangement as well as the excitement she feels when previous mentees become her research colleagues.

**BY GLENDA FAUNTLEROY SHAW** 



or Ellen Seely, MD, mentoring is a rewarding, reciprocal relationship in which both the mentor and mentee benefit from the experience. This ideal rings true as

Ellen Seely, MD

she shares her pride at watching young mentees of her past blossom into accomplished research colleagues.

Seely has been honored with the Endocrine Society's 2025 Outstanding Mentor Laureate Award for her significant positive impact on mentees' education and career. As the director of the Clinical Research, Endocrinology, Diabetes, and Hypertension Division in the Department of Medicine at Boston's Brigham and Women's Hospital since 1987, Seely is world renowned for her studies of the impact of hypertensive disorders of pregnancy and gestational diabetes on the future health of women. Along the way, 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 for mentees in the U.S. and around the world.

*Endocrine News* asked Seely more about what drives her dedication to mentoring the next generation of endocrine scientists.

# **Endocrine News:** What did hearing the news of the recognition for Outstanding Mentor mean to you?

**Ellen Seely:** Mentoring has been one of the most important efforts of my career, so being recognized for it by my Society is the most meaningful recognition I could receive.

### **EN:** What motivates you to offer your time and wisdom to peers and students?

**66** As my research crosses several disciplines, I recognized early on in my career that I needed to create a mentoring network as opposed to working with a single mentor. **As a result, I had different mentors for different aspects of my career, and many were not endocrinologists.**"

— ELLEN SEELY, MD, DIRECTOR, CLINICAL RESEARCH, ENDOCRINOLOGY, DIABETES, AND HYPERTENSION DIVISION, DEPARTMENT OF MEDICINE, BRIGHAM AND WOMEN'S HOSPITAL, BOSTON, MASS.



Seely (front row, left) is shown with a few members of her peer mentor group (left to right): Back row, Susan Mandel, Ghada El-Hajj Fuleihan, Terry Maratos-Flier, Allison Goldfine, Cynthia Stuenkel. Front row: Ellen Seely and Carolyn Becker **Seely:** I find mentoring very rewarding. It's wonderful to work with individuals early in their careers and play a role in launching them. It's very special when my mentees then become my partners in research. In a good mentoring relationship, I believe there should be mutual benefit. I learn so much from the questions my mentees ask, and they are important members of the team that helps move the research forward.

### **EN:** I imagine the mentoring support needs of your peers and students are quite different.

**Seely:** My mentoring philosophy consists of three main tenets: 1. We need mentoring at all stages of our careers; 2. Those who mentor can learn how to mentor more effectively and efficiently; and 3. It's never too early to start mentoring. As a result, the learning experience I provide is actually similar at different career stages though the emphasis may differ.

*EN*: What impact did mentors have on your early career? Or, who made the biggest impression when you were beginning your career?



Ellen Seely with former mentees, now collaborators, Choe Zera (Maternal-Fetal Medicine) (left) and Jacinda Nicklas (Primary and Obesity Care) (right)

Every year at **ENDO**, Women in Endocrinology has a series of sessions where members from around the world get the chance to re-connect in one place to discuss trends in treatment and science, teaching and management, and so much more and has enabled peer-mentoring as well as lifelong friendships. Pictured is the meeting at **ENDO 2024** in Boston, Mass., last June.



**Seely:** My research has been on the sequela of cardiometabolic complications of pregnancy primarily preeclampsia and gestational diabetes and how they predict future CVD and diabetes. As my research crosses several disciplines, I recognized early on in my career that I needed to create a mentoring network as opposed to working with a single mentor. As a result, I had different mentors for different aspects of my career, and many were not endocrinologists. I cannot name them all, but here are a few. At the start, there was Gordon H. Williams, MD, at Brigham and Women's Hospital (BWH). Dr. Williams is an endocrinologist whose work focuses on mechanisms of hypertension and who was division director during my fellowship. He taught me about the field of hypertension as well as how to present abstracts and write grants and manuscripts. There was also Marshall Lindheimer, MD, from the University of Chicago, who is a nephrologist with a focus on preeclampsia and who introduced me to opportunities in the field such as relevant meetings and travel awards. Also, there was Eugene Braunwald, MD, a BWH cardiologist and chief of Medicine who gave me important overall career direction advice.

Later on, Janet Hall, MD, was a career mentor encouraging me to come to the annual **ENDO** meeting, which I had stopped attending since the research presented did not have much coverage relevant to my research area. She invited me to become a member of the Research Affairs Committee of which I eventually became co-chair. This re-exposure to the Endocrine Society led it to becoming a home organization to me.

