

SEPTEMBER 2021

THE LEADING MAGAZINE FOR ENDOCRINOLOGISTS

Endocrine news

INTERNATIONAL

Never too late to do **GOOD**

How Stanley Andrisse, PhD, MBA, Changed the Narrative

When Stanley Andrisse, PhD, MBA, was labeled a troublemaker and sent to prison, he never thought he would end up as a renowned scientist, an author, or an inspiration to others. Andrisse talks to *Endocrine News* about redemption, inspiration, and how it's never too late to do the right thing.

RISK MANAGEMENT:

Predicting hypoglycemic events
via machine learning

RARE BUT DEVASTATING:

Keeping track of acromegaly
cases in Mexico City



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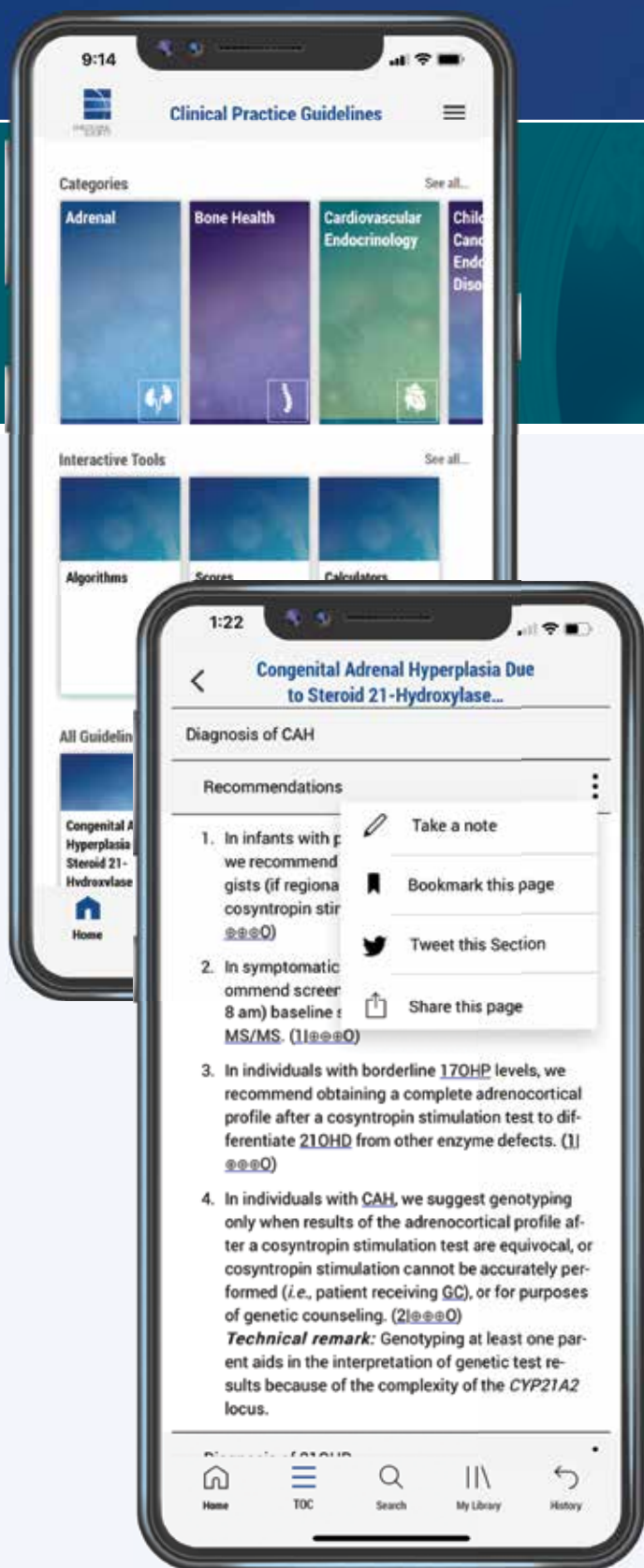
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Conversation with Stanley Andrisse, PhD, MBA

Stanley Andrisse, PhD, MBA, was labeled a career criminal in his early 20s before he was sent to prison for drug trafficking. Last month, his book — *From Prison Cells to PhD: It Is Never Too Late to Do Good* — was published by Simon & Schuster and details his remarkable redemption from troublemaking teen to renowned scientist at Howard University.

BY DEREK BAGLEY

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How Machine Learning Predicts Hypoglycemic Events in Hospitalized Patients

A new software model is the first to provide a rolling prediction about the next 24 hours after each blood glucose measurement is taken in hospitalized patients with diabetes. Through machine learning, the model integrated dozens of clinical predictors via links to electronic hospital records.

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Keeping Track of Acromegaly Cases

Since acromegaly is such a rare disorder, when an endocrinologist is presented with a potential case, the most accurate and complete data available would be a helpful tool. *Endocrine News* takes a closer look at how the Mexican Acromegaly Registry has helped endocrinologists address the issues patients with acromegaly face, both physically and financially.

BY DEREK BAGLEY

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Our Phase 3 trial, PATHFINDER-1, has started and we are screening patients for participation, with multiple U.S. sites now open and additional sites set to open globally. PATHFINDER-1 is a randomized, double-blind, placebo-controlled, nine-month clinical trial to evaluate the safety and efficacy of paltusotine in acromegaly patients who are biochemically controlled ($\text{IGF-1} \leq 1.0 \times \text{ULN}$) and who are on stable doses of SRL monotherapy (octreotide LAR or lanreotide depot).



If you have interested acromegaly patients who may qualify, scan the QR code to see the PATHFINDER-1 eligibility requirements, as well as our encouraging results with once-daily, oral paltusotine thus far. We welcome your referrals.

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ENDO 2022

Novel Opportunities Abound with an All-New Hybrid ENDO 2022

I'm elated to share the latest ENDO 2022 updates that will surely pique your interest and reinforce the inimitable value of us connecting as one global endocrine community.

Your dedicated Annual Meeting Steering Committee (AMSC) recently concluded a rigorous planning meeting, an important milestone in the process that contributes to 80% of the ENDO 2022 curriculum. This was no easy feat; designing a flagship conference entirely online — as opposed

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Learners at this year's conference can expect a range of carefully curated sessions in a variety of delivery formats spanning the endocrinology journey from bench to bedside and back again.

”

to convening in-person over three days — presented unique challenges, as well as novel opportunities. Proudly, the entire AMSC banded together and rose to the occasion, producing a robust lineup of sessions that encompass the comprehensive breadth and depth of scientific and clinical endocrinology.

ENDO 2022, taking place June 11 – 14, will be the Society's inaugural hybrid meeting. That's right, attendees can participate in Atlanta or online, or both! This increased

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In full disclosure, I personally favor in-person meetings — especially after a two-year hiatus — and will be in Atlanta looking forward to connecting with you in-person!

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flexibility will foster expanded connectivity, community, and knowledge sharing amongst our diverse, international community. Each format has intrinsic benefits, and when the time comes, you will have the option to select the best format that suits your desires and needs. Though, in full disclosure, I personally favor in-person meetings — especially after a two-year hiatus — and will be in Atlanta looking forward to connecting with you in-person!

Attendees can expect top-flight education at ENDO 2022, as well as a new vibrancy and contemporary conference experience with expanded networking. Learners at this year's conference can expect a range of carefully curated sessions in a variety of delivery formats spanning the endocrinology

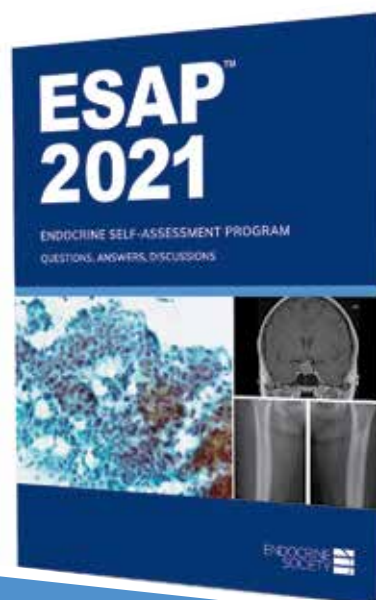
journey from bench to bedside and back again. From symposia, a perennial favorite format featuring presentations for leading minds in basic research, clinical research, and clinical practice, to connection content, new programming centered around the skills developed outside of the lab and the exam room that drive success, **ENDO 2022** attendees will have the opportunity to tailor their learning experience to fit their precise professional and personal development needs. Further, the Society is also ramping up its investment in technology-forward learning enhancements to align the **ENDO** learning experience with the reality of day-to-day life in the 21st century.

I also want to punctuate that we are reinforcing our commitment to social responsibility and DEI (diversity, equity, and inclusion) by hosting an EndoCares program for underserved Atlantans. This community-centric program will provide on-site, complimentary medical screenings, health and wellness coaching, and patient education. Most importantly, EndoCares is designed to foster lasting connectivity between Atlanta-based healthcare providers and underserved residents to ensure those in need have continued access to essential care and resources.

Despite ongoing challenges with COVID-19, I remain optimistic that 2022 will herald an era of renewal, opportunity, and connectivity. In that spirit, we are planning for a blockbuster **ENDO 2022** that will showcase the very best science and maximize relationship building opportunities. **EN**

Carol H. Wysham, MD
President, Endocrine Society

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FROM THE **EDITOR**

An Endocrinologist's Inspiring Journey

This month's cover story should be an inspiration for all of us. In "Never Too Late to Do Good," on page 24, senior editor Derek Bagley talks with Stanley Andrisse, PhD, MBA, who details his life story that saw him move from a prison cell in Missouri to researching fat cells as an assistant professor at Howard University College of Medicine in Washington D.C. Andrisse details how he turned his life around while serving time after having been labeled a hopeless career criminal as a troubled youth.

Andrisse speaks very frankly to *Endocrine News* about his very different path to science, which, no doubt, is unlike any other scientist or academic in endocrinology and biomedicine. "I am a formerly incarcerated person with three felony convictions, sentenced to 10 years in prison as a prior and persistent career criminal. I was once told by a prosecuting attorney that I had NO hope for change," he says via Zoom from London. "I am now Dr. Stanley Andrisse, endocrinologist, scientist, and professor at Howard University College of Medicine, former faculty at Johns Hopkins Medicine, affiliate at Georgetown Medical Center, and my newest title, visiting research at Imperial College of London. I'd say that I may have changed just a little bit!"

On page 18, writer Eric Seaborg delves into the world of artificial intelligence in his article, "Risk Management: How Machine Learning Predicts Hypoglycemic Events in Hospitalized Patients." Based on a recent *JAMA Network Open* paper, this piece details how a new software model has been shown to provide a rolling prediction about the next 24 hours after each blood glucose measurement is taken in hospitalized patients with diabetes. The model integrated dozens of clinical predictors via links to electronic hospital records through machine learning, which is essentially the same technology Netflix uses when it recommends *Goodfellas* after you've watched *The Godfather*.

The lead author of the paper, Nestoras Mathioudakis, MD, MHS, clinical director of endocrinology, diabetes, and metabolism at Johns Hopkins University School of Medicine, says that the study breaks new ground

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compared with previous attempts at predicting hypoglycemia because of its focus on a rolling prediction about the coming 24-hour period. He adds that previous studies merely focused on the possibility of such an event at any point during their admission, but the focus on the next 24-hour timeframe is much more clinically relevant in terms of adjusting treatment to try to prevent the event.


In “Rare But Devastating: Keeping Track of Acromegaly Cases” on page 32, Bagley details the Mexican Acromegaly

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Andrisse speaks very frankly to *Endocrine News* about his very different path to science, which, no doubt, is unlike any other scientist or academic in endocrinology and biomedicine.

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Registry, which has helped endocrinologists in Mexico address the myriad issues patients with acromegaly face, whether it be physically or even financially. Because acromegaly is so rare, when an endocrinologist is faced with a potential case, it would be helpful to have the most accurate, complete, and up-to-date data available. “We believe that this real-life information, albeit retrospective, should be the basis of the diagnostic and therapeutic recommendations for patients with acromegaly,” says Moises Mercado, MD, FRCP, Endocrinology Service and Research Unit in Endocrine Diseases, Hospital de Especialidades, Mexico City, Mexico. “The data has been very valuable in negotiating with official authorities the coverage of high-cost medications used to treat acromegaly.”

