THE LEADING MAGAZINE FOR O ENDOCRINOLOGISTS DOCOLOGISTS DOCOLOGISTS DESCRIPTION OF THE LEADING MAGAZINE FOR O ENDOCRINOLOGISTS

The **OV** of **Endocrinology**

Endocrine News Celebrates Asian American and Pacific Islander Heritage Month

SAVORING SERENDIPITY:

Joy Y. Wu, MD, PhD, discusses shattering both the glass and "bamboo" ceilings and how her career was made possible by her colleagues, mentors, and the Endocrine Society.

APPLAUDING OUR ASIAN AMERICAN MEMBERS: Endocrine

News speaks to an array of our U.S.based Asian members who discuss how their heritage has impacted their careers, notable career challenges and successes, the importance of the Endocrine Society's guidance and programs, and advice to the next generation of Asian American endocrinologists.



GOOD VIBRATIONS:

Could a new device be a solution for patients with osteopenia?

ENDO 2024 PREVIEW:

New Professional Development Workshops debut

COMPREHENSIVE CARE FOR PERSONS WITH DIABETES: A CERTIFICATE PROGRAM





Centered around 12 interactive, online modules available ondemand that cover the full span of diabetes care



Provides a certificate of course completion after passing comprehensive final exam



Built by experts from diverse backgrounds spanning endocrinology, nursing, and family medicine



Accredited for AMA PRA Category 1 Credits™, AOA Category 1-A CME credits, and ABIM MOC points

IMPROVED KNOWLEDGE. SUPERIOR CARE. FROM ENDOCRINOLOGISTS THAT KNOW BEST.

FOR MORE INFORMATION AND TO REGISTER, PLEASE VISIT ENDOCRINE.ORG/CCPD.

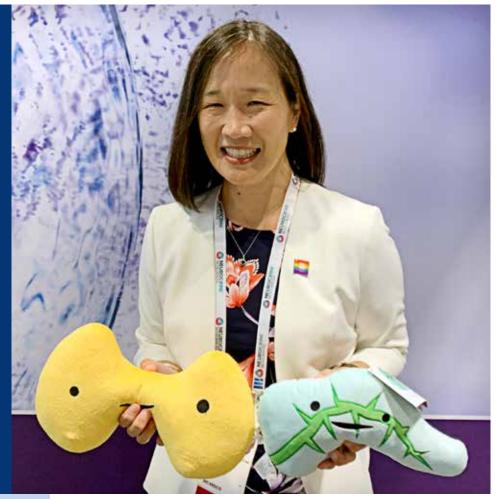




IN THIS ISSUE

22 | The Joy of Endocrinology Joy Y. Wu, MD, PhD, Breaks the Glass and Bamboo Ceilings.

As Endocrine News celebrates Asian American and Pacific Islander Heritage Month, we talk to Joy Y. Wu, MD, PhD, chief of the Division of Endocrinology at Stanford University about her personal and professional journey through the field of endocrinology as well as how her career path has been shaped by her mentors, colleagues, and especially the Endocrine Society. BY KELLY HORVATH





18 New Professional Development Workshops Debut at **ENDO 2024**

What do podcasts, grant writing, microaggressions, and retirement all have in common? They are all topics covered by new Professional Development Workshops at

ENDO 2024!

FEATURES

30 Applauding Our Asian American Members *Endocrine News* Celebrates Asian American and Pacific Islander Heritage Month

In honor of National Asian American and Pacific Islander Heritage Month, *Endocrine News* reached out to several of our U.S.-based Asian members to get their thoughts on their careers, accomplishments, goals, and even their challenges, as well as advice they have for any young Asian American endocrinologists just beginning their careers.

BY MARK A. NEWMAN

44 | Meet the Endocrine Society's 2024 Laureates

For more than 70 years, the Endocrine Society has recognized the achievements of endocrinologists worldwide. Take a look at this year's distinguished recipients who join the list of prestigious practitioners and researchers.

IN THIS ISSUE

MAY 2024





3 | PRESIDENT'S VIEWPOINT Looking Back on Another Remarkable Year of Progress

6 | FROM THE EDITOR

Saluting Our Asian American Endocrine Society Members!

8 I IN TOUCH

Ana Canton, MD, PhD, receives 2024 Bardin International Travel Award; Laurence Katznelson, MD, named vice dean, medical education at Cedars-Sinai; and Andrew Agbaje, MD, receives New Investigator Award in Childhood Obesity

14 | TRENDS & INSIGHTS

First clinical trial of vosoritide for children with hypochondroplasia shows increased growth; People with hypothyroidism and type D personality may be more likely to experience poor treatment outcomes; and Researchers explore role of androgens in shaping sex differences. **BY DEREK BAGLEY**

16 | ENDOCRINE ITINERARY

Scientific meetings of interest to endocrinologists from around the world

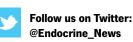
62 | PRACTICE RESOURCES GOOD VIBRATIONS A NEW FDA-APPROVED DEVICE COULD OFFER A SOLUTION FOR OSTEOPENIA TREATMENT.

In a first for the treatment of osteopenia, the Osteoboost – a wearable device that delivers precise vibrations to the spine and hips – promises to offer a new form of therapy for clinicians treating postmenopausal women dealing with a loss of bone density. **BY DEREK BAGLEY**

66 | ADVOCACY

Endocrine Society advocates for increased research funding in FY 2025 appropriations; Endocrine Society continues to educate policymakers about obesity; Endocrine Society launches initiatives to promote pathways to endocrinology; and Policymakers take steps to reduce exposure to PFAS consistent with Society recommendations.

www.endocrine.org







Looking Back on Another Remarkable Year of Progress

year seems to go by quickly in today's fast-paced world, but the Endocrine Society always manages to accomplish a huge amount in that trip around the sun! Even the recent total eclipse of said sun did not slow us down! As I reflect on my soon-toconclude presidential tenure, I'm amazed at the sheer number of initiatives and goals that we've completed over the past 12 months.

With advocacy wins, pushes to advance science, and efforts to strengthen our organization through education and enhancement of the endocrinology pipeline, each win reflects our mission to stay on the leading edge of endocrine care and research.

Advocating for Endocrinology

Advocacy has long been a Society pillar. We engage in many efforts that aim to improve health outcomes, from ensuring adequate funding of scientific research and developing best clinical practices, to promoting a healthy environment.

On this last point, we have had a prominent seat at the table in helping nations to craft a global plastics treaty that would protect the public from dangerous endocrine-disrupting chemicals (EDCs) found in plastics. Last May, Society member Marina Fernandez, PhD, spoke during the plenary of the United Nations Environment Programme Intergovernmental Negotiating



Without a doubt, the best part of my presidency this year has been interacting with our members. I have always said that I love endocrinology because endocrinologists are, quite frankly, just really nice and really smart people. And this year has definitely proven my assessment to be correct!



Committee on Plastic Pollution. And in February, Society members and staff traveled to Nairobi, Kenya, to present at the U.N. Environmental Assembly on the global threats from EDCs.

We also were successful in our lobbying efforts on several key issues affecting U.S. policy, including increased funding for the National Institutes of Health (NIH), and the reauthorization of the Special Diabetes Program (SDP).

Advancing Science

We have also been busy advancing scientific knowledge in the endocrine space.

In May 2023, the Society released a Scientific Statement that identified research gaps to reduce health disparities in pediatric and sexual and gender minoritized populations. And in June, we released a statement distinguishing aspects of aging that are normal, and sometimes overtreated, to true endocrine disease, such as menopausal symptoms and osteoporosis, that in fact, are treatable and deserve more attention.

Also gratifying was the July announcement that our *Journal* of the Endocrine Society (JES) received its first Impact Factor score in 2022, while the Society's other journals maintained high rankings on the prestigious measure of scholarly publishing. JES, which launched in 2017, is an open access journal providing rapid publication of clinical research, clinical practice information, and basic research in all areas of endocrinology.

Member Initiatives

Another key mission of the Society is to ensure the success of its current and future members. Over the past 12 months, we've taken various important steps in these efforts.

In April, we launched the Medical School Engagement Program (MSEP), an initiative that aims to introduce medical students and residents to the wonderful world of endocrinology. I am sure we would all agree that, once exposed to endocrinology, many will almost certainly be so excited that they will choose endocrinology as a career. That program is just now getting off the ground, but we have been warmly embraced by the medical school community.

In a similar vein, last year at ENDO 2023 we held our inaugural Endocrinology Mentoring Day (eMD) program. We're delighted to host an expanded version of this program again on Sunday, June 2 at ENDO 2024 in Boston, Mass. The goal of this program is to help students and residents understand that endocrinology offers an exciting and meaningful professional journey.

Moving to the next level, the Endocrine Society has redoubled its efforts to support and mentor those who have already chosen endocrinology as their profession.

In October, we launched a new Obesity Fellows program that gives healthcare practitioners the confidence, resources,

and experience needed to treat patients living with obesity. Thirty-five fellows from around the United States traveled to Washington, D.C., to meet and learn from top experts in obesity care and management. The study and treatment of obesity remains a priority for the Endocrine Society, and the aforementioned JES strives to be a major home for obesity research.

Last year, we saw another record number of applicants for our Excellence in Clinical Endocrinology Leadership (ExCEL) program, which offers comprehensive leadership training and mentorship to early-career physicians of communities underrecognized in medicine and science.

Similarly, we saw record numbers of applicants for our Future Leaders Advancing Research in Endocrinology (FLARE) program, which provides leadership development for basic science, clinical research trainees, and junior faculty from underrecognized minoritized communities. The same trend held true for our Research Experiences for Graduate and Medical Students (REGMS) program, for early-career scientists.

To address all of our members' various specialties, last fall we created a new Special Interest Group (SIG) focused on bone and mineral issues. The Bone and Mineral SIG joins our seven existing SIGs that are designed to foster connections and share knowledge online and in person.

Finally, for our tireless clinicians, the Endocrine Society Burnout Task Force has been hard at work all year and will report their findings to our Board at the **ENDO 2024** meeting.

These are all signs of a healthy Endocrine Society that is dedicated to supporting its members in every way possible.

Organizational Strength

While the Society is physically located in the United States, our organization draws roughly 35% of its membership from more than 120 countries on six continents. To better serve our international members, in 2022, we launched the Global Endocrine Leadership Coalition (GELC). The coalition's inperson meeting at **ENDO 2023** was attended by 50 leaders representing 22 international societies. GELC's current focus area is on the endocrinology workforce pipeline, an area in which countries around the world are facing challenges and

shortages. This year, the GELC is meeting again at ENDO 2024 on Monday, June 3.

We continue to look for opportunities to work together with our sibling societies around the world.

I'm proud to have played a part as your president in helping the Society move forward. But success takes a team effort.

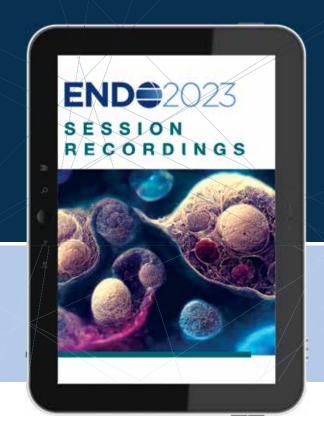
I am grateful for the wisdom and dedication of my fellow Executive Committee members, who have provided invaluable support and guidance to myself and the organization over the past year. I'd like to give a special thanks to my immediate predecessor, Ursula Kaiser, MD, for her mentorship and her work in ensuring the continuity and success of our Society.

Our success also stems from the many, many volunteer members who serve on Society committees, task forces, and working groups. These tireless individuals provide the brainpower and devote countless hours to driving forward our many initiatives. Without a doubt, the best part of my presidency this year has been interacting with our members. I have always said that I love endocrinology because endocrinologists are, quite frankly, just really nice and really smart people. And this year has definitely proven my assessment to be correct!

Finally, backing all of this activity is a fabulous Society team of talented, creative, and tireless staff members, led by the incomparable CEO Kate Fryer. We are lucky to have such an amazing and dedicated staff!

I look forward to working closely with the entire team along with our incoming president John Newell-Price, MD, PhD, FRCP, as well as the next president-elect, Carol Lange, PhD. Together, I'm confident that we will see even more accomplishments in the months and years ahead.

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



ENDO 2023 SESSION RECORDINGS

VIEW MORE THAN 150 SESSIONS AND EARN UP TO 110 CME CREDITS

PURCHASE TODAY



FROM THE EDITOR

Saluting Our Asian American Endocrine Society Members

his issue is another first for *Endocrine News* as we devote much of the magazine to pay homage to the Endocrine Society's Asian American members in the U.S. to mark Asian American and Pacific Islander (AAPI) Heritage Month 2024.

However, I also wanted to focus on bone health since May is also National Osteoporosis Awareness and Prevention Month. Our solution is a cover story on Joy Y. Wu, MD, PhD, chief of the Division of Endocrinology at Stanford University ("The Joy of Endocrinology", p. 24), whose main research area is metabolic bone disease and osteoporosis. Wu explains to writer Kelly Horvath that she changed her entire focus from diabetes to bone after her mentor Henry M. Kronenberg exposed her to the world of bone disease during her clinical and research residency at Massachusetts General Hospital. Wu says that for her, this pivot has been a wonderful decision. "There's so much opportunity for interesting research, and it's an area of great clinical need," she explains. "I have also had a lot of great opportunities because I somewhat serendipitously decided to focus on an area of endocrinology that's rather specialized."

Continuing as part of our AAPI Heritage Month recognition, I reached out to a number of the Endocrine Society's Asian American members from all across the country for the roundtable, "Applauding Our Asian American Members" on page 32. I was curious about their thoughts on their careers, accomplishments, goals, and even their challenges, as well as any advice they have for other young Asian American endocrinologists just beginning their careers, which I always find so eye-opening. Alan Ona Malabanan, MD, CCD, clinical associate professor of medicine, Boston University Chobanian & Avedisian School of Medicine, Endocrine Clinic and Bone Health Clinic; clinical director, Section of Endocrinology, Diabetes, Nutrition & Weight Management, Boston Medical Center, Boston, Mass., advised that those individuals just starting out ignore the old adage of "being quiet and thought **MAY 2024**



THE LEADING MAGAZINE FOR ENDOCRINOLOGISTS

Executive Editor: Mark A. Newman mnewman@endocrine org

Senior Editor: Derek Baglev dbagley@endocrine.org

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

Art Director/Design: Catherine C. Neill, **CNJ Creative, saLLC** www.cnicreative.com

Designer: Petra Domingo

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

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

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



President: Stephen Hammes, MD, PhD president@endocrine.org

President-Elect: John Newell-Price, MD, PhD, FRCP j.newellprice@sheffield.ac.uk

> Past-President: Ursula B. Kaiser, MD ukaiser@bwh.harvard.edu

Secretary-Treasurer: Jeffrey Boord, MD ieffrey.boord@parkview.com

Chief Communications Officer: Aaron Lohr alohr@endocrine.org

The mission of the Endocrine Society is to advance excellence in endocrinology and promote its essential and integrative role in scientific discovery, medical practice, and human health.

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

Print ISSN 2157-2089 Online ISSN 2157-2097 Copyright © 2024 by the Endocrine Society. All rights reserved.

· Please send letters to the editor, comments, and suggestions for Endocrine News* to mnewman@endocrine.org.

- · Product print and product online display advertising, by Pharmaceutical Media, Inc., contact Joe Schuldner jschuldner@pminy.com, or John Alberto, jalberto@pminy.com
- · For classified print advertising by Pharmaceutical Media, Inc., Dan Simone, dsimone@pminy.com
- · For classified online advertising by endocareers@endocrine.org

The statements and opinions expressed in Endocrine News® are those of individual authors and do not necessarily reflect the views of the Endocrine Society.

Advertising appearing in this publication does not constitute endorsement of its content by Endocrine News® or the Endocrine Society.

a fool rather than speaking, thus removing all doubt," because he says it's important to ask questions as well as give answers and "actively participate in your education," he says. "In addition, sharing your experiences, particularly as an Asian American, is vital in enriching everyone else's education."

On page 46, we introduce you to the Endocrine Society's 2024 Laureate Award winners ("Meet the Endocrine Society's 2024 Laureates") in a 17-page feature that highlights these legends of endocrinology from around the world. For more than 70 years, the Endocrine Society has recognized the achievements of endocrinologists worldwide. Take a look at this year's distinguished recipients who join the list of prestigious practitioners and researchers. Our Laureate feature kicks off with a Q&A with 2024 Fred Conrad Koch Lifetime Achievement Award recipient, E. Dale Abel, MD, PhD, chair, UCLA Department of Medicine, who talks to Senior Editor Derek Bagley about the award, some of his proudest moments, and how important mentorship is for an endocrinologist. "Many of my mentors taught me the importance and value of effective scientific communication, which are critical skills with which to disseminate our discoveries and compete for funding," Abel tells Endocrine News. "As a mentor, I am always inspired by the creativity that is unlocked when you give talented individuals the space to think and explore new horizons in science."

Abel and several of the other 2024 Laureates featured in this month's issue will be speaking and formally accepting their awards at **ENDO 2024** in Boston, Mass., June 1 – 4. Also at **ENDO 2024** will be a number of Professional Development Workshops making their debuts this year and are quite an eclectic array of topics. From grant writing and podcasting to options for the endocrinologist about to retire, these new workshops will certainly generate plenty of buzz around Beantown next month! Check out our rundown of these new sessions on page 20.

If you have any story ideas or comments about anything you see in this month's issue, feel free to reach out to me at: **mnewman@endocrine.org**. Hope to see you in Boston!

- Mark A. Newman, Executive Editor, Endocrine News

END 2024

DISCOVER YOUR NEXT OPPORTUNITY

ENDO 2024 CAREER FAIR

FIND ENDOCRINE-RELATED JOBS AND CONNECT WITH TOP EMPLOYERS

SUNDAY, JUNE 2, 2024 2:00-4:00 PM, ET BOSTON, MA



BROWSE JOBS NOW AT ENDOCRINE.ORG/ENDOCAREERS

© 2024 ENDOCRINE SOCIETY



INTOUCH



Zane B. Andrews, PhD

Zane Andrews Named Editor-in-Chief of *Endocrinology*

he Endocrine Society has appointed Zane B. Andrews, PhD, of Monash University in Melbourne, Australia, as editor-in-chief of its flagship basic science journal, *Endocrinology*.