In addition, organically, a group of women who trained in endocrinology around the time I did, were getting together for lunch yearly at the annual **ENDO** meeting. We recognized that we had formed, in addition to long lasting friendships, a peer-mentoring group. My experiences have informed my approach to teaching mentoring to mentors as well as mentees — the workshops I have developed and run stress the importance of creating and maintaining mentoring networks that evolve over time.

#### **EN:** You're recognized as offering an approach to mentoring "without borders" and mentor persons outside of the U.S. Do these relationships begin in the U.S. and continue

In a good mentoring relationship, I believe there should be mutual benefit. I learn so much from the questions my mentees ask, and they are important members of the team that helps move the research forward."

— ELLEN SEELY, MD, DIRECTOR, CLINICAL RESEARCH, ENDOCRINOLOGY, DIABETES, AND HYPERTENSION DIVISION, DEPARTMENT OF MEDICINE, BRIGHAM AND WOMEN'S HOSPITAL, BOSTON, MASS.

#### if a colleague relocates, or do you advise mentees who you've never met in person?

**Seely:** My mentoring across borders occurs primarily through the mentoring programs I have created and have been invited to run at mentoring workshops throughout the U.S. and in other countries. I have run such workshops for both mentors and mentees in Canada, Portugal, and Lebanon.

In addition, I have had individual international mentees. I'll give you just one example of how international mentoring has worked for me. I met João Sérgio Neves, MD, PhD, in 2015 when I was running a mentoring program in Porto, Portugal, where I gave him feedback on his research on gestational diabetes. We later reconnected at **ENDO 2017** in Orlando and **ENDO 2018** in Chicago. Then, when he came to Boston in 2019 for a three-month research internship at BWH, he joined my lab group, took on a project, and coauthored a paper with my research group. We met again at **ENDO 2024** in Boston, and we will continue to meet and collaborate now as colleagues.

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

# The In-Basket:

# A Friend ?

Endocrine Society member **Michael Morkos**, **MD**, shares his recommendations for best practices in dealing with the often-daunting task of the email inbox. His pointers for accommodating a practice's patient portal could help any physician manage his or her practice more efficiently.

BY MICHAEL MORKOS, MD, MS, MHI, ECNU

"The most effective way to do it is to do it." *– Amelia Earhart* 

The in-basket (inbox) is a primary concern in the outpatient world. From many perspectives, it is the equivalent of the pager for the inpatient physicians. Many patients may have problems between visits, and many gained electronic access after the Health Information Technology for Economic and Clinical Health (HITECH) Act mandated that electronic health record systems include electronic patient portals. The more patients you see, the more these communications will increase, which can become overwhelming. Let's discuss some strategies for managing it.

#### Is It a Burden?

It depends on how you approach it. First, when I look at a busy in-basket (inbox), I often think of the blessings: a busy clinic and many patients to care for. I'm not underestimating the burden but highlighting another perspective, we shouldn't forget before we dive in to tackle it.

It is not uncommon for patients to send long messages, request labs or scripts between visits, or miss visits and request the work be done anyway. In a busy practice, this can be a lot to tend to between patients. In addition, there is usually time pressure, and many patients will request prompt follow-up.

#### Messages

The portal messages are a safe place for patients to share their concerns. There are Current Procedural Terminology (CPT) charge codes for portal messages, but these charges may discourage the patients from sharing their concerns. If they know they will pay for such messages, they may hesitate to send their problems, which can delay their care and decrease revenue. You may be surprised, but I find these messages a great opportunity to care for these patients during a scheduled visit. They fill the empty slots and go to the waitlist to make for unanticipated cancelations.

I'm grateful to have licensed practical nurses (LPNs) filter these messages in my practice. They know how I categorize and triage them, which is critical for maintaining sanity in a busy practice.



Michael Morkos, MD, MS, MHI, ECNU

**66** To make your life easier and more streamlined, I suggest establishing your practice around pre-ordering labs before the visits. **The goal is for patients to get their labs done a few days before the visit so they can be ready for discussion during the appointment.**"

- MICHAEL MORKOS, MD, MS, MHI, ECNU



I suggest having three broad categories for classifying these messages:

**1. Simple questions.** The triaging nurse can review the physician's last note and answer accordingly. They don't need to message about them.