If you have any ideas or suggestions for stories you’d like to see in *Endocrine News*, feel free to contact me at: mnewman@endocrine.org. 

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



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Endocrine Society Launches New Center for Learning



Online learning plays a crucial role in the Society's educational mission, a role that has grown exponentially since the start of the pandemic. For the past 18 months, members have accessed countless education and training programs from the comfort and safety of their homes and offices.

We're gratified to know our Center for Learning platform provided an educational lifeline when face-to-face meetings were impossible. But we also knew our seven-year-old platform was in need of an upgrade.

That's why we are so thrilled to announce the launch of our new **Center for Learning**.

The new platform offers a best-in-class online learning experience that is intuitive, responsive, and ultimately easier to use. These key factors underlie the platform's new learning management system (LMS), Oasis LMS, provided by Chicago-based IT consultancy, 360 Factor.

Our must-haves from Oasis LMS included:

- ▶ A navigable public catalog to serve as the Center for Learning homepage;
- ▶ Quick links to key areas, including pages where learners can view their active courses and transcripts;
- ▶ An intuitive and seamless CME credit submission process;
- ▶ A truly mobile-responsive design for use on any smart device;
- ▶ Course recommendations based on previous activity; and

- ▶ A robust FAQ video library to assist with everyday inquiries.

Other changes will be evident on your first visit to the site. In addition to its sleek new design, the platform directs users to a main catalog page where you can jump to your personal activities page or explore the Society's course offerings. Finding the perfect course has never been easier as you can filter offerings based on unique needs and interests. Categories include topical areas, target audience, and CE credit types.

What hasn't changed? Center for Learning will continue to be located on www.endocrine.org. And as before, the site will offer a diverse range of world-class education and training. These include our premiere case-based programs, such as the Endocrine Self-Assessment Program (ESAP™), Pediatric ESAP™, and Endocrine Board Review, as well as webinars, on-demand activities, past conference session recordings, and the Fellows Training Series.

For more than 100 years, the Society has proudly fulfilled its mission of promoting continued education and training for clinicians, investigators, educators, and allied health professionals in our field. The new Center for Learning stands as the latest effort in this long tradition.

Finally, we'd like to ask for your patience as we fully implement this large system and iron out any kinks that may crop up. Our strong support staff remains available to guide you through the new Center for Learning.

If you have any questions, please contact our Members Services team at info@endocrine.org.

— Hannah Andrews, director of digital learning,
Endocrine Society

Society's In-Training Exam Predicts Fellows' Success on ABIM Board Exam



Endocrinology fellows and their program directors can use performance on the Endocrine Society's in-training self-assessment tool to gauge how likely fellows are to pass the American Board of Internal Medicine-Endocrinology, Diabetes, and Metabolism Certification Examination (ABIM-ECE), according to a new study published in the *Journal of the Endocrine Society*.

The study found clinical endocrinology fellows' performance on the Society's Endocrine In-Training Examination (ITE) is a robust predictive tool for pass/fail outcomes on the ABIM-ECE, which is required by many employers, hospitals, and payers. The analysis examined results from 982 fellows who participated in ITE between 2016 and 2019.

"Program directors and fellows can feel confident knowing that the ITE is the field's best tool to assess what topics fellows have mastered and to identify areas for additional training," says one of the study's authors, Alan C. Dalkin, MD, of the University of Virginia School of Medicine in Charlottesville, Va. Dalkin is a member of the Society's ITE Steering Group. "We are proud that our In-Training Exam is the premier self-assessment tool for training the next generation of endocrinologists."

The ITE is part of the Society's Fellows Training Series, a comprehensive curriculum designed to provide support to fellows and program directors around the globe. This case-based tool covers the topics that appear on the ABIM Board Exam.

The leading self-assessment tool for clinical endocrinology fellows, ITE features 90 multiple choice questions designed to evaluate how well a fellow is progressing through their clinical education. These questions are developed by an expert panel annually, which in turn generates a completely new exam each year. This approach is different from any other medical subspecialty.

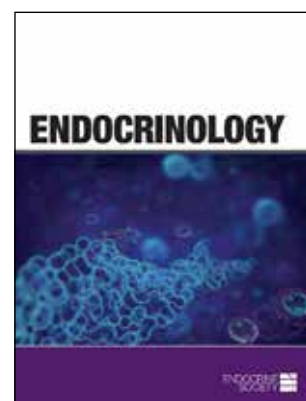
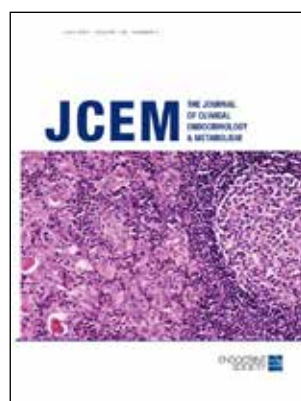
Following the exam, fellows in training and fellowship programs receive performance feedback that includes all questions and answers along with learning objectives and references for each question. This unique approach provides open access to all questions and answers after the exam is administered, allowing fellows and program directors to identify specific areas for improvement and develop learner-specific remediation plans, as well as a way for program directors to assess their overall program.

"I recently completed fellowship training in 2019 and took the ITE each year," says the study's first author, William B. Horton, MD, MSc, FACP, of the University of Virginia School of Medicine. "The exam was very helpful for assessment of medical knowledge and played a valuable role in my development, but I could find no information about its relationship to board certification while preparing for the ABIM exam. This study helps answer that question and provides useful data for fellows as they prepare to take the board exam."

Other authors of the study include: James T. Patrie, MSc, of the University of Virginia School of Medicine in Charlottesville, Va.; Lauren M. Duhigg, MPH, of the American Board of Internal Medicine in Philadelphia, Pa.; Maggie Graham, BA, of the Endocrine Society in Washington, D.C.; Mark W. True, MD, of Brooke Army Medical Center in San Antonio, Texas; and Elaine M. Pelley, MD, of the University of Wisconsin School of Medicine and Public Health in Madison, Wis.

The manuscript, "Novel Formative Approach of the ESAP-ITE Provides Strong Predictive Value for ABIM Certification Outcomes," was published online.

Endocrine Society Journals Earn Higher 2020 Impact Factors



Endocrine Society journals experienced large Impact Factor increases, led by *Endocrine Reviews*, according to Clarivate's recently released annual Journal Citation Report (JCR) for 2020.

A highly regarded metric used to measure the success of scholarly journals, the 2020 Impact Factor is calculated by tracking how many times articles that a journal published in 2018 and 2019 were cited by authors during 2020. The number of citations is then divided by the total number of citable articles published in that journal in 2018 and 2019 to arrive at the Impact Factor.

"I'm delighted that our journals' scores improved so much since the last Impact Factor report," says Daniel Spratt, MD, chair of the Endocrine Society's Publications Core Committee. "The recognition is well deserved and a result of all the hard work of our authors, reviewers, and editors to publish the most innovative research in the field."

Endocrine Reviews saw the biggest increase in Impact Factor among the Society's journals, rising from 14.661 in 2019 to 19.871 in 2020, and is ranked fourth out of more than

175 journals in the endocrinology and metabolism JCR category. The journal publishes bimonthly comprehensive, authoritative, and timely review articles balancing both experimental and clinical endocrinology themes.

The Journal of Clinical Endocrinology and Metabolism's (JCEM) Impact Factor rose from 5.399 in 2019 to 5.958 in 2020 and continues to be the most cited journal in endocrinology and metabolism. JCEM is the world's leading peer-reviewed journal for endocrine clinical research and clinical practice.

Endocrinology, the Endocrine Society's flagship basic science journal, saw its Impact Factor increase from 3.934 to 4.736, and has the highest cited half-life in endocrinology and metabolism.

The Society's newest journal, the open access *Journal of the Endocrine Society*, launched in 2017, is listed in indexes including Scopus and Clarivate's Emerging Sources Citation Index, and is a candidate to receive its first Impact Factor next year. **EN**

Patients Report Long-Term Favorable Effects of Weight Loss Surgery

A new analysis from the STAMPEDE trial shows that over the course of five years, patients who had bariatric and metabolic surgery to treat uncontrolled type 2 diabetes reported greater physical health, more energy, less body pain, and less negative effects of diabetes in their daily lives, compared with patients who had medical therapy alone for their diabetes. Long-term changes in psychosocial and emotional quality of life measures were not significantly different between the surgical and medical groups. The research was published in the *Annals of Surgery*.

Researchers led by Ali Aminian, MD, director of Cleveland Clinic's Bariatric & Metabolic Institute, point out that chronic diseases like obesity and diabetes can negatively impact quality of life, so it's important to study the effects of different treatments on the well-being of patients as they go about their daily lives.

The Cleveland Clinic-led STAMPEDE study (Surgical Therapy and Medications Potentially Eradicate Diabetes Efficiently) was the first

randomized controlled clinical trial that compared head-to-head bariatric surgery with intensive medical therapy for the treatment of type 2 diabetes in patients with poorly controlled diabetes and obesity.

The trial initially involved 150 participants, who were divided into three groups: 1) 50 patients received intensive medical therapy only, including counseling and medications; 2) 50 patients underwent Roux-en-Y gastric bypass surgery and received medical therapy; and 3) 50 patients underwent sleeve gastrectomy and received medical therapy. Effectiveness was gauged by the percentage of patients who achieved blood sugar control, defined in this study as HbA1c level of less than or equal to 6.0% — a more aggressive target than the American Diabetes Association's guidelines. HbA1c is a standard laboratory test that reflects average blood sugar over three months.

The study's initial results showed that metabolic surgery is superior to medical therapy alone for achieving weight loss and diabetes control



BY DEREK BAGLEY
Senior Editor



“

When diabetes is coupled with obesity, the impact on lower quality of life can be related to the mechanical effects of obesity as well, which leads to poor mobility and bodily pain.

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with less reliance on anti-diabetic medications. The five-year results showed that the benefits of metabolic surgery persist over time.

This current study looked at 104 STAMPEDE trial participants: 1) 26 patients who received intensive medical therapy only; 2) 41 patients who underwent Roux-en-Y gastric bypass surgery and received medical therapy; and 3) 37 patients who underwent sleeve gastrectomy and received medical therapy.

The 104 patients were asked to answer two generic health-related quality-of-life questionnaires (the RAND 36-Item Health Survey and European QoL 5-Dimensions) and a diabetes-specific questionnaire at the beginning of the trial, and then on an annual basis following enrollment. Those three questionnaires were chosen to assess how surgical or medical treatment of obesity and diabetes may affect key elements of quality of life.

The results show that over the course of five years, the 78 patients in the surgical groups had significantly better scores on physical functioning, more energy, less body pain, and improved general health scores compared with the 26 patients in the medical therapy group. The diabetes questionnaire looked at 12 various aspects of life in patients who have type 2 diabetes, such as maintaining a diet, going on vacation, planning meals or eating out with others, and family life. Over five years, data show that diabetes has less negative impact on quality of life in the metabolic surgery groups compared with the medical therapy group.

“Patients with long duration of diabetes tend to have poor quality of life, especially when they develop microvascular complications like eye and kidney diseases,” says Endocrine Society member Sangeeta Kashyap, MD, co-investigator involved with the trial and an endocrinologist at Cleveland Clinic’s Endocrinology & Metabolism Institute. “When diabetes is coupled with obesity, the impact on lower quality of life can be related to the mechanical effects of obesity



independence following metabolic surgery drive the improvement in general health measures and quality of life for patients with type 2 diabetes.”

“Our findings suggest that psychological well-being needs may require more attention in metabolic surgical patients,” Aminian says. “As part of our multidisciplinary approach to weight management at Cleveland Clinic, our patients have appointments with psychologists before and after surgery. The study results highlight that we may need greater emphasis on that aspect of the treatment, such as identification of psychosocial and emotional factors before surgery that can predict outcomes of surgery, as well as continuous psychosocial support after surgery.”

FDA Accepts Supplemental New Drug Application for Cabozantinib

Last month, the U.S. Food and Drug Administration (FDA) accepted a supplemental New Drug Application (sNDA) for cabozantinib as a treatment for patients 12 years and older with differentiated thyroid cancer (DTC) who have progressed following prior therapy and are radioactive iodine-refractory (if radioactive iodine is appropriate). Exelixis is marketing the drug as CABOMETYX®.