Andrews has been deputy editor of the journal since 2020 and will be taking on this role as previous editor-in-chief Carol Lange, PhD, of the University of Minnesota in Minneapolis, Minn., transitions into her new position as the Society's president-elect.

"I am thrilled that Dr. Andrews is taking on this opportunity to lead *Endocrinology*. He has already provided immense value as the deputy editor. I very recently met with Dr. Andrews to listen to his vision and plans for *Endocrinology*, and his enthusiasm and creativity were palpable," says Endocrine Society President Stephen Hammes, MD, PhD, of the University of Rochester in Rochester, N.Y. "I have complete confidence in his ability to positively impact the journal's growth and reputation."

Andrews is a professor in the Department of Physiology at Monash University and deputy head of the Metabolism, Diabetes, and Obesity Program at the Monash Biomedicine Discovery Institute. His research interests include neuroendocrinology, obesity and metabolism, and diabetes. His current research focuses on understanding neuroendocrine control of metabolism, mood, and motivation, with particular attention to the neuroendocrine actions of ghrelin and ghrelin-target cells in the brain.

"My vision is to make *Endocrinology* the first-choice journal for fundamental research in this space. To do this, I would like to reinforce the benefits and

prestige associated with publishing in *Endocrinology*," says Andrews. "My very first PhD paper as first author was published in *Endocrinology* in 2001, and I remember the pride and excitement I had when it was accepted. In today's ultra-competitive publishing domain, there are many choices for prospective authors, and we should all support journals that give back to their respective societies by supporting its members. Of course, *Endocrinology* is a prime example of this."

"Endocrine Society members publish for free under a standard license in *Endocrinology* and have access to numerous awards to facilitate and recognize success. Furthermore, *Endocrinology* has no figure or page limit, so authors can happily publish complete studies in a timely manner with trusted and expert peer reviewers," Andrews adds. "With my background in neuroendocrinology, I can't help but see a nice feedback loop where *Endocrinology* services a strong Endocrine Society, which promotes a stronger *Endocrinology*."

Endocrinology is the flagship basic science journal of the Endocrine Society and the leader in hormone science and research. The journal editors welcome the submission of original, foundational, research investigating endocrine function in health and disease at all levels of biological organization, including molecular mechanistic studies of hormone-receptor interactions and hormone-regulated signalling events.

Andrews will serve as editor-in-chief beginning June 1, 2024, until December 31, 2025.

INTOUCH



n April 13, the Endocrine Society and the Korean Endocrine Society (KES) officially entered into a Memorandum of Understanding (MOU) during the 12th Seoul International Congress of Endocrinology and Metabolism (SICEM) in conjunction with the 43rd Annual Scientific Meeting of the KES, which took place in Seoul, South Korea, April 11 – 13, 2024.

This MOU was signed to formally recognize the relationship between the two organizations and fulfill the requirements of all participating Global Endocrine Leadership Coalition (GELC) partners who have agreed to work together to support a network of international membership organizations to advance the field of endocrinology. Incoming Endocrine Society President John Newell-Price, MD, PhD, FRCP, and KES President Yoon-Sok (Martin) Chung, MD, PhD, at the MOU signing at SICEM 2024 in Seoul, Korea, in April.

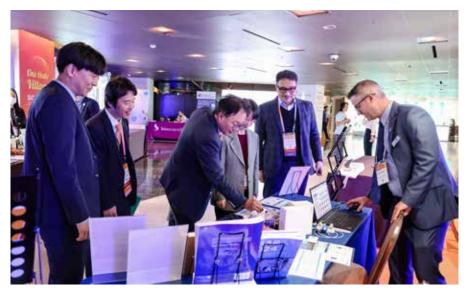
Endocrine Society Formalizes Partnership with the Korean Endocrine Society

NHS Foundation Trust and the European Neuroendocrine Tumor Society. Chung is a professor in the Department of Endocrinology and Metabolism at the Ajou University School of Medicine, and director of the Ajou Institute on Aging at the Ajou University Medical Center, Suwon, South Korea.

According to Newell-Price, the relationship between the Endocrine Society and the KES was more closely forged by the signing of the MOU between the two societies. "Such partnership is vital to the better championing of endocrinology worldwide, this resonating with 'One Endo' theme of SICEM 2024," Newell-Price tells *Endocrine News*. "The Global Endocrine Leadership Coalition between the Endocrine Society and other societies globally seeks to create

Taking part in the signing ceremony in Seoul were incoming Endocrine Society President John Newell-Price, MD, PhD, FRCP, and KES President Yoon-Sok (Martin) Chung, MD, PhD. Newell-Price is a professor of endocrinology at the University of Sheffield in Sheffield, U.K., and head of both the Endocrinology Service at the Sheffield Teaching Hospitals

At SICEM 2024 in Seoul, Korea, external exhibits lead and marketing specialist John Butler (far right) greets attendees interested to learn more about the Endocrine Society.



a collaborative network and knowledge exchange to enhance advancement of endocrine science and clinical practice, through joint programs and initiatives, educational webinar series, and joint symposia, and by tackling issues that cross borders and affect endocrinology everywhere, including the workforce pipeline."

The Endocrine Society and the KES, in conjunction with the GELC, are committed to uniting endocrine clinicians and scientists worldwide in a collaborative network dedicated to the worldwide advancement of the field of endocrinology; the

specialty of endocrinologists; and the promotion of endocrine care, science, and research.

With this MOU, the KES is officially included as an active member of the GELC until 2029.

Additional information about these awards and when the new application cycles open can be found at: https://www.endocrine.org/awards/c-wayne-bardin-md-international-travel-award.

Three Endocrine Society Members Honored by *TIME* Magazine





Daniel J. Drucker, MD



MA, MD

IME Magazine recently recognized three Endocrine Society members in its 100 Most Influential People of 2024: Daniel J. Drucker, MD, professor of medicine, University of Toronto, Toronto, Canada, editorin-chief, *Endocrine Reviews*; Joel F. Habener, MA, MD, chief of Laboratory of Molecular Endocrinology, Massachusetts General Hospital, Boston; and Svetlana Mojsov, PhD, research associate professor at Rockefeller University in New York, N.Y.

Drucker, Habener, and Mojsov were involved in the development of GLP-1 anti-obesity medications, which have led to significant breakthroughs in treating diabetes and obesity, making headlines around the world. The *TIME* Magazine blurb points to even more benefits of these drugs



Svetlana Mojsov, PhD on the horizon: "Now GLP-1-based medications are approved in the U.S. to treat diabetes and obesity, and to reduce the risk of heart disease. And there's more to come — researchers are studying other potential benefits of GLP-1 drugs, including lowering the risk of Alzheimer's, Parkinson's, kidney, and liver diseases."

Endocrine News interviewed Drucker and Habener in 2020, when they won the Warren Alpert Foundation Prize for their discoveries about the function of key intestinal hormones, their effects on

metabolism, and the subsequent design of treatments for type 2 diabetes, obesity, and short bowel syndrome — the first time in many years this prestigious award has gone to investigators in the field of endocrinology.

"It is amazing, today, to see that a GLP-1R agonist has also been approved for and is the No. 1 selling prescription medicine for obesity," Drucker told *Endocrine News* at the time. "Moreover, GLP-1R agonists reduce the rates of heart attacks, stroke, and death in people with diabetes at risk for cardiovascular disease, which we could not have predicted back in the early 1980s."



Ana Canton, MD, PhD

Canton Receives 2024 Bardin International Travel Award

he Endocrine Society selected Ana Canton, MD, PhD, as the recipient of the 2024 C. Wayne Bardin, MD, International Travel Award for her outstanding ENDO abstract and her research contributions to the care of patients with pediatric endocrine disorders.

The C. Wayne Bardin, MD, International Travel Award was created in honor of Past President Wayne Bardin, who made remarkable research contributions to both reproductive physiology and contraception throughout his long career. As the winner, Canton received a \$3,000 travel grant for **ENDO** and complimentary meeting registration.

Canton is an endocrinologist and a researcher in the Division of Endocrinology at the School of Medicine, University of São Paulo in São Paulo, Brazil. She graduated in medicine and specialized in endocrinology and metabolism. She completed her PhD at the University of São Paulo in the field of growth disorders, initiating her experience in clinical and genetic research studies, which was continued through a post-doctorate program at the Saint-Antoine Research Center, Sorbonne University in Paris, France.

She was also a member of the First International Consensus Statement of Diagnosis and Management of Silver-Russell syndrome. In 2018, she was awarded a four-year grant as a post-doctorate researcher at the School of Medicine, University of São Paulo, initiating her clinical and genetic research studies in pubertal disorders, especially precocious puberty.

She has participated in several publications in leading endocrine journals. Recently, she was the first author of the publication identifying the MECP2 gene as a novel monogenic factor in girls with central precocious puberty with or without neurodevelopment disorders.

Additional information about these awards and when the new application cycles open can be found at: https://www.endocrine.org/awards/c-wayne-bardin-md-international-travel-award.

INTOUCH

Holly A. Ingraham, PhD, Receives FASEB Excellence in Science Lifetime Achievement Award



Representation of the FASEB Excellence in Science Lifetime Achievement Award.

On April 8, the organization announced the winners of its 2024 Excellence in Science Awards, which highlight outstanding achievements by women in biological sciences who demonstrate not only excellence and innovation in their research fields, but exemplary leadership and mentorship as well.

Ingraham's pioneering work revealed crucial hormone-responsive nodes in the brain and gut that maintain metabolic, skeletal, and cognitive health in females. Her recent landmark studies are motivating others to address the basic science underlying many female-bias diseases that affect the quality of life for millions of women.

Ingraham is the Herzstein Endowed Professor in the Department of Molecular and Cellular Physiology at the University of California, San Francisco (UCSF), and received the Endocrine Society's 2023 Edwin B. Astwood Award for Outstanding Research in Basic Science Laureate Award.

The award also recognizes Ingraham as a devoted educator and mentor. She has helped shape the careers of countless graduate students and postdoctoral researchers through her guidance and support. She received UCSF's Lifetime Mentoring Award in 2023, in recognition of the focus and energy she devotes to trainees, many of whom secure fellowship funding; publish impactful and original studies; and obtain positions in academia, industry, and nonprofit organizations.

Ingraham has also tirelessly advocated for women and has long worked to combat gender disparities in science and medicine. She was instrumental in changing the climate for women faculty at UCSF by increasing the number of women hired beginning in 2018 through data-driven conversations with leadership. All basic UCSF departments have dramatically changed their faculty composition over the past five years.





Andrew O. Agbaje, MD, MPH, FESC

Andrew Agbaje, MD, Receives New Investigator Award in Childhood Obesity

ndrew O. Agbaje, MD, MPH, FESC, of the University of Eastern Finland has been awarded the New Investigator Award in Childhood Obesity by the European Association for the Study of Obesity (EASO) and the Novo Nordisk Foundation. The award includes a research grant of 300,000 Danish Kroner (US\$44,000).

Agbaje, whose research about pediatric obesity was prominently featured in the March issue of *Endocrine News*, received the award for discovering arterial stiffness as a novel risk factor for pediatric obesity and insulin resistance, identifying adolescence as the critical time to interrupt fat mass-insulin resistance pathologic cycle, and demonstrating light-intensity physical activity as a highly effective antidote for reversing excessive fat deposit induced by childhood sedentariness.

Obesity is a complex chronic disease that impacts health and can lead to increased risk of diabetes, heart disease, and certain cancers. Obesity is responsible for an estimated five million deaths worldwide each year. In the adult population, the prevalence of obesity has more than doubled since 1990, and more than quadrupled in children and adolescents since 1990. Currently, more than 890 million adults, and more than 160 million children, are living with obesity.

"This is an unprecedented recognition of our effort to improve the understanding and prevention of cardiometabolic diseases in children and adolescents," Agbaje says. "I am grateful to EASO, a federation of 36 European countries' professional associations, and the Novo Nordisk Foundation for this award."

"More importantly, we have recently discovered that waist-to-height ratio is an inexpensive alternative for screening, detecting, and diagnosing childhood obesity that could replace body mass index (BMI). BMI fails to distinguish fat mass from muscle mass and has misclassified children as overweight or obese even when children are within normal range of fat mass," Agbaje says.

The official award ceremony will be held in Venice, Italy, on May 14 during the 2024 European Congress on Obesity where Agbaje will present his research findings.



BY DEREK BAGLEY Senior Editor



66 This is the first medicine that has been developed to specifically target the pathway involved in hypochondroplasia. These findings will help inform future studies of vosoritide for addressing growth disorders.



TRENDS & INSIGHTS

First Clinical Trial of Vosoritide for Children with Hypochondroplasia Shows Increased Growth

he first global Phase 2 study of vosoritide showed an average increased growth rate of 1.8 cm per year in children with hypochondroplasia, a genetic cause of short stature in children, according to a paper recently published in *eClinicalMedicine*. The clinical trial is funded by BioMarin.

Researchers led by Andrew Dauber, MD, chief of endocrinology at Children's National Hospital in Washington, D.C., found the annualized growth velocity increased by 2.26 standard deviation (SD) and the height standard deviation score (SDS) increased by 0.36 SD during the treatment period versus the observation period. Hypochondroplasia specific height SDS increased by 0.38 SD.

"This is the first medicine that has been developed to specifically target the pathway involved in hypochondroplasia," Dauber says. "These findings will help inform future studies of vosoritide for addressing growth disorders."

The authors studied 24 children with hypochondroplasia. Half were female, and 22 out of 24 had the p.Asn540Lys variant in the fibroblast growth factor receptor 3 (FGFR3) gene. The mean age was 5.86 years old, and the baseline height was between -4.78 SD and -2.27 SD. The trial consisted of a six-month observation period to establish a baseline annualized growth velocity followed by a 12-month intervention period during which vosoritide was administered daily via subcutaneous injection at a dose of 15 micrograms/kg/day.

The researchers found that the absolute annualized growth velocity increased from a mean of 5.12 +/- 1.36 cm/year during the observation period

to 6.93 +/- 0.93 cm/year during the intervention period for a mean difference of 1.81 cm/year for children with this condition. During the trial, the researchers also noted there were no treatment-related serious adverse events, and no one discontinued therapy.

The study findings also showed standing height SDS increased by 0.37 SD during the year of treatment or 0.41 SD using hypochondroplasia-specific growth charts.

Other growth-related conditions included in this Phase 2 trial were Noonan syndrome, Neurofibromatosis type 1, Costello syndrome, NPR2 mutations, and Aggrecan mutations. This manuscript includes only information specific to hypochondroplasia. Full data for all conditions studied in the trial will be available at a later date.

"Patients have come from all over the world to be part of our trial," Dauber says. "We're excited to see how well tolerated the medication was and how some patients had excellent responses."



People with Hypothyroidism and Type D Personality May Be More Likely to Experience Poor Treatment Outcomes



ew research published in The Journal of Clinical Endocrinology & Metabolism finds a high prevalence of type D personality among people with hypothyroidism.

Researchers led by Petros Perros, MD, of Newcastle University in Newcastle upon Tyne, U.K., point out that type D personality, which is characterized by pessimism, worry, stress, negative emotions, and social withdrawal, is sometimes associated with poor health status and symptom burden, but this association has not previously been studied in people with hypothyroidism.

"In this study, type D personality in people with hypothyroidism was explored," the authors write. "The study questions were (1) what is the prevalence of type D personality among people with hypothyroidism, and (2) what are the relationships between (2a) type D personality and respondent characteristics and (2b) type D personality and hypothyroidism-related patientreported outcomes?"

The researchers of the current study surveyed more than 3,500 people with self-reported,

treated hypothyroidism and found over half of these people had type D personality. They asked questions to better understand their quality of life and why some patients were dissatisfied with their treatment outcomes.

"People with hypothyroidism and type D personality may experience more negative treatment outcomes than those without type D personality," Perros says. "We think that there are two likely interpretations, which may not be mutually exclusive — type D personality and hypothyroidism share similar underlying causes, or people with type D personality may perceive treatment outcomes more negatively."

The researchers confirmed some patients with hypothyroidism were dissatisfied with their care and experienced persistent unexplained symptoms. People with hypothyroidism who had type D personality had particularly high levels of anxiety, depression, dissatisfaction with treatment, persistent symptoms, and poor quality of life.

"Further research is needed to confirm our findings and determine if it is possible to predict how newly diagnosed patients with hypothyroidism will respond to treatment based on personality traits. If so, studies could be designed specifically for such patients, to determine if interventions can improve outcomes," Perros says.



We think that there are two likely interpretations. which may not be mutually exclusive type D personality and hypothyroidism share similar underlying causes, or people with type D personality may perceive treatment outcomes more negatively.