**2. Long messages or patients** with several concerns. They should reach out to these patients and recommend arranging a sooner visit. This approach will provide these patients with the best service, address all their issues during that visit, and avoid overwhelming the physician with the

task of spending 10 to 20 minutes reviewing all the details and responding with a lengthy reply. The most common comment I get from most physicians is the lack of availability in months. (Please read the last section of this article to find a quick and easy-to-implement mitigation.)

**3. Brief concerns requiring the physician's advice.** If the triaging nurse is unsure how to respond, these messages should be forwarded to the physician.

It is very important to be transparent with patients about these regulations. If a patient previously sent long messages, the physician should respectfully inform them during their visit that they cannot respond to these lengthy messages. Patients should keep their concerns for the upcoming visit or arrange an earlier appointment if needed. I also set expectations in my practice: I don't review glucose logs or manage labs between visits. I understand my limitations and what I can and cannot manage.

#### **Preordering Lab Tests**

To make your life easier and more streamlined, I suggest establishing your practice around preordering labs before the visits. The goal is for patients to get their labs done a few days before the visit so they can be ready for discussion during the appointment. The patients will maximize the benefit from the visit, as you can ask all the relevant questions based on the recent labs, explain them, and have a detailed, agreed-upon plan before they leave.

On the contrary, if you order the labs for the patients to get after leaving the visit, you'll have to review them afterward. You may often have more questions and a modified plan to convey. Will you call the patient? Or ask your medical assistant (MA) or nurse to contact them? Will

they get back to you for additional data or questions? And the cycle keeps getting longer. I wouldn't say I like that and will strive to avoid it.

I usually order the labs for the following visit during the current visit and set the time frame for these labs around the planned next visit. This ensures that mine will be excluded if the patient goes for another physician's labs at a different time interval. I'll also clearly write in the patient instructions section to get the labs done before the upcoming visit, along with the relevant instructions for these labs.

For patients who miss these instructions, I will set the expectation that I will inform them about the results via a portal message or a mailed letter, along with the expected time frame for both. Additionally, if there are significant issues, I may need to see them sooner for further discussion. Nurses are a valuable asset, and their time is expensive. Therefore, calling patients with routine results is not the best use of their time.

#### **Prescriptions and Refills**

We should save precious time on issues well-trained nurses or MAs can handle. The homework is to have a clear and comprehensive plan for medication refills and substitutions. This will give your staff the autonomy to do them automatically and clear your inbox of all the refills except for the controlled substances, which is reasonable.

Where I practice, I'm lucky to have an excellent service line leader who worked this list of substitutions, and all the faculty will sign off on them annually. If an insulin brand is not covered, all the approved alternatives are available for the staff, and they'll check what's covered and send the comparable formulation. The same goes for prior authorizations, where they'll run them in the background and fill out the forms, and I'll only sign whenever needed. This excellent setup ensures that our valuable time will be dedicated to where the medical expertise is needed.

Another important thing to consider is how many refills to give. Every practice is different. A reasonable rule may be to provide an annual supply for compliant patients but restrict it to those who are not.

#### **Availability**

It is crucial to maintain open slots for patients with urgent needs. They include those sending portal messages, calling with concerns, post-hospital follow-ups, or clinic patients you want to see sooner rather than later. One suggestion is to freeze 10% of your slots, which can thaw automatically in one or two weeks before these dates.

Schedulers shouldn't fill these slots routinely as they are reserved for urgent patients. If not filled, they would be automatically available for routine appointments or patients on the waitlist, which is another advantage. It's optimal if your regular patients can find upcoming visits with you as frequently as they might need.

#### **Overwhelming Inbox**

Life gets in the way sometimes, and the inbox can become overwhelming and extremely busy. It is not uncommon for it to be flooded with requests after long weekends, off days, and annual vacations, necessitating hours of work.

As clinicians, we should strive to ensure this remains an exception rather than the norm. By implementing the strategies mentioned above, I hope your flooded inbox will gradually improve and become manageable.

Morkos is codirector 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.

## Endocrine Society Begins 2025 with Policy Wins

The Endocrine Society represents the interests of its members to policymakers in the U.S. and around the world. Most of our interactions with policymakers are educational in nature — informing them about what kinds of research our members work on, how research dollars are used, how to increase access to care, how our physician members are reimbursed, etc., so that when they need to vote on legislation, they are better informed. Occasionally, the Society urges policymakers to support or oppose specific legislation. Last year was a busy year. Below is a recap of our biggest policy wins of the past year:

The \$35 insulin copay cap in Medicare, went into effect on January 1, 2024. Because of our leadership advocating for the cap, the Endocrine Society was the only diabetes organization invited to participate at a White House event commemorating the two-year anniversary of the passage of the legislation.