The sNDA is based on the results of COSMIC-311, a Phase 3 pivotal trial evaluating CABOMETYX versus placebo in patients with radioactive iodine-refractory DTC who progressed after up to two prior vascular endothelial growth factor receptor (VEGFR)-targeted therapies. The study findings were presented at the 2021 American Society of Clinical Oncology Annual Meeting and were published by *The Lancet Oncology* in July 2021.

At a planned interim analysis, cabozantinib demonstrated a significant reduction in the risk of disease progression or death of 78% versus placebo (hazard ratio [HR]: 0.22; 96% confidence interval [CI]: 0.13-0.36; $P < 0.0001$) in the intent-to-treat (ITT) population. At a median follow-up of 6.2 months, median PFS was not reached (96% CI: 5.7 months — not estimable) in patients treated with cabozantinib



and was 1.9 months (96% CI: 1.8 – 3.6 months) for placebo. The data demonstrate that HRs for PFS consistently favored cabozantinib over placebo for prespecified subgroups, including age ≤ 65 versus > 65 ; prior treatment with lenvatinib (yes versus no), and number of prior vascular endothelial growth factor receptor (VEGFR)-targeting therapies (1 versus 2).

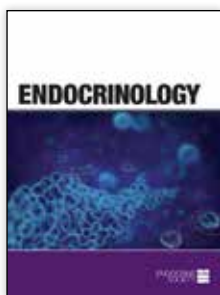
The results for the co-primary endpoint of objective response rate in the first 100 randomized patients after six months favored cabozantinib at 15% versus 0% for placebo, although this difference was not statistically significant ($P = 0.028$). In the ITT population, a reduction in target lesion size was found in 76% of patients receiving cabozantinib versus 29% of patients receiving placebo; median overall survival was not reached in either treatment arm but favored cabozantinib (HR: 0.54; 95% CI: 0.27-1.11).



“

The results for the co-primary endpoint of objective response rate in the first 100 randomized patients after six months favored cabozantinib at 15% versus 0% for placebo, although this difference was not statistically significant.

”



“
It was shown that Tat may permeate the BBB through a down-regulation of the expression of tight junction (TJ) proteins, such as claudin 5.
”

HIV-1 Establishes “Sanctuary Site” In the Testis

HIV-1, the most common type of human immunodeficiency virus, invades the testis and can avoid combination antiretroviral (cART) drugs by permeating the blood-testis barrier (BTB) and perturbing BTB function, potentially through the Tat protein, according to a study recently published in *Endocrinology*.


Researchers led by C. Yan Cheng, PhD, senior scientist at The Mary M. Wohlford Laboratory for Male Contraceptive Research, Center for Biomedical Research, and Population Council at Rockefeller University in New York, point out that little is known about how HIV-1 crosses the BTB. However, HIV-1 encodes a trans-activating regulatory protein (Tat), used for efficient transcription of the viral genome. Tat can be released by infected cells in culture and is found in the blood of patients with HIV-1.

“Importantly, HIV-1-Tat contains a protein transduction domain (PTD), known as a cell-penetration peptide, capable of permeating and

altering the blood-brain barrier (BBB), and thereby facilitating the entry of HIV-1 into the brain,” the authors write. “It was shown that Tat may permeate the BBB through a down-regulation of the expression of tight junction (TJ) proteins, such as claudin 5.”

For this study, the researchers used a two-prong approach: First, they looked to see whether recombinant Tat protein could perturb the BTB by using the primary rat Sertoli cell in vitro model that mimics the BTB in vivo. Then, they used HIV-1 infected cells to determine how HIV-1 affected co-cultured Sertoli cells.

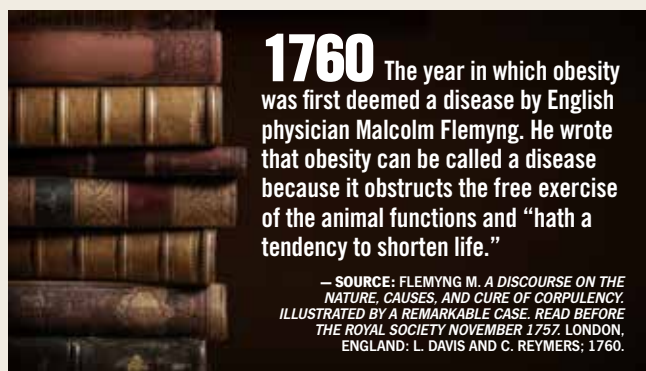
The researchers found that HIV-1 penetrates the Sertoli cell BTB by using the Tat protein. The researchers also write that it is likely that HIV-1 also compromises the spatiotemporal expression of actin-, MT-, and possibly vimentin- and septin-based regulatory proteins, which in turn perturb the corresponding cytoskeletal organization. These changes thus destabilize the Sertoli cell barrier function, facilitating the entry of the HIV-1 into the adluminal compartment.

The authors end the paper with a call to action, particularly into the effects of administering antiretroviral drugs along with the recently discovered endogenous bioactive peptides produced locally from the structural proteins across the seminiferous epithelium in the testis. Since these peptides are known to perturb the BTB function transiently, the authors write, they could enhance drug permeation across the BTB. “Their combined use at the onset of cART can be an option to eradicate HIV-1 from its sanctuary site in the testis,” they conclude. 



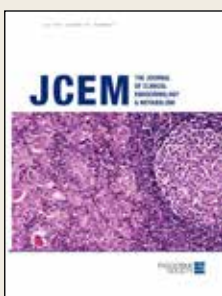
“Most research is done on nonblack people non-people of color. A vast number of PCOS studies are all white women, and then they find something and say, ‘this is the way you are supposed to treat PCOS.’ But the results were all in white women. **We found that it doesn’t extrapolate between race and ethnicity. There is a drastic difference in metabolic conditions between different race and ethnicities.**”

— Stanley Andrisse, PhD, MBA, assistant professor of medicine, Howard University College of Medicine in Washington, D.C., discussing racial inequities in scientific research, among many other topics, in “**Never Too Late to Do Good**” on page 24.



Health impacts of synthetic chemicals in U.S. products doubled in past five years.

— SOURCE: LANCET DIABETES AND ENDOCRINOLOGY JOURNAL



90,758

Number of citations received by *The Journal of Clinical Endocrinology & Metabolism* in 2020.

— SOURCE: JOURNAL CITATION REPORTS™, FROM CLARIVATE, 2021



87%



People with diabetes who had trouble falling or staying asleep were 87% more likely to die of any cause over the next nine years than people without diabetes or sleep problems.

— SOURCE: JOURNAL OF SLEEP RESEARCH

Heart in Diabetes

New York, N.Y.

September 10 – 12, 2021

This CME conference brings clinical leaders in diabetes and cardiovascular disease and practicing clinicians together to improve the care of patients at a high risk of cardiovascular, metabolic, and kidney diseases. This program is designed to evaluate the clinical science aspects of diabetes, obesity, and cardiovascular disease, focusing on the heart and kidney in diabetes. The goal is to develop appropriate, comprehensive clinical management plans aligning endocrinologists, cardiologists, nephrologists, and all other interested clinicians in their understandings of the impact of diabetes and CVD outcome trials on the clinical management of these very high-risk patients.

www.heartindiabetes.com

90th Annual Meeting of the American Thyroid Association®

Scottsdale, Ariz.

September 29 – October 3, 2021

This meeting is designed for the community of endocrinologists, basic scientists, internists, surgeons, nuclear medicine scientists, pathologists, trainees, nurses, physician assistants, advanced practice providers, and other health care professionals who wish to broaden and update their knowledge of the thyroid gland and its disorders.

www.thyroid.org

The American Society for Bone and Mineral Research (ASBMR) 2021 Annual Meeting

Toronto, Canada

October 1 – 4, 2021

Connect with more than 3,000 scientists from around the world for

the premier scientific program packed with cutting-edge research in the bone, mineral, and musculoskeletal field. The ASBMR Annual Meeting boasts a variety of educational sessions and poster presentations in four information-filled days. The conference includes hands-on workshops focused on the latest technologies and research tools using model datasets, meet-the-professor sessions, and access to new science, new knowledge, new tools, and new contacts all in one location.

www.asbmr.org

10th Annual Diabetes Symposium: New Advances and Trends

October 15, 2021

The 10th Annual Diabetes Symposium emphasizes the interprofessional team approach needed to improve diabetes care and prevent complications. Expert faculty will guide participants in



Virtual 2021 Clinical Endocrinology Update/Endocrine Board Review

CEU 2021

Sept. 10 – 12, 2021

EBR 2021

Sept. 22 – 24, 2021

Every year, the Endocrine Society holds Clinical Endocrinology Update (CEU), which brings together hundreds of endocrine clinicians for a unique learning experience.

This year, due to concerns regarding the safety of both attendees and faculty stemming from the COVID-19 outbreak, the Endocrine Society is conducting these sessions in a virtual learning environment.

CEU 2021 offers an opportunity to stay up to date on the newest breakthroughs in clinical endocrinology. Expert faculty deliver a comprehensive three-day program covering a range of clinical practice areas using interactive, case-based learning.

Endocrine Board Review (EBR) is an essential course for endocrinologists preparing to take the boards or practicing physicians seeking an intensive knowledge assessment. The virtual program is designed as a mock exam, with rapid-fire case-based questions emulating the format and subject matter of the ABIM's Endocrinology, Diabetes, and Metabolism Certification Examination. Attendees will have early access to topical on-demand presentations with detailed answer rationale (available in late August).

www.endocrine.org/ceu2021 • www.endocrine.org/eb2021

applying the new knowledge and clinical guidelines into their practices.

<https://cme.jefferson.edu/content/diabetes2021>

Obesity Week 2021

November 1 – 5, 2021

ObesityWeek® is home to the latest developments related to obesity from cutting-edge basic and clinical research to state-of-the-art treatment and prevention to the latest efforts in advocacy and public policy. Present your latest work and stay up to date on the latest advances in the field by attending ObesityWeek®. The overarching theme for ObesityWeek® Interactive will be Pathways to Precision Obesity Care. A key component in the development of precision care for obesity is recognizing and understanding the inherent heterogeneity in both the patterns of development and expression of obesity, and ObesityWeek® Interactive programming will draw specific attention to these topics.

<https://obesityweek.org/>

Diabetes and Its Complications

Livestream

November 4 – 6, 2021

This program provides comprehensive updates, practice recommendations, and the newest evidence-based strategies for the treatment and care of the person with or at risk for diabetes. In addition to state-of-the-art approaches to diabetes management, this course provides comprehensive updates for the prevention, diagnosis, and treatment of diabetes comorbidities and complications.

<https://hmsdiabetescourse.com>

Neuroscience 2021

Virtual: November 8 – 11, 2021

Chicago, Illinois

In-Person: November 13 – 16, 2021

The Society for Neuroscience (SfN) is excited to announce details for Neuroscience 2021, with opportunities to participate online and in person. SfN's Annual Meeting Focus Group, led by the Program Committee Chairs, has reimagined the digital experience, specifically virtual poster sessions, and we're excited to celebrate SfN's 50th anniversary meeting with neuroscientists around the world at our most inclusive experience to date. Join the nearly half a million neuroscientists who have propelled their careers by presenting an abstract at an SfN annual meeting — the premier global neuroscience event.

www.sfn.org/meetings/neuroscience-2021

INTERNATIONAL ITINERARY

EndoBridge 2021

Antalya, Turkey

October 21 – 24, 2021

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

www.endobridge.org

2021 World Endocrine & Obesity Conference

Bangkok, Thailand

November 19 – 20, 2021

Designed as a hybrid conference with both virtual and in-person platforms, the 2021 WEOC will address the complex nature of critical care cases, including their unique physiology, array of procedures, and potential complications. The latest management strategies for challenging clinical problems will be presented and current controversies will be discussed utilizing a variety of educational methodologies.