END 2024



We hope to see you at ENDO 2024, taking place June 1 – 4, 2024, in Boston, Mass. 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

19th International Adrenal Meeting Boston, Massachusetts May 29 – 31, 2024

Adrenal researchers and clinicians from around the world will convene for the 19th International Adrenal Meeting, which will feature the Keith Parker Memorial Award and Lecture and the Alastair Brownie and Bernie Schimmer Early Career Awards & Lectures. This year's conference will see the addition of pheochromocytoma and paraganglioma to the program along with presentations in each session selected from submitted abstracts. https://www.eventsquid.com/ mobileapp.cfm?id=22293

ADA 84th Scientific Sessions Orlando, Florida June 21 – 24, 2024

The American Diabetes Association's (ADA) Scientific Sessions offers researchers and healthcare professionals the unique opportunity to share ideas and learn about the significant advances and breakthroughs in diabetes. Participants will receive exclusive access to more than 190 sessions and 2,000 original research presentations, take part in provocative and engaging exchanges with leading diabetes experts, expand their professional networks, and so much more. https://professional.diabetes.org/ scientific-sessions

ADCES24 New Orleans, Louisiana August 9 – 12, 2024 The Association of Diabetes Care &



Endocrine Society Webinars

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

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

ENDOCRINE ITINERARY

Education Specialists (ADCES) Annual Conference is the premier diabetes care and educational event of the year. More than 3,000 diabetes care and education specialists and other healthcare professionals are expected to participate at ADCES24 in New Orleans, La. Connect, collaborate, and educate yourself and others on the latest in diabetes care and education. https://www.diabeteseducator.org/home

ASBMR 2024 Toronto, Ontario, Canada

September 27 – 30, 2024

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

https://www.asbmr.org/annual-meeting

Neuroscience 2024 Chicago, Illinois October 5 - 9, 2024

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

https://www.sfn.org/meetings/neuroscience-2024

American Thyroid Association 2024 Annual Meeting Chicago, Illinois

October 30 – November 4, 2024

The ATA Annual Meeting is the world's preeminent event for those interested in thyroid diseases and disorders and provides an opportunity for peer-to-peer learning and collaboration through lectures, interactive discussions, meet-the-professor sessions, and abstracts. This year, the ATA will celebrate its centennial anniversary with a culmination of the celebration and the largest gathering of thyroidologists in the world. Whether you're an endocrinologist, a surgeon, an advanced practice provider, a fellow in training, or a medical student, the topics covered during the meeting will provide in-depth information about thyroid diseases and disorders. With a diverse program planned, attendees can customize their experience by attending sessions that are most important to their professional development.

https://www.thyroid.org/

INTERNATIONAL ITINERARY

ECE 2024: 26th European Congress of Endocrinology Stockholm, Sweden

May 11 – 14, 2024

Attracting more than 4,000 delegates, from more than 100 countries, ECE continues to develop as a worldleading congress for endocrine specialists. Given that our community works on diverse research topics and sees patients with a wide range of conditions, ECE enables access to a comprehensive program, covering the breadth of endocrinology. Whatever your area of interest, there will be sessions that are of direct relevance, as well as extensive networking opportunities. https://www.ese-hormones.org/eventsdeadlines/european-congress-of-endocrinology/ ece-2024

31st European Congress on Obesity Venice. Italv

May 12 - 15, 2024

ECO2024, the 31st European Congress on Obesity, will feature an innovative and interactive program, covering the many facets of obesity. The congress will feature a structure to allow delegates to interact as much as possible with presenters, as well as a plethora of plenary and topic sessions, teaching workshops, and moderated research communication sessions. Program topics will be organized into four main areas: Basic Science, Behavioral and Public Health, Childhood and Adolescent Obesity, and Management and Intervention.

https://eco2024.org/

2024 Mammalian Reproduction Gordon Research Conference Barcelona, Spain

July 21 – 26, 2024

The Mammalian Reproduction GRC provides a unique forum for young doctoral and post-doctoral researchers to present their work and discuss new methods, cuttingedge ideas, and pre-published data, as well as to build collaborative relationships with their peers. Experienced mentors and trainee moderators will facilitate active participation in scientific discussion to allow all attendees to be engaged participants rather than spectators.

https://www.grc.org/mammalian-reproductiongrs-conference/2024/

New Professional Development VOCK Debut at ENDO 2024

What do podcasting, grant writing, microaggressions, and retirement all have in common? They are all topics covered by new Professional Development Workshops at **ENDO 2024**!



can reach their peers or their patients.

END: 2024

hen attendees descend on Boston in June for ENDO 2024, they will have the opportunity to participate in a series of workshops that will enhance their visibility in the endocrine workforce and sharpen critical career skills.

The Endocrine Society Trainee and Career Development Core Committee created the Professional Development Workshops to strengthen the research pipeline in endocrinology and ensure a viable workforce for the future of the field.

According to Sean Hartig, PhD, associate professor at Baylor College of Medicine in Houston, Texas, these workshops are vital for endocrinologists as their careers evolve. "The Professional Development Workshops expose attendees to networking opportunities and guidance as they pursue careers in industry and academia," Hartig says, adding, "they especially provide essential information and interaction outlets for Endocrine Society members across career spectra."

Tried and true workshops that tackle significant career challenges will continue to be offered. During the sessions, attendees can learn from experienced colleagues the essential strategies for long-term research support, operating a successful laboratory, establishing clinical practice, navigating microaggressions in professional settings, and career paths in endocrinology and related fields.

One brand-new session for **ENDO 2024** is "Stepping Up to the Plate: Grant Writing for Your K Award." "The committee felt like these sessions span career development from beginning to end and sustain the Society's commitment to all people, regardless of career stage," adds Hartig, who is also the faculty chair of the session that also includes Alison Affinati, MD, PhD; Clair Crewe, PhD; Yong Xu, PhD; and Zsu-Zsu Chen, MD. During this session, the panelists will share their own experiences in career development grant writing and share their tips creating specific aims as well as interactions with their teams and mentors, navigating the training component, and their career development milestones.

Another session making its bow in Boston is "Retiring as an Endocrinologist," which will discuss opportunities for retirees to give back to the field by mentoring, reading grants for others, or even staying involved with clinical care. One of the featured faculty for this session will be Richard J. Santen, MD, past-president of the Endocrine Society, who commended the committee for expanding its scope to retirees and people near retirement: "Workshops provide targeted information focused on one's needs," he says. "This is particularly true for the workshop on retirement, a first for the Endocrine Society."



SEAN HARTIG, PHD, ASSOCIATE PROFESSOR, BAYLOR COLLEGE OF MEDICINE, HOUSTON, TEXAS

"The Professional Development Workshops expose attendees to networking opportunities and guidance as they pursue careers in industry and academia. **They** especially provide essential information and interaction outlets for Endocrine Society members across career spectra."

ENDO 2024 attendees

have quite a range of topics to choose from when picking which **Professional Development** Workshops to attend. From **Endocrinology Mentor** Day to sessions that cover lab management best practices, tips for surviving the first year of clinical practice, the **Early Investigator Award** presentations, or the **Rising Star Power Talks** (pictured here from ENDO 2023 in Chicago), the topics and formats for professional development run the gamut.



Santen will be sharing the podium with session chair, Carolyn Becker, MD; Karen E. Friday, MD; and Alan Rogol, MD, PhD. According to Santen, data from more than 100 respondents to a survey on retirement will be presented as background information. "Each speaker will outline personal journeys that illustrate road maps for successful retirement with a goal of giving back to the profession," he explains. "Questions posed in the survey will be discussed since the audience is expected to include retired endocrinologists and those planning to retire in the near future."

ENDO 2024 will have its first session about podcasts called "Podcasting and Other Social Media Strategies to Increase Professional Visibility," in which panelists are fellow endocrinologists who will share their journey into digital media. "Even if you are not planning to be the next influencer, the ideas and best practices for maintaining your digital professional identity will be applicable to several career scenarios," says Christine Krieger, PhD,* scientific program manager, National Institute of Diabetes and Digestive and Kidney Disease. "Although tools change," she continues, "the underlying strategies don't. Our society is used to the churn of technology and increasingly expect endocrinologists to keep up." Krieger is the faculty chair of this workshop and will be joined by Kaniksha Desai, MD, host of the Thyroid Stimulating Podcast (sponsored by the American Thyroid Association); and Malini Gupta, MD, ECNU, an expert in using social media to promote education about endocrine diseases to the public.

Endocrinologists will learn how to stay on stop of the everchanging technological landscape in the session, "Expanding Your Digital Reach," which will focus on X, formerly known as Twitter. Use and perception of this platform continue to shift, and this year's panel will include the Endocrine Society's Jenni Gingery, director of communications and media relations. "Social media can appear like a minefield to someone in endocrinology," Krieger says. "Hearing from a communications professional will be a valuable addition to the actionable knowledge from Joy Wu, MD, PhD, and Joshua Joseph, MD, MPH." This session will also discuss the most effective use of personal websites as well as Google Scholar and Research Gate, which will be of special interest to basic scientists, and anyone involved in endocrine research.

Attendees will even have a variety of workshop choices, depending on their areas of interest and professional goals. The workshops tackle the most significant career challenges by providing networking and professional development opportunities for Endocrine Society members in small group environments.

**Krieger's comments are strictly her own and do not represent the views of the NIDDK, the NIH, or the federal government.*



END 2024

JUNE 1-4, 2024 BOSTON, MA

JOIN US FOR THE SIGNATURE MEETING IN ENDOCRINOLOGY RESEARCH AND CLINICAL CARE.

REGISTER TODAY

ENDOCRINE.ORG/ENDO2024

© 2024 ENDOCRINE SOCIETY



ENDOCRONOLOGY KELLY HORVATH

Joy Y. Wu, MD, PhD, Breaks the Glass and Bamboo Ceilings

> While at ENDO 2023 in Chicago, Wu couldn't decide which plushie to buy at the Endocrine Society store — the pancreas or the thyroid — so she bought both!

NE MILER

MBER



As *Endocrine News* celebrates Asian American and Pacific Islander Heritage Month, we talk to Joy Y. Wu, MD, PhD, chief of the Division of Endocrinology at Stanford University about her personal and professional journey through the field of endocrinology as well as how her career path has been shaped by her mentors, colleagues, and especially the Endocrine Society.

n honor of Asian American and Pacific Islander (AAPI) Heritage Month, *Endocrine News* spoke to Joy Y. Wu, MD, PhD about her illustrious career and how she got to where she is now: chief of the Division of Endocrinology at Stanford University School of Medicine in California. May also happens to be National Osteoporosis Month, and bone health is Wu's chosen area of focus.

As of 2023, Asian Americans represent about 6% of the overall U.S. population and are the fastest-growing segment, with numbers expected to continue increasing over the next few decades. However, this population faces certain barriers to advancement that Wu hopes to see eradicated. "Within medicine, we're not considered underrepresented because, at the medical student and early-career stages, Asian Americans are the second largest group after Whites. There are many important efforts to recruit those who are underrepresented in medicine and support them in education and their careers," she says. "But it's also clear that, as you go up the leadership ranks, it's reminiscent of the same trends that we see for women in medicine: Women are very well represented among medical students and at the early-career stages, but - in what is often referred to as the 'leaky pipeline' as we look at higher levels such as department chair or dean, there are fewer and fewer women, and that same trend seems to apply for Asians. There is still work to be done."

Wu herself has found her way through this double "glass/ bamboo ceiling," as her career trajectory attests. In describing her path, Wu reveals three key themes: finding a niche that both satisfies extensive clinical need as well as offers opportunities for fascinating research, excellent mentorship, and the Endocrine Society.

Clinical and Research Foci

"Clinically, my interest focuses on osteoporosis and metabolic bone disease. It's an area I've been interested in since my fellowship training," Wu explains, "and it's an area of great public health concern." Osteoporosis affects 10 million people in the United States, with another 44 million at risk, according to an Endocrine Society patient resource, with 1.5 million experiencing potentially devastating fractures every year.

As Wu has taken on administrative duties at Stanford, she has narrowed her clinical focus to optimizing bone health in patients undergoing cancer treatment, which can impair bone health for multiple reasons, including inducing premature menopause among others. Explains Wu: "Patients with breast cancer are often treated with endocrine therapies that effectively prevent recurrence but then, of course, cause bone loss because the actions of estrogen are inhibited."



In the Joy Wu Lab, meanwhile, her research includes both basic and translational research, encompassing how to make bone-forming osteoblasts and understanding how the anabolic medications for osteoporosis such as teriparatide work.

Making more and better-functioning osteoblasts, she explains, is critical if a cure for osteoporosis is ever going to be found. "We'll have to find a way to build bone safely and then maintain the new bone that is made," she says. "Currently, most of the prescriptions for osteoporosis medications target the other side of the process, which is bone resorption." Her team has been working on inducing pluripotent stem cells to become osteoblasts and reprogramming skin fibroblasts into osteoblasts.

A related area of exploration at the Wu Lab is the bone marrow microenvironment: How it supports hematopoietic cells and why and how cancer cells also thrive there. Breast cancer in particular most commonly metastasizes to bone. "The cells that become osteoblasts secrete growth factors and cytokines and express molecules on their surface that are important for supporting normal hematopoietic stem cells," Wu says. "The cancer cells that come into the bone marrow environment may hijack some of these signals, taking advantage of some of the factors that are already produced, which provide a supportive environment for cancer cells to engraft and expand. So, we want to better understand that process and find ways to disrupt it." In mouse trials, the team is investigating whether the anabolic medications used for osteoporosis might be safe and effective in people with cancer, a potentially revolutionizing approach.

Importance of Mentorship

Wu did not always know that bone health would be the subject of her life's work, however. "When I was an MD/PhD student in [Society] past-president Anthony ("Tony") R. Means' lab at Duke University School of Medicine studying male germ cell development, he encouraged me to attend the Endocrine Society meeting, which was in New Orleans that year. I was looking for a specialty where I could meld my clinical and research interests," Wu says. This was Wu's first fork in the road.

Another very significant mentor [and Society past-president] in Wu's career is Henry M. "Hank" Kronenberg. After her graduate school and medical school training, she did her residency at Brigham and Women's Hospital and then matched into Massachusetts General Hospital (MGH) for her clinical and research fellowship in endocrinology. "When I started, I thought I might study diabetes because that's the largest disease focus within endocrinology and a critically important disease that affects so many people with so many health implications," she explains. "But, during my clinical years, I met with Kronenberg, who was doing research on bone and osteoblasts, and he shared a recent paper showing that osteoblasts could influence hematopoietic stem cells published by one of the endocrinology fellows, and I thought that was so interesting."

Although studying bone had not been something she had thus far considered, she says the more she talked with Kronenberg and the more she learned about the research in his lab, the more fascinated she became. About halfway through her clinical year, she decided to pivot and focus on metabolic bone disease and osteoporosis. "For me, that has been a wonderful decision," Wu says. "There's so much opportunity for interesting research, and it's an area of great clinical need. I have also had a lot of great opportunities because I somewhat serendipitously decided to focus on an area of endocrinology that's rather specialized."

Although Wu invokes serendipity, she played a deliberate role in choosing the right guidance along her path. "I've always been very well supported, and perhaps one thing I did really well was picking my mentors, especially [Means] as my

66 Whether I was good at picking mentors or got lucky or a little bit of both, I think having great mentors was so critically important in that they not only trained me in rigorous science but also really advocated for me — they're still advocating for me even decades later. They are still very much a part of my life."

Wu (center) with two of her lifelong mentors and friends (and two Endocrine Society past-presidents), Anthony R. Means, PhD, (left), whose lab she worked in while at Duke University School of Medicine studying male germ cell development, and Henry Kronenberg, MD, her postdoc mentor at Massachusetts General Hospital, whom she credits with setting her on her path to studying metabolic bone disease and osteoporosis. Wu with her husband Sean Wu, MD, PhD, a physician-scientist and cardiologist, who she credits with making her work-life balance successful by taking an equal role in raising their children. She adds that she's "been fortunate to have both family support, not only from my husband but also both our sets of parents and mentors that have gotten me through, and I feel very grateful for that."



6 6 As you go up the leadership ranks, it's reminiscent of the same trends that we see for women in medicine: Women are very well represented among medical students and at the early-career stages, but — in what is often referred to as the 'leaky pipeline' — as we look at higher levels such as department chair or dean, there are fewer and fewer women, and that same trend seems to apply for Asians. There is still work to be done."

PhD mentor and [Kronenberg] as my postdoc mentor. Whether I was good at picking mentors or got lucky or a little bit of both, I think having great mentors was so critically important in that they not only trained me in rigorous science but also really advocated for me — they're still advocating for me even decades later. They are still very much a part of my life."

Endocrine Society's Impact

Means, as Wu explained, nudged her to attend her first Endocrine Society meeting, and from there everything fell into place. "The Endocrine Society is the reason I became an endocrinologist," Wu says. "When I attended the meeting in New Orleans, I was amazed by the fact that there were clinical endocrinologists, basic scientists, and clinical investigators all together, and it seemed like a really interesting and supportive field. I literally decided that weekend to become an endocrinologist, so the Endocrine Society has always had a special place in my heart."

Wu has also been very involved in committees and governance within the Society. When Means was president-elect, he appointed her to what is now called the Training and Career Development Core Committee, where she served for a few years before becoming a co-chair. As part of that experience, she had the opportunity to sit in on what was called Council, where she learned how Society governance works. Over time, she explains, she got involved with other committees such as the Publications Core Committee as well as participated in some of the strategic planning task forces. "Then, in 2019, I was elected to what is now called the Board of Directors and had the opportunity to serve for three years," Wu says. "That was a very gratifying privilege. It's really amazing what this Society does around the world to promote endocrinology, not just clinically, but also in terms of research, advocacy, and education."



Making more and better-functioning osteoblasts (modeled above), Wu explains, is critical if a cure for osteoporosis is ever going to be found.

Looking Back

Wu's career has advanced her understanding of more than just her clinical and research interests. She has seen how barriers — some insidious, some explicit — have affected women in medicine and science, for example: "When I started out, I saw that there were so many women in endocrinology, and, at the time, I remember having a conversation with one of my co-fellows about why we were still talking about women in endocrinology — it's all fixed, right? Only after I became faculty and started on my own career path did I become more aware that there are still barriers to advancement."

With the number of female medical students well above 40% for the past few decades, plenty enter the so-called pipeline. But, looking at the advancement from assistant to associate to full professor, the falloff in women is significant. "Over the years, I've become aware that there are many reasons for this," Wu says. "They don't have to be individually large reasons, but they can cumulatively still have a pretty significant effect. Overall, women are offered fewer opportunities, such as invitations to give seminars and nominations for awards and that kind of thing. There are always multifactorial reasons, but, when you look across the board, the advancement of women is still not what it could be to achieve gender parity." Another challenge for women in our society is, of course, balancing career and family needs. Wu says she was fortunate that her husband Sean Wu, MD, PhD, a physician-scientist and cardiologist, was not only supportive of her career but also played an equal role in taking care of their children. "But, for a lot of people, when it comes down to trying to balance a family's needs against work, it can be harder for women to advance, again speaking on a collective scale," she says. "Those are challenges that we still have to face, but I've been fortunate to have both family support, not only from my husband but also both our sets of parents, and mentors that have gotten me through, and I feel very grateful for that."

