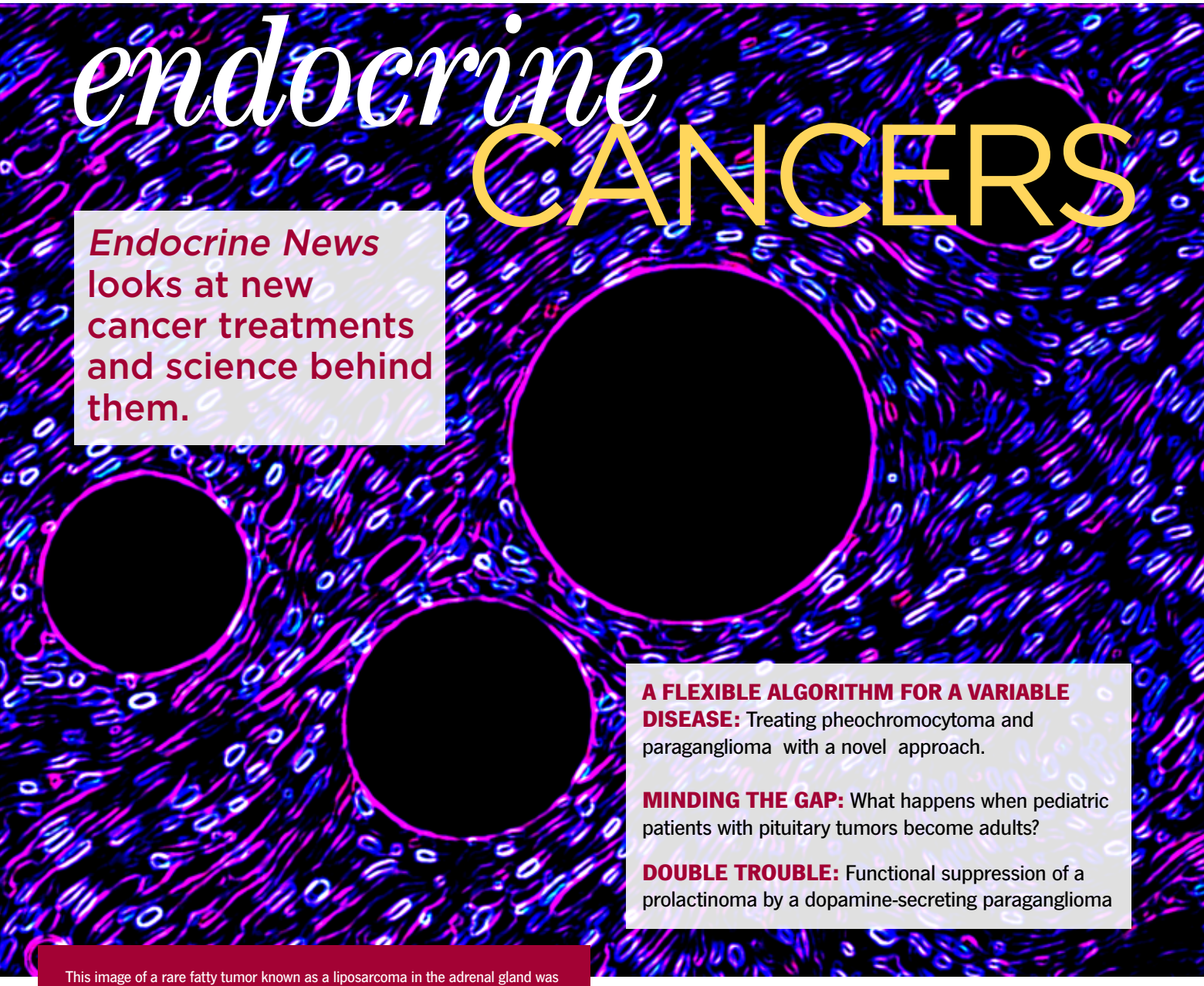
SEPTEMBER 2026 THE LEADING MAGAZINE FOR ENDOCRINOLOGISTS

Endocrine news



endocrine CANCERS

Endocrine News looks at new cancer treatments and science behind them.

A FLEXIBLE ALGORITHM FOR A VARIABLE DISEASE: Treating pheochromocytoma and paraganglioma with a novel approach.

MINDING THE GAP: What happens when pediatric patients with pituitary tumors become adults?

DOUBLE TROUBLE: Functional suppression of a prolactinoma by a dopamine-secreting paraganglioma

This image of a rare fatty tumor known as a liposarcoma in the adrenal gland was created by the team of Antonio Fernandes de Oliveira Filho, MD, and João Batista Guedes of the University of Sao Paulo – USP and Federal University of Campina Grande (UFCG) in Campina Grande, Paraíba, Brazil. Retroperitoneal liposarcomas are often aggressive and may present to the endocrinologist as an adrenocortical carcinoma. This image was the second place winner in the Endocrine Society's 2026 Endocrine Images Art Competition.

ENDOCRINE SOCIETY
Hormone Science to Health

TORONTO

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ENDO2027

Mark your calendars for ENDO 2027, taking place June 5–7, 2027, in the beautiful city of Toronto, ON, Canada. The leading global meeting on endocrine research and clinical care will offer a comprehensive education program, vibrant networking events, and cutting-edge innovations. Plan to join us at ENDO 2027 for an unforgettable experience of science, connection, and discovery!

ENDOCRINE SOCIETY

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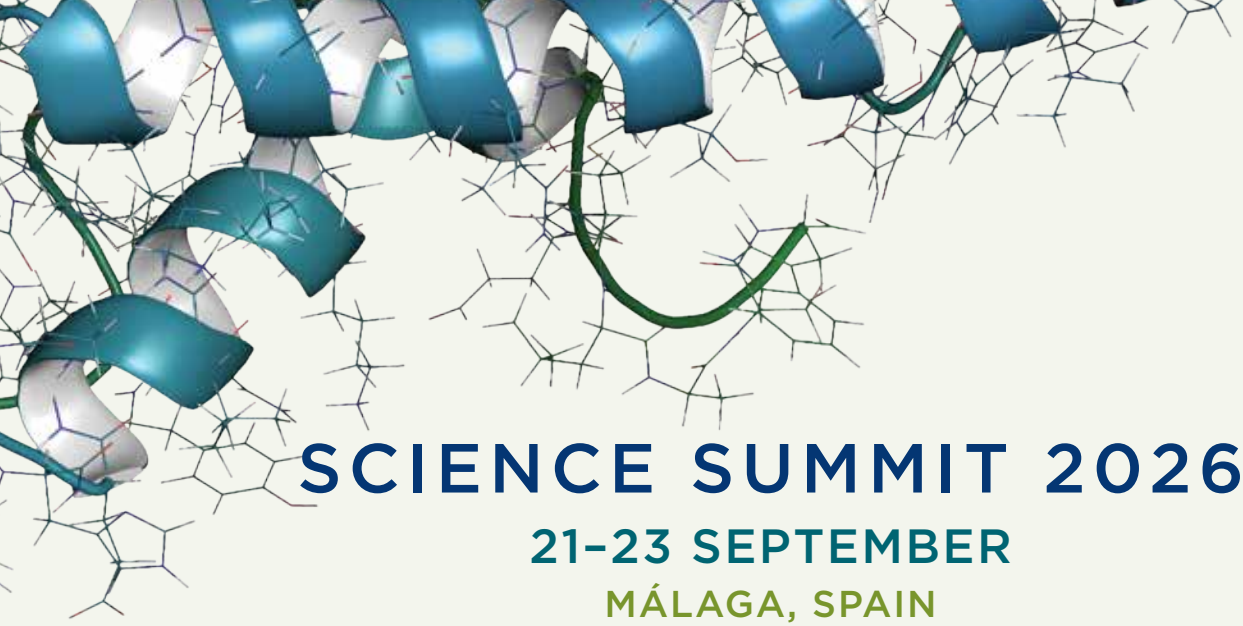
Functional Suppression of a Prolactinoma by a Dopamine-Secreting Paraganglioma

A recent *JCEM Case Reports* article describes a 52-year-old male who presented with cerebrospinal fluid rhinorrhea and was found to have an invasive, 4.2-cm pituitary mass with modestly elevated prolactin. When the surgeons resected the tumor, it revealed another. Two rare endocrine tumors occurring recurrently. *Endocrine News* speaks with the lead author, who shared the findings at **ENDO 2026** in Chicago.

BY DEREK BAGLEY



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ENDOCRINE SOCIETY
Hormone Science to Health

Launch of Center on Obesity and New Scientific Statement Demonstrate Society's Leadership Role in Obesity Space

Rising obesity rates are a concern around the world, as any glance at the news headlines will tell you. Clinicians, researchers, public health authorities, healthcare payers, and citizens alike are seeking solutions to the many health, economic, and societal consequences of this chronic disease. At the same time, remarkable new drugs are offering opportunities to treat and manage obesity in ways that we never could before.

I'm proud that endocrinologists and endocrine researchers have long been at the forefront of addressing this urgent health issue.

> "Our research members are the ones who discovered GLP-1, which provide highly effective treatments for one in eight people worldwide with obesity, and are studying how these can be used more effectively and for other diseases."

Our research members are the ones who discovered GLP-1 receptor agonists, which provide highly effective treatments for one in eight people worldwide with obesity, and are studying how these can be used more effectively and for other diseases. Our clinician members are the ones who created and are updating new Clinical Practice Guidelines, which serve as a blueprint for clinicians around the world to navigate the evolving treatment landscape.

Indeed, obesity and its underlying hormonal dysfunctions are so important to our field that the Endocrine Society recognizes it as a key organizational pillar. That's why I'm delighted to point out several major new initiatives that demonstrate our continued leadership role in this area.

Specifically, the Society this month launched its **Center on Obesity** and released an important new Scientific Statement, **"Obesity Science, Research Gaps and Opportunities in the New Era of Obesity Medicines."**

Together, these initiatives reflect the Society's commitment to advancing obesity care and research.

Center on Obesity

The Center on Obesity leverages our members' expertise to accelerate progress in understanding and treating obesity. The Center's digital home provides a one-stop destination for obesity research, treatment, education, advocacy, expert insights, and more. Among other things, it's the place where members can find:

- Seminal resources related to obesity, including our new Scientific Statement and a soon-to-be updated Clinical Practice Guideline;
- Meetings, webinars, conferences, awards, and funding opportunities related to obesity care and research;
- The latest research articles on obesity advances from the Society's premier journals;
- News articles and videos featuring our expert members discussing obesity developments; and
- Advocacy initiatives to improve access to anti-obesity medications and ensure funding for obesity research.

As new conversations emerge from our **Obesity Special Interest Group** and at events such as **Clinical Endocrinology Update 2026** and the **Obesity Fellows Program**, we will add resources to the Center website and share them with you in our newsletters, on social media, and in EndoForum. Together, we

can make a real impact in improving scientific understanding and treatment of obesity.

Scientific Statement

The Center's launch coincides with the publication of our new Scientific Statement, **"Obesity Science, Research Gaps, and Opportunities in the New Era of Obesity Medicines."**

> "Our clinician members are the ones who created and are updating new Clinical Practice Guidelines, which serve as a blueprint for clinicians around the world to navigate the evolving treatment landscape."