<https://endocrine.episirus.org>

ESA SRB ANZBMS Annual Scientific Meeting

Melbourne, Australia

November 21 – 24, 2021

The ESA/SRB/ANZBMS Annual Scientific Meeting will cover the most recent state-of-the-art advances in the fields of endocrinology, reproduction, and bone and mineral research including awards sessions, oral presentations, and poster abstracts. This is a face-to-face meeting, with virtual/online components and options and a contingency plan to shift online in the event of disruption due to COVID-19.

www.esa-srb-anzbms.org/

RISK Management:



HOW A MACHINE LEARNING MODEL PREDICTS HYPOGLYCEMIC EVENTS IN HOSPITALIZED PATIENTS

A new software model is the first to provide a rolling prediction about the next 24 hours after each blood glucose measurement is taken in hospitalized patients with diabetes. Through machine learning, the model integrated dozens of clinical predictors via links to electronic hospital records.

A new study could move hospitals a step closer toward the goal of minimizing hypoglycemic events among inpatients with diabetes. A recent paper in *JAMA Network Open* describes machine learning software that mined health record information to predict a patient's risk of hypoglycemia within 24 hours of each blood glucose measurement.

Nestoras Mathioudakis, MD, MHS, clinical director of endocrinology, diabetes, and metabolism at Johns Hopkins University School of Medicine and lead author of the study, says that the study breaks new ground compared with previous attempts at predicting hypoglycemia because of its focus on a rolling prediction about the coming 24-hour period. Previous studies merely focused on the possibility of such an event at any point during a patient's admission. The focus on the next 24-hour timeframe is much more clinically relevant in terms of adjusting treatment to try to prevent the event, he says.

"Most people with diabetes who are hospitalized are put on insulin, regardless of what they are taking in the outpatient setting. And insulin is one of the highest-risk medications used in the hospital setting," Mathioudakis says.

BY ERIC SEABORG



“Most people with diabetes who are hospitalized are put on insulin, regardless of what they are taking in the outpatient setting. And insulin is one of the highest-risk medications used in the hospital setting.”

— NESTORAS MATHIOUDAKIS, MD, MHS, CLINICAL DIRECTOR OF ENDOCRINOLOGY, DIABETES, AND METABOLISM, JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE, BALTIMORE, MD.

Kristen Kulasa, MD, director of inpatient glycemic control at the University of California, San Diego, agrees on the importance of better clinical tools to help reduce hospital hypoglycemia: “Electronic assistance to help with highlighting the high-risk patient would be very helpful because most patients are not here for diabetes specifically. They are here for something else but also have diabetes, which can often be number 10 on their problem list and doesn’t necessarily get a ton of attention.”

Four-Year Study

The study examined almost 55,000 admissions over a four-year period at five hospitals — two academic and three community hospitals — in the Johns Hopkins Health System. The prediction model extracted and analyzed 43 clinical predictors from the patient’s electronic medical record, including demographic characteristics, diagnoses, procedures, laboratory data, medications, and vital signs. After every blood glucose measurement, the model predicted the likelihood of a hypoglycemic event — defined as a blood glucose measurement of 70 mg/dL or less — in the upcoming 24 hours.

The model was nearly perfect in negative predictive value — predicting when there would be no event — and did “fairly well” in predicting a hypoglycemic event, Mathioudakis says. The strongest predictors of an event were the size of the basal insulin dose, the variability of the blood glucose results, and the existence of previous hypoglycemic events.

The study evaluated four kinds of classification algorithms and had the greatest success with a stochastic gradient boosting machine learning model, a type of machine learning algorithm in which the machine learns by sorting the data into random subsets to figure out which of the parameters are driving the risk in order to incorporate them into the predictive model.

“Further studies are needed to translate this model into a real-time informatics alert and evaluate its effectiveness in reducing the incidence of inpatient iatrogenic hypoglycemia,” the study authors write. “Our next step will be to embed the prediction model in our electronic medical record system.”

The Challenges of Implementation

These next steps will be challenging, according to Robert J. Rushakoff, MD, medical director for inpatient diabetes at the University of California San Francisco Medical Center, who has been working on methods to decrease hypoglycemia in inpatients for many years.

“Going from a prediction model to implementation to decreased hypoglycemia is a big jump,” he says. Several years ago, his institution tested one of the first health-record-based hypoglycemia prediction systems developed at Washington University in St. Louis. The model was programmed into the electronic medical record system and ran in real time. They found that the biggest challenge to such a model was that most cases of hypoglycemia at their institution were not predictable because they were the result of unanticipated interruptions in enteral feedings. These incidents generally involved patients on insulin who did not receive their feedings for various reasons — their tubes were clogged, the patient pulled the tube out, or the feeding was stopped to prepare the patients for extubation, but intravenous dextrose was not started or their insulin dosage was not adjusted in tandem.

Another problem was in figuring out how to react to the predictions. “It was a lot of work to figure out who gets a message, how do they get a message, and during what hours. Do you do it at 3 in the morning after a 2 a.m. blood sugar check? The bottom line was, we didn’t continue with this project because the committee on alerts felt that we shouldn’t push out alerts when the benefit was so small. In our case, we just didn’t have a lot of hypoglycemia that was significant enough to make a difference with the



AT A GLANCE

- ▶ An experimental software model mined electronic records to predict the risk of a hypoglycemic episode in the 24 hours following each blood glucose measurement in hospitalized patients who have diabetes.
- ▶ The software used a machine learning approach to identify and integrate 43 clinical predictors readily extracted from electronic medical records.
- ▶ The researchers hope to develop a real-time system that can be embedded routinely into hospital records systems.

“Electronic assistance to help with highlighting the high-risk patient would be very helpful because most patients are not here for diabetes specifically. **They are here for something else but also have diabetes, which can often be number 10 on their problem list and doesn’t necessarily get a ton of attention.**”

— KRISTEN KULASA, MD, DIRECTOR, INPATIENT GLYCEMIC CONTROL, UNIVERSITY OF CALIFORNIA, SAN DIEGO, CALIF.




Unanticipated enteral feeding interruptions were often the cause of inaccurate hypoglycemia predictions, whether due to clogged tubes, stopped feeding, or a patient-related disruption.

showing it to be very effective in highlighting glycemic trend lines.

But Mathioudakis says that even CGM does not detect the risk until it is imminent. “It happens with such a short lead time that if you haven’t adjusted the insulin dose, there is nothing you can do about it except give glucose proactively. What is potentially more useful is being able to predict with a longer lead time, so you can decrease the insulin dose and prevent the drop in glucose from happening at all,” he says.

Next Steps

“We are excited by the next step in this research and translating it into a real-time electronic medical record-based prediction model. This is a National Institutes of Health-funded grant, so we have a lot of inputs from our stakeholders about what they would want the alert to do and the desired functionality,” Mathioudakis says.

Kulasa looks forward to the next steps: “With the right alert, this could be very helpful. There is definitely a clinical need for it, so it is good to see this progressing nicely.” 

alerts,” Rushakoff says.

But he practices in an academic center that expends a lot of resources on glycemic management, so he believes that community hospitals that lack these resources could see the largest benefit from a prediction system. “If you can give people a warning that the patient is at risk for hypoglycemia in the next 24 hours, and give guidance on changing the insulin dose, that would be extremely helpful,” he says.

A Challenge from CGM?

Another potential change in glycemic management in hospitals is the greater use of continuous glucose monitoring (CGM). The Food and Drug Administration has still not approved CGM for general use in hospitals, but its temporary approval during the COVID-19 pandemic has led to several studies

— SEABORG IS A FREELANCE WRITER BASED IN CHARLOTTESVILLE, VA. IN THE AUGUST ISSUE, HE WROTE ABOUT THE USE OF THE TERM “PREDIABETES” AS IT APPLIES TO OLDER ADULTS.



ENDO2022

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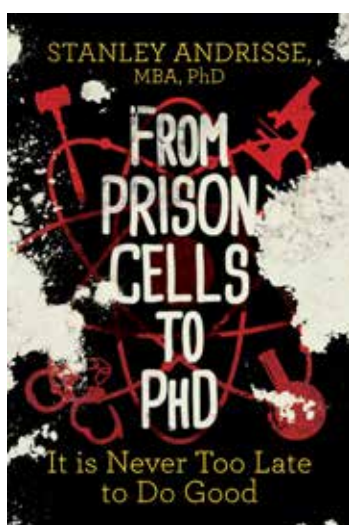
[ENDOCRINE.ORG/ENDO2022](https://endocrine.org/endo2022)

Never Too Late BY DEREK BAGLEY **TO DO GOOD**

The Redemption of Stanley Andrisse, PhD, MBA



Stanley Andrisse, PhD, MBA, was labeled a career criminal in his early 20s before he was sent to prison for drug trafficking. Last month, his book — *From Prison Cells to PhD: It Is Never Too Late to Do Good* — was published by Simon & Schuster and details his remarkable transformation from troublemaking teen to respected scientist at Howard University.



“I get asked that a lot,” Stanley Andrisse, PhD, MBA, says over a computer screen from his flat for the summer in London, “how do I do so much.”

He appears in the Zoom screen calm and relaxed, for the moment anyway, unwinding after a day of splitting his time at the bench during his summer sabbatical at the U.K.’s elite Imperial College studying polycystic ovary syndrome (PCOS) and obesity and checking in with his research team at Howard University College of Medicine in Washington, D.C., where he is an assistant professor of medicine, as well as the team at the nonprofit where he serves as executive director. When we speak, Andrisse is waiting for his family to finish the mandatory quarantine for people entering the U.K. from the U.S. so they can get out and explore some of Europe.

But Andrisse’s journey to this moment has been troubled, at times traumatic. And inspiring. In his early 20s, he found himself sitting in front of a judge and a prosecutor who labeled him a “career criminal” and was sentenced to 10 years in a Missouri state prison on drug trafficking charges. For Andrisse, this period was a transitional one, where he found the determination to keep moving forward, a story that he tells in his book *From Prison Cells to PhD: It Is Never Too Late to Do Good*, which hit shelves August 17.

Endocrine News was able to catch up with the assiduous Andrisse to talk about how he went from a prison cell to studying human cells, his father’s guidance, the incessant injustices in the U.S. legal system, and what diversity, equity, and inclusion looks like in the scientific community. Here, edited for length and clarity, is our conversation.

Endocrine News: Your story is quite compelling and unique among the endocrinology or academic communities. Can you share a little of your background and what set you on the path to becoming a scientist?

Stanley Andrisse: My path to science has been quite different than any other scientist or academic in my field of endocrinology and biomedicine. I am a formerly incarcerated person with three felony convictions, sentenced to 10 years in prison as a prior and persistent career criminal. I was once told by a prosecuting attorney that I had NO hope for change. I am now Dr. Stanley Andrisse, endocrinologist scientist

“ I wasn’t driven to be at the bedside; I was driven to understand what was going on molecularly inside the cell of a person with type 2 diabetes and so I began studying diabetes. I read my first scientific article on diabetes while locked in my cell ... that’s where I first started learning about the intricacies of the human cell and how diabetes affected and caused dysfunction in the human cell.”



During the Andrisse family’s sojourn to France, Andrisse took in the vast amount of masterpieces at The Louvre while in Paris.

and professor at Howard University College of Medicine, former faculty at Johns Hopkins Medicine, affiliate at Georgetown Medical Center and my newest title, Visiting Research at Imperial College of London. I’d say that I may have changed just a little bit!

I am a board member of the Formerly Incarcerated College Graduates Network (FICGN), which is connected to thousands of formerly incarcerated college graduates and has the pulse for these types of things. To my knowledge and FICGN’s knowledge, I am the only black male openly formerly incarcerated person who is a medical school professor.

EN: So, the prosecutor convinced the judge that you had no future. How wrong was she?

SA: The U.S. legal system needs a complete paradigm shift. My prosecutor was intentionally wrong because the system incentivizes her to do so. In this great nation of America, we incarcerate more people than any other nation in the world — 2.2 million of your fellow Americans are currently locked in cages. We incarcerate at a rate higher than most underdeveloped countries that have extremely heinous punishment systems. In fact, our closest competitors, places we consider communist and have primitive politics, like Russia and China, we incarcerate two to four times as much as they do. The U.S. accounts for only 5% of the world population but 25% of the incarcerated population around the globe. One-fourth of people locked in cages around the globe are right here in this great nation of America.