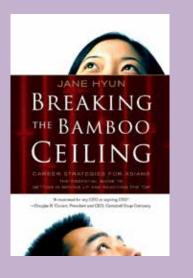
Barriers notwithstanding, Wu firmly believes that endocrinology is a wonderful field for women. "It's very supportive," she says, "and the Endocrine Society has been phenomenal for modeling how women can thrive in leadership." That modeling was especially transformative for Wu, who did not formerly see herself becoming a leader in the way she has. "I'm still an introvert at heart, but my younger self was painfully shy and would have been surprised at becoming a division chief because that is so public."

When the idea was first suggested to her, in fact, she laughed. Since then, she has grown into the leadership role and again credits her mentors for helping her along the way. In addition to Means and Kronenberg, her earlier mentors, she appreciates that her former division chief at Stanford, Fredric Kraemer, and former department chair, Robert Harrington, offered her



Bamboo Ceiling

The term "bamboo ceiling" is a concept that describes the barriers faced by many Asian Americans in the professional arena, such as stereotypes and racism, particularly with ascending to top executive and leadership positions, and was first coined by Jane Hyun in her 2005 book, *Breaking the Bamboo Ceiling: Career Strategies for Asians.*



leadership opportunities. "Thanks to both leadership training and having people who believed in me and supported me, I became comfortable with the idea that I could take on leadership positions. I had this idea that we tend to view leaders as people who are outspoken, and I thought, there's no way that I can do that," Wu says. "But [Kraemer and Harrington] showed me that I can be persuasive when it's something I believe in, and I think that is consistent with a lot of findings on women in leadership. Women are very good at advocating, especially for other people or for causes that they believe in."

Looking Forward

In the short term, Wu is looking forward to **ENDO 2024**, "I love **ENDO**, where I get to hear about the latest exciting advances in endocrinology on the clinical and research fronts, but also, just as importantly, it's where I get to catch up with my friends and colleagues from around the world."

A special perk for Wu this year is that **ENDO 2024** will take place in Boston, where she lived for 11 years, first during her clinical training at MGH and then as faculty there. "I have the honor of being one of the presenters in the Endocrine Society and American Society for Bone and Mineral Research Joint Presidential Session: 'Clonal Hematopoiesis, Skeletal Cells and Metabolism,' where I'll be speaking about our research on interactions between bone and blood in health and disease," she says.

Wu is the first woman division chief of endocrinology at Stanford as well as the first Asian. Interestingly, her appointment in 2022 started on May 1, the beginning of AAPI awareness month, which brings this story full circle. "That was special," she says, "breaking through sort of a double glass and bamboo ceiling."

-HORVATH IS A BALTIMORE, MD.-BASED FREELANCE WRITER. IN THE APRIL ISSUE, SHE WROTE ABOUT THE **ENDO 2024** SESSION, "ENDOCRINE-DISRUPTING CHEMICALS IN REPRODUCTIVE ENDOCRINOLOGY."



Endocrine Society and American Society for Bone and Mineral Research Joint Presidential Session: Clonal Hematopoiesis, Skeletal Cells, and Metabolism

Saturday, June 1, 2024, 9:45 a.m. – 11:15 a.m. BCEC: 257 ABC

Bone is a highly intricate organ that plays crucial roles beyond providing structural support for the body. In this session, the speakers will delve into the latest advancements of how bone stromal cells interact to facilitate the process of normal hematopoiesis. Additionally, there will be an exploration of how changes in cellular signals and components can lead to transformation and clonal expansion, as well as an examination of the intricate relationship between bone formation, hematopoiesis, and metabolism, highlighting their interdependency.

Laura Maria Calvi, MD, University of Rochester, Rochester, N.Y., chair

- Social Networking in Bone: Bone Stem Cells and Hematopoiesis, Joy Y. Wu, MD, PhD, Stanford University School of Medicine, Stanford, Calif.
- Hematopoiesis, Bone, and Metabolism, Stavroula Kousteni, PhD, Columbia University, New York, N.Y.
- Blood and Bone: Dynamics of Their Clonal Interactions, David Scadden, MD, Harvard Stem Cell Institute, Massachusetts General Hospital, Cambridge, Mass.

Applauding our ASIAN AMERICAN Members

ENDOCRINE NEWS CELEBRATES ASIAN AMERICAN AND PACIFIC ISLANDER HERITAGE MONTH

BY MARK A. NEWMAN



In honor of national Asian American and Pacific Islander Heritage Month, *Endocrine News* reached out to several of our U.S.-based Asian members to get their thoughts

on their careers, accomplishments, goals, and even their challenges, as well as advice they have for any young Asian American endocrinologists just beginning their careers.

ince 2009, when President Barack Obama signed Proclamation 8369, the month of May has been formally designated as Asian American and Pacific Islander Heritage Month. Then on April 30, 2021, President Joe Biden signed Proclamation 10189, recognizing May as Asian American, Native Hawaiian, and Pacific Islander Heritage Month.

However, the history of this commemoration goes back a few decades. In 1978, President Jimmy Carter signed a joint resolution that would designate the first 10 days of May as Pacific/Asian American Heritage Week (House Joint Resolution 1007). In 1990, President George H.W. Bush signed a bill that extended the weeklong celebration to encompass the entire month, and two years later, May was officially designated Asian/Pacific American Heritage Month.

In January of this year, the Federal Asian Pacific American Council, the premier organization representing Asian American, Native Hawai'in, and Pacific Islander employees in the federal government, announced that the theme of these year's celebration is "Advancing Leaders Through Innovation," which is a perfect fit for the Endocrine Society members that we spoke with since innovation never stops in the field of endocrinology.

Endocrine News wanted to speak to some of the Asian American and Pacific Islander members of the Endocrine Society who have made so many valuable contributions to the science and practice of endocrinology, as well as the Endocrine Society's progress and success. However, in planning this issue and this article, it became obvious very quickly that one issue per year will in no way adequately cover the breadth of contributions by our members who belong to the Asian American and Pacific Islander community.

Those members we spoke to are Jewel Banik, PhD, postdoctoral scholar, Blau Lab, Department of Microbiology and Immunology, Stanford University, Stanford, Calif.; Leonard Cheung, PhD, assistant professor, Department of Physiology and Biophysics, Stony Brook University, Stony Brook, N.Y.; Ketan G. Goswami, MD, partner, North Atlanta Endocrinology and Diabetes, PC, Lawrenceville, Ga.; Milay Luis Lam, MD, FTOS, division chief and medical director, Meritus Endocrinology, Meritus Medical Center, Hagerstown Md.; Angela Leung, MD, MSc, associate professor of medicine, Division of Endocrinology, Diabetes, and Metabolism, Department of Medicine, University of California, Los Angeles David Geffen School of Medicine and the Veterans Affairs Greater Los Angeles Healthcare System; Alan Malabanan, MD, CCD, assistant professor of medicine, Harvard Medical School, Division of Endocrinology, Diabetes and Metabolism, Beth Israel Deaconess Medical Center, Boston, Mass.; Eric Ocampo, MD, FACP, endocrinologist, Avera Tyler, Tyler, Minn.; and Anthony Yin, MD, Endocrinology, Diabetes and Osteoporosis Division, associate program director, CPMC Endocrinology Fellowship Program, San Francisco, Calif.

EN: First things first: What made you choose the field of endocrinology?

JEWEL BANIK: For my graduate studies, I was determined to join a lab that is related to neuroscience overall and does high-throughput sequencing. Unfortunately, the PI, who was my

first choice on my list, retired in that semester when I started my graduate school. So, I was looking for an alternative lab that does brain research as well as next generation sequencing. Fortunately, one day, one of the department faculty members told me that Dr. MacNicol and Dr. Childs' labs got a new R01 grant and were looking for new students. I eventually did



Angela Leung, MD, MSC,

Associate Professor of Medicine, Division of Endocrinology, Diabetes, and Metabolism, Department of Medicine, University of California, Los Angeles David Geffen School of Medicine and the Veterans Affairs Center Greater Los Angeles Healthcare System, Los Angeles, Calif.

66

Like with any patient encounter, I think being able to identify with and relate to the patient on a personal level can sometimes enrich the provider-patient relationship. In my clinical work, I am cognizant that my Asian heritage and awareness of cultural customs may be helpful for some patients.

"

my rotation in Dr. MacNicol's lab, joined there, and started working on the pituitary gland.

LEONARD CHEUNG: Truth be told, I first got involved in endocrine research as a coincidence! I continue to choose endocrinology because of the positive and supportive colleagues and mentors in the field. My PhD project studied signaling pathways in the pituitary gland, but I had never learnt much about endocrinology before that, and it was the first I even heard about the pituitary gland!

KETAN G. GOSWAMI: I had no idea what endocrinology was until high school. When I was in ninth grade, my 10-year-old sister was diagnosed with type 1 diabetes. Nobody knew what was going on; medical care in India was not as robust in those days as it is now. We almost lost her to serious diabetic ketoacidosis. Life was never the same for my family afterwards. Growing up in a meager lower-middle-class home, my simple parents faced a considerable challenge in raising a fragile child. I watched as they struggled to care for their daughter on a limited income. They invested their sole focus and whatever financial resources they had into caring for their child. They slowly learned, giving daily insulin injections, boiling syringes and needles, and checking urine glucose with Benedict's solution. Many doctors these days will have no idea what that solution is! This was my shocking introduction to the world of diabetes and endocrinology. I am proud to say my sister is now a child psychiatrist in Florida!

MILAY LUIS LAM: For me, it was very personal. Both of my parents had diabetes; my mom had gestational diabetes and then developed type 2 diabetes, so I grew up seeing her trying to control her disease. At the time of her diagnosis, and because we are from Peru, the treatments were very limited. When there were options for using metformin, she had developed kidney disease, so she was only able to use the very old sulfonylureas, which caused a lot of hypoglycemic episodes. Sadly, I watched as both her health and my father's health declined. So, when I graduated medical school, I had a different perspective. I had already navigated healthcare with both my parents, so I knew what I wanted my patients to avoid, and how I would have liked my parents to have been treated. Unfortunately, they are both no longer with me, but my family's experience taught me how much patients and families of patients with diabetes can suffer. So, when I meet my patients, I want them to feel that they can count on me as an advocate for their health.

ANGELA LEUNG: Initially, I was actually interested in pursuing a purely clinical career and wanted to be a primary

care provider in a local community setting to the underserved. It was a chance encounter that I happened to sign up for some endocrine rotations as part of the primary care track of my residency program. Through those experiences, I was able to meet several attendings who sparked an enduring interest to instead pivot to endocrinology, and thyroidology in particular.

ALAN MALABANAN: I had actually chosen primary care initially and had started my career doing locum tenens, working in a variety of practices around the country. What I really enjoyed in primary care was forging ongoing relationships and helping patients with chronic problems. However, I did not find primary care practice satisfying, in that I was uncomfortable knowing a little about a lot. I was much happier knowing a lot about a little and found myself drawn to endocrinology. In addition, there was a personal reason in that there was a strong history of type 2 diabetes and thyroid disease in my family.

ERIC OCAMPO: For the longest time, I thought I always wanted to go into OB since I was fascinated with the thought of being a part of a child's birth. Life circumstances, however, guided me eventually to endocrinology.

I am a foreign medical graduate (FMG) (University of the Philippines, College of Medicine). At the time of application for internship in the U.S., surgical internships were quite limited for FMGs. I applied for internal medicine and was able to secure a position at the Montefiore Medical Center. At the start of the internship, cardiology seemed interesting. This specialty became less appealing since it seemed too busy and hectic for me.

Going through training, I was exposed to endocrinologists who seemed very smart, calm, and helpful. A resident I looked up to (Christine Rest, MD), became an endocrinology fellow at Montefiore. The head of endocrinology at that time (Martin Surks, MD) became one of my attendings. I was hooked after I did my endocrinology elective rotation. I was fortunate to get accepted at Montefiore Endocrinology also under Dr. Surks. I can honestly say that I do not regret that decision at all.

EN: What was one of the biggest challenges you've had to overcome in your career?

BANIK: How to deal with failures! In science, failure is a daily life scenario, and figuring out how to cope with it is a real



Jewel Banik, PhD,

Postdoctoral Scholar, Blau Lab, Department of Microbiology and Immunology, Stanford University, Stanford, Calif.

66

In science, failure is a daily life scenario, and figuring out how to cope with it is a real struggle, particularly in the beginning. **Eventually, I learned how** to deal with failures with reasoning and alternative strategies and overcame these challenges, and I believe everyone can do that. To all the emerging scientists, if you are struggling with your experiments, do not worry. I want to assure you that you are going to overcome it soon.



struggle, particularly in the beginning. Eventually, I learned how to deal with failures with reasoning and alternative strategies and overcame these challenges, and I believe everyone can do that. To all the emerging scientists, if you are struggling with your experiments, do not worry. I want to assure you that you are going to overcome it soon.

CHEUNG: While I'm thankful that I've not faced particularly



Ketan G. Goswami, MD, Partner, North Atlanta Endocrinology and Diabetes, PC, Lawrenceville, Ga

66

Dispensing advice is simple, but respecting the path paved by those who came before us is crucial. Those path breakers have shaped the image of Asian physicians as deeply respected members of the community. We have a responsibility to uphold these standards. Be authentic, passionate, and compassionate. challenging situations during my career, I think we can and are all working together to ensure that current and future endocrinologists face fewer challenges as time goes on. My experiences remind me to continue my mentors' positive attitudes to foster the future of the endocrine and scientific fields.

GOSWAMI: I knew endocrinology was my end goal even before medical school. My path to endocrinology took an unexpected turn when my wife and I, both physicians, came to the United States on an exchange visa. We had to undergo a lengthy process to obtain permanent resident status, which delayed my fellowship training by five years. However, those years in rural Michigan provided invaluable experience in rural healthcare. Engaging with people whose healthcare expectations were very basic reinforced my sense of service, reminiscent of my upbringing in a small farming village in India.

LAM: Leaving my parents and siblings in Peru to come to the United States to complete my medical training. I knew it was something I needed to do to have a better career and be able to be a better clinician and scientist, but moving to another country alone was very difficult. There were many times that I wanted to go back home, but my mom would encourage me to continue my journey. It was all worth it, but it still didn't make it easier.

MALABANAN: My parents, as immigrants from the Philippines, saw the American dream as the key to success, but primarily measured financially. My father worked hard to provide for his family, often being oncall every other day for many years, making sure that I had freedom from educational debt. My father had hoped that I would become a surgeon and build on his financial success in the United States. My challenge was forging a path in academic medicine that satisfied my own personal needs while honoring my parents' sacrifices and hopes.

OCAMPO: As I mentioned, I am an FMG, and initially had no intentions of training in the U.S. Peer pressure made me follow my good friends in going through the process taking certifying exams, sending out letters, and applying to internal medicine programs (>100!), interviewing all around the U.S. So, moving to another country and trying to adapt/ adjust to another culture definitely were very big challenges. Of course, another challenge was landing a job that was financially and mentally fulfilling.



Banik confers with his colleague at the University of Arkansas, Juchan Lim, during ENDO 2022 in Atlanta, Ga.

EN: What has been a noticeable success that has further defined your career?

BANIK: A noticeable success that has further defined my career was spearheading a groundbreaking research project that led to the elucidation of a complex bifunctional role for Musashi1 in the control of pituitary cell function. The recognition of this work helped me obtain a postdoc position at Stanford.

GOSWAMI: Success as a physician is hard to quantify. For me, it's about earning the trust of the person sitting across from me, looking me in the eyes. If I've earned their trust, that's my greatest success. I will often run into my patients in public places; hearing them praise my compassion when they interact with my family fills me with pride. If I can sleep guiltfree at night, I know I've done well.

LAM: I think all the events that happened in my life have contributed to where I am now. I believe we need to be where we need to be, and that everything teaches us something and defines us better. I have thought of many people that I have to thank for giving me an opportunity. My medical school, Universidad Peruana Cayetano Heredia (San Martín de Porres, Peru), was always supportive during medical school. Celso E. Gomez-Sanchez, MD, and Elise P. Gomez-Sanchez, PhD, helped me come to the U.S. and gave me the chance to do basic science research at the University of Mississippi Medical Center, Jackson, Miss. I learned a lot during those three years, and I also met a lot of cool endocrinologists while working in the lab. My fellowship department head at the SUNY Downstate Health Sciences University (Brooklyn, N.Y.), who is now my friend, Mary Ann Banerji, MD, was always pushing me and letting me try new therapies. She was always supportive while I was a fellow, and that made me realize how I wanted to be when I eventually became an attending.

I got involved with the Endocrine Society when I was still a resident and when I

thought I wanted a research career. I was fortunate enough to participate in the FLARE (Future Leaders Advancing Research in Endocrinology) program. All the people I met in that meeting are still in my life and have helped in some way with where I am now. I moved to Pittsburgh to work at the University of Pittsburgh Medical Center, but unfortunately had to move a couple of years later, and step out of an academic role. I was again fortunate to apply and got chosen for the EXCEL (Excellence in Clinical Endocrinology Leadership) program, as that year that I went to the EXCEL forum, I transitioned my career from academia to a hospitalbased position where I was offered the division chief position and they let me build up the inpatient diabetes service, where I am medical director.

LEUNG: I have been extremely fortunate to have had not just one, but several notable mentors so far in my career. They have embodied the definition of being an excellent mentor — they have not just supported me by providing wise career development advice but have tangibly helped promote my career by introducing me to established leaders in the field at annual meetings of the Endocrine Society and other professional conferences, suggested me for key careerbuilding roles, and overall helped facilitate exposure to important opportunities. **MALABANAN:** My selection as Endocrinology Fellowship Program training director for the Beth Israel Deaconess/ Joslin Diabetes Center program has been important in defining my career in education. I have had the opportunity to teach medical students, internal medicine residents, and endocrinology fellows within the Harvard Medical School

umbrella. I had had opportunity to hone my teaching skills, using the resources and expertise within the Rabkin medical educational fellowship, eventually developing a patient safety and quality improvement (PS/QI) curriculum. I have been able to use my experience in PS/QI nationally within the Endocrine Society and the American College of Graduate Medical Education. It has also provided advantage in my current leadership role as the endocrine clinical director at Boston Medical Center.