The statement — developed by a panel led by Daniel Drucker, MD, and other experts who examined more than 200 studies — provides the latest science to improve our understanding of obesity, its causes, and why individuals respond differently to treatments.

Among other things, the Scientific Statement:

- Highlights progress made in treating obesity following the advent of GLP-1 receptor agonists;
- Explores opportunities for new research areas into obesity treatments;
- Examines ways to better measure the success of obesity treatments beyond total body weight loss; and
- Allows us to advocate for research funding and evidence-based obesity policies based on the statement's findings.

The Scientific Statement and new Center on Obesity join the Society's many other ongoing efforts around obesity.

Among them, our Obesity Special Interest Group provides a venue for members to discuss the latest breakthroughs and advances. Our journals and meetings feature cutting-edge obesity research and best clinical practices. Our continuing education programs include courses in our Center for Learning and through its Obesity Fellows Conference. Our advocacy efforts include calling on Congress to permanently cover the new generation of effective medications and educating policymakers about obesity.

I'm proud to be affiliated with such brilliant colleagues who are making a difference in addressing this chronic condition. EN

— Nanette Santoro, MD
Endocrine Society President

Examining Endocrine Cancers

Nobody reading this has not been affected one way or another by cancer; whether you treat patients or conduct research. Or, more personally, if you have a loved one diagnosed or you've experienced cancer yourself, then you have more firsthand experience than you care to.

In this month's issue we are going to focus on a number of endocrine-specific cancers, their treatments, and the solid amount of research that scientists have invested in looking for potential therapies or even cures. In **"A Flexible Algorithm for a Variable Disease"** on page 14, Kelly Horvath talks with Camilo Jimenez, MD, from the Department of Endocrine Neoplasia and Hormonal Disorders at the University of Texas MD Anderson Cancer Center in Houston about his JCEM paper **"Approach to the patient with metastatic pheochromocytoma and paraganglioma: advances in systemic therapy"** that focuses on treating a patient with pheochromocytomas and paragangliomas, its complexity, and his team's algorithm that created a novel approach to guiding treatment decisions. As Kelly writes in the article, the algorithm not only provides a valuable resource since clinical guidelines are absent, but it actually helps to "democratize treatment," one of the reasons why Jimenez and his team developed it. "The algorithm is a very useful way to guide how to treat patients with pheochromocytoma and paraganglioma," he explains, "but I have to recognize that in most countries around the world, people won't easily be able to apply all of it."

An astounding case of dual cancers was discussed at **ENDO 2026** as part of the Clinical Pearls session featuring interesting cases that appeared in *JCEM Case Reports*. Senior Editor Derek Bagley highlights this case in **"Double Trouble: Functional Suppression of a Prolactinoma by a Dopamine-Secreting Paraganglioma"** on page 24 , where he looks at the complexities of treating TWO endocrine cancers in the same patient. "This case is so remarkable because it is the hormonal production from one endocrine neoplasm that is actually very effectively treating a separate and unrelated endocrine neoplasm," says William F. Young, MD, Msc., editor-in-chief of *JCEM Case Reports*. "It was only once the dopamine-secreting tumor was resected that it became evident that this patient had a prolactin-producing pituitary adenoma. It is not often that you see this type of endogenous pharmacotherapy!"

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THE LEADING MAGAZINE FOR ENDOCRINOLOGISTS

Endocrine News® is published 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

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When a patient makes the transition from pediatric to adult care, it can be a stressful time for the patient, parents, and the clinician — or clinicians. But imagine making that transition when you've been dealing with pediatric pituitary tumors. In **"Minding the Gaps: What Happens When Pediatric Patients with Pituitary Tumors Become Adults?"** on page 18, Kelly speaks to Kevin C. J. Yuen, MD, FRCP, FEAA, about his **ENDO 2026** Meet the Professor session titled "Pituitary Tumor Survivorship: Transitioning from Pediatric to Adult Endocrine Care" in which he detailed the often-complicated shift for these patients and their clinicians. Challenging though it can be, he says guidance is available, but it is vital for patients, parents, and clinicians to start early.

We change gears somewhat on page 28 where Glenda Fauntleroy Shaw talks to the Endocrine Society's 2026 Outstanding Educator Laureate Award recipient, Bradley David Anawalt, MD, in **"Sharing the Joy, Excitement, and Enthusiasm."** Honored for both his contributions to education and andrology, Anawalt discusses how he tailors his teaching techniques based on the types of students he is talking to at the time. According to Anawalt, he never says no to a teaching opportunity, and that taught him how to tailor his messages. "What I learned was that you don't approach a talk given to students the same way you do when you give a talk on the same topic to residents, fellows, or faculty members," he explains. "Not only is their content knowledge different and their level of learning, but what they want out of a talk is totally different. I have to completely reorient, and that means that I have to learn something about the learners. Adapting what I teach to different audiences and seeing what they take away from my lectures has been fascinating."

Feel free to reach out to me and let me know what you think of this issue and what you'd like to see in future issues. Remember, *Endocrine News* is YOUR magazine, so your input is vital. You can reach me at: **mnewman@endocrine.org**. EN

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

AI's Role in Approaching Congenital Disorders of Adrenal Steroidogenesis

> The integration of high-resolution steroid profiling with an interpretable [machine-learning] framework represents a significant and timely advance in the diagnostic approach to disorders of adrenal steroidogenesis. The study by [Tosun et al.] provides a well-executed example of how these complementary methodologies can be combined to enhance the interpretation of complex biochemical data.

A commentary published this past July in *The Journal of Clinical Endocrinology & Metabolism* asked, **"Can machine learning transform the diagnostic approach to congenital disorders of adrenal steroidogenesis?"**

Jani Liimatta, MD, PhD, of the Institute of Clinical Medicine at the University of Eastern Finland in Kuopio, wrote the paper opining on another study published in JCEM by Tosun et al titled, "Machine learning algorithms to accelerate etiological diagnosis of congenital disorders of adrenal steroidogenesis."

Tosun and her co-authors point out that congenital disorders of adrenal steroidogenesis (CDAS) comprise a heterogeneous group of inherited conditions characterized by dysregulated biosynthesis of cortisol, aldosterone, and mineralocorticoids in the adrenal cortex. These disorders can lead to substantial short- and long-term adverse health consequences, they write.

That team developed and validated a machine-learning decision tree model, using a development cohort of 1027 participants (325 genetically confirmed CDAS patients representing eight subtypes/702 controls) for model construction – the model achieved a mean overall accuracy of 97.1%. "Machine learning–assisted steroid profiling provides an accurate and highly interpretable diagnostic approach for CDAS, with potential for integration into pediatric endocrine diagnostics and decision-support systems," Tosun and her co-authors concluded.

Liimatta starts his commentary by noting how crucial it is for patients to receive a timely and accurate diagnosis of CDAS. "Congenital disorders of adrenal steroidogenesis represent a diverse group of inherited conditions in which timely and precise etiological diagnosis is essential for optimal clinical management," he writes.

Liimatta goes on to explain that clinicians often rely on sequential hormonal testing, dynamic stimulation studies, and confirmatory genetic analyses, all of which may be time-consuming and dependent on specialized expertise. "These challenges are particularly consequential in pediatric settings, where delays in diagnosis may lead to life-threatening complications or inappropriate therapeutic decisions," he writes.

Liimatta praises the work of Tosun and her co-authors, calling it a thoughtful and important contribution to the field. He then reflects on several key insights from their work: that Tosun et al. incorporated multiple steroids into an integrated analytical framework, which "captures broader patterns of pathway disruption, more closely reflecting the underlying physiology of adrenal steroidogenesis," the use machine learning as a structured analytical layer since it offers the offers the potential to support and standardize the interpretation of complex hormonal data, and how the study by Tosun et al. emphasized interpretability.

Liimatta does point to a couple of limitations with their work – small sample sizes, the use of imputation for missing data. But a lot of times, such is the case when studying rare disorders.

In his conclusion, Liimatta writes that he sees machine learning should be viewed as a tool to augment and support clinical expertise, rather than something to replace it. "In summary," he writes, "the integration of high-resolution steroid profiling with an interpretable [machine-learning] framework represents a significant and timely advance in the diagnostic approach to disorders of adrenal steroidogenesis. The study by [Tosun et al.] provides a well-executed example of how these complementary methodologies can be combined to enhance the interpretation of complex biochemical data."

— Derek Bagley

Postnatal Exposure to Hypothyroidism Leads to Developmental Delays and Metabolic Disorders, Animal Study Finds

Postnatal hypothyroidism in mice leads to developmental delays and metabolic dysfunction in the male offspring, according to a study recently published in *Endocrinology*.

Researchers led by Karine Gauthier, PhD, of the L'Institut de Génomique Fonctionnelle de Lyon, in Lyon, France, point out that thyroid hormones (TH) play an important role in the development of organs – the brain, bones, intestines, and brown adipose tissue. The authors write that in mice, for most of the pregnancy, the fetus relies on maternal TH and begins to produce its own TH just before birth.

"In humans, up to 10% of the pregnancies is associated with hypothyroidism (0.5% – 3% overt and 2% – 10% subclinical)," the authors continue. "An immediate supplementation of TH at birth can avoid developmental consequences in the newborn. However, if not corrected this gestational hypothyroidism correlates with higher frequency of metabolic diseases in the euthyroid adults. No causative role of hypothyroidism has been established yet."

In **"Postnatal exposure to maternal hypothyroidism leads to developmental delay and metabolic dysregulations in male mice,"** Gauthier and her colleagues set out to determine in mice whether short windows of maternal hypothyroidism either during gestation or in the two first weeks of lactation had an effect on the development of their pups and most importantly on their sensitivity to metabolic dysregulation later in life.

The researchers induced perinatal hypothyroidism in one-third of the female mice and gave mouse pups one day after birth born from hypothyroid mothers (pre-HT) to euthyroid mothers, and vice versa. "Animals from the CTRL group were born and raised by euthyroid mothers," the authors write.

"In this study, we used animals exposed to maternal hypothyroidism during either gestation or their [two] first weeks of life to assess both the developmental and the long-term consequences of the [two] short perinatal periods of hypothyroidism," the authors continue.

What Gauthier and her team found was those pups born to mothers with hypothyroidism normalized thyroid hormones and development two weeks after birth. "In contrast," the authors write, "transient hypothyroidism, limited to the first [three] postnatal weeks, has severe consequences on developmental processes."

The researchers acknowledge the limitations of the study: only male pups were used, whereas hormonal and metabolic regulations are recognized to be sexually dimorphic. "Metabolic changes were inferred from altered expression of metabolic genes, direct measurement would reinforce our conclusions," they write.

The authors also note that extrapolation of the results of the animal study since the timing of human and TH production is much different from mice. "However, our data clearly establish that T3 does participate to this early programing at least in mice," the authors conclude. "Perturbation of T3 signaling during this early period via endocrine disruptors or other, could have long-term consequences not only on brain function but also on sensitivity to metabolic diseases."

