

FEBRUARY 2021

THE LEADING MAGAZINE FOR ENDOCRINOLOGISTS

Endocrine news

ESSENTIAL WORKERS

**Why
Endocrine
Nurses
Are More
Important
Than Ever**

- The COVID-19 pandemic has accentuated the challenges in treating a chronic disease like diabetes, further reinforcing the need for specialty nurses.
- Endocrine nurses' roles continue to evolve as healthcare becomes more complex.
- Recognizing the crucial role of endocrine nurses, institutions are developing programs to train nurses to be expert consultants.

FOR YOUR CONSIDERATION:

Writing recommendation letters for your lab staff

COVID-19 CULTURE:

How the pandemic has revealed the risks for vulnerable populations

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Hormone Science to Health

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CLINICAL PRACTICE GUIDELINES FROM THE ENDOCRINE SOCIETY

Lipid Management in Patients with Endocrine Disorders

A NEW STANDARD FOR CARE

Learn the latest best practices for assessing and treating high cholesterol in patients with endocrine diseases like hypothyroidism, menopause, and Cushing Syndrome.

Guideline Highlights:

- ▶ Obtain a lipid panel in adults with endocrine disorders to assess triglyceride levels and to calculate low-density lipoprotein cholesterol (LDL-C).
- ▶ Treat adults with type 2 diabetes and other cardiovascular risk factors with a statin in addition to lifestyle modifications, aiming for an LDL-C goal of < 70 mg/dL.
- ▶ Consider statin therapy, irrespective of the cardiovascular risk score, in adults with type 1 diabetes who are age 40 years and older, and/or have a history of diabetes of at least 20 years, and/or either microvascular complications, chronic kidney disease in stages 1-4, or obesity.

READ THE GUIDELINE AT
[ENDOCRINE.ORG/LIPID2020](https://www.endocrine.org/lipid2020)

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16 | Tip of the Iceberg?

Advances in Fertility Preservation and Restoration

At **ENDO 2021** — the first time the Endocrine Society's annual conference will be presented virtually — attendees can tune into the live session "Ice Ice Baby: Fertility Preservation and Restoration" to learn about the scientific advances that are enabling young cancer survivors to have genetic children. *Endocrine News* talks to Mary B. Zelinski, PhD, and Ina Dobrinski, DrMedVet, MVSc, PhD, about the cutting-edge research they will be discussing.

BY ERIC SEABORG

20 | Essential Workers:

Why Endocrine Nurses Are More Important Than Ever

The COVID-19 pandemic has further emphasized the need for specialty nurses who understand how to care for patients with chronic diseases. The demand for these caregivers is only going to intensify in coming years as healthcare delivery evolves and becomes even more complex.

BY DEREK BAGLEY

26 | A Welcome Shot in the Arm

Endocrine Society president Gary D. Hammer, MD, PhD, discusses receiving the COVID-19 vaccine and why it's imperative for endocrinologists to "stand behind the science."

BY DEREK BAGLEY

28 | Cram Session:

The Endocrine Society's New Online CGM Program

Endocrine News speaks with Vivian A. Fonseca, MD, FRCP, and Pamela Kushner, MD, FAAP, to learn more about the Endocrine Society's new CME program, "Continuous Glucose Monitoring: Merging Patient Satisfaction with Data-Driven Glycemic Control."

32 | Culture Clashes:

How COVID-19 Heightened Awareness of Treating Vulnerable Populations

From a distrust of authorities to language and cultural barriers, the COVID-19 pandemic has laid bare uncomfortable facts about treating some of the most vulnerable populations. Caregivers and healthcare professionals need to be acutely aware of how to deal with these patients by overcoming several obstacles from language barriers to accepted cultural norms.

BY DEREK BAGLEY

2 | PRESIDENT'S VIEWPOINT

ENDO 2021: A Virtual Celebration of Endocrinology

6 | FROM THE EDITOR

An Ode to Nurses

8 | INTOUCH

The Endocrine Society's recommendations to reduce insulin prices; Joshua Joseph named Philanthropist of the Year; and Endocrine Society and partners to intervene in U.K. transgender medicine court appeal.

11 | TRENDS & INSIGHTS

Phase 3 trials set after potential type 1 diabetes vaccine shows promise; Positive trial results prompt new drug application for hypogonadism in men.

BY DEREK BAGLEY

13 | DASHBOARD

Highlights from the world of endocrinology

14 | ENDOCRINE ITINERARY

Scientific meetings of interest to endocrinologists from around the world

37 | ADVOCACY

Society publishes updated recommendations to lower insulin costs, working with Congress and Biden administration; Increased research funding is a top Society priority; Congress makes changes to CY 2021 Medicare physician payment; and the NIH launches new COVID-19 website.

40 | LABORATORY NOTES

HIGHLY RECOMMENDED: WRITING RECOMMENDATION LETTERS

Endocrine News speaks with Joel Habener, MA, MD, the Endocrine Society's 2018 Outstanding Mentor Laureate Award recipient, on how

to help your staff make a good first impression with a few tips on writing a letter of recommendation.

BY GLENDA FAUNTLEROY SHAW

44 | CLASSIFIEDS

Career opportunities

45 | HORMONE HEALTH NETWORK

Learning About Lipids

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Hormone Science to Health



ENDO 2021: A Virtual Celebration of Endocrinology

Since 1987, the Endocrine Society has been my professional home where I began my journey as a trainee. Over the years, ENDO became the place where I met new friends, caught up with colleagues, and kept abreast of the latest science impacting the endocrine community. I suspect that like me, ENDO has positively impacted your professional career.

When ENDO 2020 was cancelled due to the COVID-19 pandemic, I made a commitment to my predecessor, Dale Abel, MD, PhD, as well as the ENDO planning committee that their efforts for ENDO 2020 would “live on” with ENDO 2021. The ENDO 2021 planning committee worked tirelessly through the summer and fall to bring together the bold and creative leaders in our field and build a program that highlights innovation and collaboration of our clinical discipline and scientific field of inquiry. I was ecstatic about our live meeting and the opportunity to see old friends and make new ones with so many of you in San Diego this past March.

“The best laid schemes o’ mice an’ men gang aft agley” — Robert Burns’ poem *To a Mouse*, 1786.

Whether a scientist, clinician, or educator, you are familiar with that phrase. With much of the globe still in the grips of the pandemic, by late September our planning committee found itself once again having to adjust to the ever-growing world of online education — alas making ENDO 2021 a virtual meeting. The good news is that we are nimble and creative, have grown with the evolving global virtual platforms, and have had many months to plan for a full robust online ENDO 2021 rather than the couple of weeks we had to retool the incredibly successful, all-new virtual ENDO Online 2020.

ENDO 2021 is poised to deliver another exceptional learning experience that will empower us with the knowledge, tools, and networking opportunities to help us thrive in our current work

environments and to position us for the future across multiple missions, such as research, patient care, education, advocacy, and leadership development. This ENDO will truly be like no other virtual meeting that you have seen over these past 12 months, with a remarkable breadth, depth, and diversity of endocrine research and clinical practice that will be on display.

I am in awe with our Annual Meeting Steering Committee led by overall chair Felix Beuschlein, MD, together with Megan

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The ENDO 2021
planning committee worked
tirelessly through the summer and
fall to bring together the bold and
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”

Haymart, MD (clinical science chair), Bulent Yildiz, MD (clinical chair), and Jennifer Richter, PhD (basic science chair). Incorporating the very best of ENDO 2020 into an incredible ENDO 2021, scientific and clinical breakthroughs will be showcased and shared in a first-in-class virtual environment

that stimulates curiosity, provides new knowledge and skills, and presents you with the opportunity to “see” friends and develop new collaborations. We want **ENDO** to continue to be your professional home and are convinced you will find the experience remarkably vibrant, interactive, and stimulating. Let me share a few highlights of the extraordinary **ENDO 2021**. The number of sessions and speakers alone is staggering.