OCAMPO: At the start, I thought that success was reflected by the number of letters that you would be able to add after your name. I later realized that having MD, FACP, etc., after my name was okay, but not really that fulfilling. Although it may sound corny, but actually helping people, making them feel better, seeing them happy, and

realizing that they are recommending me to their relatives all makes me feel successful.

EN: Does being Asian bring with it any unique insights for your work?

BANIK: Being Asian certainly brings with it many unique insights that influence my approach to work. For instance, I grew up in an environment that values collectivism, perseverance, and respect for authority that helped me understand the value of individual contribution to a greater cause, the impact of long-term goals over immediate outcomes, the requirement for a thorough research and meticulous attention to the task, and the influence of a great mentor in our lives. I try to integrate these values into my work regularly and make my work noble.

GOSWAMI: Dispensing advice is simple, but respecting the path paved by those who came before us is crucial. Those path breakers have shaped the image of Asian physicians as deeply respected members of the community. We have a responsibility to uphold these standards. Be authentic, passionate, and compassionate. See the humanity in others and respect their trust in you. Admit

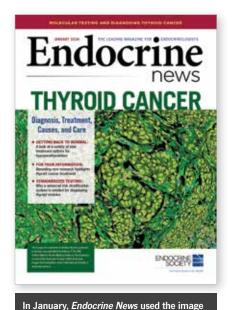
what you don't know and be willing to say, "I don't know." While humility can be challenging as a subspecialist, it is worthwhile. Smile and smile a bit more — love will be reciprocated.

LAM: I was born and raised in Peru. Three of my grandparents immigrated from China to Peru when they were very young, so both my parents were Chinese Peruvian, as am I. I was a minority in Peru, which gives you another view of the world, perhaps more "understanding" toward others. I guess being Asian/ Hispanic gave me a work ethic as well as a degree of fellowship. I feel being Asian Hispanic made me stronger in the sense that I grew up hearing from my mom that I had to be strong and not let people walk over me. There was/is this view that Asian women are small and quiet and hence people would try to step over me. My mom always told me, you don't necessarily need to be loud to make

people hear you.

LEUNG: Like with any patient encounter, I think being able to identify with and relate to the patient on a personal level can sometimes enrich the provider-patient relationship. In my clinical work, I am cognizant that my Asian heritage and awareness of cultural customs may be helpful for some patients. I think that building that rapport has been helpful to some patients, who hopefully feel more at ease and understood in sometimes navigating a stressful diagnosis or developing a complex management plan of the medical issue.

MALABANAN: This question assumes that there is a single Asian diaspora, which is inaccurate given the immense cultural, linguistic, and historical diversity that exists within the continent of Asia. Asia is home to numerous ethnic groups with unique traditions, languages, and histories. I am Filipino, itself a



of a metastatic medullary thyroid carcinoma to the liver submitted by Anthony Y. Yin, MD,

for the Endocrine Society's 2023 Endocrine

Images Art Competition, which celebrates

the beauty of endocrine science.

melting pot of differing historical and cultural influences: Malay, Chinese, Spanish, and American. Like many Filipinos, my parents came to the U.S. already knowing English, a consequence of the Philippines previously being a U.S. colony, which has facilitated my adapting to life in the U.S. I would say that the insight for my work comes from my standing as a naturalized



Milay Luis Lam, MD, FTOS, Division Chief and Medical Director, Meritus Endocrinology, Meritus Medical Center, Hagerstown, Md.

66

I got involved with the Endocrine Society when I was still a resident and when I thought I wanted a research career. I was fortunate enough to participate in the FLARE (Future Leaders Advancing Research in Endocrinology) program. All the people I met in that meeting are still in my life and have helped in some way with where I am now. U.S. immigrant, not purely as an Asian. While I have strived to blend into the U.S. population, I recognize many cultural habits and beliefs that may impact my patients' interaction with and trust in the U.S. healthcare system.

OCAMPO: At the start, I felt that coming from a foreign country was a disadvantage. I felt that I was different. I have experienced instances of discrimination (e.g., a patient saying that they would prefer to see a Caucasian doctor in the general medical clinic). I had to do a lot of adjusting — from the way I talked to the way I interacted with other people. I truly thought it was a big mistake making that big move at first.

Later on, instead of feeling different, I started to feel "unique." This uniqueness gave me the confidence to thrive and grow, since I realized that I did have something special to offer. I had some exposure to Eastern medicine or non-traditional medicine. Although I definitely do not use this in my present practice, I do understand why some patients turn to this at times. I am able to view things from a different perspective that can sometimes help educate patients in dealing with their medical concerns.

I also learned that discrimination is not really a "me" problem since despite the negativity, I knew I always remained respectful and understanding. Asian patients definitely seem more at ease with me. Filipino patients are ecstatic that I can converse in our native tongue.

ANTHONY YIN: Possessing a certain cultural sensitivity is perhaps more crucial in the practice of endocrinology than in other fields. I say this because in order to effectively treat many of our patients, particularly those with diabetes, it is often imperative to understand a patient's perspective and outlook, acknowledge the impact of culture on healthcare decisions, to appreciate what he or she is capable and willing to do. It is often more involved and nuanced than simply writing a prescription for a certain medication in accordance with the latest clinical practice guidelines.

Having grown up in a pretty traditional Chinese family structure myself, I feel I share some very deep cultural values with my Asian patients. These fundamentally concern the importance of family, and the responsibility children have for their parents and elders in general. Many children of my older patients — particularly those for whom language stands as a "barrier" — are highly involved in their parents' medical



Leonard Cheung, PhD, Assistant Professor, Department of Physiology and Biophysics, Stony Brook University, Stony Brook, N.Y.

66

I hope that young Asian American endocrinologists as well as those of other communities and identities know that there will always be colleagues, mentors, and a Society that support and advocate for your long-term success in the clinical and scientific fields. Your individual experiences and perspectives can be a powerful force to inform your actions. I hope the excitement of science, medicine, and endocrinology will always be your drive as you develop your career goals.

"

care; I have come to know these family members very well over years. The patient-physician relationship in these cases intimately involves the child (or other family member), who is an integral part of this relationship. I feel it is one of my greatest responsibilities to work in a partnership with these family members, so that they are well informed and feel comfortable, and hopefully even empowered, by my advice and recommendations.

At the height of the pandemic, there was a tragic increase in Asian hate crimes, particularly where I live and practice (San Francisco Bay Area). Many of my elderly Asian patients conveyed their fears to me about this situation. The trepidation many of my patients harbored — even to simply step outside their homes — was clear to me and often had a direct impact on their physical and emotional health. I took these fears personally because I could easily picture my own parents in their shoes. This was a highly unfortunate reality for many Asian individuals with chronic disease during these extremely challenging years. I learned to offer what support I could and work within the framework of what each patient was comfortable doing, even if not ideal or "optimal" under these circumstances.

Beyond being Asian myself, more broadly, as a member of the "minority population," questions often arise in my mind when I am confronted by the atypical and "non textbook" features of some of my patients who are also from minority backgrounds. Why does my middle-age female patient from mainland China who has a normal body mass index and no other features of metabolic syndrome ostensibly have type 2 diabetes? Should I be looking for deeper answers, and not simply accept things at face value? As much as we strive to practice evidence-based medicine, there are still many areas for which there are limited data for individuals from many different ethnic groups - not just those with Asian heritage. Many of the well cited studies and landmark trials on which we base much of our current clinical practice have extremely small percentages of non-White participants, which significantly limits the universality of their findings and conclusions. I confess, this is always in the back of my mind, both as a provider who often bases my recommendations for clinical care on these data, but also as a "minority" individual myself, for whom the clinical questions may be directly applicable in terms of my own health one day.

EN: What role has the Endocrine Society played in your career as an endocrinologist?

BANIK: My journey with the Endocrine Society has been fantastic so far. I have benefitted so much from this community that I cannot imagine my current position without its support. For instance, my first in-person **ENDO** meeting was back in 2022 in Atlanta, Ga., and the second one in 2023 in Chicago, Ill. In the first meeting, I was awarded an Early Career Forum travel award, and my abstract got the "Outstanding Abstract Award." In the second meeting, my late-breaking abstract was selected for an oral presentation. These achievements have helped me strengthen my profile significantly to advance in my career.

CHEUNG: The Endocrine Society has played such a huge role in shaping my career as an endocrinology researcher, and it has been my professional home since my graduate studies. It has provided so many opportunities for my career development and progression, from travel grants to attend **ENDO** to reviewer opportunities to Society committee involvement.

GOSWAMI: The Endocrine Society is my mothership! It has been my primary source for updating my knowledge, discussing ideas with colleagues, and learning about authentic endocrinology practices. During my early years, the Endocrine Society was — and remains — my most trusted guide. Dr. Romesh Khardori, my program director at Southern Illinois University, ensured that all fellows attended and presented at the Endocrine Society meetings, for which I am grateful to him.



Milay Luis Lam, MD, FTOS, (right) with Ismat Shafiq, MD, at the All SIG Reception in Chicago during ENDO 2023.



Eric Ocampo, MD, FACP, Endocrinologist, Avera Tyler, Tyler, Minn.

66

At the start, I thought that success was reflected by the number of letters that you would be able to add after your name. I later realized that having MD, FACP, etc., after my name was okay, but not really that fulfilling. Although it may sound corny, but actually helping people, making them feel better, seeing them happy, and realizing that they are recommending me to their relatives all makes me feel successful.

??



Alan Malabanan, MD, CCD, Assistant Professor of Medicine, Harvard Medical School; Division of Endocrinology, Diabetes, and Metabolism, Beth Israel Deaconess Medical Center, Boston, Mass.

66

The old saying, 'I would rather remain quiet and be thought a fool than speak and remove all the doubt,' is the surest way to slow your learning and growth. It is important to ask questions but also give answers and actively participate in your education. In addition, sharing your experiences, particularly as an Asian American, is vital in enriching everyone else's education.



LAM: I have been involved with the Endocrine Society since I was a resident and have had the opportunity of participating in several committees. I have always felt supported by the Endocrine Society and feel it's my primary society. I have met marvelous people that work at the Endocrine Society that have molded my career in some way.

LEUNG: I'm grateful to the Endocrine Society for their global presence and success in bringing together the endocrine community at large, whether it be clinicians, researchers, or those who bridge these two important components of the field. Since attending my first **ENDO** meeting to present a poster abstract (when I was a second-year internal medicine resident), I have attended nearly all of the Society's annual meetings since and always look forward to hearing the latest science and connecting with colleagues and friends. I have continued to be actively involved in the Endocrine Society through the years, serving in various roles, and look forward to new leadership opportunities with my joining the Board of Directors soon.

MALABANAN: I am deeply indebted to the Endocrine Society's leaders for entrusting me with committee membership. As such, I have been able to meet and network with many smart and talented endocrinologists and educators and help shape some of the Society's educational offerings.

OCAMPO: The Endocrine Society has been quite helpful overall, and I appreciate the guidance. I often refer to the Society guidelines in dealing with patients presenting with different endocrine concerns. I enjoy going to the yearly conferences because it's always awesome hearing from the different experts in their fields. Plus, it's also great seeing peers and mentors in a more relaxed social setting. The Endocrine Society also helped me prepare for the certifying board exams with ESAP and board review sessions.

EN: What advice would you give to young Asian American endocrinologists just starting their careers?

BANIK: Conferences are the only places where people from every corner of the world with different backgrounds come under one roof and share their science. I would highly recommend attending conferences as much as they can and make an active effort to build networks with people from different backgrounds. These experiences have always enriched my knowledge of the field and strengthened my



Ketan Goswami, MD, (left) at the "white coat ceremony" for his daughter, Neevedita (third from right), a first-year medical student at Eastern Virginia Medical School. Also pictured are (I to r) sons, Aaditya (an undergrad) and Abhishek (currently in a radiology residency at the University of Chicago); wife, Arati Joshi, MD; and daughter Nishka, also an undergrad.

network, and these two qualities are required for a successful career in science.

CHEUNG: I hope that young Asian American endocrinologists as well as those of other communities and identities know that there will always be colleagues, mentors, and a Society that support and advocate for your long-term success in the clinical and scientific fields. Your individual experiences and perspectives can be a powerful force to inform your actions. I hope the excitement of science, medicine, and endocrinology will always be your drive as you develop your career goals. I'm so delighted that the Endocrine Society is actively engaged in commemorating Asian American, Native Hawaiian, and Pacific Islander Heritage Month in *Endocrine News* and recognizing the contributions of these communities to the advancement of endocrinology.

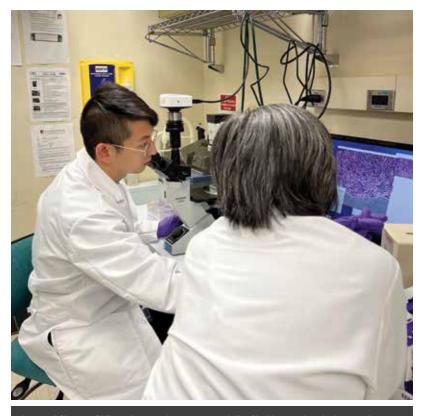
GOSWAMI: Being of Asian, particularly Indian, descent has been advantageous. I must acknowledge the hard work of Indian physicians who came before me, who have established a reputation for intelligence, compassion, and respect toward patients. Coming from a culture that values the elderly and the vulnerable helps me connect with patients on a deeper level. While there have been instances of discrimination based on my ethnicity, I recognize that such incidents can occur anywhere.

LAM: Advocate for yourself and for your patients.

OCAMPO: Simplest advice is to do what will make them happy, while trying to be very patient at the same time. I realize this may not be easy at all, more so at the start of any career. One may need to make some compromises since the ideal job doesn't land on our lap right away. It is also very important to remain true to oneself and realize one's limitations. I also want to let them know that it is absolutely possible to be happy working as an endocrinologist.

MALABANAN: I would say that the old saying, "I would rather remain quiet and be thought a fool than speak and remove all the doubt," is the surest way to slow your learning and growth. It is important to ask questions but also give answers and actively participate in your education. In addition, sharing your experiences, particularly as an Asian American, is vital in enriching everyone else's education.

YIN: It may sound cliché, but do not forget your roots. You bring more to the exam room, operating/procedure room, or



Leonard Cheung, PhD, and research support specialist Qin Liu examine the image of stained mouse pituitary stem cell colonies that have had versus not had thyroid hormone treatments or other manipulation of thyroid hormone function.

conference room than simply your credentials and medical knowledge. The other thing I will say to young Asian American endocrinologists, particularly those who are in residency and fellowship training, is to remember your patients see YOU, not your attendings, as their physician. Patients often choose to continue care with a provider based on perceived relatability, as much as on a provider's experience and medical knowledge; this relatability may be based on race/ethnicity, perceived cultural commonality, or a number of other factors. I think generally this is something to embrace, but also remember that the trust your patients put in you is not something to be taken for granted but should ultimately be something you earn.

EN: Finally, since this is the issue that will be in Boston for **ENDO 2024**, what are you most looking forward to at this year's annual meeting?

BANIK: I am excited and looking forward to all those professional development workshops and special

interest group meetings. Poster sessions and symposiums are also my favorites. Additionally, social interaction sessions are also good hotspots for meeting many known and unknown people around the world. Last year, the whole meeting was excited about GLP-1 agonists (Ozempic, Wegovy); I am excited to witness what this year will go wild about at **ENDO**!

CHEUNG: I'm so excited to attend **ENDO 2024,** and I'm especially appreciative to have the chance to present some of our work as a new lab. I've not attended **ENDO** for a few years, so I have missed the atmosphere where everyone is so engaged in endocrinology new ideas and collaborations always develop there! **ENDO** is the one time a year I get to see many of our endocrine colleagues from across the U.S. and the world, all of whom have been so instrumental throughout my career and the progression of endocrine science!

LAM: I always look forward to seeing what the rest of my friends and colleagues are doing with their science and personal lives. I look forward to each **ENDO**, not only to

hear the awesome science, but to see friends from when I was at SUNY, or at UPMC, as well as friends I've met during my involvement with the different committees. It's always exciting!

MALABANAN: As we continue our return to normalcy after the COVID-19 pandemic, I am most looking forward to catching up with colleagues and fellows who I have helped train and whom I have not seen in a very long time. I am hoping that they will see **ENDO 2024** in Boston as a bit of a homecoming.

OCAMPO: I've missed just a few meetings since being an endocrinologist for more than 25 years now. As always, I am looking forward to the various endocrine updates and the always-interesting Meet the Professor sessions. I am eager to find out who of my former colleagues from work and training I will be bumping into. Personally, I'm also researching for a place where I can get a gluten-free lobster roll. I love Boston!

-NEWMAN IS THE EXECUTIVE EDITOR OF *ENDOCRINE NEWS*. HE HAS BEEN WITH THE ENDOCRINE SOCIETY SINCE 2013.



JOURNAL OF THE ENDOCRINE SOCIETY an open access publication

PUBLISHING IN ALL AREAS OF ENDOCRINOLOGY

- Clinical Research and Practice; Basic Research
- Health Systems, Services, and Disparities
- Contradictory, or Negative, and Confirmatory Studies

EDITOR-IN-CHIEF

Zeynep Madak-Erdogan, PhD University of Illinois at Urbana-Champaign Urbana, Illinois, USA

DEPUTY EDITOR

Stephen R. Hammes, MD, PhD University of Rochester School of Medicine and Dentistry Rochester, New York, USA

ARTICLE TYPES

- Research Articles and Brief Reports
- Expert Endocrine Consults
- Mini-Reviews
- Technical Resources or Methods and Databases
- Meta-Analyses
- Reports and Recommendations
- Commentaries and Perspectives

JES FACTS

- Impact Factor 2022: 4.1
- CiteScore 6.4
- Listed in PMC (full text), PubMed, DOAJ, Web of Science ESCI, Scopus
- Global Editorial Board of Recognized Experts, including Africa, Asia, Australia, Europe, Central and South America, Middle East, UK
- Peer Review with Rigorous Attention to Research Integrity. All Endocrine Society journals follow COPE and ICMJE Standards
- Free Global Online Availability of Accepted Articles
- Flat Article Processing Charge. No Other Author Charges
- Member Discounts. Developing Country Waivers
- Authors and Readers from more than 200 Countries and Territories
- More than 1,200 Articles Published Since 2017 Launch
- More than 110,000 Article Views Worldwide across the JES
 Website Every Month
- More than 22,000 Readers and Authors Alerted Worldwide When New JES Issues Go Online Every Month

READ AND/OR SUBMIT AT ACADEMIC.OUP.COM/JES OR EMAIL PUBLICATIONS@ENDOCRINE.ORG



Meet the Endocrine Society

For more than 70 years, the Endocrine Society has recognized the achievements of endocrinologists worldwide.