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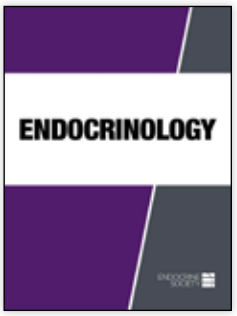
— Derek Bagley



"An immediate supplementation of TH at birth can avoid developmental consequences in the newborn. However, if not corrected this gestational hypothyroidism correlates with higher frequency of metabolic diseases in the euthyroid adults. No causative role of hypothyroidism has been established yet."

EDC Exposure May Be Linked to High Blood Pressure During Pregnancy

Phthalates, which are chemicals found in plastics, personal care products, and hundreds of other consumer goods, may contribute to high blood pressure in pregnant women, according to a study published in the *Journal of the Endocrine Society.*

Hypertensive disorders of pregnancy such as preeclampsia are a leading cause of maternal mortality in the United States. Higher blood pressure during pregnancy has been linked to adverse health outcomes in both the mother and child.

While factors such as family history and lifestyle are known to increase risk, growing evidence suggests that exposure to phthalates — chemicals commonly found in consumer products that can interfere with the body's natural hormones — may also contribute to elevated blood pressure during pregnancy.

"Our study suggests that having higher concentrations of personal care products-associated chemicals, known as phthalates, in the body might contribute to elevated blood pressure in pregnancy," according to Kimberly Parra, PhD, of Harvard T.H. Chan School of Public Health in Boston, Mass. "While our study does not show that phthalates cause high blood pressure during pregnancy, it suggests that reducing exposure to this class of chemicals by limiting personal care products containing these ingredients, particularly those with fragrance, may be a way to address high blood pressure in pregnancy and improve pregnancy health."

The researchers measured phthalate exposure and blood pressure in 338 pregnant women from The Environmental Reproductive and Glucose Outcomes (ERGO) Study at three points during pregnancy. They analyzed whether higher levels of these chemicals — individually and in combination — were linked to higher blood pressure or an increased risk of pregnancy-related high blood pressure disorders.

The authors found that pregnant women with higher urine concentrations of fragrance-associated phthalates and those in personal care products had higher systolic and diastolic blood pressure markers of an increased risk of hypertensive disorders of pregnancy.

About 13% of participants in the study developed a pregnancy-related high blood pressure disorder. Women with higher levels of certain phthalates, especially those found in personal care products, tended to have higher blood pressure later in pregnancy.

"More research is needed to better understand these findings, particularly whether the effects are driven by changes in estrogen-related pathways. Additional studies should also examine the potential role of other phthalates and their replacement chemicals," Parra said.

The study, **"Associations of Urinary Phthalate Metabolite and Replacement Chemical Concentrations with Gestational Blood Pressure,"** was funded by the National Institute of Environmental Health Sciences, the National Institute of Diabetes and Digestive and Kidney Diseases, the Eunice Kennedy Shriver National Institute of Child Health and Human Development, the National Center for Advancing Translational Sciences, the Robert Wood Johnson Foundation's Harold Amos Medical Faculty Development Program, and the Massachusetts General Hospital Claflin Distinguished Scholar Award.

— Colleen Williams

"While our study does not show that phthalates cause high blood pressure during pregnancy, it suggests that reducing exposure to this class of chemicals by limiting personal care products containing these ingredients, particularly those with fragrance, may be a way to address high blood pressure in pregnancy and improve pregnancy health."

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Kevin C. J. Yuen, MD, FRCP, FEAA, medical director, Barrow Neurological Institute; professor of medicine, University of Arizona College of Medicine and the Creighton University School of Medicine, Phoenix, Ariz., in **"Minding the Gaps"** on page 18.

The number of endocrinologists who say hobbies and interests outside of work play an important role in helping them relax and support their mental well-being.

SOURCE: MEDSCAPE ENDOCRINOLOGIST MENTAL HEALTH & WELL-BEING REPORT 2026

The reduction in insulin resistance associated with replacing just 30 minutes of sedentary time each day with moderate-to-vigorous physical activity among adolescents.

SOURCE: AMERICAN HEART ASSOCIATION

35%

The amount of additional weight lost by postmenopausal women receiving menopausal hormone therapy while taking tirzepatide compared with women taking the medication without hormone therapy. **SOURCE:** *THE LANCET OBSTETRICS, GYNECOLOGY, AND WOMEN'S HEALTH*

8%

The amount of body weight lost and maintained by people in a high-risk metabolic group who still experienced rising blood sugar, declining insulin production, and a persistently high risk of type 2 diabetes over nine years. —

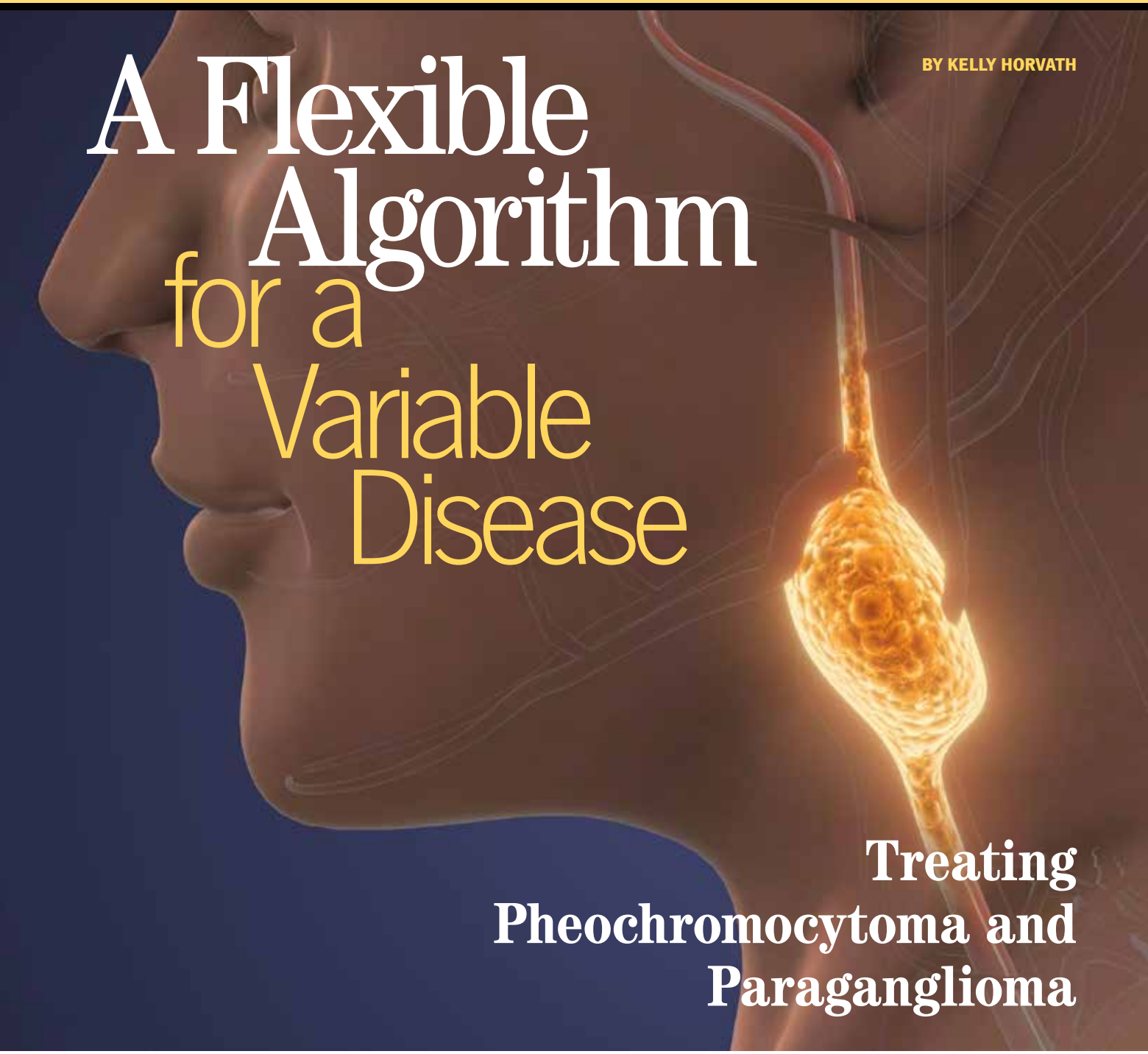
SOURCE: *DIABETES*

The approximate number of U.S. adults affected by osteoarthritis and osteoporosis who could potentially benefit from the newly discovered bone-building potential of CCN3, a hormone shown to increase bone density, strength, and regeneration.

— SOURCE: UC DAVIS

The number of proteins linked to a lower risk of cardiometabolic conditions, such as obesity and diabetes, that were altered by sprinting compared with moderate-intensity exercise.

SOURCE: *CELL REPORTS MEDICINE*



A Flexible Algorithm for a Variable Disease

BY KELLY HORVATH

Treating Pheochromocytoma and Paraganglioma

Endocrine News speaks with Camilo Jimenez, MD, about his JCEM paper **"Approach to the patient with metastatic pheochromocytoma and paraganglioma: advances in systemic therapy"** that focuses on treating a patient with pheochromocytomas and paragangliomas, and his team's algorithm that created a novel approach to guiding treatment decisions.

Pheochromocytomas and paragangliomas (PPGLs) are all treated as having metastatic potential, despite the fact that three quarters of PPGLs remain localized, because clinicians currently have no biochemical or other markers to predict PPGL behavior. The TNM staging system uses primary tumor size and anatomical location to predict metastatic spread, but it remains incomplete. Meanwhile, several new therapies (e.g., radioligands, tyrosine-kinase inhibitors, systemic and targeted therapies) have emerged that avoid some of the toxicity of cytotoxic chemotherapy with cyclophosphamide, vincristine, and dacarbazine (CVD), but PPGL heterogeneity complicates decisions about what to use and when.

While the means to clinically characterize these neuroendocrine tumors continues to evolve, Camilo Jimenez, MD, and team from the Department of Endocrine Neoplasia and Hormonal Disorders at the University of Texas MD Anderson Cancer Center, in Houston, have developed a treatment algorithm that can help fill some gaps in the meantime. In **"Approach to the patient with metastatic pheochromocytoma and paraganglioma: advances in systemic therapy,"** published in *JCEM* in February, they explore new advances in treatment, present a case highlighting the complexity of treating PPGLs, and unveil their algorithmic framework that integrates clinical phenotype and tumor genotype as a novel approach to guiding treatment decision-making.

Algorithm in Practice

The algorithm classifies patients into one of four groups based on molecular profile, then subclassifies them by rate of disease progression, and finally offers first- and second-line treatment options or entry into clinical trials. The patient they describe in the paper exemplifies how it can be put to use, especially when disease evolves and changes. In 2020, a 67-year-old man presented with progressive fatigue, abdominal pain, hypertension, palpitations, and headaches over several weeks and was eventually diagnosed with a paraganglioma syndrome type 4. His large primary tumor was unresectable at presentation due to its highly vascular location, and CVD chemotherapy was therefore selected over other therapies to shrink it for future resection, after which the patient was disease free for two years.