► 170 sessions (96 live and 74 on-demand sessions), 600 faculty, 1,800+ abstracts, along with networking and social activities, all from the convenience of your home or office;

► Not one but two outstanding Presidential Plenary Symposia with two world-renown speakers at each symposium. You will not want to miss these outstanding seminars that span the basic-translational-clinical spectra of our field.

▷ “Big Data and the Future of Endocrine Research” will showcase Atul Butte, MD, PhD, who will discuss how our ability to harness the power of big data will increasingly drive healthcare decisions, healthcare policy, and strategy in an inspiring talk, “Precisely Practicing Medicine from 700 Trillion Points of Data.” Griffin Rogers, MD, MACP, will then follow with an illuminating talk “Diabetes Research in the Era of Big Data: The NIDDK Perspective,” in which he will discuss the incredible opportunities for leveraging big data in the laboratory, as well as his perspective on how such work will fuel the strategic vision for National Institute of Diabetes and Digestive and Kidney Diseases and our field.

▷ “The Impact of Basic Tissue Engineering” and “The Basic Biology of GPCRs in Emerging Therapies” will showcase Andrés Garcia, PhD, who will discuss how synthetic engineered cellular niches are helping translate tissue engineering into therapy in his innovative talk “Synthetic Hydrogels as Engineered Niches in Regenerative Medicine.” Nobel Laureate Brian Kobilka, MD, will then close the symposium sharing his remarkable pioneering

journey in the science and clinical translation of G Protein Coupled Receptor biology in his talk “Structural Insights Into G Protein Coupled Receptor Activation: Implications for Drug Discovery.”

► All new and highly interactive Meet the Professor sessions, clinical guidelines presentations, and innovative symposia, all developed with your learning in mind with ample time to ask your questions of the experts;

“

ENDO 2021 is poised to deliver another exceptional learning experience that will empower us with the knowledge, tools, and networking opportunities to help us thrive in our current work environments and to position us for the future across multiple missions, such as research, patient care, education, advocacy, and leadership development.

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► The nucleus of our meeting, abstracts reporting new endocrine science and medicine, will be available and incorporated into the program. More than 80 researchers and clinicians will provide oral abstract presentations, and our virtual poster hall will allow for you to not only see the poster, and interact with the presenter, but also view a short presentation about their work.

- ▶ World-class, career-shaping information and leadership development for our clinical and basic science trainees;
- ▶ Meet the Scientist sessions relevant for endocrine investigation, such as examining chromatin landscapes and a bench to bedside discussion about bringing drugs from the lab to the patient;
- ▶ Expansion of the highly popular science pathways to include diabetes and metabolism, neuroendocrinology, nuclear receptors and gene regulation, and reproductive endocrinology. These highly focused learning tracks allow you to easily network with colleagues with similar interests; and
- ▶ Celebration of leadership and commitment to increasing diversity in our global endocrine community.

ENDO 2021 provides a robust opportunity for our community to come together and to continue our personal and professional journeys. I am looking forward to “seeing” you all. Please mark your calendars from March 20 – 23, 2021. If you have any questions or comments, please contact me at **president@endocrine.org**.

Communicate to Educate! Participate to Advocate! Activate to Legislate!

My best to you all,
Gary D. Hammer, MD, PhD
President, Endocrine Society



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FROM THE **EDITOR**

An Ode to Nurses

This month's cover story is a topic that is near and dear to my heart and has been for my entire life: nurses. Specifically, endocrine nurses and how they've become more vital than ever. As the son of a registered nurse, I grew up respecting the profession a great deal. When a roommate asked me "How do you know?" when I spouted off some sort of medical notion that Mom passed down to me, I simply replied, "My



mom's a nurse." In my mind, that nurse-given authority should've ended the discussion. It didn't. In fact, it became a punchline for a few years: "Oh let's ask Mark. His mom's a nurse!" about any number of arcane topics.

I grew up in a small town where my mother was the occupational health nurse at the town's largest employer, a paper mill. While in middle school, I was rushed to a local doctor when I took a spill and broke my leg. Sitting in an examining room, one of the nurses told me how

much she and the other nurses loved my mom and added, "All the doctors are scared to death of your mama!" When I asked her why, she said that Mom would do whatever it takes to get "her" patients the best care. That still gives me a sense of pride 42 years later.

The COVID-19 pandemic has further heightened the importance of nurses as a whole and endocrine nurses in particular. Due to their expertise, endocrine nurses are valued even more for their abilities to manage patients with chronic conditions. In "Essential Workers: Why Endocrine Nurses Are More Important Than Ever" (p. 20), senior editor Derek Bagley discusses how the relationship between endocrine nurses and nurse practitioners and clinicians has never been more important than it is now. "We need each other to provide effective and timely patient care," says Kathryn Evans Kreider, DNP, FNP, BC-ADM, FAANP, associate professor, Duke University School of Nursing; nurse practitioner, Duke University Medical Center, Durham, N.C. "Endocrine nurses

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and nurse practitioners are an essential part of an effective interdisciplinary endocrine team. We have seen some of the best outcomes for patients who see both an MD and a nurse practitioner.”

In anticipation of the first-ever all-virtual **ENDO 2021** next month, we are featuring a preview of an intriguing program entitled “Ice Ice Baby: Fertility Preservation and Restoration.” In “Tip of the Iceberg” on page 16, Eric Seaborg discusses two of the nine sessions that will be broadcast live over 90 minutes on Saturday, March 20, from 12:30 p.m. to 2:00 p.m. (EST). Mary B. Zelinski, PhD, will present “Preserving Ovarian Function,” which will discuss cryopreservation and reimplantation of ovarian tissue as well as the potential use of material created via 3D printing technology. Ina Dobrinski, DrMedVet, MVSc, PhD, will present “Approaches to Preservation of Male Fertility,” and will detail cryopreservation of the sperm and testes and the use of organoids in these procedures. Attendees will get a glimpse of the research involved in preserving fertility in men and women as well as a peek into what the future may hold. Definitely a must-see!

On page 32, senior editor Derek Bagley tackles a subject that is of utmost importance to all practicing clinicians but seems to have garnered even more concern during the COVID-19 pandemic: health disparities. In “Culture Clashes: How COVID-19 Heightened Awareness of Treating Vulnerable Populations,” he speaks with Ricardo Correa, MD, EsD, FACP, FAPCR, FACE, CMQ, from the University of Arizona College of Medicine in Phoenix, who was one of the authors of a paper that details the most vulnerable populations affected by the virus who are at a higher risk of developing more severe illnesses. “To reduce morbidity and mortality from COVID-19, it’s critical that health systems proactively address the challenges faced by vulnerable populations, such as lack of economic resources, language barriers, fear of seeking treatment due to immigration policies, poor access to healthcare, and mobility challenges,” according to Correa and his co-authors.

If you have any comments about the stories in this month’s issue or ideas for topics, please feel free to contact me at:
mnewman@endocrine.org. 

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

ENDOCRINOLOGY

BRIEF REPORTS

Brief Reports are a category of research article, not to exceed 2,400 words, for the rapid communication of original, investigative, non-clinical studies based on previously unpublished data. All figures and tables must be original.

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Joshua Joseph Named Philanthropist of the Year by *Smart Business* Magazine



MEMBERS
in the
NEWS

Joshua Joseph, MD, MPH, FAHA, last month was awarded the 2021 Philanthropist of the Year Award as part of the Medical Mutual Pillar Awards for Community Service. The Medical Mutual Pillar Award for Community Service is presented by *Smart Business* magazine to businesses that make outstanding contributions to their communities. Joseph was honored as Medical Mutual's Philanthropist of the Year for, among other things, developing a project called Black 100 to help 100 Black men improve their cardiovascular risk factors and outcomes, as well as building a program through which individuals can connect to resources to address social determinants and improve health.