Growing up in the Ferguson, Mo., area, I got involved with making poor decisions at a very young age. I was labeled as a “bad person” by teachers before entering the criminal legal system. I was arrested for the first time at 14. By my early 20s, those poor decisions had exponentially multiplied, and I found myself sitting in front of a judge facing 20 years to life for drug trafficking charges. The prosecutor painted this picture of me as this dangerous career criminal. By this time, I had amassed a juvenile record and three felony convictions. She was successful in sentencing me as a prior and persistent career criminal. As a professor, I work with college scholars 25 – 30-year-plus training to be doctors. It takes over 16 years of higher education before we call them career professionals. Yet, this prosecutor prophesized that I was a career criminal with NO HOPE for change. The judge sentenced me to 10 years in a maximum-security prison.

When it was all done, they arrested five people, resulting from a multi-month drug task force investigation. Three of us were black and two of us were white. Me and the other black guys ended up in prison. The two white guys never stepped foot in a prison cell. I guess the prosecutor saw hope in their whiteness.

EN: You’ve told me before about how in prison you experienced this strong desire to change. Can you give me an example of that feeling, that eureka moment?

SA: I went into my incarceration just having been told that I was a career criminal. I internalized that and believed it. It’s only later that I came to understand that the brain is not fully developed until the mid-20s. Adolescent young adult brains are very mendable. And mine had been mended. I was a career criminal. Thus, I went into prison maintaining that thought and fulfilling that prophesy. I was fortunate to have strong



Andrisse in the recording studio for the audio version of his book back in June before he traveled to the UK. He admitted that throughout the publishing process, the many revisions, and the recording sessions, he probably read his own book 100 times!

mentorship and family support. My mentor (who I met just before prison) saw a different narrative. He saw a different trajectory. He invested in my potential.

EN: The way you talk about your father, he seemed like your rock, your Northern Star, trying to set you on the right path, but he knew it was never too late to do good, as you say. Can you tell me a little more about your father's influence on you?

SA: My dad and I had fallen off as I was making those poor decisions. My dad's health plummeted while I was in prison. Piece by piece, they amputated his lower limbs up to his torso. Before I could reconcile our relationship, he fell into a coma and lost his battle with type 2 diabetes. This was emotionally devastating. But I used that devastation as inspiration. He remains my inspiration.

In so many ways, he was the influence for me to thrive and build the resilience to become this different and better person. I felt that he had been trying to keep me away from making these types of decisions in the phrase that he was telling me, "Il ne jamn twa ta po fe bien." Translated as "It's never too late to do good." And in our conversations before I went to prison, with him trying to get me to see the positive impact I could make on the world and myself and trying to convey that it's not too late for me to make change in my life. He was very much the driving force behind me wanting to just change, to be a better person and make better decisions. But then his condition was also the driving force behind the career choice and path I took.

EN: What made you decide to go for a PhD, to the bench?

SA: Dealing with death and disease is difficult at any time. But dealing with it while you're locked in a cage was very emotionally challenging. But it was really wanting to know how this disease took this person that I so deeply cared for, from being this strong fatherly figure, that I saw him as, to basically kind of eating away at him.

IMAGES PROVIDED BY STANLEY ANDRISSE, PHD, MBA

Further READING



<https://www.nature.com/articles/d41586-020-01705-x>
"Grieving and frustrated: Black scientists call out racism in the wake of police killings"

<https://www.pnas.org/content/117/17/9284>
"The Diversity-Innovation Paradox in Science"

https://www.washingtonpost.com/local/md-politics/taking-a-lawbreaking-past-out-of-college-applications/2017/02/27/c98efe3e-f311-11e6-a9b0-ecce7ce475fc_story.html?utm_term=.e0099fed9d9e
"Taking a lawbreaking past out of college applications"



<http://www.ficgn.org>
Formerly Incarcerated College Graduates Network

“My path to science has been quite different than any other scientist or academic in my field of endocrinology and biomedicine. I am a formerly incarcerated person with three felony convictions, sentenced to 10 years in prison as a prior and persistent career criminal. I was once told by a prosecuting attorney that I had NO hope for change. I am now Dr. Stanley Andrisse, endocrinologist scientist and professor at Howard University College of Medicine, former faculty at Johns Hopkins Medicine, affiliate at Georgetown Medical Center and my newest title, visiting research at Imperial College of London. I’d say that I may have changed just a little bit!”

I wasn’t driven to be at the bedside; I was driven to understand what was going on molecularly inside the cell of a person with type 2 diabetes and so I began studying diabetes. I read my first scientific article on diabetes while locked in my cell. And I was fortunate to have this mentor in my life, who happened to be a biomedical scientist, not in diabetes, but nonetheless he began learning some of the intricacies of diabetes so that he could translate it to me in a way that was understandable. Over the course of weeks and months, we’d essentially have scientific journal clubs via brief prison phone calls and mail. And that’s where I first started learning about the intricacies of the human cell and how diabetes affected and caused dysfunction in the human cell.

EN: Can you tell me a little about the work in the lab you’re doing?

SA: We recently discovered — myself and the group that I work with — a new mechanism of insulin resistance. The current paradigm and current understanding of how one develops type 2 diabetes and how one develops insulin resistance, is that it is fat induced or obesity linked. Type 2 diabetes is very much linked to diet, exercise, and weight so the current understanding of how insulin resistance develops is that the human cell, as the body is gaining weight and putting on pounds, particularly gaining weight around the waist, is correlated to type 2 diabetes. But that’s the exterior of a person; inside the human cell, the cell is actually getting fatter as well. And as the cell gets fatter, these molecular fat molecules interrupt insulin signaling. And that’s the general understanding of type 2 diabetes; the cell actually gets fatter and these fat molecules interrupt insulin signaling and thus leading to high blood sugars and diabetes.

We discovered a new type of insulin resistance that is only taking place in women and is not fat induced. Women of normal weight and even lean women are developing this type of diabetes and insulin resistance, and they don’t know that they have worsening metabolic conditions inside of them. We’ve discovered the mechanism of how this non-obese insulin resistant diabetes is taking place [Andrisse, S., et al. Low-dose dihydrotestosterone drives metabolic dysfunction via cytosolic and nuclear hepatic androgen receptor mechanisms. *Endocrinology*. 2017;158(3):531–544.].

The condition I am referring to is polycystic ovarian syndrome (PCOS), in which the defining characteristic is high androgens. In some women with PCOS, they have higher than normal levels of androgens and this causes fertility and metabolic complications.

Some of the clinical work that I just published is looking at race and ethnicity in PCOS [published in the February 2021 issue of *Journal of the Endocrine Society*]. Currently, there are some drastic disparities in race and ethnicity in research, that have taken a turn from 50 to 100 years ago, where the disparities then were Tuskegee and Henrietta Lacks, where white researchers were taking advantage of black individuals, poor individuals, incarcerated individuals, and doing research on them without their consent. Very dangerous research. And they were like, “why don’t we do it on black folks?” And those were the disparities back then, the syphilis trials and things of that nature.

But now, because much research takes place at primarily white institutions (PWIs), where these institutions have difficulty recruiting black participants, because of the lack of trust between them and black communities. So now the flipside, most research is



Once he completed studying polycystic ovary syndrome and obesity at the UK's Imperial College in London, Andrisse, his wife Stephanie, and their daughter Ashlynn saw the sites, including Big Ben and Parliament.

done on nonblack people non-people of color. A vast number of PCOS studies are all white women, and then they find something and say, "this is the way you are supposed to treat PCOS." But the results were all in white women. We found that it doesn't extrapolate between race and ethnicity. There is a drastic difference in metabolic conditions between different race and ethnicities.

EN: You've been giving antiracist lectures here and abroad. One of the Endocrine Society's core tenets is DEI (diversity, equity, and inclusion). In your opinion, what can the Society do to ensure that it succeeds in shaping a diverse, equitable, and inclusive community?

SA: Black academics are calling out racism in science, detailing things ranging from overt acts to micro-aggressions, using social media hashtags such as #BlackInTheIvory and #BlackInSTEM. A 2020 *Proceedings of the National Academy of Sciences of the United States of America* study described how trainees from under-represented groups innovate more than their white counterparts do — but were afforded few to no rewards from their findings because their efforts were often dismissed. My prison-to-professionals (P2P) team and I engage organizations in a thought-provoking conversation on the effects of racism on the careers of black academics and professionals and provide tangible suggestions on meaningful institutional actions.*

EN: You've also been going to prisons to give talks to those who are currently incarcerated. What message do you hope gets through?

*ANDRISSE ENCOURAGES ANYONE INTERESTED IN A CONSULTATION TO CONTACT: [HTTPS://WWW.FROMPRISONCELLSTOPHD.ORG/CONSULTING-TRAINING.HTML](https://www.fromprisoncellstophd.org/consulting-training.html).

What's in A NAME?

The title of Andrisse's book, *From Prison Cells to PhD: It Is Never Too Late to Do Good*, has its own history derived from Andrisse's past as well as his present and future.

From Prison Cells to PhD is the name of the nonprofit organization he founded that "seeks to reach, touch, and change the lives of people with criminal convictions through advocacy, mentoring, and policy change." Andrisse's own father is the inspiration for the subtitle, which is a loose translation from a French-Creole phrase his father often said and is a recurring theme in the book.

"Il n'est jamais trop tard pour faire le bien" (in French) and "li pa janm twò ta pou fè bien" (Haitian Creole) translate to "It's never too late to do good," which Andrisse says was a combination of his father's guiding comments, "It's never too late to reach your full potential" and "It's never too late to do the right thing." Haitian Creole was the primary language spoken in Andrisse's home as a child, but French was spoken as well.

"He would tell me this in our several conversations focused on getting me to stop selling drugs and to get me to see that God had a higher purpose for me," Andrisse says. "I was too young and underdeveloped to get that message. He left me before I had the chance to show him that I finally began to understand it. This is a special phrase to me. I leaned on his words through many of my tough times, and the book is dedicated to my dad, for that reason."



After his stint at the Imperial College in London, Andrisse and his family took some much-needed vacation time. Here, he and his daughter Ashlynn explore France.

“It is never too late to do good.

True change is possible. People with histories of serious crime and violent behaviors have the capacity, ability, and strong desire to be full participating members of and contributors to society. We (society) need to open the door and provide that access and opportunity.”

SA: It is never too late to do good. True change is possible. People with histories of serious crime and violent behaviors have the capacity, ability, and strong desire to be full participating members of and contributors to society. We (society) need to open the door and provide that access and opportunity.

EN: Now to your book: What made you decide to sit down and write it? And can you walk me through a little of your writing process?

SA: I felt compelled to share my story with others to help inspire change. Many people had been encouraging me to share my story publicly and widely. It started with friends that witnessed my journey and transformation, but eventually as I began sharing my story with smaller groups, people like the late Elijah Cummings, and Baltimore City State’s Attorney, Marilyn Mosby, began encouraging me as well.

In February 2017, I testified [in support of the Maryland Fair Access to Education Act of 2017] and was immediately approached by a *Washington Post* journalist. My story made the front page and ever since then I’ve been on a national and international roller coaster of two to four speaking engagements per week with audiences from several dozen to thousands. All of whom had been eagerly asking me, “when’s the book coming out?” Here it is.

The book has been many years in the making. I’ve spent many nights in deep thought debating whether I should share such personal events in my life. Some of these traumatic events I’ve never shared before. Not only did I have to vividly relive them, but I contacted the people that lived them with me for their consent. For a few, it was too difficult to relive and for a few that are no longer living, family gave their consent. It took years to press the send button on some of those conversations. Through the entire process, the driving belief that pushed me forward was belief in a greater good, a belief that this will truly help.

EN: Your book was published in August. What do you hope Endocrine Society members will take away from your story and your message?

SA: It is never too late to do good. Get involved. Start with building the courage to have these difficult conversations with family and friends and colleagues. Start a lunch or dinner conversation about why we should be giving access and opportunity to people convicted of serious crimes. To do this, to be able to make this argument, you have to become knowledgeable on the topic. Thus, connect with a local or national nonprofit doing the work, like my organization, From Prison Cells to PhD (<https://www.fromprisoncellstophd.org/>) or Unlock Higher Education (<https://www.unlockhighered.org/>). Attend their events. Meet the people you hope to advocate for. Become proximal to the people, problems, and issues. There is great power in proximity.