Camilo Jimenez, MD

"I understand that we have limitations. But the point is that people in other places can start thinking in a more sophisticated way about these complex tumors, **similar to other cancers, where we need to focus on molecular pathways and tumor origin to make progress."**

— CAMILO JIMENEZ, MD, DEPARTMENT OF ENDOCRINE NEOPLASIA AND HORMONAL DISORDERS, UNIVERSITY OF TEXAS MD ANDERSON CANCER CENTER, HOUSTON

> This is an orphan disease, so it's very difficult to recruit a large enough population for a phase 3 trial, and it would require many countries working together. **It's not impossible, but it would take a long time, and it's difficult to fund."**
>
> — CAMILO JIMENEZ, MD, DEPARTMENT OF ENDOCRINE NEOPLASIA AND HORMONAL DISORDERS, UNIVERSITY OF TEXAS MD ANDERSON CANCER CENTER, HOUSTON

The recurrent tumor exhibited different characteristics, warranting an adjusted management approach and emphasizing the need to repeat functional imaging. Although the patient's disease was deemed incurable, it was no longer classified as rapidly progressing. Radiopharmaceutical therapy with lutetium-177-DOTATATE was initiated to avoid the toxicity associated with other therapies possible in this scenario; however, it required intensive care unit admission to administer.

Some symptoms temporarily improved; others grew worse. Enter newly U.S. Food and Drug Administration–approved belzutifan. On this convenient, oral medication, the patient has experienced sustained improvement ever since. Belzutifan is now listed as a potential first option for patients with pheochromocytoma characterized by pseudohypoxia. Although his case does not follow the algorithm exactly, says Jimenez, "that's because of the historical timing of when each therapy became available, not because the algorithm was wrong for him."

But the algorithm not only provides an important resource in the absence of clinical guidelines for how to approach systemic therapy, it also helps democratize treatment, and such accessibility is a big part of why Jimenez and team developed it. In fact, Jimenez participates on the European Society for Medical Oncology (ESMO) guideline panel for PPGLs and knows firsthand how complicated treatment can be. "The algorithm is a very useful way to guide how to treat patients with pheochromocytoma and paraganglioma, but I have to recognize that in most countries around the world, people won't easily be able to apply all of it," he explains.

To illustrate this point, Jimenez points to how the algorithm is ordered, which reflects U.S. conditions specifically. Although considered first line in certain circumstances, belzutifan is not yet universally available. "For the first time, we have a therapy for this disease that's approved by multiple regulatory agencies around the world, but can I generalize that to the rest of the world?" he asks. "No." The same goes for the molecular subtyping that is a cornerstone of the algorithm; it is not universally available due to lack of equipment and technology as well as because of costs.

Global Implications

Nevertheless, the beauty of the algorithm comes down to its practicability; it can help clinicians think through the full set of options available to them as well as their respective trade-offs available to them rather than defaulting to chemotherapy with its many adverse effects. "Here are the options," says Jimenez, "use the most optimal one in terms of efficacy, safety, and toxicity available to you and depending on patient and tumor characteristics." Thus, in some lower-resource settings, chemotherapy remains the most realistic option, not because it is the best choice for every tumor, but because it is often the only accessible one. "So, the algorithm is designed with everybody around the world in mind: Base the decision on rate of progression, think about the molecular origin of the tumor, and look for the best option that's actually obtainable in that setting."

Indeed, Jimenez describes the paper as a contribution to the Endocrine Society but with reach far beyond the United States, even while some of the algorithm's assumptions do not align with all practices, as one colleague pointed out. Jimenez counters that, saying "I understand that we have limitations. But the point is that people in other places can start thinking in a more sophisticated way about these

complex tumors, similar to other cancers, where we need to focus on molecular pathways and tumor origin to make progress."

This perspective has landed well in the field, so much so that Jimenez was specifically invited by *JCEM* to submit this paper after a talk he gave at **ENDO 2025** that generated many audience questions and a lot of interest. "I was honest with the audience: I told them that a lot of published data in this field has real limitations, and that we have to be careful, because these decisions affect patient care, so we need data that's as strong as possible." He again points to belzutifan, which is a selective small-molecule inhibitor of the protein hypoxia-inducible factor 2α (HIF2α) approved in 2025 for PPGL treatment after 25 years of development. "It's a lovely medication, but we still need to do more work," says Jimenez. "It doesn't work for everyone, it doesn't cure the disease, but it works for some patients for some time. It's not the final answer; it's the beginning of finding better answers."

As to wider adoption of the algorithm and what that would take, Jimenez is honest and realistic. "This is an orphan disease, so it's very difficult to recruit a large enough population for a phase 3 trial, and it would require many countries working together. It's not impossible, but it would take a long time, and it's difficult to fund," he says. "One of my very senior co-authors, who has real expertise in this area, felt strongly that we needed to just say plainly how things actually are. I agreed, and we included the algorithm to open the door for people to think more broadly. I don't think that's a bad thing."

Back to the patient, "we know belzutifan won't cure him, and it may eventually stop working," says Jimenez, "so we always have to be thinking about what local options exist next, which is exactly the idea behind the algorithm. Tumors' underlying biology may be the same no matter where in what country they occur, but patients' individual situations are very different. This paper is really focused on inclusivity, being mindful of how diverse the patient population is around the world, while still offering practical guidance for how to think about treating these patients wherever they are." EN

AT A GLANCE

- Because metastatic pheochromocytomas and paragangliomas (PPGLs) are highly heterogeneous, systemic therapy must be individualized, accounting for disease biology (including changes over time), patient-specific factors, and treatment availability.
- This author team developed an algorithm that combines clinical and molecular characteristics of PPGLs to help guide treatment decisions, as current clinical guidelines do not define an optimal order for systemic therapies.
- The algorithm's utility lies in its global applicability, suggesting the best approach possible given the circumstances.

HORVATH IS A FREELANCE WRITER BASED IN BALTIMORE, MD. IN THE AUGUST ISSUE, SHE WROTE **"REALIZING THE PROMISE: ARTIFICIAL INTELLIGENCE IN ENDOCRINOLOGY"** BASED ON THE **ENDO 2026** SESSION, *"ARTIFICIAL INTELLIGENCE IN ENDOCRINOLOGY: PRACTICAL USES, LESSONS LEARNED, AND WHAT COMES NEXT."*

minding the gaps

BY KELLY HORVATH

What Happens When Pediatric Patients with Pituitary Tumors Become Adults?

While this issue of *Endocrine News* focuses on endocrine cancers, this article highlights the often-overlooked challenge of transitioning pediatric patients into adult care services.

Kevin C. J. Yuen, MD, FRCP, FEAA, medical director of the Barrow Neurological Institute and professor of medicine at the University of Arizona College of Medicine and the Creighton University School of Medicine in Phoenix, Ariz., spoke about this issue at **ENDO 2026** in June.

Endocrine News speaks to Kevin C. J. Yuen, MD, FRCP, FEAA, about his **ENDO 2026** Meet-the-Professor session titled **"Pituitary Tumor Survivorship: Transitioning from Pediatric to Adult Endocrine Care"** in which he detailed the often-complicated shift for these patients and their clinicians. Challenging though it can be, he says guidance is available, but it is vital for patients, parents, and clinicians to start early.

His Meet-the-Professor session titled "Pituitary Tumor Survivorship: Transitioning from Pediatric to Adult Endocrine Care" framed the problem as one that is potentially remediable and possibly even preventable once the field is better aware that it even exists. Raising awareness, in fact, was his chief objective.

Vulnerable Window

Yuen began by characterizing how fraught the situation really is. Once patients who originally presented with pediatric pituitary tumors (PPTs) grow out of the pediatric clinic, they will need to seek adult endocrine care services to continue their care. However, little structure currently exists to guide them through this "vulnerable" transition period. Compounding this lack of a coordinated pathway is that this period coincides with some of the most physically and emotionally turbulent years of a young patient's life, which makes it a uniquely challenging time to also be navigating a handoff between care teams. "This is such an important period," he says. "It spans the end of puberty and the attainment of peak bone mass, so it's a time during which major developmental, psychosocial, physical, and medical changes are occurring. Transitioning these patients into adult services therefore often can be extremely challenging. Furthermore, these patients are also developing new life skills and everything from independent living and going to college, to social changes and exposure to alcohol and recreational drugs, to dealing with insurance changes."

Yet another challenging facet arises from the PPTs themselves. The "children are not just small adults" mantra holds true here as in anywhere in healthcare. In children, pituitary tumors are often larger and more aggressive than in adults. As children are still developing, PPTs can impact growth, sexuality, fertility, bone quality, cardiovascular health, and metabolism. Fewer approved therapies are available for the pediatric population, for whom medical therapy simultaneously may have less efficacy. Unlike in adults (usually), PPTs may be components of genetic syndromes, which further increases treatment complexity.

That is still not all. PPTs like craniopharyngiomas and pituitary adenomas are uncommon in children, making finding an adult endocrinologist with experience managing them difficult. "Transitioning a rare condition from pediatric to adult colleagues, in a person who is simultaneously going through growth, puberty, fertility, and lifestyle changes, adds to the challenge of making sure these patients are actually captured by the system," Yuen says. "If they're never truly established with an adult

Kevin C. J. Yuen, MD, FRCP, FEAA

> Transitioning a rare condition from pediatric to adult colleagues, in a person who is simultaneously going through growth, puberty, fertility, and lifestyle changes, adds to the challenge of making sure these patients are actually captured by the system. **If they're never truly established with an adult physician, they can get lost to follow-up, then present years later in adulthood with all sorts of health problems."**
>
> — KEVIN C. J. YUEN, MD, FRCP, FEAA, MEDICAL DIRECTOR, BARROW NEUROLOGICAL INSTITUTE; PROFESSOR OF MEDICINE, UNIVERSITY OF ARIZONA COLLEGE OF MEDICINE AND THE CREIGHTON UNIVERSITY SCHOOL OF MEDICINE, PHOENIX, ARIZ.

physician, they can get lost to follow-up, then present years later in adulthood with all sorts of health problems."

These comorbidities are not only a significant health burden that frequently impairs their quality of life, but they can also unfairly complicate the transition to adult care. Significant hormone deficiencies resulting from PPT treatment (e.g., surgery, radiation), for example, require complex lifelong management. Other resulting comorbidities like neurocognitive dysfunction, visual impairment, and psychiatric disorders reduce daily functioning. This double-edged sword means that uninterrupted care is essential.

Addressing the Care Gap

Yuen traced his own interest in the topic back to working alongside pediatric colleagues and realizing firsthand that a care gap for these patients exists. "I started wondering what happens to them when they leave home and go into gainful employment or college, as by now, they would be 'too old' to be seen in a pediatric clinic," he says. "Where do they go? No straightforward answer seemed to be forthcoming."

Yuen researched frameworks for how a health system might address the gap, such as the widely endorsed "The 6 Core Elements of Health Care Transition (Got Transition 2.0)," developed jointly by the American Academy of Pediatrics, the American Academy of Family Physicians, and the American College of Physicians. The six core elements comprise Transition policy, Transition tracking and monitoring, Transition readiness assessment, Transition planning, Transfer of care, and Transfer completion.