Joseph, an assistant professor of medicine in the Division of Endocrinology, Diabetes, and Metabolism; and an investigator at the Diabetes & Metabolism Research Center; as well as on the faculty at the Translational Data Analytics Institute at the Ohio State University Wexner Medical Center, Columbus, Ohio, says that while many people think of philanthropy in terms of donations of dollars, Merriam-Webster defines it as, "Goodwill to fellow members of the human race, especially, active effort to promote human welfare."

"This award celebrates community engagement and community-based participatory work to 'promote human welfare' that we have been partnering on for over five years in Central Ohio," Joseph says. "It is important to note that this award recognizes the efforts of our large team of scientists, healthcare systems, community partners, and community members in co-creating a shared vision of improving health."

Joseph adds that their primary community partners have been the National African American Male Wellness Agency (<https://aawellness.org/>) along with Columbus Public Health, Columbus Recreation and Parks, Franklin County Public Health, American Heart Association, the Health Collaborative of Central Ohio, the Ohio State University Wexner Medical Center, and OhioHealth.

An alumnus of the Endocrine Society's Future Leaders Advancing Research in Endocrinology (FLARE) program, Joseph is the principal investigator of the ACCELERATE Research Group, whose mission is to advance cardiometabolic health through community-engaged research. His research focuses on preventing and treating diabetes and cardiovascular disease through a health equity lens.

After serving on the Endocrine Society's Clinical Affairs Core Committee since 2017, Joseph will begin a term as the committee's chair beginning in April 2021, and serving until 2024. He has also advocated on Capitol Hill in Washington, D.C., with congressional and senate leaders to support reducing the cost of insulin as well as an increase in research funding to fight diabetes and heart disease.

Endocrine Society Makes Recommendations to Reduce Insulin Prices

The Endocrine Society is calling on policy makers to include government negotiation as part of an overall strategy to reduce insulin prices in its updated position statement published today in *The Journal of Clinical Endocrinology & Metabolism*.

More than 34 million Americans have diabetes, and another 88 million are at risk for developing the disease. The cost of



insulin has nearly tripled in the past 15 years, and a lack of transparency in the drug supply chain has made it challenging to identify and address the causes of soaring costs.

Federal law currently prohibits Medicare, which accounts for a third of all drug spending, from negotiating directly with pharmaceutical companies over drug prices. Legislation empowering the government to negotiate lower insulin prices could save billions and provide more benefits to Medicare beneficiaries.

“Inventors Frederick Banting and Charles Best sold the insulin patent for a mere \$1 in the 1920s because they wanted their discovery to save lives and for insulin to be affordable and accessible to everyone who needed it,” says Endocrine Society president-elect Carol Wysham, MD, of the Rockwood/MultiCare Health Systems in Spokane, Wash. “People with diabetes without full insurance are often paying increasing out-of-pocket costs for insulin resulting in many rationing their medication or skipping lifesaving doses altogether.”

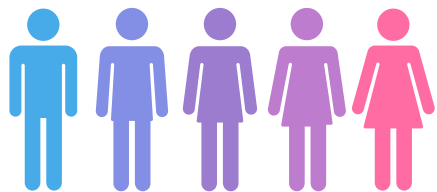
Rising costs have limited access to affordable insulin for many people with diabetes, especially low-income individuals, those on high-deductible health plans, Medicare beneficiaries, and those who turn 26 and must transition from their parents’ insurance.

All stakeholders across the supply chain from manufacturers to employers have a role to play in addressing the high cost of insulin. Patient assistance programs need to be more inclusive and accessible, and rebate programs, another effort to reduce costs, should be used by employers to reduce patients’ out-of-pocket costs and health insurance premiums.

The Society recommends the following policy changes to increase access to affordable insulin:

- ▶ Allowing government negotiation of drug prices;
- ▶ Creating greater transparency across the supply chain to understand rising insulin costs;
- ▶ Limiting future list price increases to the rate of inflation;
- ▶ Limiting out-of-pocket costs through one, or more, of the following policies without increasing premiums or deductibles:
 - ▷ Limiting cost sharing to a co-pay of no more than \$35
 - ▷ Providing first-dollar coverage
 - ▷ Capping costs at no more than \$100 per month;
- ▶ Eliminating rebates or passing savings from rebates along to consumers without increasing premiums or deductibles;
- ▶ Expediting the approval of insulin biosimilars to create competition in the marketplace;
- ▶ Including real-time benefit information on medication costs in electronic medical records; and
- ▶ Developing a payment model for Medicare Part B beneficiaries in addition to Part D that lowers their out-of-pocket co-pay.

“Addressing Insulin Access and Affordability: An Endocrine Society Position Statement,” and other insulin-related resources can be found on the Society’s 100 Years of Insulin website: www.endocrine.org/membership/100-years-of-insulin. The Endocrine Society is celebrating the discovery of insulin with this collection of resources and different activities throughout the year.



Endocrine Society, Partners to Intervene in U.K. Transgender Medicine Court Appeal

The United Kingdom's High Court has granted permission for a coalition of LGBTQ+, youth, reproductive health and medical organizations, including the Endocrine Society, to intervene in an appeal of its decision that minors under age 16 likely could not give informed consent for pubertal suppression.

The Dec. 1, 2020, court ruling is a problematic development that could prevent transgender and gender diverse minors from obtaining the medical care they need.

"We are pleased the High Court will hear from medical experts and groups representing the needs of transgender youth as part of the appeal process," says Joshua D. Safer, MD, of the Mount Sinai Center for Transgender Medicine and Surgery and Icahn School of Medicine at Mount Sinai in New York, N.Y. Safer is a co-author of the Society's Clinical Practice Guideline on Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons as well as the Society's transgender medicine position statement. After transgender and gender diverse minors start puberty, prescribing hormones to suppress puberty is the recommended strategy if it is desired by the patient and if diagnostic and treatment criteria are met. This treatment, which is completely reversible, gives adolescents more time to explore their options.


“

Because it is reversible, pubertal suppression is the conservative treatment approach available to transgender and gender diverse youth to avoid physical development that might require surgery to reverse later. Physicians must be allowed to provide needed medical care for their patients.

”

— JOSHUA D. SAFER, MD, MOUNT SINAI CENTER FOR TRANSGENDER MEDICINE AND SURGERY;
ICAHN SCHOOL OF MEDICINE, MOUNT SINAI, NEW YORK, N.Y.

The interveners in the case include Gendered Intelligence, a community interest group for trans youth, and youth sexual health organization Brook, as well as the Endocrine Society. The intervention is supported by the Good Law Project's Legal Defence Fund for Transgender Lives.

"It is important that transgender and gender diverse youth have access to the medical standard of care," Safer says. "Because it is reversible, pubertal suppression is the conservative treatment approach available to transgender and gender diverse youth to avoid physical development that might require surgery to reverse later. Physicians must be allowed to provide needed medical care for their patients." 



BY DEREK BAGLEY
Senior Editor

Phase 3 Trials Set After Potential Type 1 Diabetes Vaccine Shows Promise

Last fall, Phase IIb topline results of the DIAGNODE-2 trial demonstrated a potential type 1 diabetes vaccine GAD-alum — an immunomodulating antigen-specific therapy — had a highly significant and clinically relevant effect in genetically defined subgroups of individuals with the disease. Diamyd Medical is supporting the trials and developing the drug candidate as Diamyd.

The topline results from the DIAGNODE-2 trial were preceded by a meta-analysis of previous trials that was published in *Diabetologia*. The authors of the meta-analysis point out that GAD-alum (recombinant human GAD65 conjugated to aluminum hydroxide) is a pancreatic beta cell protein and GAD65 is one of the most frequent autoantigens associated with type 1 diabetes. However, previous studies looking at GAD-alum's effects in preserving insulin production have returned inconclusive results. "The aim of this study was to estimate, using individual-level patient data from previous randomized, placebo-controlled trials, whether the efficacy of GAD-specific immunotherapy depends on the presence of the GAD and insulin antibody-associated HLA [Human Leukocyte Antigen] haplotypes DR3-DQ2 and DR4-DQ8," the authors write. The meta-analysis, based on data from more than 500 individual study participants, indeed showed that the HLA haplotype significantly influences the effect of GAD-alum and that individuals carrying the HLA DR3-DQ2 haplotype receive a highly significant and clinically relevant effect of the therapy.