EN: A few years ago, you shared with me some tips to avoid burnout and stay passionate about your work. You’ve since added a few more responsibilities – a book tour, a summer sabbatical in the UK, a toddler! What drives you?

SA: Helping others. Making an impact. Changing the narrative. **EN**

– BAGLEY IS THE SENIOR EDITOR OF *ENDOCRINE NEWS*. IN THE AUGUST ISSUE, HE WROTE ABOUT HOW NEWLY DISCOVERED MUTATIONS COULD HOLD THE KEY TO TREATING ADRENAL CANCER.



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RARE BUT devastating: KEEPING TRACK OF ACROMEGALY CASES

Since acromegaly is such a rare disorder, when an endocrinologist is presented with a potential case, the most accurate and complete data available would be a helpful tool. *Endocrine News* takes a closer look at how the Mexican Acromegaly Registry has helped endocrinologists address the issues patients with acromegaly face, both physically and financially.

Late last year, a paper appeared in *The Journal of Clinical Endocrinology & Metabolism*, which aimed to examine long-term outcomes of pharmacological and surgical treatments in patients with acromegaly, the rare but often devastating disease that can carry a high cost, both financially and physically.

In fact, the authors of the JCEM paper, led by Moises Mercado, MD, FRCP, of the Endocrinology Service and Research Unit in Endocrine Diseases at the Hospital de Especialidades in Mexico

City, Mexico, refer to acromegaly as a “low-prevalence, high-cost” disease. Mercado tells *Endocrine News* that a general endocrinologist in private practice would probably only see about 40 or 50 patients with acromegaly during his or her lifetime, which means these physicians would need the most accurate and complete data to start a cost-effective workup of these patients.

The Mexican Acromegaly Registry (MAR) was founded in 2009 as an official program of the Mexican Society for Nutrition

and Endocrinology, and it has been continuously gathering information ever since, growing to become the largest acromegaly registry published in literature, with more than 2,700 patients registered from more than 20 centers distributed throughout Mexico.

In 2016, JCEM published the first international report of the MAR, describing the general epidemiology of acromegaly in the country, particularly focusing on the frequency of the different symptoms, signs, and comorbidities of the disease. That group studied data from more than 2,000 patients with acromegaly and concluded that their findings highlight important within-country differences in treatment choice due to variations in the availability of resources.

“Registries such as the MAR provide very valuable information about the clinical behavior of a disease, particularly when it comes to relatively rare diseases like acromegaly,” says Mercado, who was a co-author of the 2016 JCEM paper. “In the first paper, we describe the differences and similarities among institutions in the way acromegaly is diagnosed and treated.”

Now, Mercado and his team have returned to the MAR to evaluate long-term therapeutic outcomes in patients with acromegaly, pointing out that the information from national registries like these provide a better reflection of what occurs in real life with these patients, outside of controlled clinical trials.

Taking a Toll

Again, acromegaly is not only rare but slow-moving, and comorbidities are usually present before the patient is even diagnosed with acromegaly. And while treatment options have improved over the years, surgery techniques refined, Mercado and his team write that active acromegaly is still associated with significant morbidity and mortality from neoplastic and cardiovascular causes.

Patients with acromegaly of course have a diminished quality of life due to the prolonged exposure to excessive growth hormones — headaches, sleep apnea, development of diabetes, even changes to their face, all of which can take a toll.

The primary treatment is resecting the GH-secreting adenoma, but as Mercado and his co-authors point out, the outcomes of these surgeries vary with the surgeon’s expertise. As for pharmacological treatments, first-generation somatostatin analogs (SSAs) have shown promise in numerous controlled,

“ We decided to look at therapeutic outcomes in the four main contributing centers because the information from these centers is more complete. We are convinced that the information derived from studies based on epidemiological registries reflects what actually occurs in real life, that is, out of the context of a controlled clinical study.”

— MOISES MERCADO, MD, FRCP, ENDOCRINOLOGY SERVICE AND RESEARCH UNIT IN ENDOCRINE DISEASES, HOSPITAL DE ESPECIALIDADES, MEXICO CITY, MEXICO



Photo: R. M. Nunes/Shutterstock.com

The authors of a recent JCEM paper used data extracted from four different hospitals in Mexico City that are all part of the Mexican Acromegaly Registry. The researchers analyzed the surgical outcomes in 650 patients, as well as the pharmacological outcomes in 395 patients.



Symptoms of acromegaly can include spaces between the teeth, a protruding brow, enlarged bones in the face, feet, and hands, fatigue, insomnia and headaches, to name a few.

AT A GLANCE

- ▶ Acromegaly is a rare but devastating disease that carries a high cost.
- ▶ Information from large, national registries like the Mexican Acromegaly Registry can provide valuable information about the clinical behavior of a rare disease like acromegaly.
- ▶ This information can be used by physicians to not only help their patients physically, but financially as well.

prospective clinical trials, but Mercado says that achievement of stringent biochemical goals occurs in only 25% to 40% of patients.

Reflecting Real Life

For the most recent JCEM study, the researchers extracted data from the four main MAR participating centers: Hospital de Especialidades, Centro Médico Nacional Siglo XXI, Centro Hospitalario “20 de noviembre,” Instituto Nacional de Neurología y Neurocirugía, and Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán, all located in Mexico City, to analyze surgical outcomes in 650 patients, as well as pharmacological outcomes in 395 patients.


For those patients who underwent surgery, 261 patients (40.15%) achieved biochemical remission, 287 (44.2%) remained biochemically active, 44 (6.8%) were categorized as GH discordant, and 58 (8.9%) as IGF-1 discordant. Out of 267 patients with acromegaly who took SSAs, only about 28% achieved remission, and of the 100 patients who took a combination of SSAs and cabergoline, 19% achieved remission and 44% remained active. The authors found that in both groups, persistently active acromegaly was associated with harboring an invasive macroadenoma.

“We decided to look at therapeutic outcomes in the four main contributing centers because the information from these centers is more complete,” Mercado says. “We are convinced that the information derived from studies based on epidemiological registries reflects what actually occurs in real life, that is, out of the context of a controlled clinical study.”

Reducing the Burdens

For Mercado and his team, their data not only led them to conclude that therapeutic outcomes in acromegaly vary with tumor size and invasiveness, it also confirmed information previously generated in local and international single-center studies. The work could also lead to less burden on patients who suffer from acromegaly, physically as well as financially.

“We believe that this real-life information, albeit retrospective, should be the basis of the diagnostic and therapeutic recommendations for patients with acromegaly,” Mercado says. “The data have been very valuable in negotiating with official authorities the coverage of high-cost medications used to treat acromegaly.”

Caring for patients with acromegaly, easing their pain any way possible, is of the utmost concern for physicians and researchers treating and studying this complex disease. Mercado says that optimal care requires a multidisciplinary approach, including neuroendocrinologists, neurosurgeons, ENT specialists, among other specialists. “We hope our study helps all these specialists that are involved in the care of acromegaly patients,” he says. 

— BAGLEY IS THE SENIOR EDITOR OF *ENDOCRINE NEWS*. IN THE AUGUST ISSUE, HE WROTE ABOUT HOW NEWLY DISCOVERED MUTATIONS COULD HOLD THE KEY TO TREATING ADRENAL CANCER.

WOMEN'S REPRODUCTIVE HEALTH

PATIENT EDUCATION ON THE ENDOCRINE SYSTEM



GLANDS

Ovaries are glands that produce eggs and sex hormones—including estrogen, testosterone, and progesterone—which are vital to reproductive organ development, breast development, bone health, pregnancy, and fertility.

Hirsutism affects **5-10%** of all women. It refers to excess dark, thick hair in areas (such as the arms) where women usually don't have much hair. It is usually a sign of an underlying endocrine disorder, most commonly, **polycystic ovary syndrome (PCOS)**.

As women approach mid-life, estrogen levels start to fluctuate and then drop. During **menopause**, a woman's ovaries stop producing eggs and produce fewer female hormones. This condition is a normal part of the aging process that women undergo, and symptoms vary greatly from woman to woman.

HORMONES

Estrogen

Estrogen is one of two main sex hormones that women have. The other one is progesterone. Estrogen is responsible for women's physical features and reproduction.

Progesterone

Progesterone is a hormone released by the ovaries. Changing progesterone levels can contribute to abnormal menstrual periods and menopausal symptoms. Progesterone is also a crucial part of the menstrual cycle and maintenance of pregnancy. Progesterone helps to regulate women's cycles.

Testosterone

Testosterone helps with the growth, maintenance, and repair of women's reproductive tissues. When this hormone is not in balance, a lowered sex drive and health problems can occur.

PREGNANCY AND FERTILITY

40%

About **35-40%** of infertility cases are due to female infertility.

25%

About **25%** of women with infertility have infrequent or absent ovulation. These women usually have irregular periods or no periods at all.



LH and follicle-stimulating hormone, FSH, signal an egg to develop and be released from the ovary. A woman's ability to get pregnant can also be affected by her age, since the number and quality of her eggs gradually decrease beginning around **age 35**.



1 in 8 Breast Cancer

Breast cancer is one of the most common cancers affecting **1 in 8** women. Estrogen and progestin can cause breast tissue to grow faster than normal. Women who have been treated for breast cancer may experience fertility issues.



5-6 Million PCOS

PCOS affects an estimated **5 to 6 million** women in the U.S. and is the most common cause of infertility. PCOS is also associated with an increased risk of several endocrine disorders, including:



Type 2
Diabetes



Cardiovascular
Disease



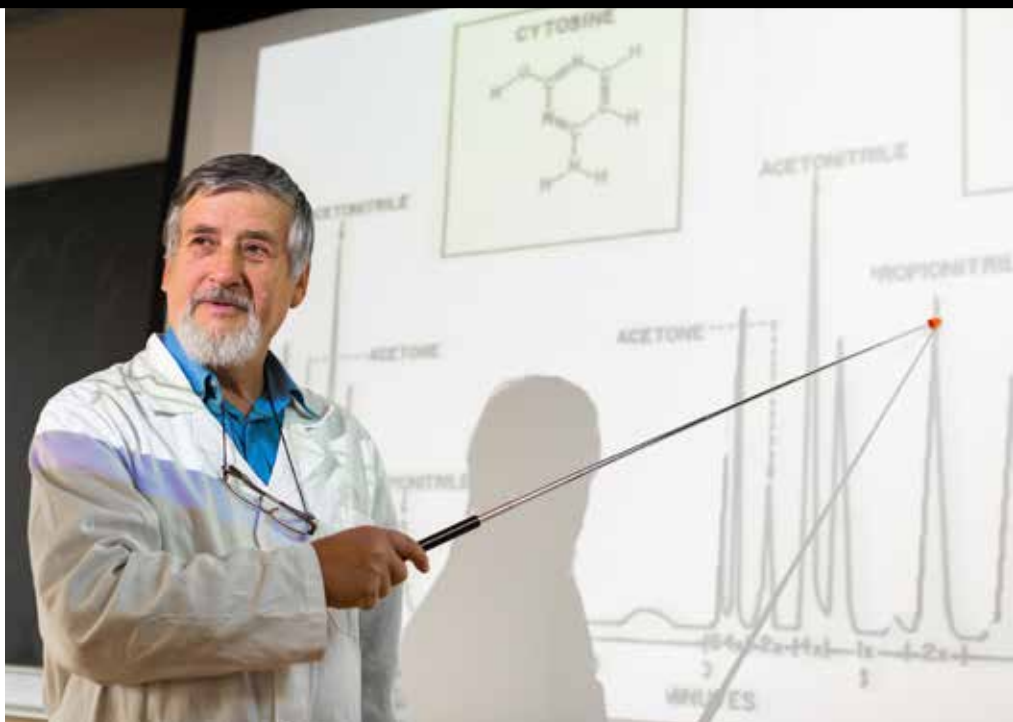
Obesity

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FROM THE ENDOCRINE SOCIETY

Academic medicine can be a very appealing option for early-career endocrinologists whether a basic scientist or a clinician. *Endocrine News* spoke to experts about steps you need to take to secure your own spot in the halls of academia.