The UK's "Ready Steady Go" program, a National Health Service initiative, incorporates one of the validated assessment tools stipulated in core element 3. "It's a more systematic way of tracking these patients and providing them with counseling and support as they go through the journey, which should start very early, around age 11," explains Yuen. After introduction at age 11 to 12, the patient progresses stepwise through the stages (Ready → Steady → Go) until reaching "Hello," their establishment with an adult care clinic.

Although this model has a lot to offer, it is not a ready-made solution for the United States, where fragmented payers, healthcare systems,

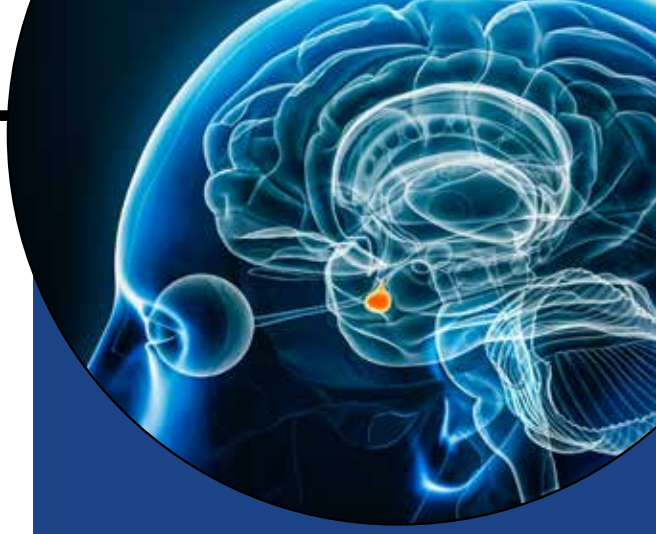
and institutional geography complicate a "one-size-fits-all" approach. "I'm using it to highlight how another healthcare system has approached this problem, and to show how this problem can be tackled," says Yuen. "Whether it's implementable here, or how, is a matter of debate, because different healthcare systems have different payers and different pathways."

Yuen also describes how insurance coverage and geographical challenges routinely force compromise on treatment choices, a dynamic he said is not unique to this population but is especially consequential for it. "As a physician, you provide the best, most evidence-based advice to the patient, and recommend the most optimal treatment, and then if insurance doesn't cover it, you make the best of the situation to get the second- or third-best option to the patient because of circumstances outside your control. Furthermore, some institutions may not have a dedicated neuroendocrinologist, so inevitably some of these patients, for example, pediatric brain tumor survivors, end up transitioning to a general endocrinologist at a different institution. Or the children's hospital and the endocrinologist's office are far apart from each other, or the patient lives far away from either, which makes follow-up challenging."

Optimizing the Transition

Yuen was pleased with the robust attendance his **ENDO 2026** talk engendered, and his audience had lots of questions, a testament to how important raising awareness really is. Even something as fundamental as which physician — pediatric or adult — does what at the point of transition remains genuinely unresolved, says Yuen. "There were questions about whose responsibility growth hormone testing falls under, for example. Is the pediatrician supposed to take the lead in ordering the tests, or is it the pediatrician's job to refer the patient to the adult endocrinologist and have them order it?"

This is not an issue to be taken lightly. For example, growth hormone therapy might not end once a child reaches their final height; instead, further testing may be needed in the transition period. Citing a European audit finding that about 70% of patients experienced a growth hormone treatment interruption of more than two years during this period, Yuen further explains, "A lot of these patients were treated as children specifically for growth reasons, which, when stopped, gives way to other



AT A GLANCE

- **Knowledge gaps and obstacles of transitioning adolescents with pituitary tumors to adult endocrine care services include the absence of a coordinated pathway between points; the physical, developmental, and mental challenges facing the patient; and insufficient adult physician experience with pediatric pituitary tumors (PPTs).**
- **PPTs themselves as well as their treatments can cause significant comorbidity including later in life, highlighting the importance of continuity of care during the transition years.**
- **Management strategies to optimize physiologic outcomes in adulthood include familiarizing patients with the transition process early, empowering them to help manage their condition post-transition, and assembling a multidisciplinary team to address the multifaceted clinical sequelae they may face in adulthood.**

Kevin C. J. Yuen, MD, FRCP, FEAA, consults with one of his patients at the Barrow Neurological Institute in Phoenix, Ariz.

issues that take over as the patient enters adulthood: bone, muscle, heart disease, quality of life."

Yuen closed his talk on a hopeful note: Although this issue is particularly thorny and no single approach can address it, certain principles can be applied universally, like the importance of early discussion and intervention, patient empowerment, and long-term surveillance with a multidisciplinary team. For patients with craniopharyngiomas and resulting hypothalamic obesity, for example, early intervention is critical. "If they're starting to gain weight as a young adult, that is likely going to continue into adulthood; it doesn't reverse on its own, so it's important to address it early, in this vulnerable period, to try to establish good eating and lifestyle habits," explains Yuen.

Yuen also points to guidance published in the *European Journal of Endocrinology* in February that reinforces the importance of actively building patient capacity to manage their own disease. "European Society for Paediatric Endocrinology (ESPE) and European Society of Endocrinology (ESE) joint clinical practice guidance for healthcare transition from paediatric to adult endocrine care" makes clear that this is not just about transitioning patients between services: "It's also about emphasizing patient empowerment, so that patients take ownership of their disease, maintaining a good patient–professional relationship and having a multidisciplinary team to address issues like fertility, bone health, psychological issues, and more," says Yuen.

The onus to get this enduring process started tends to fall on the pediatrician, because they encounter the patients first. Yuen's advice? Start early. "Plant the seed early with patients that endocrine treatment may be lifelong, bring the adult endocrinologist in early in the process, and explain the transition process early so they're not caught unaware when the time comes."

With so much associated complexity, though, the how-to must be individualized. "You have to assess what works and what doesn't in your own practice or institution," says Yuen. Fortunately, awareness of the issue is growing, especially thanks to talks like his at **ENDO**, as is awareness of what guidance can help make a positive difference in the lives of these patients. EN

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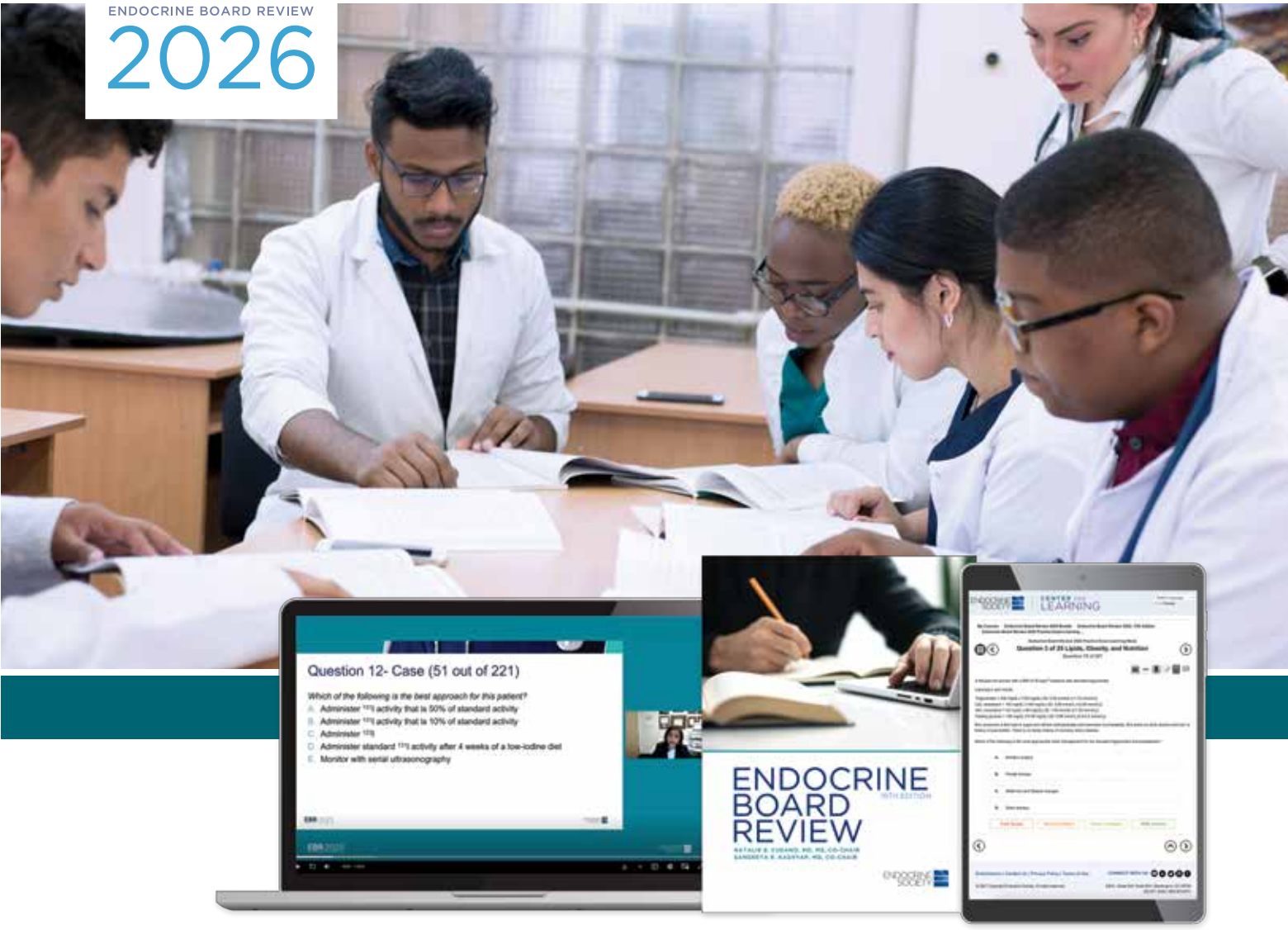