For the DIAGNODE-2 study, the researchers analyzed data from 103 out of 109 patients, evaluated as part of the topline results for the primary endpoint: preserving beta cell function at 15 months, as measured by meal stimulated C-peptide. Fifty-five of the 103 patients evaluated received active treatment while 48 received

placebo treatment. Forty-six patients out of 103 evaluated were positive for the HLA DR3-DQ2 haplotype. Out of the 46 patients, 29 received active treatment and 17 received placebo.

While a limited positive but non-significant treatment effect was observed in the 103 patients evaluated as part of the topline results, a statistically significant ($p < 0.01$) treatment effect was observed in the predefined subgroup of patients positive for HLA DR3-DQ2. In this subgroup of patients, more than 50% greater preservation of C-peptide was observed in those that received active treatment compared to placebo. Likewise, positive trends in patients positive for HLA DR3-DQ2 were observed for all the important secondary endpoints: change in blood glucose levels as determined by HbA1c, insulin dose, and insulin-adjusted HbA1c compared to placebo-treated patients. No benefit was seen in patients negative for HLA DR3-DQ2.

The researchers concluded that GAD65-specific immunotherapy has a significant effect on C-peptide retention in individuals with recent-onset type 1 diabetes who have the DR3-DQ2 haplotype. Based on these results, Diamyd Medical will pursue the HLA-restricted responder subgroup in an upcoming Phase III program.

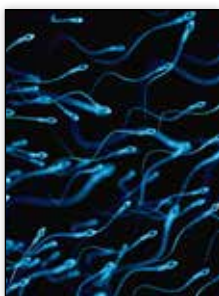
"In my 37 years in type 1 diabetes research, these are some of the most promising results I have seen in terms of the potential for providing benefit to those recently diagnosed with type 1 diabetes," says Mark Atkinson, PhD, director of the Diabetes Research Institute at the University of Florida and Diamyd Medical board member. "These findings emphasize the importance of genetic analysis and personalized medicine in the development of treatments for type 1 diabetes and could explain conflicting results of previous trials in the field."



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In my 37 years in type 1 diabetes research, these are some of the most promising results I have seen in terms of the potential for providing benefit to those recently diagnosed with type 1 diabetes.

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We look forward to continuing to work collaboratively with the FDA, and if approved, KYZATREX® has the potential to become the standard of care (SOC), as an essential treatment for patients struggling with hypogonadism globally.

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Positive Trial Results Prompt New Drug Application for Treatment of Hypogonadism in Men

Marius Pharmaceuticals last month submitted a New Drug Application (NDA) to the U.S. Food and Drug Administration (FDA) seeking approval of its novel oral testosterone undecanoate soft gel for the treatment of hypogonadism in adult men. The company is marketing the drug as KYZATREX®.

KYZATREX has generated differentiated results in both safety and efficacy studies compared to current options in the testosterone replacement therapy class for hypogonadism in men. Due to the robust results, especially regarding safety, Marius has requested a priority review that, if granted, would result in an anticipated six-month review period.

“Submission of our first NDA is an important milestone, bringing attention to the role of testosterone as a critical hormone and the multitude of effects it can have on our health system,” says Himanshu H. Shah, founder and executive chairman of Marius.

The NDA submission is based on positive data from the pivotal ReTUNE™ study (NCT03198728) as well as the “ReTUNE extension study” (NCT04467697) in which KYZATREX generated the most comprehensive ABPM data in its class. KYZATREX was also well tolerated by patients, with no drug-related serious adverse events and greater than 96% completion rate of the study. The most common treatment-emergent adverse event in the Phase 3 studies was hypertension.

“We are extremely proud to have generated compelling efficacy and safety data in our



Phase 3 trials,” says Endocrine Society member Om Dhingra, PhD, co-founder and CEO of Marius. “We look forward to continuing to work collaboratively with the FDA, and if approved, KYZATREX® has the potential to become the standard of care (SOC), as an essential treatment for patients struggling with hypogonadism globally.”

“

Diabetes nurses are often perceived solely as patient educators. This role has changed drastically. **Today, diabetes nurses directly impact patient care by participating in process improvements, assisting with glycemic management support, and providing education.**”

— Kerri Doucette, RN, RDN, CDCES, diabetes nurse specialist, Glytec, Charlotte, N.C., discussing the growing importance of endocrine nurses in “**Essential Workers**” on page 20.

MEMBER SPOTLIGHT

Heather Beasley, PhD



Heather Beasley is a PhD candidate in the Department of Biochemistry and Cancer Biology at Meharry Medical College in Nashville, Tenn. Her doctoral research investigates calcium signaling in breast cancer and the dysregulation of bone metabolism due to

comorbidities such as hypercalcemia.

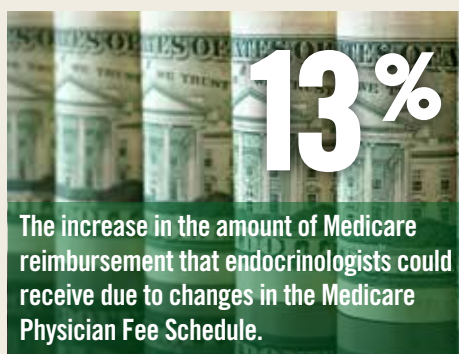
Beasley's diverse and multidisciplinary approach to her research includes the incorporation of her strong animal sciences and evolutionary medicine background into her dissertation research, under the mentorship of Amos Sakwe, PhD. Beasley obtained a bachelor of science, in animal sciences, from Auburn University and a Master's of Science in physiology from Alabama Agricultural and Mechanical University, after which she obtained a brief fellowship in evolutionary medicine at UCLA before starting her PhD.

Thus far, she has co-authored four peer-reviewed publications and four published abstracts. Beasley is currently completing her dissertation project and is on track to complete her PhD this year.

Beasley encourages all members to take full advantage of every opportunity presented by the Endocrine Society. “Of course, the Endocrine Society has world-renowned leaders and physicians in the field that are active members, but they also foster opportunities for junior faculty and students. More specifically, the programs, workshops, and specialty conferences for underrepresented students very much distinguish the Endocrine Society from other professional networks; making them both diverse and inclusive!”

To learn more about some of the Endocrine Society's outstanding members, go to:

www.endocrine.org/member-spotlight.



— SOURCE: CENTERS FOR MEDICARE & MEDICAID SERVICES

Monthly Price of Diabetes Drugs Around the World

Lantus (Insulin)	Januvia (Diabetes)
USA \$373	USA \$331
Canada \$67	Canada \$68
UK \$64	UK \$48
Germany \$61	Germany \$39
Australia \$54	France \$35
France \$47	Norway \$34
Norway \$42	Australia \$34

— SOURCE: PUBLIC CITIZEN

The number of pregnant women that could be affected by gestational diabetes. A new study has found that artificial intelligence can now predict which women are at high risk of developing gestational diabetes and lead to earlier intervention.

15%

— SOURCE: JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM

10 years



Women age 65 and older diagnosed with early-stage hormone-receptor-positive breast cancer had the same 10-year overall survival after lumpectomy and hormonal therapy, whether or not they had radiation therapy.

— SOURCE: SAN ANTONIO BREAST CANCER SYMPOSIUM



A new study suggests transgender women maintain an athletic advantage over their cisgender peers even after a year on hormone therapy.

— SOURCE: BRITISH JOURNAL OF SPORTS MEDICINE



Increase in the number of global diabetes deaths from 2000 to 2019.