The Laureate 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 each a place in Endocrine Society history as well as the history of the practice and science of endocrinology.

The Endocrine Society will present the awards to the winners at ENDO 2024, the Society's 107th Annual Meeting, taking place in Boston, June 1 – 4, 2024.

Fred Conrad Koch Lifetime Achievement Award

Evan Dale Abel, MD, PhD

I am deeply humbled by this recognition, knowing that I could not have received this without pivotal contributions from my trainees and many collaborators over the years.

ABOUT THE AWARD

The Society's highest honor, this annual award recognizes lifetime achievements and exceptional contributions to the field of endocrinology. In 1957, the late Elizabeth Koch bequeathed a substantial legacy to the Endocrine Society in memory of her late husband, Dr. Fred Conrad Koch. van Dale Abel, MD, PhD, former Rhodes Scholar, and current chair of the UCLA Department of Medicine, stands among the few deserving of the Koch Award, the highest honor of the Endocrine Society.

Abel is an accomplished investigator in laboratory research focused on the complications of diabetes mellitus and their prevention. He has trained and inspired numerous fellows and students in the exacting analysis of mouse models and in the molecular investigation of metabolic derangements of the cardiovascular system in diabetes. These complications exact an enormous toll each year on patients living with diabetes around the world due to their direct contributions to congestive heart failure, myocardial infarction, vascular disease, disability, and death.

His keen mind, indomitable courage and vision, and generous style of leadership have enabled him to take on additional leadership responsibilities as the president of the Endocrine Society (2019 – 2020) and in mentoring underrepresented students, fellows, and junior faculty as principal investigator of the Endocrine Society's National Institutes of Health (NIH)-sponsored FLARE (Future Leaders Advancing Research in Endocrinology) Career Development Program. This unique program, fueled largely by Abel's creative energy and wisdom, will reap dividends to our field for decades to come, as it has graduated well over 150 students.

Abel has been further honored by being elected to the top societies for academic leaders in research and medicine including the American Society for Clinical Investigation (2004), the American Academy of Pediatrics (2012), National Academy of Medicine (2015), and National Academy of Sciences (2022). Abel has achieved a wide and continuous breadth of extramural funding from the NIH National Institute of Diabetes and Digestive and Kidney Diseases (1995 – present); the National Heart, Lung, and Blood Institute (1998 – present); and the American Heart Association (2003 – present) with additional support from the Juvenile Diabetes Foundation and the American Diabetes Association over the past 20+ years. There is no more gifted and committed leader who is more deserving of the Koch Award of the Endocrine Society than Evan Dale Abel.

-Dolores Shoback, MD, UCSF/VA Medical Center, and Gary Hammer, MD, PhD, University of Michigan

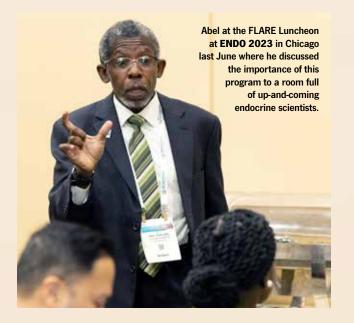
Endocrine News caught up with Abel to discuss taking home the Fred Koch Lifetime Achievement Award — the Endocrine Society's highest honor — as well as the path that led him here, his advice for the next generation of endocrinologists, and where he's going next.

Endocrine News: First off, congratulations on winning the Fred Conrad Koch Lifetime Achievement Laureate Award. This is the Endocrine Society's highest honor. What does this recognition mean for you, personally and professionally?

E. Dale Abel: The Endocrine Society is my professional home and has provided me with immeasurable opportunities for professional development over the past three decades. I have many dear friends and colleagues within the Endocrine Society. Moreover, I believe that the scientific advances that have grown out of our field have influenced many other fields by providing fundamental tools and insights. The recognition by the Endocrine Society of my lifetime work in elucidating the mechanisms that lead to cardiovascular complications of diabetes and the many roles of metabolism and insulin signaling in the cardiovascular system is an example of how endocrine research has informed other disciplines. As such, I am deeply humbled by this recognition, knowing that I could not have received this without pivotal contributions from my trainees and many collaborators over the years.

EN: Your lab has provided important insights into diabetes for three decades. Can you share a couple of your proudest moments in that time?

EDA: Scientifically, I am very proud of our work that contributed to the understanding of how the abnormal metabolic milieu in diabetes alters cardiac metabolism, impacts cardiac



mitochondria, and alters insulin signaling. These findings have been confirmed by many workers in the field and have been shown to be true not only in animal models, but also in humans. I have had the opportunity to mentor many trainees in my laboratory as students or post-doctoral researchers. Many of them now hold independent positions in endocrine and cardiovascular research around the world. I am proud to see them succeed and to learn about their successes and independent contributions to the field.

EN: You're well known as an exemplary mentor and leader. Can you talk about some times you've been inspired by your own mentors or colleagues?

EDA: My career was launched by the generosity of mentors who shared with me critical tools and reagents that enabled me to understand the relationship between metabolism and cardiac function. I appreciate the ways that my mentors taught me the importance of networking and the art of establishing productive collaborations. Many of my mentors taught me the importance and value of effective scientific communication, which are critical skills with which to disseminate our discoveries and compete for funding. As a mentor, I am always inspired by the creativity that is unlocked when you give talented individuals the space to think and explore new horizons in science.

EN: On the other hand, what advice do you have for young endocrinologists who may one day win this award?

EDA: This is a marathon and not a sprint. Do not be deterred by inevitable disappointments along the way. Early in your career, focus on a discreet number of questions to pursue in-depth. Do this rigorously and reproducibly, and your work will get noticed. Be generous to your mentees, who will pay it forward in ways that will advance your own research. Seek advice from many mentors, both within and outside of your field. Be generous and willing to share. It will only accelerate discovery.

EN: Is there any new work for your lab coming up that you'd like to share?

EDA: We have interesting new work that is elucidating important roles of sex hormones such as estrogen in modulating mitochondrial function in platelets that may explain sex differences in thrombosis. We have new work linking autophagy to NAD metabolism, mitochondrial energetics and heart failure, and an emerging project that is identifying fundamental mechanisms that could lead to fatty liver disease. — *Derek Bagley*

Outstanding Mentor Award Sanjay Bhadada, MD, DM

[Sanjay] Bhadada is much revered by his mentees who describe him as 'a mentor that every trainee would cherish to have,' and admire his 'infectious enthusiasm,' source of knowledge, and unwavering support of his trainees.

ABOUT THE AWARD

Established in 2013, this 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. Sanjay Bhadada, MD, DM, is a professor of endocrinology and head of the Endocrinology Department at the Postgraduate Institute of Medical Education and Research, Chandigarh, India, one of the top academic medical centers in Southeast Asia. Bhadada has established one of the most highly sought-after postgraduate training programs in endocrinology in Southeast Asia, mentored more than 40 endocrinology fellows and DM students, numerous graduate students and postdoctoral fellows, and many early-career faculty.

Many of his mentees have stayed in academia, while many others have become leaders and heads of departments in various medical schools in India, and some have gained distinction in major academic institutions in the U.S., Europe, and Southeast Asia. His contributions to the development of innovative educational programs at the institutional and national levels have had an enduring impact on the endocrinology field in India.

As the current president of the Endocrine Society of India, and as former secretary of the Indian Society of Bone Mineral Research, he has provided outstanding leadership in expanding the training and educational venues for fellows and DM students at a national level. Bhadada's contributions to research and education are reflected in nearly 300 publications and numerous awards, including the 2022 Dr. Radharaman Teacher's Oration from the Society for the Promotion of Education in Endocrinology.

Bhadada is much revered by his mentees who describe him as "a mentor that every trainee would cherish to have," and admire his "infectious enthusiasm," source of knowledge, and unwavering support of his trainees. Bhadada is highly deserving of the Outstanding Mentor Award for advancing the careers of numerous fellows, DM students, and early-career endocrinologists, who have become leaders in endocrinology in India and abroad, and for his national and regional leadership in Southeast Asia in advancing educational and training programs in endocrinology.

-Shalender Bhasin, MB, BS, Harvard Medical School

International Excellence in Endocrinology Award

Cesar Luiz Boguszewski, MD, PhD

esar Luiz Boguszewski, MD, PhD, has built a solid career based on continuous dedication to the development of the specialty of endocrinology and metabolism. Since the beginning of my career, I have had Cesar as an example to be followed.

After completing his PhD at the University of Gothenburg in 1997, Cesar returned to Brazil where he became professor at the Federal University of Paraná where he currently holds the position of full professor. Here, he founded SEMPR, a clinical research center dedicated to medical care, education, and research that became one of the most productive centers in the field of endocrinology and metabolism in Brazil.

At the Brazilian Society of Endocrinology and Metabolism (SBEM), Cesar has been continuously dedicated for more than two decades. Among his chief accomplishments were his tenure as president in 2021 and 2022. Under his leadership, SBEM went through an astonishing evolution and modernized the bylaws and the expansion of international partnerships, including SBEM in the Global Endocrine Leadership Coalition.

Internationally, Cesar is very involved in a number of scientific societies, including his role as a member of the Endocrine Society's Board of Directors from 2017 to 2020, as well as his membership on the International Liaison Committee of the European Society of Endocrinology since 2019.

Personally, and as a representative of the SBEM, I feel extremely comfortable and confident to recommend Cesar Boguszewski as the recipient of the Endocrine Society's International Excellence in Endocrinology Award as he as spent the past several decades building solid bridges that provide a greater interaction between international entities as well as promoting the development of endocrinology and metabolism around the world.

–Paolo Augusto C. Miranda, president, Sociedade Brasileira de Endocrinologia e Metabologia [Cesar Boguszewski] founded SEMPR, a clinical research center dedicated to medical care, education, and research that became one of the most productive centers in the field of endocrinology and metabolism in Brazil.

ABOUT THE AWARD

This award is presented to an endocrinologist who has made exceptional contributions to the field in geographic areas with underdeveloped resources for hormone health research, education, clinical practice, or administration. Medical College of St Hospital Trust, who is Charlettonae Sigams is used The Lenston Schulter of ely provided land, building at Water Harvey Hoad Control

the Barts Found

Barts from 1980

Gerald D. Aurbach Award for Outstanding Translational Research Morris Brown, MA, MSc, MD

[Morris] Brown's pioneering translational work fulfills his vision to identify and appropriately treat all patients with aldosterone-related hypertension, thereby revolutionizing patient care and long-term outcomes.

ABOUT THE AWARD

This annual award recognizes outstanding contributions to 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. orris Brown's devotion to finding adrenal causes of hypertension, and the right treatment for the right patient — long before "stratified medicine" entered common parlance — has driven his outstanding basic science and clinical studies. This search required him to develop complex drug rotations while undertaking laboratory studies of specific molecules and pathways. An early fruit was his AB/CD rule (*Lancet* 1999), which underpins many guidelines for hypertension; his PATHWAY trials (*Lancet/Lancet-D&E* 2015 – 2018) prompted a guideline recommendation of spironolactone for resistant hypertension. His radioenzymatic and HPLC assays showed that adrenaline is 50x more sensitive than noradrenaline for detection of adrenal pheochromocytomas (*Lancet* 1981).

Since 2012, Brown has transformed understanding, diagnosis, and treatment of primary aldosteronism. Following Lifton's discovery of somatic KCNJ5 mutations in 30% - 40% of aldosterone-producing adenomas (APA), Morris reported the paradox that these common APAs resembled cortisol-secreting zona fasciculata cells rather than zona glomerulosa and had multiple phenotypic differences from "wild-type" APAs (JCEM 2012). These data have been widely replicated. Meanwhile, helped by his parallel clinical development of 11C-metomidate PET CT (JCEM 2012, NatMed 2023), Morris found a common, but commonly overlooked, type of APA, smaller than KCNJ5-mutant APAs, with a zona glomerulosa-like transcriptome, and a unique set of recurrent somatic mutations (NatGen 2013). Seven gain-of-function CACNA1D mutations anticipated >70 further mutations in APAs and/or adjacent adrenocortical clusters. He subsequently found several further mutations (GNA11/Q+CTNNB1, CADM1) with distinctive molecular/clinical phenotypes (NEJM 2015, NatGen 2021/2023). His prospective MATCH-trial reported that hypertension is completely cured by removal of KCNJ5-mutant, but not CACNA1D-mutant, APAs (NatMed 2023). Their low rate of complete cure drives his search for simpler/improved interventions, including endoscopic radiofrequency ablation and aldosterone synthase inhibition (Hypertension 2017, NEJM 2022).

Brown's pioneering translational work fulfills his vision to identify and appropriately treat all patients with aldosterone-related hypertension, thereby revolutionizing patient care and long-term outcomes.

-Márta Korbonits MD, PhD, president, Society for Endocrinology

Outstanding Educator Award

A. Enrique Caballero, MD

Enrique Caballero, MD, is a clinical endocrinologist, educator, clinical investigator, and associate professor of medicine at Harvard Medical School (HMS). He is currently the faculty director of International Innovation Programs in the Office for External Education and director of Diabetes Education in the Postgraduate Medical Education Department at HMS. He is also the director of Latino Diabetes Health at the Brigham and Women's Hospital in Boston, Mass.

He has worked in the field of diabetes education for over two decades and is a well-recognized leader at the national and international levels. Both in his role as the inaugural director of Joslin Diabetes Center's International Professional Education and now in his current roles at HMS, he has directed close to 100 unique courses via multidisciplinary and targeted education approaches, including live and online activities that have enhanced knowledge, competence, and performance skills among thousands of healthcare professionals domestically and in more than 100 countries throughout Latin America, Europe, Asia, and Africa.

Caballero is also a prominent figure in the field of diabetes in underserved communities, particularly the Latino/Hispanic population. He has trained dozens of medical students, residents, fellows, researchers, allied health professionals, and physicians from the U.S., Latin America, and Spain on the complex challenge of managing diabetes in underserved communities.

Over the years, he has worked extensively with professional organizations such as the Endocrine Society, the American Diabetes Association, the National Minority Quality Forum, the National Hispanic Medical Association, the Latin American Diabetes Association, and the International Diabetes Federation, among others.

He has been the recipient of several awards and has been featured on innumerable TV, radio, newspaper, and social media programs domestically and abroad to discuss strategies to improve diabetes care, particularly in underserved populations.

-Marie E. McDonnell, MD, Brigham and Women's Hospital, and Guillermo Umpierrez, MD, CDE, MACP, Emory University School of Medicine

[Enrique Caballero] has directed close to 100 unique courses via a multidisciplinary and targeted education approaches, including live and online activities that have enhanced knowledge, competence, and performance skills.

ABOUT THE AWARD

This annual award recognizes exceptional achievement as an educator in the discipline of endocrinology and metabolism.

Outstanding Clinical Investigator Award Sadaf Farooqi, MD, PhD

[Sadaf Farooqi's] work is an exemplar of how understanding disease mechanisms can change diagnostic practice, inform the development of mechanism-based therapies, and improve the lives of patients.

ABOUT THE AWARD

This annual award honors an internationally recognized clinical investigator who has contributed significantly to understanding the pathogenesis and therapy of endocrine and metabolic diseases. S adaf Farooqi, MD, PhD, is distinguished for her discoveries of fundamental mechanisms that control human energy homeostasis. With colleagues, she discovered the first genes whose disruption causes severe obesity. In pioneering clinical studies, she established that the principal driver of human obesity is a failure of the central control of appetite and that the leptin-melancortin pathway regulates food intake, macronutrient preference, food reward, and body weight.

In children with congenital leptin deficiency treated with recombinant leptin, she showed that leptin reduced hyperphagia, permitted the onset of puberty at an appropriate developmental stage, and reversed T cell-mediated immune dysfunction. This work has shaped our understanding of how physiological states characterized by a fall in leptin levels (starvation, the weight-reduced state) and pathological states characterized by low leptin levels (anorexia nervosa, lipodystrophies), impact on reproduction and immunity.

Her work is an exemplar of how understanding disease mechanisms can change diagnostic practice, inform the development of mechanism-based therapies, and improve the lives of patients. Genetic investigation is now part of the diagnostic evaluation of severe childhood-onset obesity, recommended in clinical guidelines globally. Sadaf has played a leading role in the design and conduct of clinical trials of medicines that enhance signaling through the leptin-melanocortin pathway. As a result, subgroups of children with severe, life-threatening obesity can now be treated effectively with therapies that have been licensed. By demonstrating that severe childhood obesity can represent a medical disorder, her work has prevented children from being taken away from their families and placed into social care due to concerns about parental neglect.

Alongside her scientific contributions, Sadaf has been actively involved in public engagement and advocacy, leveraging the knowledge derived from her translational research to encourage a more sympathetic understanding of the challenges faced by people with severe obesity.

-Professor Sir Stephen O'Rahilly, MD, FRS, FMedSci, University of Cambridge Metabolic Research Lab

Richard E. Weitzman Outstanding Early Career Investigator Award

Joshua J. Joseph, MD, MPH

Joseph, MD, MPH, is an exceptional young investigator who translates hypothesisgenerating population science findings into clinical and community-based interventions. He is applying a health equity lens to advancing prevention and treatment of diabetes and cardiovascular disease by conducting innovative translational intervention studies targeting pathophysiological, psychosocial, and behavioral mechanisms of cardiometabolic disease identified through his observational research.

Joseph's seminal contribution demonstrated the critical role of the renin-angiotensinaldosterone system (RAAS) in the pathogenesis of type 2 diabetes. His innovative findings in Black Americans revealed that higher aldosterone is associated with hyperglycemia and germline mutations in an adrenal gland suppressor gene, implicating the RAAS in not just hypertension.