The Endocrine Society successfully advocated to extend the Special Diabetes Program (SDP), which provides funding for type 1 diabetes research at the National Institute of Diabetes, Digestive, and Kidney Diseases and funding for



prevention and type 2 diabetes treatment for Alaska Natives/ American Indians through the Indian Health Service until December 31, 2024, with the first funding increase for SDP in 20 years. Earlier this year, the Society conducted a Hill Day to advocate for SDP and met with dozens of congressional offices. We also conducted an online advocacy campaign that resulted in approximately 2,000 messages to Capitol Hill. As this issue of *Endocrine News* goes to press, we expect that because of our advocacy this year Congress will extend SDP for more than one year with an increase.

 The Endocrine Society continued its efforts to educate members of Congress about obesity.



We released an updated version of our "Obesity Playbook," an educational resource for policymakers and their staffs. We also continued to advocate for coverage of anti-obesity medications. As a result, the Biden administration issued a proposed rule reinterpreting these medications are used

for a chronic disease and not weight loss, which is prohibited by statute, and therefore should be covered.

The Endocrine Society advocated for the extension of **telehealth** flexibilities started during the COVID-19 pandemic that increased access to telehealth services and provide reimbursement to physicians. As this issue of *Endocrine News* went to press, it appears because of our advocacy that Congress will extend



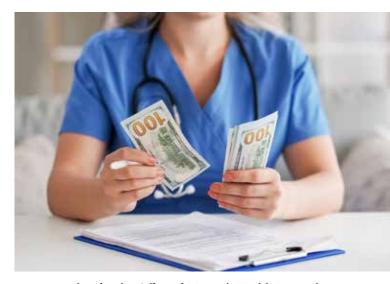
telehealth flexibilities for potentially two more years while we continue to advocate to make these provisions permanent.

The Endocrine Society continued to advocate for increased Medicare physician payment. Last January, a new complex add-on code (G221) went into effect, which increased payments to endocrinologists. The Society advocated for this, and following its implementation, we conducted an educational webinar for our members so they would know how to use it properly. Also in January, we succeeded in urging Congress to pass legislation to mitigate a scheduled 3.37% cut to Medicare physician payment in 2024. As this issue of *Endocrine News* went to press, the Endocrine Society was urging Congress to avert the planned physician payment cut for 2025.

The Endocrine Society successfully advocated for the Federal Trade Commission to ban non-compete clauses for physicians at for-profit institutions.

The Endocrine Society continued to participate in the AMA House of Delegates, which sets policy for the AMA and its member organizations. In 2024, we co-authored two resolutions that passed: One opposes legislation, ballot measures, and court rulings that would restrict access to invitro fertilization treatment; the second urges the AMA to advocate for education regarding the health and hazards of PFAS chemicals. The Society was also invited to participate in an AMA task force that is looking at ways to protect the physician-patient relationship.

The Endocrine Society worked on the White House Women's Health Initiative to advance women's health research. We contributed recommendations to the National Academies of Science, Engineering, and Medicine. We also contributed recommendations successfully included in the



strategic plan for the Office of Women's Health Research at the National Institutes of Health concerning the role of the environment in women's health and the importance of considering women's health throughout the life course.

► The Endocrine Society engaged in several global activities to influence regulation of **endocrine-disrupting chemicals (EDCs)**. We influenced the development of a United Nations global treaty on plastics pollution to include impacts on health. In partnership with the Women's Major Group, we influenced the United Nations Environment Assembly to emphasize how EDCs impact women's health. The Society successfully advocated for the European Commission to ban BPA and PFAS in food contact materials and in toys. We also helped influence the Environmental Protection Agency to limit the amount of several PFAS in drinking water and to provide financial support to test and treat for PFAS contamination.

The Endocrine Society recommended 95 of our members to the NIH Center for Scientific Review for consideration as reviewers for endocrine-related study sections.

For up-to-date information on our advocacy work and to learn how you can participate, please visit **endocrine.org/advocacy** or contact us at: **advocacy@endocrine.org**.

## END: 2025 JULY 12-15, 2025 SAN FRANCISCO, CA



## **ENDO MEMBER REGISTRATION OPENS** WEDNESDAY, FEBRUARY 19, 2025

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