— SOURCE: WORLD HEALTH ORGANIZATION



ENDO 2021

VIRTUAL EVENT

March 20 – 23, 2021

The all-virtual **ENDO 2021** will mirror the principal elements of **ENDO**, including top-flight educational programming, an interactive EXPO center, and networking opportunities. **ENDO 2021** is the leading global meeting for endocrinology research and clinical care.

Join us for the most well attended and valued translational endocrinology meeting in the world. Bringing together leading experts, researchers, and the most respected clinicians in the field, **ENDO 2021** represents a convergence of science and practice that highlights and facilitates breakthrough discoveries in the field of endocrinology. Spend time connecting with peers and colleagues, exchanging ideas and information, and getting out in front of the latest trends and advancements in hormone health.

ENDO 2021's comprehensive virtual program offers attendees the opportunity to learn about the latest developments in hormone science and medicine from renowned investigators, expert clinicians, and educators from all over the world. You will get inspired by experts and stay at the forefront of scientific discovery and high-quality patient care.

This year's program includes:

- ▶ More than 70 live sessions and another 70 sessions accessible on-demand;
- ▶ Six plenary sessions including two presidential plenaries on data in endocrine research and the impact of basic tissue engineering in emerging therapies;
- ▶ 24 live Meet the Professor sessions and another 20 available on-demand; and
- ▶ More than 20 oral sessions and a robust poster hall for accepted scientific abstracts.

www.endocrine.org/endo2021

IMPORTANT NOTE: To receive the member rate, your membership must be renewed for 2021 before registering for **ENDO 2021**.

ENDOCares

Virtual Experience for District of Columbia, Maryland, and Virginia Residents

February 20 – 21, 2021

Produced by the Endocrine Society, this virtual health fair will help support those living with or at risk of developing type 2 diabetes and obesity. The platform will connect patients with type 2 diabetes and obesity directly to healthcare professionals who specialize in treating these chronic conditions and provide these patients with helpful resources to better manage their health. Attendees can choose 30-minute, 60-minute, or 90-minute tracks aimed at delivering key resources and information, including health screenings, healthcare practitioner consults, downloadable content, and more. endocrine.org/our-community/building-community-and-global-exchange/endocares

Clinical Endocrinology 2021

Live Streaming

March 9 – 13, 2021

For nearly 50 years, renowned experts in endocrinology at Harvard Medical School and Massachusetts General Hospital have delivered the CME course Clinical Endocrinology — the acclaimed annual update of current endocrine diagnostic and management strategies. If you provide care to patients with endocrine disorders, this course will be invaluable to your medical decision making and patient care.

<https://endocrinology.hmscme.com/>

Miami Thyroid Oncology Symposium

April 9 – 10, 2021

Miami, Florida

Organized by the Miami Cancer Research Center, this two-day program offers a course on Thyroid Nodules & Cancer: Cutting Edge Ultrasound and Molecular Diagnostics to provide a foundation for practicing physicians in understanding the evolving role of clinical molecular testing and its integration with the contemporary ultrasound imaging for diagnosis and management of thyroid nodules and cancer. The plenary session, Frontiers in Thyroid Oncology, will review the clinical guidelines, address the controversies, and bring new insight to the molecular and genomic therapeutics in a didactic and interactive format. There will also be a Scientific Paper Presentations/Case Discussions session and a Multidisciplinary Tumor Board session led by experts in the field to offer a platform for physicians in training and all academic and practicing physicians to present and discuss their research work and clinical experience.

<https://miamicancerresearch.org/events/symposium/>

INTERNATIONAL ITINERARY

2nd BES Mayo Advanced Course in Endocrinology 2021

February 21 – 23, 2021

Dhaka, Bangladesh

The Advanced Course in Endocrinology is a collaboration between the Bangladesh Endocrine Society (BES) and the Mayo Clinic, Rochester, Minn. This intensive two-day, interactive course will cover all aspects of clinical endocrinology. Helmed by world-renowned faculty from the Mayo Clinic, this valuable course has garnered rave reviews from practicing endocrinologists throughout Southeast Asia.

<https://besmayo.com>

ICE 2021: 19th International Congress of Endocrinology Virtual Meeting

February 24 – 28, 2021

19th International Congress of Endocrinology (ICE 2021), 4th Latin American Congress of Endocrinology (CONLAEN), and 13th Congress of the Argentine Federation of Endocrinology Societies (FASEN) is organized by MCI Group — Argentina. Topics to be discussed include: big data and its impact in health, human diseases, artificial intelligence, and big-data mining; thyroid cancer diagnosis and treatment; advances in pheochromocytomas and paragangliomas; the tsunami of diabetes in lower- and middle-income countries; preserving reproduction in cancer patients; and so much, much more.

<https://icevirtualcongress.com>

Plenareno Diabetes, Obesity, and Cholesterol Metabolism Conference 2021 (PDOC 2021)

May 24 – 25, 2021

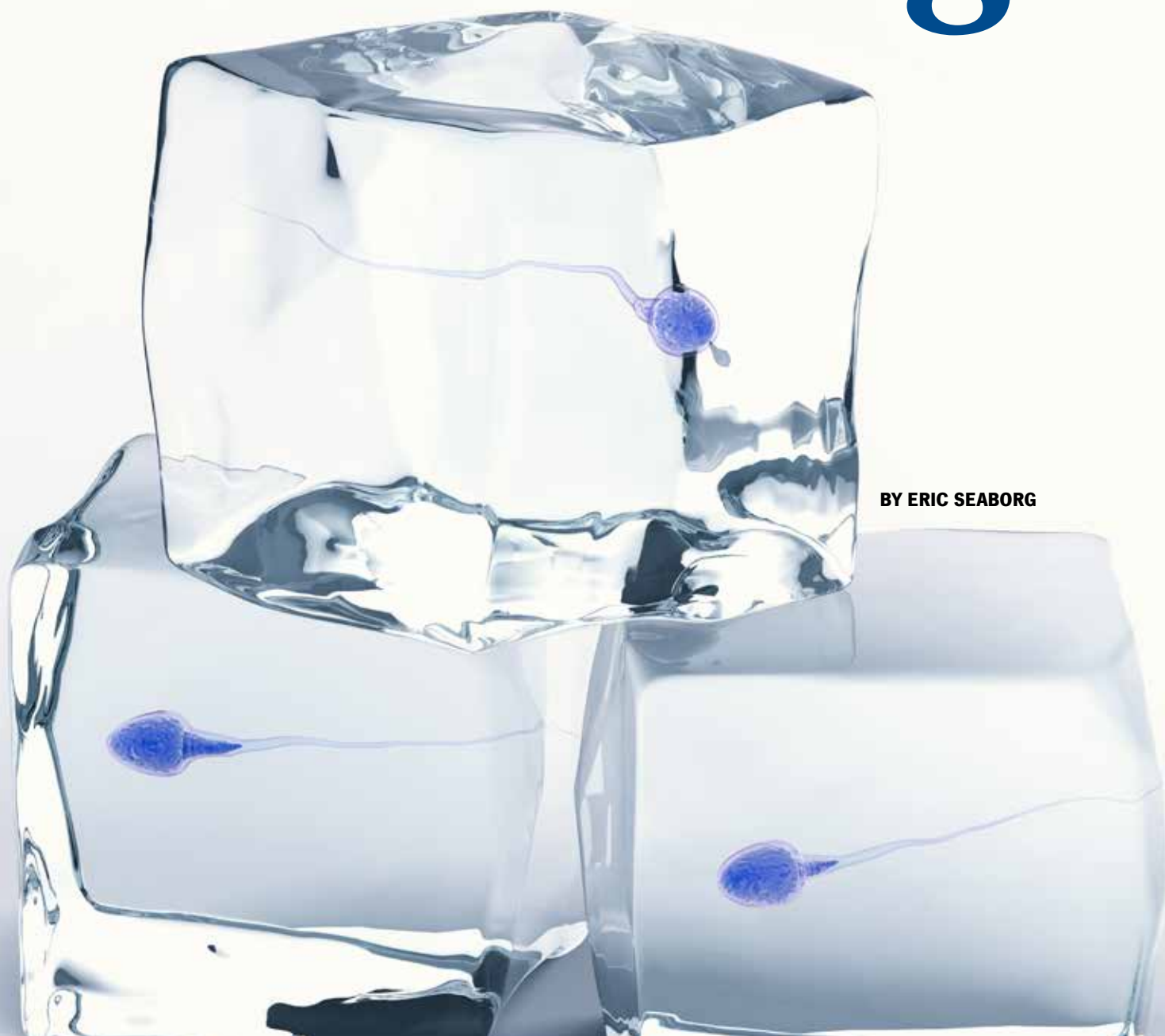
Belgrade, Serbia

PDOC 2021 will provide the platform for diabetologists, endocrinologists, nutritionists, and other related professionals to present their latest research. It aims for invaluable scientific discussions and contributes to the future innovations and recent trends in diabetes, obesity, and endocrinology and also will bring together an interdisciplinary and global team of research professionals. Keynote and plenary sessions followed by young researchers and poster sessions will allow for widespread participation of attendees at all career stages.