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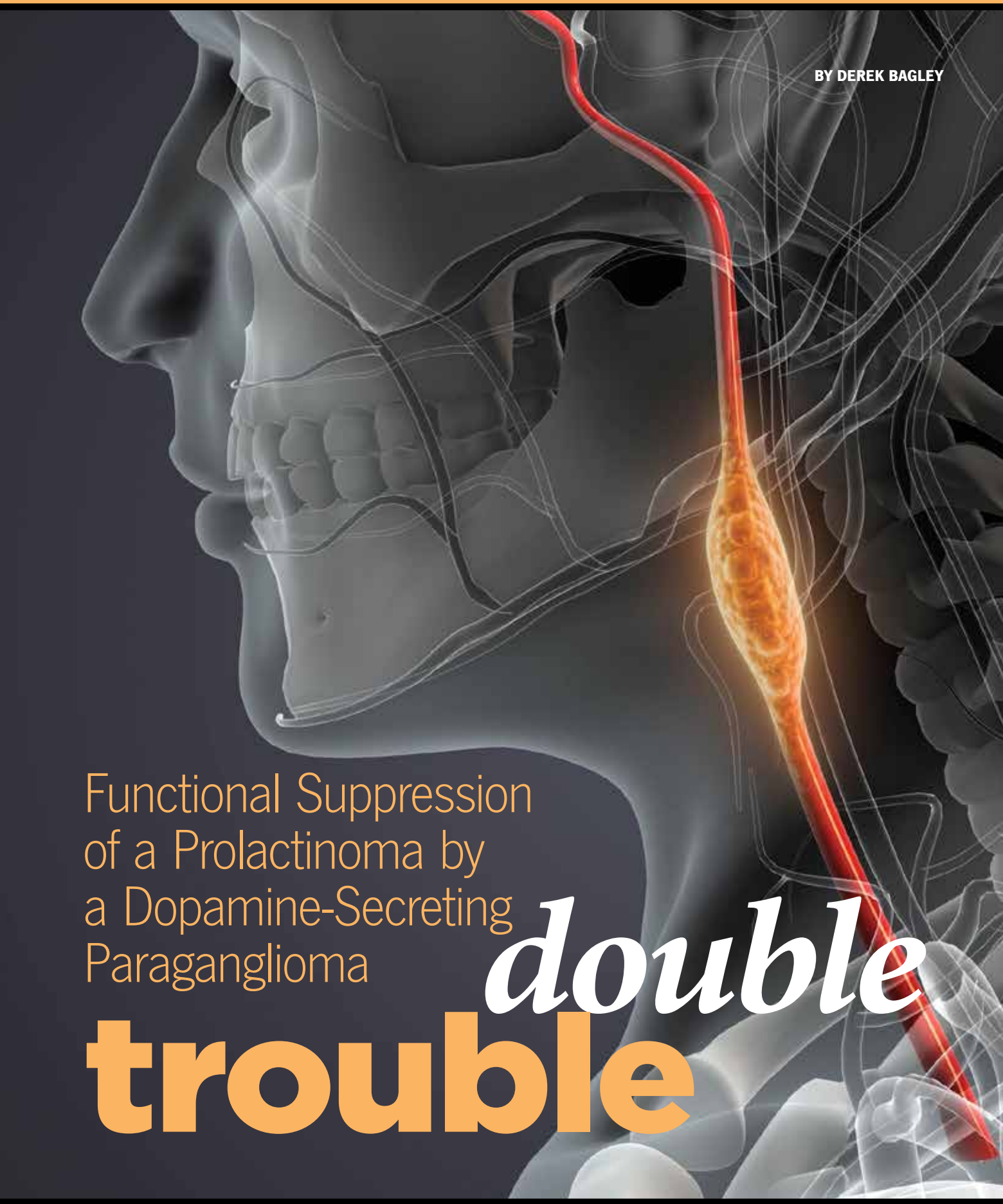


BY DEREK BAGLEY

Functional Suppression of a Prolactinoma by a Dopamine-Secreting Paraganglioma

double trouble

A recent *JCEM Case Reports* article describes a 52-year-old male who presented with cerebrospinal fluid rhinorrhea and was found to have an invasive, 4.2-cm pituitary mass with modestly elevated prolactin. When the surgeons resected the tumor, it revealed another. Two rare endocrine tumors occurring recurrently. *Endocrine News* speaks with the lead author, who shared the findings at **ENDO 2026** in Chicago

This is a good one, what endocrinology is all about: true detectives. In April 2025, *JCEM Case Reports* published an article titled, "Functional Suppression of a Prolactinoma by a Dopamine-Secreting Paraganglioma," describing the case of a 52-year-old male who presented with cerebrospinal fluid rhinorrhea and was found to have an invasive, 4.2-cm pituitary mass with modestly elevated prolactin. "Additional imaging discovered a mediastinal mass suspicious for a thoracic paragangliom," the authors write. "Biochemical screening demonstrated marked elevation of plasma and urinary dopamine."

This past summer, lead author Tamaryn Fox, MD, a clinical fellow in training at Cedars Sinai Medical Center in Los Angeles presented the findings at **ENDO 2026** in Chicago.

"This case is so remarkable because it is the hormonal production from one endocrine neoplasm that is actually very effectively treating a separate and unrelated endocrine neoplasm," says William F. Young, MD, Msc, the Tyson Family Endocrinology Clinical Professor and professor of medicine in the Mayo Clinic College of Medicine at Mayo Clinic in Rochester, Minn., and editor-in-chief of *JCEM Case Reports*. "It was only once the dopamine-secreting tumor was resected that it became evident that this patient had a prolactin-producing pituitary adenoma. It is not often that you see this type of endogenous pharmacotherapy!"

Double Whammy

Fox tells *Endocrine News* that the patient had initially been told about the tumors before he had established care with Fox and her colleagues, but she says it was certainly unexpected. "Not only did he have two rare endocrine tumors occurring concurrently, but they appeared to be hormonally interacting with one another, which was particularly fascinating," she says.

The authors write that they report a novel biologic signaling mechanism between two rare primary endocrine tumors and highlight challenges in their diagnosis and management.

"One of the most striking features was that we knew he had two tumors, but it was only after removal of the dopamine-secreting paraganglioma that his prolactin rose significantly, suggesting that the two tumors were interacting hormonally," Fox says. "The dopamine produced by the paraganglioma was likely suppressing prolactin secretion from the prolactinoma."

Tamaryn Fox, MD

Tamryn Fox, MD, at the podium during ENDO 2026 session, "Clinical Pearls from JCEM Case Reports" as William F. Young, Jr. MD, and Sarah Mayson, MD, look on.

> **Having these two rare endocrine tumors occur together is highly unusual,** and in this patient, their interaction provided a fascinating window into the physiologic relationship between endogenous dopamine and prolactin. The case also highlights that dopamine-secreting paragangliomas may be clinically subtle and underscores the importance of genetic evaluation in patients with pheochromocytoma or paraganglioma, as well as in patients with multiple endocrine tumors."
>
> — TAMARYN FOX, MD, CLINICAL FELLOW IN TRAINING, CEDARS SINAI MEDICAL CENTER, LOS ANGELES, CALIF.

The *JCEM Case Reports* authors lay it out like this: Prolactin-secreting pituitary adenomas are typically treated with dopamine agonists to inhibit prolactin secretion and reduce tumor size. Dopamine-secreting paragangliomas are rare neuroendocrine tumors of sympathetic and parasympathetic paraganglia and often do not provoke symptoms of catecholamine excess. "Although overlapping genetic drivers have been described for paragangliomas and pituitary adenomas, biochemical crosstalk between coexisting tumors is underexplored," they write.

The case also highlights that dopamine-secreting paragangliomas can be underrecognized because patients may have few or no symptoms, Fox explains. On immunohistochemical staining, the pituitary tumor was PIT-1 positive but negative for the expected lineage hormones, including prolactin, despite its clinical diagnosis as a prolactinoma. "We felt this was most consistent with an immature PIT-1-lineage pituitary adenoma, a rare tumor type that can be less differentiated, larger, and more aggressive, with variable hormone staining and secretion," she says. "This variability may help explain the discordance between the clinical diagnosis and the tumor's immunohistochemical findings."

In the Genes

The *JCEM Case Reports* study also remarked on genetic testing on the patient, writing that the process had revealed previously unreported germline SDHC variant of uncertain significance.

"Genetic testing is important for all patients with pheochromocytoma or paraganglioma, regardless of whether additional endocrine tumors are present," Fox says. "In our patient, the presence of multiple endocrine tumors made the possibility of an underlying hereditary syndrome particularly

relevant. His testing identified an SDHC variant of uncertain significance (VUS), which did not provide a definitive genetic diagnosis in his case. In general, when a pathogenic variant is identified, it can have important implications for the patient's long-term surveillance and for at-risk family members."

Learning from Unusual Cases

The patient's initial prolactin level prior to paraganglioma resection was much lower than expected for a typical prolactinoma of this size, which raised suspicion for a poorly functional or less well-differentiated prolactinoma or other nonfunctional sellar mass, the authors write in the article's Discussion section. "However, the subsequent six-fold rise of prolactin [two] weeks following paraganglioma surgery indicated that endogenous dopamine secretion from the paraganglioma exerted tonic inhibition on prolactin secretion from the pituitary adenoma," they continue. "Removal of the paraganglioma unmasked prolactin hypersecretion."

As of now, the patient is asymptomatic and elected to continue treatment with cabergoline, denying radiation treatment, but to maintain prolactin suppression and to shrink the tumor, the authors note.

"I think the main takeaway is how much we can learn from an unusual case like this," Fox says. "Having these two rare endocrine tumors occur together is highly unusual, and in this patient, their interaction provided a fascinating window into the physiologic relationship between endogenous dopamine and prolactin. The case also highlights that dopamine-secreting paragangliomas may be clinically subtle and underscores the importance of genetic evaluation in patients with pheochromocytoma or paraganglioma, as well as in patients with multiple endocrine tumors."

Sharing the News

Fox says this case was incredibly interesting and that she was happy to share it at **ENDO 2026**.

"I had an incredible experience at **ENDO** in Chicago," she says, "It was an honor to be invited by Drs. Young and [Sarah]Mayson to present this case during the 'Clinical Pearls from *JCEM Case Reports*' symposium. They are both people I greatly admire, so it was especially meaningful to be part of that session. I'm also very grateful to Dr. [Lauren] Fishbein for her thoughtful insights and pearls on the case.

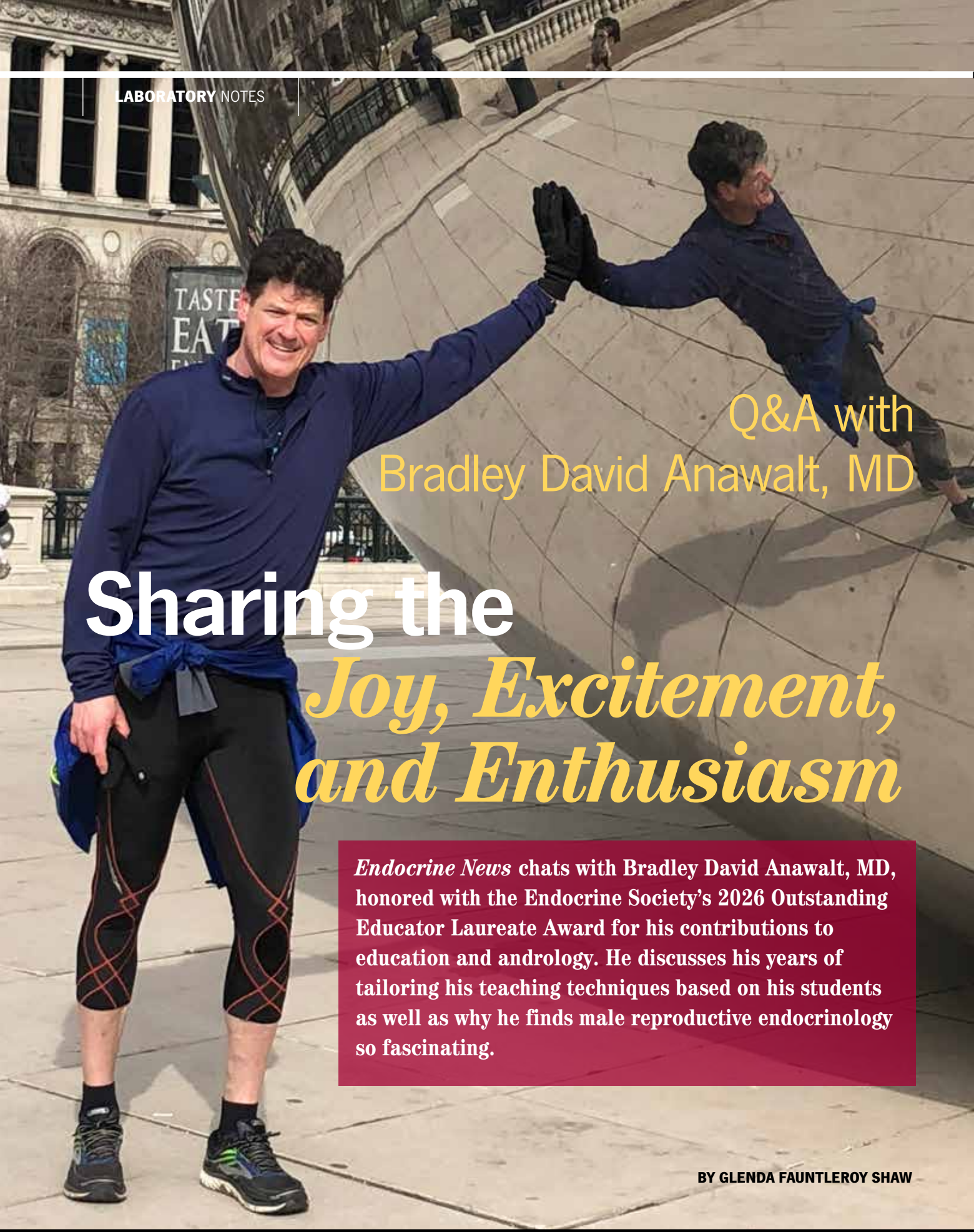
"As a fellow, I was fortunate to have tremendous support from my colleagues and mentors at Stanford Endocrinology. I learned a lot, enjoyed sharing the case, and even found some time to play with puppies! **ENDO** is always a highlight of the year."