School of Thought:

Finding an Academic Job

Some of the most well-known and accomplished famous people in the world have talked about experiencing imposter syndrome, including Michelle Obama, Starbucks CEO Howard Schultz, actress Natalie Portman, and former director-general of the World Health Organization Margaret Chan, who is quoted as once saying, “There are an awful lot of people who think I’m an expert. How do these people believe all this about me? I’m so much aware of all the things I don’t know.”

For early-career endocrinologists or medical students who want to pursue positions in academic medicine, the key elements to do so are knowing what you want and following the best route to get there.

Finding the right academic positions throughout your career — whether they are composed of leadership, teaching, research, and/or clinical roles — is about looking inward and identifying what is fundamentally important to you, says Ann Danoff, MD, the recipient of the 2021 Endocrine Society Laureate for Outstanding Educator.

“It’s important to define success for yourself,” Danoff says. “I don’t think any external person can tell you what to do with your life. You only come this way once.” Danoff recently retired as the chief of medicine at the Corporal Michael J. Crescenz VA Medical Center in Philadelphia, Pa.

BY CHERYL ALKON

Determining what you value in an academic medicine job will set the groundwork for a future job search, and ultimately, become the foundation of a satisfying career. “Each individual should think seriously and honestly about their strengths and weaknesses,” says Dolores J. Lamb, PhD, HCLD (ABB), Dow Professor of Urology and vice chair for research, director of the Center for Reproductive Genomics at Weill-Cornell Medicine in New York. “Think about how to define your needs and be able to articulate them. Think about what opportunities you should seek for yourself” as an early-career endocrinologist, if academic medicine is your goal.

Laying the Groundwork

To put yourself in the best position to find and land academic roles, distinguish yourself. “Develop expertise, and demand excellence,” Danoff says. “While you are doing that, develop more general skills, such as a good elevator speech, and learn how to appreciate and articulate your own skills” to others. Similarly, learn how to write and polish a strong curriculum vitae (CV), and develop leadership skills and emotional intelligence. “All will help you stand out from other candidates applying for the same positions you are seeking,” she says.

At the same time, it is important to think strategically about where you want to go and what you want to do in your career in an academic position and learn what your hiring institution will expect of you in that role, Lamb says.

“For an academic position, the individual needs to know what it takes to get established, how to negotiate for the job and how to do it well,” she says. “Once you get the position, you need

“Develop expertise, and demand excellence. While you are doing that, develop more general skills, such as a good elevator speech, and learn how to appreciate and articulate your own skill. **All will help you stand out from other candidates applying for the same positions you are seeking.**”

— ANN DANOFF, MD, 2021 ENDOCRINE SOCIETY LAUREATE AWARD
FOR OUTSTANDING EDUCATOR



“ I always try to make sure all my trainees, as well as myself, do what we love to do. You have to have a passion for what you do. When people excel at what they do, they will be happiest when they do what they are good at.”

— DOLORES J. LAMB, PHD, HCLD (ABB), DOW PROFESSOR OF UROLOGY, VICE CHAIR FOR RESEARCH; DIRECTOR, CENTER FOR REPRODUCTIVE GENOMICS, WEILL-CORNELL MEDICINE, NEW YORK, N.Y.

to understand how you support the institution and how it supports you. There will likely be some service requirements. You will have a lot of intellectual freedom, but you may also have responsibilities, such as being put on committees or teaching residents. You will need to understand how to protect your time for your patients or research” or whatever you most value, she says.

The transition from fellow to a first faculty position requires a paradigm shift, Lamb says. “While there is the mindset that you are always learning, now you are also in a position of some authority in terms of your trainees, and you change to being a manager, even if it is of your own domain.”

Understand How the Pipeline Works

Once hired, “you need to know your institution, and what its specific rules, regulations, and guidelines are for promotion,” Lamb explains. “Know what the titles and terms are. People don’t always know what they need to do to get promoted. Sometimes people think if they see the most patients, they’ll be promoted, but it doesn’t work that way. You have to have excellence in teaching, research, and clinical; there are all different combinations” that are considered in different roles at different institutions.

Danoff agrees. “Talk to a lot of people, especially those who are informed and whose opinions you trust,” she says. “Know what’s important to you. There are different academic tracks at various institutions, and it’s important to understand those things.” For example, being on a tenure track offers different rewards than a non-tenure track. Knowing the position has a pension attached to it means you may retire “with a bucket of money,” she explains.

Understanding the work environment, the vibe of your colleagues, and how things work, especially for a specific academic role, means you’ll move into a position with a good understanding of how things work in the institution and department you’ll be joining. “It’s important not to be naïve about what you are signing up for,” Danoff adds.

Having visible roles both in the institution and in professional organizations also helps, Lamb says. “You can’t be the person who sits in the back of the room — you have to be the one asking a question or speaking up to make professional organizations better. Having youthful enthusiasm on committees is marvelous, and younger endocrinologists should appreciate their value.”

At the same time, know that occasionally, untraditional approaches can land academic roles, but the path may be challenging.

“I think it’s extremely hard to move up the academic ladder if you haven’t had a straight and narrow trajectory,” Danoff says. “Some people can do it, but it’s very hard to move from a straight non-academic clinical practice back into academia. It might be easier for those in industry because they have what is considered something of value. I’m not saying I agree with that. I stepped off the track, and I’m very lucky I got back on.”

After working as a junior faculty member for Albert Einstein College of Medicine in New York, Danoff adopted newborn twins and made the difficult decision to move to a different, less academic, institution.

“I felt like I couldn’t do it all — compete with PhDs and do translational research, provide high-quality clinical care, and raise my kids,” she says, recalling her experience. “I went to an affiliate of Einstein, Bronx Lebanon Hospital, from 1994 to 2002. Although there was much that I learned in that

BEFORE YOU ACCEPT THE JOB

Congratulations! You've been offered an academic position! But before you say yes, take a close look at the following considerations, according to Dolores J. Lamb, PhD, HCLD (ABB), Dow Professor of Urology, vice chair for research, director, Center for Reproductive Genomics, Weill-Cornell Medicine, New York, N.Y.:

- ▶ **Your contract.** Read it through closely, and make sure you understand every section of it, particularly as it relates to the cost of living in the area where the job will be based. Lamb says to look over details about your research space and time, equipment, housing, moving expenses, whether you will need daycare or other childcare expenses, teaching requirements, and anything else important to you and your staff. "Not only do you need to know your salary and benefits, but your staff salary and needs," she says. "You are not just asking for yourself, but for your team."
- ▶ **The negotiation process.** "Once you do your initial negotiations for what you want in your contract, and you have a reasonable level of agreement, you should probably get an attorney involved," Lamb advises. An attorney, particularly one well-versed in employment contracts for physicians, should be able to advise you on any specific nuances you may need to be aware of, such as non-compete clauses.
- ▶ **The difference between hard and soft money.** Hard money is specified in your contract and could be a guarantee of 25% of your income that will come from the institution. Soft money are opportunities, such as research grants or clinical work, you need to get on your own. In some positions, "if you don't see enough patients, that will directly affect your salary, either by bonuses or a certain percentage of what you bring in," Lamb says. When deciding about what salary you should request, "you need to know what it is that the position will pay or cover, and you need to do your homework, by looking at reports from the Association of American Medical Colleges and the Department of Labor to see average salaries and the statistics for city cost-of-living numbers."


environment, when my kids were older, I had the good fortune to move to New York University and the Manhattan Veterans Affairs, where I became director and program director of the Endocrine Division and section chief at the Manhattan VA. I was willing to take a significant pay cut to make that move because money is less important to me than quality of life."

The move helped Danoff return to what she called "the thick of academia" and offered her many opportunities to collaborate with others as well as "the intellectual stimulation I had been missing," she says.

Cultivating Relationships with Mentors

Finding and building relationships with mentors — both formal and informal, in medicine and outside it — throughout your career will help you as you determine what your career goals are and how you can achieve them, say both Lamb and Danoff.

"Everybody needs mentors," Lamb says. "There are all different ways to do that. Even with peer-to-peer mentoring, which is underestimated, a peer may have faced a challenge you can learn from. Other mentors will be masters or supervisors, and some could be role models, either from an institution or from professional organizations like the Endocrine Society. At Weill-Cornell, I'm part of a whole mentoring career development academy where we try to pair a senior person in a department with people when they first come on board. There are also virtual mentors; for example, I train people remotely through virtual Zoom meetings, and some I knew before and others I didn't know. We have lots of mentoring options today," she says.

Ultimately, "I always try to make sure all my trainees, as well as myself, do what we love to do," Lamb says. "You have to have a passion for what you do. When people excel at what they do, they will be happiest when they do what they are good at." 

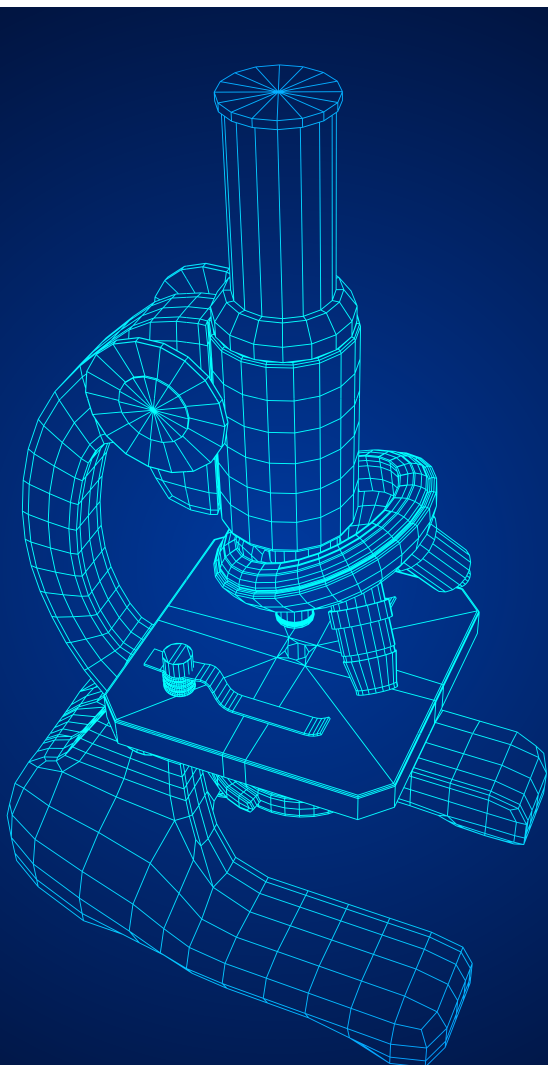
— ALKON IS A MASSACHUSETTS-BASED FREELANCE WRITER WHO IS THE AUTHOR OF THE BOOK, *BALANCING PREGNANCY WITH PRE-EXISTING DIABETES: HEALTHY MOM, HEALTHY BABY*. SHE WROTE ABOUT OVERCOMING IMPOSTER SYNDROME IN THE AUGUST ISSUE.

Construction ZONE:

Instead of brand-new construction, many laboratories are opting for a complete overhaul in existing space. However, with that upgrade comes a host of safety concerns.

Staying Safe During Lab Renovations

BY GLENDA FAUNTLEROY SHAW



Any homeowner or lab manager who has undergone a recent space renovation knows one thing is certain: Everyone is renovating, and everyone wants a fresh new design. With laboratory spaces, however, new designs carry a host of concerns that must be addressed early in the process.

During the recent 2021 *Lab Manager* Design Digital Summit, a featured webinar focused on the “Safety Concerns During the Renovation and Expansion of Existing Labs, presenter Robert DeGenova, a senior planner at Flad Architects based in San Francisco, Calif., highlighted his firm’s method of transforming laboratory spaces of the past into today’s modern facilities.

“Over the past 20 years, the number of laboratory renovations we have undertaken has eclipsed the stand-alone new construction of laboratories,” he explains.

Eliminating the Risks

“Renovating an old building that was built in the 1960s or 1980s for modern day use is very challenging,” DeGenova says.