He was also the first to demonstrate that higher attainment of American Heart Association's (AHA) Life's Simple 7 (LS7) guidelines is associated with lower aldosterone. With funding from the NIH and Robert Wood Johnson Foundation, he has successfully translated his epidemiological findings into interventional trials targeting RAAS and LS7 for diabetes prevention in Black Americans. These funded mechanistic interventional trials interrogate the impact of aldosterone modulation with angiotensin receptor/neprilysin inhibitor pharmacotherapy on changes in inflammation, glycemia, and vascular function in Black Americans.

Joseph co-developed a novel 24-week community-based lifestyle intervention that improved glucose, cholesterol, body mass index, and diet, along with increasing overall LS7 scores. Since completing his fellowship in 2016, Dr. Joseph has published 58 peer-reviewed articles (34 as first/senior author), eight peer-reviewed reviews, 11 book chapters and reports (H-index 22); presented more than 30 times at national scientific meetings, and obtained two R01s.

He is nationally recognized as evidenced by committee leadership roles for the Endocrine Society and AHA and receiving multiple high-profile awards, including the National Minority Quality Forum 40 Under 40 Award and recent membership recommendation for American Society for Clinical Investigation. [Joshua] Joseph co-developed a novel 24-week community-based lifestyle intervention that improved glucose, cholesterol, body mass index, and diet, along with increasing overall LS7 scores.

ABOUT THE AWARD This annual award recognizes an exceptionally promising young clinical or basic investigator.

-Sherita Hill Golden, MD, MHS, Johns Hopkins University Hospital

Outstanding Innovation Award David A. Katz, PhD

[David Katz founded Sparrow Pharmaceuticals, which places] among their foremost aims ... to implement clinical trials that can fit into patients' lives and deliver results on health outcomes that patients endorse as relevant.

ABOUT THE AWARD

Established in 2013, this award is presented to recognize an individual or team of people who have demonstrated innovation to further endocrine research or practice in support of the field of endocrinology, patients, and society at large. have known David A. Katz for over a decade, since he led clinical trials of 11b-hydroxysteroid dehydrogenase type 1 (HSD-1) inhibitors at Abbott to treat Alzheimer's disease. Already in the late 2000s, he was one of a few scientists who correctly recognized that the best therapeutic potential for HSD-1 inhibitors would be to treat patients with glucocorticoid excess, whether cortisol excess related to a tumor or use of the glucocorticoid medicines.

What makes him unique is that he's steered the resources of industry in that direction. Abbott had no focus on rare diseases or specifically on endocrinology. But David, rather than taking "no" for an answer, "retired" to found Sparrow Pharmaceuticals. With his extensive knowledge of the field, he secured a best-in-class HSD-1 inhibitor and purchased what is now labelled SPI-62 from Astellas. He then attracted \$50 million investment to support the clinical development of SPI-62 as a treatment for patients with Cushing syndrome, autonomous cortisol secretion, and, together with prednisolone, patients with polymyalgia rheumatica. Sparrow has now initiated three Phase 2 clinical trials to assess the clinical potential of SPI-62. The potential here is significant; we know that 3% of our population older than the age of 70 years are taking exogenous prednisone/prednisolone for inflammation conditions such as polymyalgia rheumatica but with significant side effects.

The Sparrow team's dedication to patients is not just words. Among their foremost aims are to implement clinical trials that can fit into patients' lives and deliver results on health outcomes that patients endorse as relevant. Indeed, the co-production of these trials with patients themselves has been a genuine advance in this field. A mantra of Dr. Katz is that Sparrow's drugs should be effective, safe, convenient, and cost-effective.

-Paul M. Stewart, MD FRCP, FMedSci, University of Leeds

Outstanding Leadership in Endocrinology Award Anne Klibanski, MD

first met Anne when she invited the incoming fellows to her home for an introduction before we started our training. She has been a supportive mentor to me ever since, even though I chose a different lab and we have not worked closely together.

Besides demonstrating her leadership in welcoming new members to the department, Anne has demonstrated leadership in extremely impactful ways. First, she developed and led the multidisciplinary Neuroendocrine Unit at Massachusetts General Hospital. Then she took on additional roles with increasing responsibility, including the Clinical Research Center, and the Endocrine Unit. Her success in those roles, which impacted large numbers of individuals in the hospital, led to her being asked to take on more and more important roles in the hospital, and the medical school. Her roles have included associate dean for clinical and translational research at Harvard Medical School, chief academic officer at Partners HealthCare, academic dean for Partners HealthCare/Harvard Medical School, and most recently, president and CEO of Mass General Brigham. The latter role is even more impressive because of how difficult it is: maintaining clinical care during the COVID-19 crisis, as well as solvency for a large premier academic medical center.

Anne been willing to make the hard but necessary decisions and demonstrate her leadership vision. Very few individuals have achieved this level of leadership, and Women in Endocrinology is especially proud that Anne has done it while still achieving multiple awards for both clinical investigation and for mentoring, especially for her support of the Women in Academic Medicine Committee and her chairing the Women's Health Committee on Research well before there was such external demand for diversity in faculty.

As president and CEO of the hospital, Anne is an incredible role model to other clinicians who may wish to serve patients beyond excellence in clinical care and investigation.

-Ann E. Taylor, MD, on behalf of Women in Endocrinology

As president and CEO of [Mass General Brigham] hospital, Anne [Klibanski] is an incredible role model to other clinicians who may wish to serve patients beyond excellence in clinical care and investigation.

ABOUT THE AWARD

This annual award recognizes outstanding leadership in fundamental or clinical endocrinology.

Vigersky Outstanding Clinical Practitioner Award

Sandra Daniela Licht, MD

In addition to her private office practice ..., Sandra Licht generously devotes a full weekend every other month to provide endocrine care to an underserved rural population in remote Patagonia 1,000 miles to the south of Buenos Aires.

ABOUT THE AWARD

This annual award recognizes extraordinary contributions by a practicing endocrinologist to the endocrine and/or medical community. **P** or 25 years, Sandra Licht has been a quintessential private practitioner of endocrinology. In addition to her private office practice where she sees 100 patients per week, she generously devotes a full weekend every other month to provide endocrine care to an underserved rural population in remote Patagonia 1,000 miles to the south of Buenos Aires. Her dedication to maintaining excellence in patient care is underscored by her acquisition of continuing education with attendance every year at **ENDO** and annual meetings of the American Thyroid Association (ATA). In our Society, she has reflected the concerns of the clinician constituency with her history of active membership on the Publications Core Committee, the Clinical Guidelines Subcommittee, the Awards Committee, and currently on the Nominating Committee.

In addition to an extraordinarily busy private practice, she has had a major focus on patient education since her early membership on the Hormone Foundation Board. She regularly lectures to patient support groups, serves on the Patient Affairs Committee of the ATA, and provided the Spanish translation of the book *Thyroid Cancer: A Guide for Patients*. For the past 15 years she has been medical advisor to the Asociación de Pacientes con Cáncer de Tiroides de la República Argentina, an association that helps thyroid cancer patients, and an active member of the Medical Advisory Panel of the Thyroid Cancer Alliance, the international network of national thyroid cancer support groups from Mexico, Argentina, Spain, Peru, Netherlands, France, Colombia, and the United Kingdom. She also shares her expertise by lecturing to medical groups throughout South America.

Given her undeniable qualifications and in recognition of the large and growing international component of our Society, she clearly is an ideal candidate for the Outstanding Clinical Practitioner Award for her "extraordinary contributions as a practicing endocrinologist to the endocrine and medical community."

-Leonard Wartofsky, MD, chairman emeritus, Department of Medicine, Medstar Washington Hospital Center

Sidney H. Ingbar Distinguished Service Award

Lynnette Nieman, MD

ynnette Nieman, MD, is a senior investigator at the National Institutes of Health where she served with distinction as the associate program director of the NIH fellowship program for 12 years and currently is the head of the Research Oversight and Career Development Program for the fellowship.

For over 25 years, Lynnette has held nearly continuous leadership positions at the Endocrine Society. She has served on numerous committees, including the Annual Meeting Steering Committee, Membership Committee, Nominating Committee, Publications Core Committee, Clinical Research Committee, International Committee, and the Committee on Governance Affairs (COGA). She has also led the Society's educational offerings, including serving as clinical chair and overall chair of the Annual Meeting Steering Committee, and chair of Clinical Endocrinology Update. She also led multiple task forces that developed Clinical Guidelines for the diagnosis and treatment of Cushing's syndrome. After being elected and serving on the Board of Directors as the vice president for clinical science, she later served as president of the Society where she worked tirelessly to increase the diversity of both committee membership and candidates for office.

Perhaps most notable during her presidency was her leadership on the Governance Task Force that created our fourth strategic plan and revised our governance structure. Her service on the International Society of Endocrinology Executive Committee as a representative of the Endocrine Society is emblematic of her remarkable sustained leadership and service to the global endocrine community.

I can think of few other Endocrine Society leaders who have been as influential and as deeply engaged in service to the Society and global endocrine community as Lynnette Nieman, who is most worthy of the Sidney H. Ingbar Distinguished Service Award.

-Gary Hammer, MD, PhD, University of Michigan

I can think of few other Endocrine Society leaders who have been as influential and as deeply engaged in service to the Society and global endocrine community as Lynnette Nieman, who is most worthy of [this] Award.

ABOUT THE AWARD

This award recognizes distinguished service to the Endocrine Society and the field of endocrinology.

Edwin B. Astwood Award for Outstanding Research in Basic Science

Vincent Prevot, PhD

Vincent Prevot's work in mammalian reproduction has championed a new order of things to the benefit of many patients. His insights and lucid advocacy inform its most passionate defense.

ABOUT THE AWARD

Originally awarded from 1967 and renamed to honor the scientific contributions of the late Dr. Edwin B. Astwood, this award recognizes individuals who have made significant contributions to the field of endocrinology via their outstanding basic science research. Professor Vincent Prevot is a National Institute of Health and Medical Research (INSERM) senior research director, team leader of the Laboratory of Development and Plasticity of the Neuroendocrine Brain at the University of Lille, France.

He received a BS in biochemistry and an MS in animal physiology from the University of Paris XI, Orsay, France, and then later completed his training earning a PhD in neuroscience from the University of Lille, France. Prevot trained under Prof. S. Ojeda at the Oregon National Primate Research Center/Oregon Health & Science University where he continued to study the GnRH system. In 2002, he returned to France and became an associate researcher at the INSERM, establishing an independent research group in Lille. Since 2006, he has headed the Development and Plasticity of the Neuroendocrine Brain INSERM Laboratory at Lille, currently supervising 43 researchers, including two European Research Council (ERC) grantees, clinicians, postdoctoral fellows, PhD students, and technicians. In 2016, he was promoted to INSERM senior research director.

Prevot's start in research can be traced to neuronal and glial plasticity in the GnRH system, crucial for the onset of puberty and adult fertility. This led him to provide many seminal contributions and groundbreaking concepts in the understanding of the central control of mammalian reproduction. His current research focuses on systems neuroscience and neuroendocrinology, particularly the brain circuits that control reproduction and metabolism and the neural pathways through which they respond to peripheral information. He also characterized the role of nitric oxide in the central control of reproduction and metabolism; elucidated the function of tanycytes in transmitting the actions of key metabolic hormones into the brain; and defined the role of glial cells in the regulation of GnRH neurons, as fundamental elements of the reproductive brain.

A member of several editorial boards including the Endocrine Society's *Endocrinology*, he also serves on numerous advisory panels for academia, participating in and having served on the executive committees of several learned societies. Vincent Prevot's work in mammalian reproduction has championed a new order of things to the benefit of many patients. His insights and lucid advocacy inform its most passionate defense.

-Maria Chiara Zatelli, MD, PhD, University of Ferrara

Roy O. Greep Award for Outstanding Research Evan D. Rosen, MD, PhD

E Van D. Rosen, MD, PhD, is chief of the Division of Endocrinology, Diabetes, and Metabolism at Beth Israel Deaconess Medical Center, professor of medicine at Harvard Medical School, and an Institute member of the Broad Institute. He has made unique and important contributions to our understanding of adipose biology.

Evan realized early on that powerful genome-wide technologies for mapping cis-regulatory elements in cells and tissues allow one to pinpoint gene enhancers and promoters that are differentially active between cells with different identities (e.g., preadipocytes vs. adipocytes; brown vs. white adipocytes) or different states (e.g., insulin resistant vs. insulin sensitive adipocytes). These regions can be used to identify transcription factor (TF) binding motifs, which enable predictions about which TFs might be involved in the biological process under study. Integrating this approach with cell biology, animal physiology, and human translational methods, Evan's lab discovered critical roles for TFs such as SRF, PLZF, IRF3, IRF4, GR, VDR, COUP-TF2, and SMAD3 in adipocyte development, physiology, and dysfunction. These studies have altered our fundamental understanding of the role played by adipocytes in organismal physiology.

Evan's lab also created many mouse models that are widely used by the research community to study adipose tissue, including Adiponectin-Cre, Adiponectin-CreER, Ucp1-Cre, and NuTRAP mice. These models were distributed widely prior to publication and are available through Jax. Evan has also authored several very prominent reviews on adipose biology, which have collectively been cited more than 7,000 times. Evan is a highly sought-after speaker at both national and international meetings, and has been an organizer of two Keystone Symposia on Obesity and Adipose Biology. He has served as an associate editor of the Endocrine Society journal *Endocrinology* and is currently the co-director of the Human Cell Atlas Adipose Biological Network. His trainees are on the faculty at Harvard, Berkeley, UT Southwestern, and elsewhere around the globe.

-Barbara Khan, MD, Beth Israel Deaconess Medical Center

[Evan Rosen] has made unique and important contributions to our understanding of adipose biology ... author[ing] several very prominent reviews, which have collectively been cited more than 7,000 times.

ABOUT THE AWARD This annual award recognizes meritorious contributions to research in endocrinology.

Outstanding Scholarly Physician Award Dolores Shoback, MD

[Delores] Shoback's work has led to novel insights into disease pathophysiology by enhancing our understanding of the role of parathyroid hormone in calcium regulation and its effect on osteoblasts.

ABOUT THE AWARD

This annual award recognizes outstanding contributions to the practice of clinical endocrinology in academic settings. Dolores Shoback, MD, exemplifies all that is embodied in scholarship in medicine. Shoback is internationally recognized for her innovative research on the pathogenesis of calcium-sensing receptors. Her work has led to novel insights into disease pathophysiology by enhancing our understanding of the role of parathyroid hormone in calcium regulation and its effect on osteoblasts. Elected to the American Society of Clinical Investigation in 1994, she has received numerous other awards for her seminal contributions, most recently the Parathyroid Medal from the Fondazione Raffaella Becaglia. She has authored 122 high-quality peer-reviewed publications, seven peer-reviewed guidelines, and 65 chapters.

Her accomplishments as a leader in activities related to education, mentorship, outreach to the community, and service are worth noting. It is these activities together that enable her to have the broadest possible impact upon scientific discovery both today, and in the future. She has been involved in training the next generation for more than 30 years, initially as director of the Fellowship Program at UCSF and then as associate director. She has trained and mentored 22 clinicians and scientists, and her contributions to educational programs have had an enduring impact on the field. She has been invited to national/international meetings and more than 30 visiting professorships by prestigious institutions.

Shoback continuously strives to expand the impact of the field of endocrinology through her service to national and international organizations. She has been involved in service to the Endocrine Society since 1990. Over the decades, she has been involved in various leadership roles, recently as the councilor and secretary-treasurer. She also served on two **ENDO** Task Forces, the Clinical Practice Guideline Task Force on Osteoporosis, and the Global Strategy Task Force.

In a multitude of roles, Shoback has long exemplified a level of commitment to scholarship, benefiting countless patients, clinicians, scientists, and trainees.

-Ruban Dhaliwal, MD, MPH, on behalf of Women in Endocrinology



Journal of the Endocrine Society

OBESITY AND OBESOGENS RESEARCH

REACH THE WORLD THROUGH OUR JOURNALS: TRUSTED, RIGOROUS, RESPECTED

JES IS ADDING MORE CONTENT IN OBESITY AND OBESOGENS RESEARCH, INCLUDING:

Genetic Associations Hormones Related to Obesity Obesity Disparities Obesity-related Conditions Pediatrics and Obstetrics Therapies Environmental Factors

JES IS ALSO ADDING MORE CONTENT IN AREAS INCLUDING:

Osteoporosis, Bone, and Mineral Neuroendocrinology Reproductive Endocrinology Cancer Endocrine Disrupting Chemicals Diabetes

THE EDITORS WELCOME INQUIRIES AND SUBMISSIONS

Contact JES at publications@endocrine.org



READ AND/OR SUBMIT AT ACADEMIC.OUP.COM/JES

Good Vibrations

A new FDA-approved device could offer a solution or osteopenia treatment.

t the beginning of 2024, the U.S. Food and Drug Administration (FDA) granted clearance for the first non-pharmacological device-based prescription treatment for postmenopausal women diagnosed with osteopenia — a wearable belt device, worn on the hips, that delivers targeted, calibrated vibration to the lumbar spine and hips that Bone Health Technologies is marketing as Osteoboost.

10A

Osteoboost was reviewed through the FDA's De Novo classification process and received Breakthrough Device Designation. The Osteoboost clearance creates a new class of therapeutics for low bone density outside of pharmacological intervention. The belt also represents the first therapeutic mechanism specifically designed and cleared for intervention during the osteopenia stage.

Until recently, patients with osteopenia lacked effective therapeutic options; the standard of care for osteopenia focused on regular weight-bearing exercise and calcium supplementation — neither of which have been proven to significantly slow the loss of bone density.

BY DEREK BAGLEY

In a first for the treatment of osteopenia, the Osteoboost — a wearable device that delivers precise vibrations to the spine and hips — promises to offer a new form of therapy for clinicians treating postmenopausal women dealing with a loss of bone density.