"This case is so remarkable because it is the hormonal production from one endocrine neoplasm that is actually very effectively treating a separate and unrelated endocrine neoplasm.

It was only once the dopamine-secreting tumor was resected that it became evident that this patient had a prolactin-producing pituitary adenoma. It is not often that you see this type of endogenous pharmacotherapy!"

— WILLIAM F. YOUNG, MD, MSC, TYSON FAMILY ENDOCRINOLOGY CLINICAL PROFESSOR; PROFESSOR OF MEDICINE, MAYO CLINIC COLLEGE OF MEDICINE, MAYO CLINIC, ROCHESTER, MINN.; EDITOR-IN-CHIEF, *JCEM CASE REPORTS*.

BAGLEY IS THE SENIOR EDITOR OF *ENDOCRINE NEWS*. IN THE AUGUST ISSUE, HE WROTE THE **ENDO 2026** HIGHLIGHTS ARTICLE, "ENDO 2026: PROGRESS AND RESILIENCE."



Q&A with Bradley David Anawalt, MD

Sharing the *Joy, Excitement, and Enthusiasm*

Endocrine News **chats with Bradley David Anawalt, MD, honored with the Endocrine Society's 2026 Outstanding Educator Laureate Award for his contributions to education and andrology. He discusses his years of tailoring his teaching techniques based on his students as well as why he finds male reproductive endocrinology so fascinating.**

BY GLENDA FAUNTLEROY SHAW

The 2026 Outstanding Educator Award recipient Bradley Anawalt, MD (second from left) at the ENDO 2026 Plenary on Sunday June 5 with fellow 2026 Endocrine Society Laureates (left to right) Alvin C. Powers, MD, Roy O. Greep Award for Outstanding Research; outgoing Endocrine Society President Carol Lange, PhD; Martin Reincke, MD, Outstanding Scholarly Physician Award; and Samuel Klein, MD, Outstanding Clinical Investigator Award.

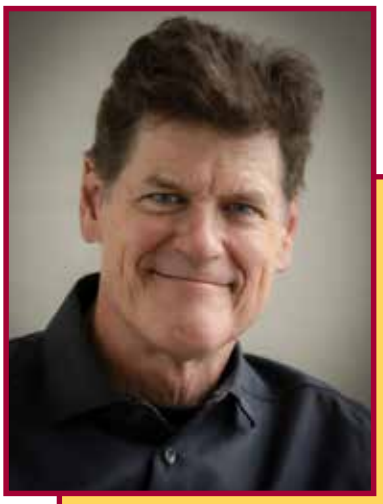
Great teachers do more than share knowledge. They inspire curiosity, ignite enthusiasm, and leave a lasting impression on generations of learners. Few embody that philosophy better than Bradley David Anawalt, MD, one of the Endocrine Society's 2026 Laureates and recipient of the Outstanding Educator Award.

A professor and vice chair in the Department of Medicine at the University of Washington School of Medicine in Seattle, Wash., Anawalt has earned widespread recognition for his excellence in medical education, receiving many of his institution's highest teaching honors. He is also a world-renowned expert in andrology and the diagnosis and treatment of male hypogonadism. Throughout his career, he has been a dedicated leader within the Endocrine Society and a regular presenter at **ENDO**, contributing countless hours as a scientific presenter, plenary lecturer, session chair, meeting planner.

Endocrine News recently spoke with Anawalt about the educators who influenced him, his philosophy of teaching, and why inspiring a joy of learning is one of the greatest gifts an educator can offer.

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

Bradley Davis Anawalt, MD: It was very meaningful to me. I've gone to **ENDO** every year since 1992, and I've had the honor and privilege of being able to give presentations just about every year that I've attended. Many of those were opportunities to do teaching presentations, in addition to research presentations. I've just always enjoyed going to **ENDO** where I see colleagues and friends and meet new colleagues. So, getting this recognition really feels like a great honor because it means that people assessed that my contributions to education were meaningful.



BRADLEY DAVID ANAWALT, MD

PROFESSOR AND VICE CHAIR, DEPARTMENT OF MEDICINE, UNIVERSITY OF WASHINGTON SCHOOL OF MEDICINE, SEATTLE, WASH.

"I've worked with hundreds of research participants, all these guys who are enthusiastic about the notion of working in clinical trials that are going to contribute to science and give men more contraceptive options. ***It has also been really exciting to be a part of the expanded knowledge about male reproductive endocrinology, where we're getting better insights into infertility and its treatment, and the diagnosis and treatment of male hypogonadism."***

***EN:* In addition to being an outstanding educator, you're recognized globally for your expertise in andrology and male hypogonadism. What inspired you to focus on this particular area of endocrinology?**

Anawalt: There's a series of things that led me first into endocrinology and then into reproductive endocrinology. I took a college course in biochemistry that also taught some of the basics of endocrinology. That professor didn't think much of me and told me that I would never make it in science or in medicine. But despite her statement, I thoroughly enjoyed the content of her class and went into medical school with the notion that I might like endocrinology.

My favorite professor in the School of Medicine at University of California at Davis was an endocrinologist. I took an elective in endocrinology my fourth year, and very much enjoyed working with him. He recommended that I look at the University of Washington for residency because he'd done his training there. Later, I had some more good fortune when I worked with a man by the name of Bill Bremner, who was the chief of medicine at the VA and the vice chair of the department. He invited me to join his lab that was doing research on male hormonal contraception. And Seattle's been one of the hubs, at least for the United States, for trying to be innovative about new methods for male contraception, including male hormone contraception.

So, I got interested in doing those kinds of studies and really enjoyed the field of male reproductive endocrinology, in part because of doing these studies on male contraception and the intrinsic social good that it offered. The end goal of the research is trying to give couples and men more choices for male contraception and redistribute the burden of contraception. Over the years, I've worked with hundreds of research participants, all these guys who are enthusiastic about the notion of working in clinical trials that are going to contribute to science and give men more contraceptive options. It has also been really exciting to be a part of the expanded knowledge about male reproductive endocrinology, where we're getting better insights into

infertility and its treatment, and the diagnosis and treatment of male hypogonadism.

***EN:* As this year's Outstanding Educator, is there an educator in your past who made a huge impression during your career? If so, what do you remember most about his/her message to students?**

Anawalt: There are a couple of mantras. One of them is "repetition is the mother of learning," and that was something one of my early instructors imparted to me. There isn't one particular person who stands out as the single teacher who inspired me. I have had a series of them, and what I would say is that the common denominator of these teachers is that they all took joy in teaching and learning themselves. They had curiosity, enthusiasm, and joy, and that was infectious. When I attempt to teach, I put on that hat and say, 'This is an opportunity to share my excitement, my curiosity, and my joy of learning.' That part of teaching has been a real source of pleasure for me.

***EN:* Your award announcement read that you are known for your "ability to convey not only factual material, but a sense of collegiality and joy in learning among his students." What excites you most about your students as the next generation of endocrinologists?**

Anawalt: I will say that one of the things I learned as I was aspiring to become a competent teacher and what one of my teachers told me was, 'If you want to become a good teacher, you say yes to every teaching opportunity.' For many years I said 'yes' to everything, and I volunteered to teach as often as I could. What I learned was that you don't approach a talk given to students the same way you do when you give a talk on the same topic to residents, fellows, or faculty members. Not only is their content knowledge different and their level of learning, but what they want out of a talk is totally different. So, I had to think about who am I talking to today? Am I talking to a really educated reporter like you? Or am I talking to scientists? Or am I talking to undergraduate

students? I have to completely reorient, and that means that I have to learn something about the learners. Adapting what I teach to different audiences and seeing what they take away from my lectures has been fascinating.

***EN:* Science can be all-consuming. What's your favorite way to unplug when you step away from the classroom?**

Anawalt: I have a broad range of interests. I like to be outside and exercise, and I run and bike most days. My wife and I like to do hiking and walking vacations, so we're going to hike the Havasupai part of the Grand Canyon in September, and we're going to walk the Scottish Highland Trail in October. I also have a wide range of reading interests. I also like a broad range of music. I went to hear some wonderful chamber music about a week and a half ago here in Seattle, and in August we're going to see and listen to Noah Kahan here in Seattle. EN

— SHAW IS A FREELANCE WRITER BASED IN CARMEL, IND., AND IS A REGULAR CONTRIBUTOR TO *ENDOCRINE NEWS* AND WRITES THE MONTHLY LABORATORY NOTES COLUMN. IN THE AUGUST ISSUE, SHE INTERVIEWED THE ENDOCRINE SOCIETY'S 2026 OUTSTANDING SCHOLARLY PHYSICIAN LAUREATE AWARD RECIPIENT, MARTIN REINCKE, MD, FOR **"COMPASSIONATE CURIOSITY."**

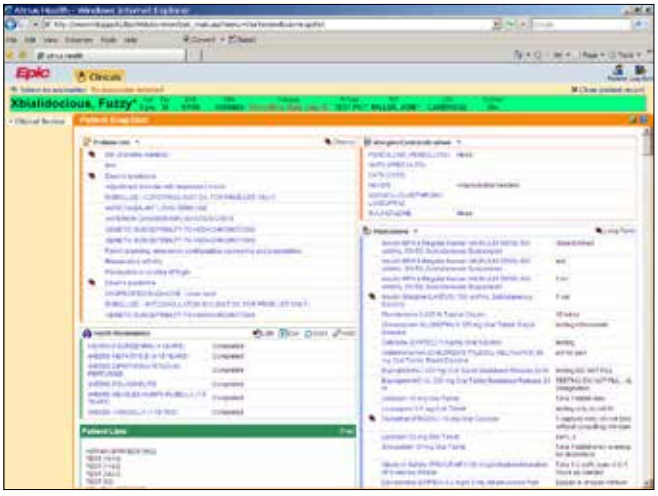
From tracking complex patient data to simplifying everyday workflows, today's EHR platforms are transforming how endocrinologists manage their practices and patient care.