<https://metabolicdiseases.plenareno.com/>

Tip of the Iceberg?

BY ERIC SEABORG



Advances in Fertility Preservation and Restoration

ENDO2021

At ENDO 2021, the first time the Endocrine Society's annual conference will be presented virtually, attendees can tune into the live session "Ice Ice Baby: Fertility Preservation and Restoration" to learn about the scientific advances that are enabling young cancer survivors to have genetic children. *Endocrine News* talks to Mary B. Zelinski, PhD, and Ina Dobrinski, DrMedVet, MVSc, PhD, about the cutting-edge research they will be discussing.

Conditions like cancer that strike at an early age can leave survivors with a diminished reproductive capacity. The research strides being made — in cryopreservation, tissue transplantation, "organoids," and more — will be described at ENDO 2021 in a virtual session entitled "Ice Ice Baby: Fertility Preservation and Restoration." The session will be held on March 20 from 12:30 p.m. to 2:00 p.m. EST.

Mary B. Zelinski, PhD, a professor in the Division of Reproductive and Developmental Sciences at the Oregon National Primate Research Center and in the Department of Obstetrics and Gynecology at Oregon Health and Science University in Beaverton, will speak on "Preserving Ovarian Function."

"There are certain treatments that patients go through or conditions they are born with that cause damage to their reproductive systems," Zelinski says. "For example, cancer treatments like chemotherapy and radiotherapy can be very toxic to the eggs in the ovary."

The need to respond to these effects is growing because the survival rate of children with cancer is above 80%, and perhaps

30% of childhood cancer survivors will be infertile as adults, according to Ina Dobrinski, DrMedVet, MVSc, PhD, professor of reproductive biology at the University of Calgary in Alberta, Canada. Dobrinski will speak at the symposium on "Approaches to Preservation of Male Fertility."

Cryopreservation

The freezing of eggs, sperm, and embryos is a long-established technology. But that kind of cryopreservation can only help people who have reached an age of maturity to supply something to freeze. Both speakers will talk about techniques that move beyond those currently in use, such as taking tissue from a patient, perhaps culturing and cryopreserving it, and transplanting it back into the patient much later.

Zelinski tells *Endocrine News* that researchers have successfully used cryopreservation to store ovarian tissue "in order to have it function again. There are over 130 births in the world from cryopreserved ovarian tissue that has been transplanted back to the patient, with oocytes then retrieved from that tissue. They can in some cases be fertilized in vivo, depending on where

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There are over 130 births in the world from cryopreserved ovarian tissue that has been transplanted back to the patient, with oocytes then retrieved from that tissue. They can in some cases be fertilized in vivo, depending on where you transplant the tissue back. Or they can be extracted from a follicle that grew from that cryopreserved transplanted tissue, and then in vitro fertilization can be used to get an embryo. **Then the embryo is put back into the patient's uterus for a pregnancy.”**

— MARY B. ZELINSKI, PHD, PROFESSOR, DIVISION OF REPRODUCTIVE AND DEVELOPMENTAL SCIENCES, OREGON NATIONAL PRIMATE RESEARCH CENTER;
DEPARTMENT OF OBSTETRICS AND GYNECOLOGY, OREGON HEALTH AND SCIENCE UNIVERSITY, BEAVERTON, ORE.



Ice Ice Baby: Fertility Preservation and Restoration

Saturday, March 20, 2021, 12:30 p.m. – 2:00 p.m. (EST)

This 90-minute program will consist of nine separate presentations that will cover state-of-the-art approaches for gamete preservation and will highlight emerging and challenging cases. There will also be a moderated Q & A session at the conclusion.

- Mary B. Zelinski, PhD, will present “Preserving Ovarian Function,” which will discuss cryopreservation and reimplantation of ovarian tissue as well as the potential use of material created via 3D printing technology.
- Ina Dobrinski, DrMedVet, MVSc, PhD, will present “Approaches to Preservation of Male Fertility,” and she will discuss cryopreservation of the sperm and testes and the use of organoids in these procedures.

you transplant the tissue back. Or they can be extracted from a follicle that grew from that cryopreserved transplanted tissue, and then in vitro fertilization can be used to get an embryo. Then the embryo is put back into the patient's uterus for a pregnancy.”

Slow Freezing vs. Vitrification

Almost all of these births have occurred in Europe, where researchers have made many advances using the process of slow freezing to preserve more complex tissues. However, slow freezing requires expensive equipment, so it has been generally replaced for cryopreserving eggs and embryos in fertility clinics in the U.S. by the easier and less expensive process of vitrification. In vitrification, the cooling is done extremely quickly, so fast as to avoid the formation of ice crystals, which are deadly to the frozen tissue or eggs.

Vitrification works on the few cells of eggs or embryos, but preserving tissue is more complicated. “It is difficult because you are trying to preserve the function of many cells within this piece of tissue,” Zelinski says. “Vitrification of ovarian tissue has been done by one group in the U.S. where transplantation to an ovarian site has resulted in two births. A group in Japan has actually transplanted vitrified ovarian tissue to nonovarian sites and then extracted the oocyte to do IVF and get an embryo, and there are as many as three births reported.”

“My research group has been working for the past six or seven years to develop a protocol for being able to vitrify ovarian tissue in the non-human primate model,” Zelinski says. “Many times if a patient is getting both chemotherapy and radiotherapy, the damage to any remaining ovary that a physician might leave in

is pretty extensive. There is not a good vascular bed there to re-transplant ovarian tissue to, so the ovarian site is not going to be available. So we are looking at nonovarian sites in our rhesus monkey model. For example, can you just put these tissues under the skin or can you put them in a retro-peritoneal site? Are there easy places to be able to access any oocyte that would be inside of a follicle growing after you transplant the tissue again?”

Their goal is to find non-ovarian sites where transplanted “tissue will function pretty much every time you transplant it back. These are auto-transplants. The patient is getting their own tissue, which won’t be rejected,” Zelinski says.

Auto-Transplants in Males

Dobrinski and colleagues recently published an article in *Science* reporting on a similar procedure in males. Just as treatments can result in infertility in girls and women, “chemotherapy and radiation treatments for cancer and other conditions can deplete spermatogonial stem cells in the testis, resulting in permanent infertility,” that study notes. “Testicular tissue cryopreservation is an experimental method to preserve the fertility of prepubertal patients before they initiate gonadotoxic therapies for cancer and other conditions.”

The researchers removed the testes from prepubertal rhesus macaques and cut them into small pieces. They examined the tissues to confirm that they were immature at the time of castration. Some were cryopreserved and others used fresh. The researchers surgically inserted the tissues under the back skin and under the scrotal skin of the same individuals from which they came.

The researchers report: “During the 8- to 12-month observation period, grafts grew and produced testosterone. Complete spermatogenesis was confirmed in all grafts at the time of recovery. Graft-derived sperm were competent to fertilize rhesus oocytes, leading to preimplantation embryo development, pregnancy, and the birth of a healthy female baby.”