Flad Architects starts with a “due diligence assessment” of the existing conditions, and the immediate concern is identifying the potential safety risks. The most common risks are:

- ▶ Hazardous materials — physical and health hazards
- ▶ Infectious diseases — biological
- ▶ Traces of radioactivity, magnetic, and electrical hazards

“The route of exposure to these hazards is through surface contact and inhalation, so as architects and engineers who design lab facility renovations, we’re looking at a combination of isolation and containment to try to protect people from the risk of doing laboratory research,” DeGenova says.

When starting a new project, however, the greatest challenge can be promoting a culture of laboratory safety, DeGenova says.

“If people have been in a lab for many years, even decades, it can be difficult to change behaviors,” he explains. “So, we depend on the institution’s Environmental Health and Safety (EHS) personnel to help us understand what’s possible and what they would like to change. We need to help people follow more correct behaviors.”

EHS personnel are critical to the modernization of any existing laboratory since they understand how things work and have particular ways of working. Flad consults EHS personnel at every stage:

- ▶ Request chemical inventories early
- ▶ Request an equipment inventory early
- ▶ Request documentation about existing Standard Operating Procedures
- ▶ Request EHS personnel review and approve plans at all phases

“The idea of promoting lab safety is really a very collaborative effort with architects, engineers, and EHS personnel,” DeGenova adds. All parties need to work together to meet the end goal.

Follow the Codes

“When modernizing older buildings to where we are today, thankfully, we have model building codes that address life safety,” De Genova explains.

Firms like Flad Architects use three guides almost daily: International Building Code (IBC), International Fire Code, and NFPA-45 (Standard on Fire Protection for Laboratories Using Chemicals). These tools address design and installation of innovative materials that “meet or exceed public health and safety goals.” One component, for instance, are data tables that give the maximum allowable quantities (MAQs) of the health

hazards or chemicals that are permitted within a control area — or building floor. As you progress to higher floors within a building, the MAQs decreases due to fire safety codes.

“It’s harder to fight a fire as you go to higher floors,” DeGenova explains. “So, more chemicals are allowed in a building’s basement than its fifth floor.”

Beyond fire and hazard codes, renovations must also consider factors such as laboratory hygiene, creating more space within aisles, and proper disposal of waste.

Renovating Post-COVID-19

Like everything else in the world, laboratory design needs have changed since the global pandemic. When working on lab renovations, designs now include considerations for:


▶ **Health Kiosks/Sanitation Stations** — Provide medical and sanitation supplies (face masks, sanitary tissue, hand disinfectant) dispersed around the building at major entrances, common spaces, and meeting rooms.

▶ **Recycle/Trash/Compost** — Waste receptacles (biohazard waste, red bag waste, recyclables) placed in a contained location.

▶ **Office Separation** — Workstations must be separated to maintain recommended distance. “In older labs there was no segregation of lab and office, so you had contaminated lab coats hanging everywhere,” DeGenova says.

▶ **Meeting** — Collaboration space must be adjusted as the maximum headcount in conference rooms are limited.

▶ **Virtual Meetings** — Digital virtual collaboration needs to be met through equipment. “We designed a lab where we provided iPads on the post of hoods so there can be conversations across continents between people working in the labs,” DeGenova says.

While tearing down and renovating can be a costly and inconvenient, the end-result will reveal an improved space with up-to-date technology and innovation that makes for a smoother work process. Bear through! 

Endocrine Society Joins Rally for Medical Research Hill Day to Advocate for NIH Funding

Take Action

If you cannot participate in the Rally for Medical Research Hill Day, you can still make your voice heard and join the Endocrine Society's online advocacy campaign. We encourage all U.S. members to take action and share our message with their elected officials in Washington, D.C. Taking action is quick and simple, and it does make a difference. Please visit www.endocrine.org/takeaction, and click on the campaign. You will be asked to fill in your home address. Our software will provide you with an email template that you can personalize or leave as is and direct that message to the correct mailboxes on Capitol Hill.



Photo: Mark Van Sooy/Shutterstock.com

On September 23, the Endocrine Society will join a group of scientific societies, academic institutions, and other biomedical research advocates as part of the 9th Annual Rally for Medical Research.

Rally participants will call on Congress to make funding for the National Institutes of Health (NIH) a national priority and raise awareness about the need for robust, sustained, and predictable increases in annual appropriations for the NIH. Participants will meet via videoconference with their elected representatives to advocate for NIH funding and share their stories about the importance of their research to public health.

The timing of this year's rally is critical because congressional negotiations on next year's funding have stalled, and it is likely that Congress will approve a continuing resolution that would only fund the government at the current year's level. This means that any proposed increases to the NIH or other research funding agencies advanced by appropriators will not move forward, and new proposals such as the Advanced Research Projects Agency for Health (ARPA-H) cannot start. This uncertainty prevents the NIH from efficiently distributing funds to researchers, and rally participants will emphasize the importance of finishing the work on appropriations so that Congress can deliver these necessary resources to advance biomedical research.

While this is the second year in a row that the Rally for Medical Research Hill Day will take place online due to the COVID-19 pandemic, the virtual event offers additional scheduling flexibility, allowing organizers to engage more congressional offices and bring more biomedical research advocates to the event. We expect that this year's rally will be extremely well-attended and have a broad reach, and we thank our members who took time out of their busy schedules to advocate for their field.

On August 3, Endocrine Society President Carol Wysham, MD, shared the Society's recommendations and concerns about the proposal for a new federal agency, the Advanced Research Projects Agency for Health (ARPA-H) as part of a listening session with National Institutes of Health (NIH) Director Francis Collins.

Wysham highlighted diabetes as a prime example of a disease in which treatment could be revolutionized through ARPA-H-funded projects and how ARPA-H could drive improvements in wearable devices for the measurement of a variety of parameters. She also encouraged the NIH and the White House Office on Science and Technology Policy (OSTP) leadership to ensure that equity is built into ARPA-H.

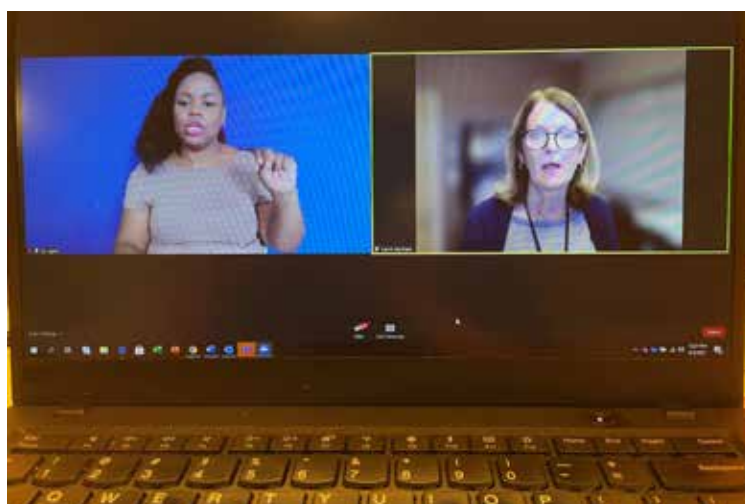
Collins appreciated our comments, in particular, our remarks on the importance of health equity and shared some insight on how ARPA-H would select projects. Importantly, he noted that the project selection process is unlikely to involve external peer review but instead would be guided by a series of questions describing the nature of the project and anticipated impact. Previously, Endocrine Society President-Elect Ursula Kaiser, MD, presented our recommendations at a separate listening session focused on research related to the National Institute of Environmental Health Sciences (NIEHS). The Endocrine Society has been the only organization invited to present at more than one listening session, which reflects how endocrine science crosses multiple institutes at the NIH. It is unclear at this time how ARPA-H will advance, particularly because the federal appropriations process is at a standstill. We will continue to keep members apprised of new developments.

Endocrine Society Shares ARPA-H Priorities

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The Endocrine Society has been the only organization invited to present at more than one listening session, which reflects how endocrine science crosses multiple institutes at the NIH.

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Endocrine Society President Carol Wysham, MD, (right) presents Endocrine Society comments on the development of ARPA-H at an NIH Listening Session attended by nearly 200 people as a sign language interpreter shares her message



Drug Pricing and Affordable Insulin Issues Take Precedence

Action on drug pricing and access to affordable insulin has heated up in Congress as part of the consideration of a large budget reconciliation process.

The Endocrine Society has been a leading advocate urging the Biden administration and Congress to take action on drug pricing and has offered several policy recommendations, including allowing the federal government to negotiate drug

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Throughout this year we have met with administration officials and congressional offices, conducted briefings for congressional staff on insulin pricing, shared our position statement, and offered resources. It is great to begin to see this advocacy in action take flight.

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prices. It was expected that drug pricing legislation would be incorporated into a larger piece of legislation that the Senate could pass through the reconciliation process — a process that allows the Senate to pass legislation as part of the federal budget process with a simple majority rather than the usually required 60 votes.

Before the Senate left town for its August recess, it took a big step closer to this by passing a budget resolution with instructions to the Senate Finance Committee to “reduce prescription drug costs

for patients and save taxpayers hundreds of billions.” That was immediately followed by President Joe Biden formally calling on Congress to lower prescription drug prices.

Specifically, the president’s plan includes:

- ▶ **Allowing Medicare to Negotiate Drug Prices.** President Biden believes Medicare should be able to negotiate the price for a subset of expensive drugs that do not face any competition in the market. Medicare negotiators would be provided a framework for what constitutes a fair price for each drug, and there would be powerful incentives to make sure drug companies agree to a reasonable price.
- ▶ **Making Other Needed Reforms to Lower Prices.** President Biden would require that drug companies that raise their prices faster than inflation would have to pay a penalty. He would also like to establish a cap on the amount that Medicare beneficiaries have to pay out of pocket for drugs each year.
- ▶ **Building on Existing Progress to Lower the Cost of Prescription Drugs.** President Biden would like to work with states and tribes to import safe, lower-cost prescription drugs from Canada and accelerate the development and uptake of generic and biosimilar drugs that give patients the same exact clinical benefit but at a fraction of the price.

Throughout this year, we have met with administration officials and congressional offices, conducted briefings for congressional staff on insulin pricing, shared our position statement, and offered resources. It is great to begin to see this advocacy in action take flight. We will keep you apprised of further developments and ways you can share our advocacy messages with your representative and senators.

Endocrine Society to Weigh In on 2022 MPFS Changes

In late July, the Centers for Medicare and Medicaid Services (CMS) released its proposed rule of policy changes under the Medicare Physician Fee Schedule (MPFS) for Calendar Year 2022.

The MPFS is updated on an annual basis through the rulemaking process, and the Endocrine Society provides comments to CMS on the policies affecting our members. Included in the recent proposal is a decrease to the conversion factor because of the expiration of the 3.75% increase Congress added for 2021. Based on our initial review of the proposed rule, endocrinology would receive a decrease of 2.2%, less than the decrease to the conversion factor.

As this issue of *Endocrine News* went to press, the Society was working with the Clinical Affairs Core Committee (CACC) and clinician members to complete a thorough analysis of how the proposed policy changes will impact members' practices. The Society will provide comments to CMS on the rule by the September 13 deadline and will advocate strongly for appropriate payment for endocrinologists and reimbursement for endocrine-related services.



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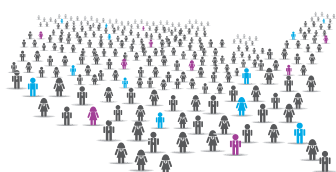
Are you aware of hypoglycemia risks and signs, severe hypoglycemia emergency preparedness, and types of emergency glucagon?

TAKE AN ANONYMOUS SURVEY ON HYPOGLYCEMIA PREVENTION.

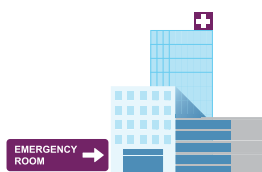


TELL US IF YOU'RE IN THE KNOW, TAKE THE SURVEY NOW!
SCAN THE QR CODE OR VISIT [HORMONE.ORG/KNOWHYPO](https://hormone.org/KNOWHYPO)

HYPOGLYCEMIA FACTS*



34.2 million people
of all ages—or **10.5%**
of the US population—
have been diagnosed
with diabetes.



16 million emergency
department (ED) visits
were reported with diabetes
among adults aged
18 years or older.



10.2 per 1,000 adults
with diabetes hospitalized
for hypoglycemia.

*National Diabetes Statistics Report 2020, US Department of Health and Human Services