BY COURTNEY CARSON

Charting the Future of Endocrine Care

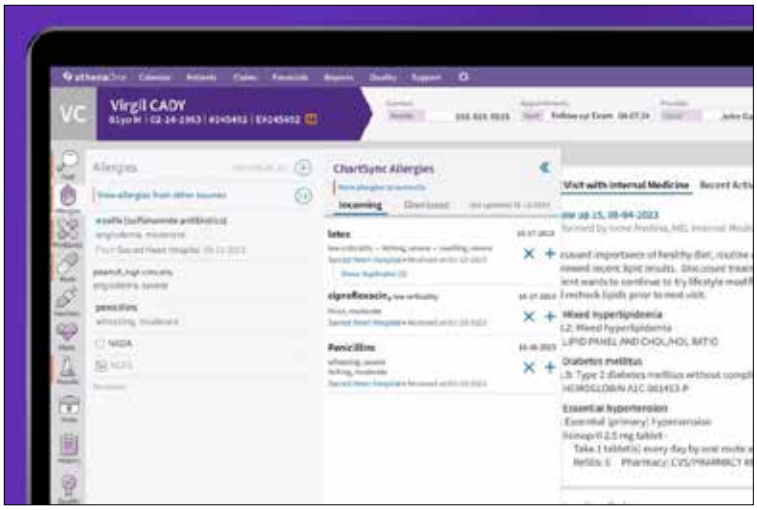
For endocrinologists, an electronic health record (EHR) has to do more than house patient charts. The right platform can help clinicians follow years of laboratory trends, manage diabetes technology data, monitor medications and hormone therapies, streamline prior authorizations, communicate with patients, and coordinate care across specialties. But with platforms ranging from large enterprise systems to customizable, endocrinology-focused solutions, determining which features actually matter can be challenging.

Here, we take a look at some of today's EHR options, and the capabilities endocrinologists should consider when choosing — or reevaluating — the system at the center of their practice.



Epic A mainstay in large health systems and academic medical centers, Epic offers a robust EHR environment for endocrinologists managing complex and often multidisciplinary care. Its capabilities can support diabetes management, longitudinal laboratory and medication tracking, growth charts, thyroid surveillance, and hormone therapy monitoring. Interoperability is a particular strength, allowing practices to exchange information across laboratories, imaging centers, referring providers, and patient-facing tools. Integrations with third-party platforms can also bring CGM and insulin pump data into the clinical workflow. **www.epic.com**

athenahealth athenahealth combines a cloud-based EHR with practice management, patient engagement, and revenue cycle tools. For endocrinologists, customizable templates can support workflows involving diabetes, thyroid disorders, and hormone therapies, while integrated prior authorization and payer tools may be particularly valuable for practices prescribing GLP-1 medications, growth hormones, and other high-cost therapies. Online scheduling, patient communication, automated outreach, and other digital tools can also help practices manage patients between visits. Its emphasis on reducing administrative burden makes it an option worth considering for practices looking for both clinical and operational support. **www.athenahealth.com**



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ModMed Built with specialty care in mind, ModMed offers customizable workflows and tools that can be adapted for diabetes management, thyroid disease, and other hormonal disorders. Its mobile-friendly interface is designed to make point-of-care documentation easier, while adaptive technology learns clinicians' documentation patterns and can streamline frequently repeated tasks. Features such as medication management, laboratory trending, patient education, and access to patient-generated health information can help bring important endocrine data into one workflow. **www.modmed.com**

eClinicalWorks eClinicalWorks combines EHR functionality with population health, patient engagement, telehealth, and chronic disease management tools designed to support endocrinology care. Diabetes-focused workflows help clinicians monitor A1C and other key measurements over time, while population health features can identify patients who are overdue for testing, screenings, or follow-up care. Its patient platform also allows providers to communicate with patients and collect health information outside the traditional office visit. **www.eclinicalworks.com**

NextGen Healthcare Designed with multi-provider and specialty practices in mind, NextGen Healthcare offers customizable templates, clinical decision support, population health tools, and interoperability features supporting endocrine care. Its ability to exchange information with primary care physicians, diabetes educators, dietitians, ophthalmologists, laboratories, and hospital systems may be particularly useful for patients whose endocrine conditions require multidisciplinary management. Automated outreach and quality-reporting capabilities can also help practices manage larger diabetes populations and stay on top of preventive and chronic care needs. **www.nextgen.com**

AdvancedMD AdvancedMD brings EHR, practice management, billing, telehealth, and patient engagement capabilities together in a cloud-based platform. Customizable templates can be configured around diabetes management, thyroid surveillance, hormone therapy, and other endocrine workflows, while its revenue cycle tools address claims, denials, and payer requirements. Online scheduling, automated reminders, patient portal access, and telehealth add another layer of practice support. For endocrinology groups looking for a system that addresses both clinical documentation and the business side of running a practice, AdvancedMD offers a broad set of integrated tools. **www.advancedmd.com**

Whether managing diabetes, thyroid disease, osteoporosis, or other complex endocrine conditions, the right EHR can help bring the many pieces of patient care together. With platforms offering different levels of specialization, integration, automation, and practice management support, there is no one-size-fits-all solution.

For endocrinology practices, the key is finding a system that fits their clinical focus and workflow while making it easier – not harder – to manage data, communicate with patients, and deliver coordinated care. EN

– CARSON IS A FREELANCE WRITER BASED IN BIRMINGHAM, ALA. SHE CONTRIBUTES THE ENDOGEAR AND DASHBOARD COLUMNS.

Endocrine Society Advocates to Increase NIH Funding; Joins Research Community to Rally for Medical Research

PHOTO: Christopher Penler / Shutterstock.com

The Endocrine Society continues to fight to increase funding for the National Institutes of Health (NIH) and will join with the broader research community to rally for medical research.

On September 17, the Society will bring several of its member researchers to Washington, D.C., to participate in a Hill Day with hundreds of other research organizations, professional societies, and patient advocacy groups to urge Congress to support increasing research funding in the final appropriations legislation.

The Rally for Medical Research Hill Day is in its fourteenth year and has had tremendous impact on influencing increased funding by bringing the broad research community together with a single request. This year, we are asking for $51.3 billion for the NIH.

Congress is required to complete all funding bills before the start of the federal fiscal year on October 1, or the government will shut down. This year, the House of Representatives and Senate recognized that they were not going to make the deadline, so each chamber passed a short-term funding bill, known as a Continuing Resolution (CR), to keep the government running until December. This would allow the House and Senate to complete a final appropriations bill during a "lame duck" session in November after the midterm elections. As Congress returned to Washington, D.C., in September, it still needed to reconcile the different versions of the CR.

The Rally for Medical Research gives us a timely opportunity to remind Congress about the value of NIH funding, the need to pass a CR by September 30, and the importance of providing an increase. Even if you are not attending the Hill Day in Washington, D.C., we encourage U.S.-based Endocrine Society members to join our online advocacy campaign to urge your representatives and senators to increase NIH research funding.

Please visit: **https://www.endocrine.org/advocacy/take-action** and click the Rally for Medical Research Campaign.

Endocrine Society Fights to Protect Research and Permanently Block OMB Rule

The Endocrine Society continues to fight to protect research and block implementation of a proposed rule by the Office of Management and Budget (OMB) that would fundamentally reshape how biomedical research, including endocrine science, is funded in the U.S.

The proposed rule would give political appointees the power to block grant awards that do not align with current administration priorities, allow federal agencies to terminate grants at any time without a formal appeals process, and impose restrictions on publication costs and international collaborations, among other disruptions. Taken together, the proposed rule directly threatens the foundational principles of merit-based science. OMB is seeking to implement its proposed changes October 1, and the Endocrine Society is opposing the rule, calling for its withdrawal, and urging Congress to intervene.

The Society met with dozens of congressional offices since the proposal was released to share our concerns throughout the summer. A group of 50 Endocrine Society members participated in rolling Zoom calls with congressional staff during August and we brought several members to Washington, D.C., to meet in-person with their congressional delegations and congressional leadership. These meetings were influential. Senator Susan Collins (R-ME) who chairs the Senate Appropriations Committee added language in the Senate version of a short-term funding resolution to delay implementation, for which we are grateful, and many Democrats and Republicans have spoken out against the proposed rule.

“Taken together, the proposed rule directly threatens the foundational principles of merit-based science. OMB is seeking to implement its proposed changes October 1, and the Endocrine Society is opposing the rule, calling for its withdrawal, and urging Congress to intervenes.”

How You Can Make A Difference

Join our Advocacy Campaign – Every representative and senator needs to hear from you about the threat to research posed by the proposed rule. The Endocrine Society has created an online advocacy campaign (*www.endocrine.org/advocacy/take-action)* where you can send a message to your elected representatives urging them to intervene to permanently block the OMB rule. This is the quickest and most effective way to make an impact now.

Endocrine Society Advocacy Win: Senate HELP Committee Passes INSULIN Act; Society Now Working on Introduction in the House of Representatives

In a significant advocacy victory for the Endocrine Society, the Senate Health, Education, Labor, and Pensions (HELP) Committee passed the INSULIN Act, bipartisan legislation to make insulin more affordable introduced by Senators Jeanne Shaheen (D-NH), Susan Collins (R-ME), Raphael Warnock (D-GA), and John Kennedy (R-LA).

The Society worked on the development of and endorsed this important legislation. As a result of our advocacy, the bill continues to advance in the Senate in bipartisan fashion. The legislation passed the committee by a vote of 17-5 which included the support of six Republicans and 11 Democrats. The legislation would take historic steps to lower the out-of-pocket cost of insulin. Specifically, the bill would expand the $35 insulin co-pay cap, currently available to Medicare beneficiaries, to people on private insurance. The legislation would also create a pilot program for 10 states to provide programs that help identify people living with diabetes who are uninsured and provide them with insulin at $35 a month.

We worked very closely with Senator Shaheen and Senator Collins, the co-chairs of the Senate Diabetes Caucus, to advance this legislation and we are grateful for their continued dedication and leadership. Leading up to the vote, the Society actively worked to secure the support of Senators on the HELP Committee and other Members of Congress. The day before the committee markup, Endocrine Society member leader Alvin Powers, MD, an endocrinologist and diabetes researcher at Vanderbilt University, was on Capitol Hill meeting with congressional offices urging them to support the bill.

During August, the Society worked closely with Representative Diana DeGette (D-CO) who is a co-chair of the Congressional Diabetes Caucus in the House of Representatives to introduce the legislation in that chamber. The Society also worked with Republican House members including Representative Mariannette Miller-Meeks (R-IA) to obtain additional co-sponsors. The plan is that the bill will be introduced in the House in September. EN

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