In addition to describing this work with testicular tissue, Dobrinski says she will describe work with “organoids, which are these tiny pieces of tissue that you can generate in vitro that resemble the organ they came from. They can be generated from cells that you collect, such as primary cells or stem cells. It is a bit like an android, which is not really a person but it looks like one. An organoid is not really an organ, but it looks and works like one.”

And in that futuristic realm, Zelinski will describe “what is being called in the popular press the artificial ovary but people in the field prefer to call a bio-engineered ovary” composed of a 3D-printed scaffold with isolated ovarian follicles.

In just these two presentations among others, this symposium will be taking participants from descriptions of current applications to glimpses of the future. **EN**



AT A GLANCE

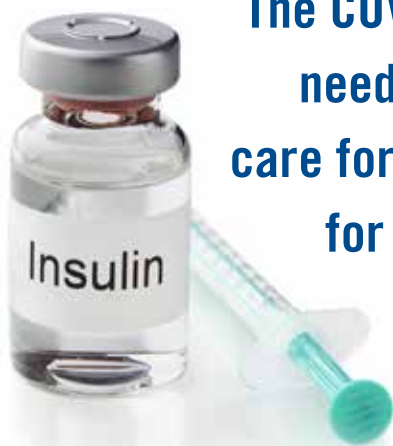
- ▶ More young people are being treated for cancer and surviving than ever before, although a large percentage are left infertile. Researchers are exploring a wide variety of ways to preserve and restore their fertility.
- ▶ Human babies have already been born using cryopreserved ovarian tissue transplanted back to the patient whence it came.
- ▶ In a rhesus macaque model, parts of prepubertal testes have been transplanted back and successfully produced, not only viable sperm, but a viable offspring.



Essential WORKERS:

BY DEREK BAGLEY

Why Endocrine
Nurses
Are More
Important
Than Ever




The COVID-19 pandemic has further emphasized the need for specialty nurses who understand how to care for patients with chronic diseases. The demand for these caregivers is only going to intensify in coming years as healthcare delivery evolves and becomes even more complex.

It has now been a century since the discovery of insulin, a groundbreaking and world-changing event that spared millions from a death sentence. Not exactly revelatory, but it's a fact worth pointing out for two reasons: a lot of great work has been done since, and much more work needs to be done. Diabetes rates continue to wax, while the number of endocrinologists continues to wane.



Here in 2021, the medical field is more complex than ever, as gaps in healthcare become even wider due to the ongoing COVID-19 pandemic, which acutely affects those with chronic conditions like diabetes, leaving many in the endocrinology field struggling to juggle research with treating patients. This is a true “Avengers Assemble” moment, as endocrinology teams diversify and endocrine nurses find themselves not just working shoulder to shoulder with physicians, but their patients as well.

“Diabetes nurses are often perceived solely as patient educators,” says Kerri Doucette, RN, RDN, CDCES, diabetes nurse specialist at Glytec, in Charlotte, N.C. “This role has changed drastically. Today, diabetes nurses directly impact patient care by participating in process improvements, assisting with glycemic management support, and providing education.”



This is a true “Avengers Assemble” moment, as endocrinology teams diversify and endocrine nurses find themselves not just working shoulder to shoulder with physicians, but their patients as well.

Expert Consultants

Diabetes has a very high rate of comorbid depression and distress, and it can be difficult or even impossible for patients to achieve their goals if their diabetes is compounded by mental health or socioeconomic concerns, according to Kathryn Evans Kreider, DNP, FNP, BC-ADM, FAANP, associate professor at Duke University School of Nursing and nurse practitioner at Duke University Medical Center, Durham, N.C. “Endocrine nurses care for patients over the long haul so we don’t typically have the opportunity to ‘patch them up and send them along’ — we are on the journey with them long term, often seeing them every three months to try to gradually improve or maintain their health and wellness. This presents lots of challenges.”

Indeed, adding to these challenges is the COVID-19 pandemic. Patients with diabetes and coronavirus have elevated blood glucose levels that contribute to their critical status, and intensive care units are almost at their breaking points, which

makes the need for endocrine nurses even more dire. “Diabetes nurses are specialists that can serve as expert consultants in this area,” Doucette says. “My team collaborated with the Tele-ICU to provide glycemic surveillance workflows for ICUs, using glycemic alerts for timely responses and recommendations.”

Melanie Duran, BSN, RN, CDCES, an inpatient diabetes care and education specialist at University of New Mexico Hospitals, Albuquerque, tells *Endocrine News* that the novel coronavirus presented her with an opportunity to offer support and help address the many challenges of managing insulin in patients with COVID-19. She says that there is a debate on using IV insulin, in room versus out of room (length of tubing and absorption), using SubQ to decrease trips in the room whenever possible, and balancing increased insulin requirements with tube feedings and critical care management. “One of the things we have been particularly challenged with is the combination of factors that increase insulin requirements, including steroids, tube feed, and acuity of illness,” Duran says.

“The partnership between physicians and nurses has never been more important than it is now. We need each other to provide effective and timely patient care. Endocrine nurses and nurse practitioners are an essential part of an effective interdisciplinary endocrine team.

We have seen some of the best outcomes for patients who see both an MD and a nurse practitioner.”

— KATHRYN EVANS KREIDER, DNP, FNP, BC-ADM, FAANP, ASSOCIATE PROFESSOR, DUKE UNIVERSITY SCHOOL OF NURSING; NURSE PRACTITIONER, DUKE UNIVERSITY MEDICAL CENTER, DURHAM, N.C.

And again, Kreider points to the fact that COVID-19 has forced a lot of patients inside, which has increased rates of depression and anxiety, on top of other unhealthy behaviors such as overeating and lack of motivation to exercise.

Roadblocks and Detours

On a given clinic day, Kreider sees about three or four patients an hour. She says that 70% of her patients are seen for diabetes, while the other 30% are there for general endocrine conditions. “We have an excellent team of physicians, advanced practice providers, nurses, and staff that make our clinic run smoothly,” she says. “High points during the day are when patients are doing really well and meeting their health goals. Low points are when we continue to meet roadblocks with progress or when patients are suffering from significant health issues or socioeconomic factors that are difficult to overcome.”


In fact, everyone agrees that when those low points do happen, it’s important to recognize that the patients with poorly controlled diabetes

The novel coronavirus has presented an opportunity to offer support and help address the many challenges of managing insulin in patients with COVID-19.



AT A GLANCE

- ▶ Endocrine nurses’ roles continue to shift and grow as healthcare becomes more complex.
- ▶ The COVID-19 pandemic has compounded the already difficult challenges when it comes to treating a chronic disease like diabetes, making the need for specialty nurses and educators all the more dire.
- ▶ Some institutions are starting to recognize the crucial role endocrine nurses have and are developing programs to train nurses to be expert consultants.



Today, diabetes nurses directly impact patient care by participating in process improvements, assisting with glycemic management support, and providing education.

may have extenuating circumstances that steer them into these roadblocks and prevent them from meeting their goals. “The [low points] come when patients have limited resources or are readmitted repeatedly, not because they lack knowledge on how to manage their disease, but rather lack resources or programs that meet their unique needs,” Doucette says.

So, when a patient’s progress is impeded, endocrine nurses are able to carve out a detour. “Patients with diabetes often feel such a sense of self-blame,” Duran says. “My biggest goal is to help them recognize that we all can make changes, whether medication-related, lifestyle-related, or both, to help them achieve their goals. I also love it when I can identify patients who may benefit from additional medication options or technology tools like CGMs. Diabetes has moved beyond just insulin, but many patients aren’t aware of this.”

“My biggest goal is to help them recognize that we all can make changes, whether medication-related, lifestyle-related, or both, to help them achieve their goals. I also love it when I can identify patients who may benefit from additional medication options or technology tools like CGMs. Diabetes has moved beyond just insulin, but many patients aren’t aware of this.”