The Osteoboost belt could offer an entirely new treatment option for postmenopausal women with osteopenia, who are typically prescribed calcium supplements or various exercises that don't always offer sustainable benefits. The clearance comes on the heels of a study presented at **ENDO 2023** in Chicago: A double-blind, sham-controlled study enrolled 126 postmenopausal women with low bone mass who were not on bone-active medications. The data showed strong evidence that supports the efficacy of the Osteoboost in reducing the decline of bone strength and bone density.

"The well-being and ability of postmenopausal women to maintain an active lifestyle is threatened when loss of estrogen causes rapid loss of bone," says Laura Bilek, PhD, associate dean for research and professor at the University of Nebraska and principal investigator for this study. "Although lifestyle interventions such as exercise and diet are beneficial to bone, the effect is small. The Osteoboost shows promise in slowing the loss of bone density and strength and may fill the treatment gap."

Finding the Right Target

The road to a wearable vibration device on the hips to treat osteopenia is pretty straightforward. Bilek tells *Endocrine News* that a lot of research has looked at bone changes in patients who would stand on a platform that vibrates. These vibrations travel up through the skeleton and have been shown to be effective at improving bone density — decreasing osteoclasts and increasing osteoblasts. "But the results were inconclusive, and looking at the hip and spine, they weren't seeing as great of effect size as was needed," Bilek says. "That's where this novel idea came in. What





Laura Bilek, PhD

66 The well-being and ability of postmenopausal women to maintain an active lifestyle is threatened when loss of estrogen causes rapid loss of bone. Although lifestyle interventions such as exercise and diet are beneficial to bone, the effect is small. The Osteoboost shows promise in slowing the loss of bone density and strength and may fill the treatment gap."

- LAURA BILEK, PHD, ASSOCIATE DEAN FOR RESEARCH, PROFESSOR, UNIVERSITY OF NEBRASKA, OMAHA, NEBRASKA

happens if we apply this modality directly to the pelvis, the sacrum, so that we can target the dose to the areas that we really need to have an effect?"

For the study presented at **ENDO** in Chicago, participants underwent a thorough screening process, including DXA (Dual-energy X-ray absorptiometry) scans and a comprehensive blood workup. The participants were divided into two randomized groups: The Active group received Osteoboost treatment five times per week for 12 months, while the Sham group used the same device but received a placebo treatment that simulated vibration. Compressive strength and volumetric density of the first lumbar vertebrae (L1) were measured using Finite Element Analysis of computed tomography (CT) scans of the lumbar spine by ON Diagnostics.

The primary outcome measurement was the change in vertebral strength, as measured by biomechanical computed tomography using finite element analysis. Per Protocol (PP) — subjects (those who used the device a minimum of three times per week throughout the year) in the Active Treatment group lost, on average, 0.48% bone strength, while those in the Sham group lost 2.84%, with a relative difference of 2.36% (P=0.014) — an 82% reduction in the rate of bone strength loss. Additionally, CT measurement of vertebral bone density was conducted and showed a 1.68% relative benefit for those using the Osteoboost device — an 85% reduction in loss of bone density (P=0.008) in the PP group. Zero serious adverse events were reported.

Filling the Treatment Gap

But while the road may be straightforward, it had its share of potential potholes. The COVID-19 pandemic hit during the study, threatening to disrupt it as it did with so many other things. Still, the study was funded, and Bilek says her institution helped the study proceed. What's more is that the women who participated did so without any trepidation. "The women are so excited about having an option for their health, that really anyone who pre-screened and qualified to come in for a DXA, did so without any hesitation, even during COVID-19," Bilek says. "To me, that was evidence of the enthusiasm for women looking for something they could do for their bone health."

Bilek praises the participants' compliance, even as their family members got sick and amidst all the other challenges of the past few years. "All these women are busy, even the ones that aren't working,"

PRACTICE RESOURCES

she says. "They're active in their late middle-aged years. I didn't have anyone say, 'I can't do that."

Laura Yecies, CEO of Bone Health Technologies, says that while compliance rates were lower for the studies with the whole-body platforms, the study participants were drawn to the idea of getting treatment while walking the dog or cooking. "They just get into a habit at a particular time of day, maybe in the morning when they're doing their chores or going for their walk, they put the belt on," Yecies says. "I think that idea of being able to incorporate it into daily activities is what helped us get the compliance, and the compliance helped us get the great result."

"[Osteoboost] was very easy to incorporate into a lifestyle, which is critical," Bilek says. "There's a lot of medications that have low uptake or compliance, because they have symptoms and side effects, so I was really excited to see that the compliance was high."

Flattening the Curve

Approximately 52 million Americans have osteopenia, a much bigger population than those with osteoporosis. According to Bilek and Yecies, the average American woman's bone density peaks in her 30s, then declines, with the sharpest dip coming in the immediate menopausal timeframe. Bilek and Yecies both stress the importance of intervening during the osteopenia stage — the earlier the better. And again, until now, there haven't been many tools to delay bone loss.

They liken the belt's effects to that ubiquitous phrase during the beginning of COVID-19 — "flattening the curve." "If someone is losing on average, 3% to 4% of their bone per year, and you slow it to 0.5% through something safe there's no reason why they can't use it for 10 years, the medications now have holidays," Yecies says. "So, it's this flattening of the bone loss curve."

Bilek also points out that this belt isn't meant to replace exercise to help prevent bone loss; they hope women incorporate the device into their routines, to help with consistency. "I'm an exercise researcher, and we know 66 [Osteoboost] was
very easy to incorporate into a lifestyle, which is critical.
There's a lot of medications that have low uptake or compliance, because they have symptoms and side effects, so I was really excited to see the compliance was high."

- Laura Bilek, Phd, associate dean for Research, Professor, University of Nebraska, Omaha, Nebraska

exercise is helpful, but it's really hard for women who are still in their working years — maybe in the sandwich generation, caring for their parents — to truly do the exercise level that's needed for effectiveness," she says. "So, to have a tool that's simple, safe, and accessible is really exciting."

That access is another thing Bilek and Yecies hope to remedy as well. Bilek lives in Nebraska, and she says there are a lot of therapies that are out of reach for many individuals. For instance, some people might not be able to afford a gym membership or even get to a gym if they live in rural or remote areas. Older adults may have difficulty with highimpact exercise or heavy lifting. "This belt can be a really great adjunct," Bilek says.

Bilek goes on to say that she has seen a lot of excitement among endocrinologists when it comes to this device. "There's been greater enthusiasm for the belt with the endocrinologist than I even anticipated," she says. "It tells me that, in their profession, they're really struggling at that area where they know they need to prevent bone loss during osteopenia, and there aren't any approved tools, other than lifestyle."

- BAGLEY IS THE SENIOR EDITOR OF *ENDOCRINE NEWS*. IN THE APRIL ISSUE, HE WROTE ABOUT THE **ENDO 2024** SESSIONS, "ENDOCRINE CARE FOR INCARCERATED INDIVIDUALS" AND "ARTIFICIAL INTELLIGENCE IN HEALTH AND BIOMEDICAL RESEARCH: THE FUTURE IS NOW." Endocrine Society Advocates for Increased Research Funding in FY 2025 Appropriations he Endocrine Society has begun its efforts to obtain increased funding for research in Fiscal Year (FY) 2025, which will begin October 1, 2024.

Consistent with previous years, we have updated our position statement on Biomedical Research Funding to illustrate the importance of funding for the National Institutes of Health (NIH) and highlight how Congress' support has enabled advancements in basic and clinical endocrine research that led to better public health outcomes. Our statement (available at: **endocrine.org/ advocacy/position-statements**) describes how research can improve longevity and quality of life, and benefit local, regional, and national economies, and maintain the global competitiveness of the United States.

As part of a united group of biomedical research advocates, including the Federation of American Societies for Experimental Biology (FASEB) and the Ad Hoc Group for Medical



We call for the NIH to receive at least \$51.3 billion in FY 2025. This would be an increase of 9% over the FY 2024 amount, to allow NIH-funded research to achieve real growth over inflation and increase research opportunities for biomedical science researchers.



Research, we call for the NIH to receive at least \$51.3 billion in FY 2025. This would be an increase of 9% over the FY 2024 amount, to allow NIH-funded research to achieve real growth over inflation and increase research opportunities for biomedical science researchers. We also urge Congress to complete appropriations by the end of the fiscal year on September 30 to prevent costly delays and inefficiencies from short-term funding known as Continuing Resolutions.

The Society conducted a Researcher Hill Day in March to begin discussions with congressional offices. We will also participate in a broad research community event, the Rally for Medical Research Hill Day on September 18, to advocate for increased funding for research. Throughout the spring and summer, we will continue to share information with congressional appropriations committees about the value of endocrine-related research.

PARTICIPATE IN OUR ADVOCACY: Your voice, as a researcher and a constituent, is powerful and matters to members of Congress. The Endocrine Society has implemented a campaign on our website to make it easy for members to advocate for your field and urge Congress to provide robust funding for the NIH. For more information on how to share your perspective with Congress about the benefits of NIH funding for your research and your patients, visit our campaign at: **endocrine.org/advocacy/take-action**, or contact: **advocacy@endocrine.org** to learn about participating in our next Hill Day and other opportunities to get involved.



Policymakers Take Steps to Reduce PFAS Exposure, Consistent with Society Recommendations

Recognizing the harmful effects of per- and polyfluoroalkyl substances (PFAS), including their effects on the endocrine system, the Endocrine Society has been a leader in educating policymakers about these chemicals and encouraging regulators to take urgent steps to minimize exposure to these endocrine-disrupting chemicals (EDCs). In April, regulators and governments took significant steps to reduce exposure to these chemicals consistent with our recommendations.

In the European Union, the European Parliament and Council agreed on a ban of PFAS in food contact materials (FCMs), implemented along with an earlier proposed ban on bisphenol A (BPA) and other bisphenols in FCMs. This outcome follows significant negotiations between the three European institutions and represents a major victory for public health, consistent with our priorities. Our members have advocated for months in support of strong measures to reduce exposure to bisphenols and PFAS in the EU, and we were successful in strengthening these proposals as they developed, for example, by working to prevent so-called regrettable substitutions through the inclusion of "other bisphenols" in the BPA proposal.

Meanwhile in the United States, the Environmental Protection Agency (EPA) announced a national regulation limiting the amount of several PFAS in drinking water and is providing \$1 billion to states and territories to enable water systems to test and treat for PFAS contamination. The Endocrine Society wrote to the EPA last year supporting a strong drinking water standard for PFAS, highlighting the need for upgrades in water treatment facilities to remove contamination given that there may be no safe level for exposure to these chemicals.

The Endocrine Society welcomes these important steps to reduce exposures to harmful EDCs, and we look forward to opportunities to reduce exposures in other sectors of the economy through policy and regulatory processes.

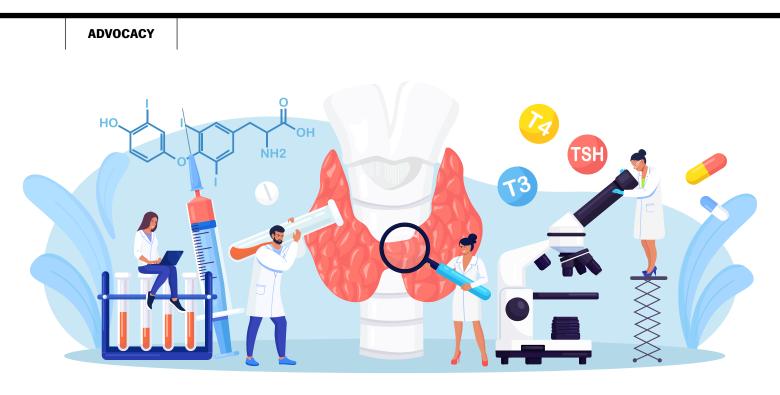
Endocrine Society Continues to Educate Policymakers about Obesity

he Endocrine Society continues its initiative to educate members of Congress and their staff on the issue of obesity and related policy options.

In March, the Society released an updated version of our "Obesity Playbook" to congressional members and offices. The Playbook provides the latest research on how obesity as a disease is impacting public health and includes data on prevalence, cost burden, child nutrition and food security, the impact on our military and national security, and treatment options. It also includes the latest about the state of the science on obesity, academic journal articles on the subject, policy options to consider, recent media coverage, and recordings of our virtual congressional briefings on obesity.

The Playbook was designed as the "go-to" information about obesity to help members and health staff while working on health issues and engaging with constituent concerns. As legislation continues to move forward, congressional members can use this Playbook as a resource on obesity. You can view the Playbook at: www.endocrine.org/advocacy/prioritiesand-positions/obesity.

In addition to the Playbook, the Society will host an *Endocrine News* podcast in May with Congressman Raul Ruiz (D-CA) to discuss educating members of Congress about obesity. Rep. Ruiz has been a leader on the issue of obesity and is the sponsor of the Treat and Reduce Obesity Act (TROA). This legislation would allow Medicare to cover FDA-approved antiobesity medications (AOM) which are scientifically proven to treat obesity. It would also remove coverage restrictions in Medicare pertaining to Intensive Behavioral Therapy (IBT). The podcast will be available on our *Endocrine News* podcast website in the coming weeks.



Endocrine Society Launches Initiatives to Promote Pathways to Endocrinology

The Endocrine Society has announced two exciting initiatives to promote endocrinology and encourage future clinicians and scientists to become endocrinologists.

In June, the Society will be hosting the second annual Endocrinology Mentor Day (eMD) at ENDO 2024 in Boston. Medical students and residents from the Boston area or already attending ENDO are invited to participate to learn more about endocrinology. During the event, medical students and residents will be paired with an Endocrine Society member as their "mentor" for the day. Mentors will guide attendees around ENDO and introduce them to ENDO's signature programs including poster presentations, interesting case studies, and a plenary session. eMD will take place on Sunday, June 2. If you are interested in joining us for this program as a mentor, or would like to learn more, please email Ellie Cliff at: ecliff@endocrine.org.

In March, the Society launched the Medical School Engagement Program (MSEP), created to increase the number of U.S.-based medical students choosing to specialize in endocrinology. The first group of medical school awardees will be notified by May 1 — just in time for ENDO 2024!

In the program's first year (2024 – 2025), the Endocrine Society will provide at least five medical schools with support for endocrinology-focused programming including:

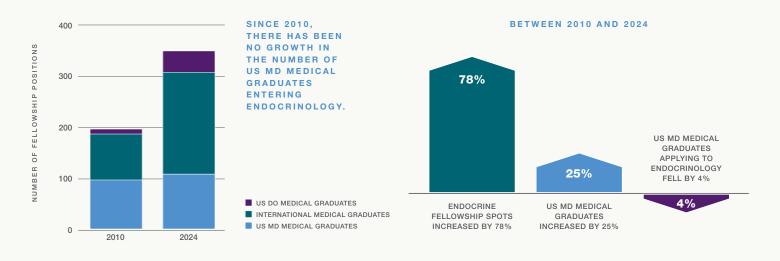
- Establishing Endocrinology Interest Groups for medical students and providing funding to support faculty-led sessions highlighting the best of endocrine practice and research.
- Supporting two Excellence in Endocrinology awards at each institution, for a pre-clinical and a more senior medical student.
- Funding attendance at **ENDO** for each award winner, where they will participate in eMD.

Timely, ongoing, and engaging mentorship with medical students — starting early, and continuing through their educational careers — can play a significant role in increasing the number of students choosing any specialty. Our goal is to increase the number of medical students choosing endocrinology.

For more information visit: **endocrine.org/msep** or contact Sacha Uelmen at: **suelmen@endocrine.org**.

THE US MD ENDOCRINOLOGY PIPELINE IS FACING UNPRECEDENTED CHALLENGES.

In 2010, endocrinology was one of internal medicine's most competitive specialties. In 2024 it's one of the least.



TOGETHER, WE CAN MEET THIS CHALLENGE.

Our Medical School Engagement Program (MSEP) provides a way for leaders like you to pique medical student interest in endocrinology and recognize your best and brightest learners with opportunities to engage with leaders in our field.

STUDENTS

Access to networking opportunities with endocrinology faculty, funded excellence awards, and complimentary Society membership.

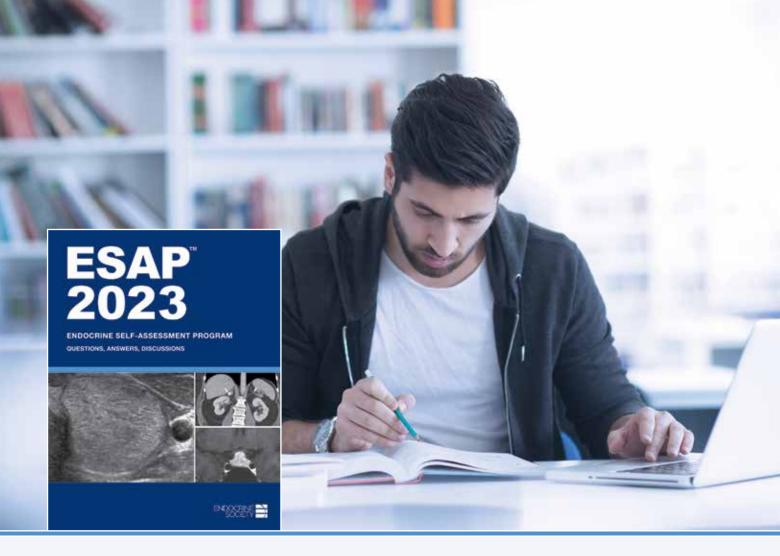


LEADERSHIP

Build lasting relationships with promising students, offer rewarding teaching opportunities to faculty, and increase the number of medical students electing endocrinology rotations.

APPLICATIONS ARE NOW BEING ACCEPTED FOR THE 2024-2025 ACADEMIC YEAR. SUBMIT YOURS TODAY AT ENDOCRINE.ORG/MSEP





LEVEL UP YOUR KNOWLEDGE

WITH THE LEADING SELF-ASSESSMENT PROGRAM IN ENDOCRINOLOGY

- 120 brand-new questions with answer rationale
- Interactive online module with two learning modes to complement different learning styles
- Printed book to help guide your studies
- Peer comparisons for each question
- Certified for 40 AMA PRA Category 1 Credits™ and ABIM MOC Points

ORDER ONLINE AT ENDOCRINE.ORG/ESAP2023