— MELANIE DURAN, BSN, RN, CDCES, INPATIENT DIABETES CARE AND EDUCATION SPECIALIST, UNIVERSITY OF NEW MEXICO HOSPITALS, ALBUQUERQUE, N.M.

Duran says that in her experience, patients with unique insulin requirements are often scary to nursing staff, and she tries to educate not just the patients on their conditions, but the entire care team as well. “A bedside nurse has multiple patients, and their focus is on ensuring safety, making sure medications and care are safely administered, progressing healing, and promoting healthy coping,” she says. “My job is to partner with those nurses and spend the time they may not have to focus on diabetes and enlist their help for ongoing understanding. I may not be administering medications or performing procedures. Still, my role allows the primary nurse to focus on the aspects they need to perform without feeling like they are not giving their patient the education they need. I also work with the medical provider team to give them key insights on the patient so they can order the appropriate follow-up care and medications consistent with the patients’ situation.”

“Diabetes is complex and can intersect with every health condition,” Doucette says. “Diabetes beyond the basics is needed. Specialty, research, and quality improvement classes could use case studies that include patients with diabetes.”

Special Education

In 2017, Kreider presented at **ENDO** in Orlando, Fla., about the Duke University School of Nursing’s implementation of the first-ever endocrinology specialty training program for nurse practitioners in the country — the first to train nurse practitioners in general endocrine and advanced diabetes management. Kreider’s presentation pointed to a 2014 report from the Endocrine Society, which discussed the ever-increasing need for endocrinology services as diabetes cases rise and the population grows older.



“Endocrine nurses care for patients over the long haul.”

– KATHRYN EVANS KREIDER, DNP, FNP, BC-ADM,
FAANP, ASSOCIATE PROFESSOR, DUKE UNIVERSITY
SCHOOL OF NURSING; NURSE PRACTITIONER,
DUKE UNIVERSITY MEDICAL CENTER, DURHAM, N.C.

“A promising solution to address this gap is to increase the capacity of primary care [nurse practitioners] to deliver specialty care,” Kreider and her team write. “The appeal for this approach is further supported in the Endocrine Society report, as the authors note that 76% of endocrinology private practices and 56% of academic practices were actively searching for nurse practitioners and other advanced practice providers to join their groups.”


Duke’s program started in 2016 and has since graduated 55 students. These nurses practice all over the country, many of them in rural or underserved areas where there is poor access to specialty care. “The training program is designed to increase competency in practice in endocrinology and to be more effective in managing the more common endocrine disorders including type 1 and type 2 diabetes, thyroid disease, hyperlipidemia, obesity, and other diagnoses seen in general endocrine practices,” Kreider says. “These topics are only covered from a primary care perspective in graduate nursing education so students are hungry for more in-depth knowledge.”

Kreider credits the physicians in her institution who have been instrumental in providing both didactic and clinical training for these nurse practitioners. “It has been an extremely collaborative effort that has been well-received and supported,” she says. “Given the current conflicts with scope of practice among MDs and advanced practice providers, it is essential to also highlight the benefits of us working together to optimize patient care. As nurse practitioners we know that the physicians are absolutely critical in providing care to the most complex patients.”

For Duran, all nursing students have the potential to be specialists in their respective fields, to identify others who show interest and encourage them to consider specialty roles. She says that she never misses an opportunity to work with nursing students, whether it’s through educational sessions or class lectures. “The number one thing nursing schools can do is bring in specialists from the community to talk to these students. Not only to give them additional tools to work with their patients and understand more about the disease, but also to spark the idea that they too may want to pursue these roles.

“I believe promoting the workforce falls by far more on the employers than the nursing schools,” she continues. “Identifying opportunities for these specialty roles will bring the nurses; it’s up to the workforce to understand the value of promoting long-term care and decreasing complications.”

Doucette agrees: “Healthcare systems do not fully recognize the value of acute care diabetes nurses. Acute care diabetes nurses are not just diabetes educators. They provide unique expertise that can improve cost-saving, quality, and safety outcomes for patients. I encourage healthcare leaders to invest in this role to improve safety and quality.”

Still, there’s a change on the wind. Duke’s program has paved the way for interdisciplinary care delivery that plays to everyone’s strengths. “The partnership between physicians and nurses has never been more important than it is now,” Kreider says. “We need each other to provide effective and timely patient care. Endocrine nurses and nurse practitioners are an essential part of an effective interdisciplinary endocrine team. We have seen some of the best outcomes for patients who see both an MD and a nurse practitioner.” 

– BAGLEY IS THE SENIOR EDITOR OF *ENDOCRINE NEWS*. IN THE JANUARY ISSUE, HE WROTE ABOUT HOW A MOUSE STUDY COULD UNLOCK SOME OF THE MYSTERIES BEHIND CURING OBESITY.

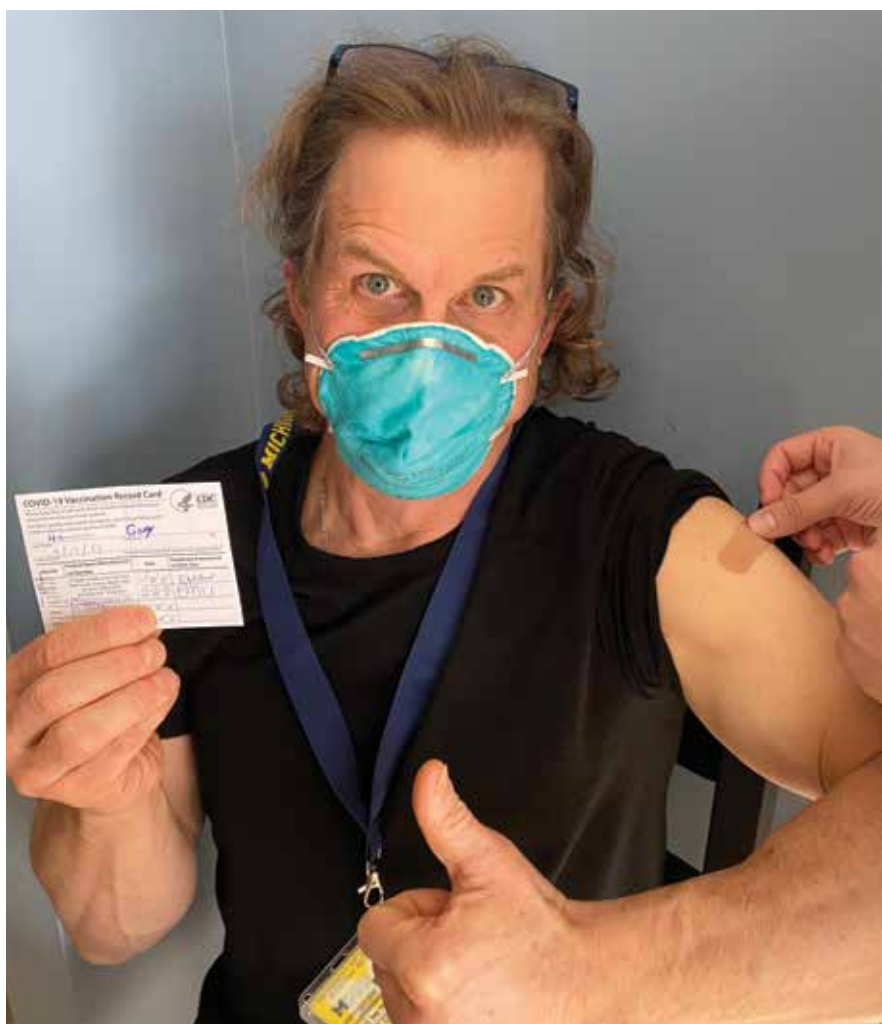
Endocrine Society president Gary D. Hammer, MD, PhD, on December 22, 2020, received his first dose of the COVID-19 vaccine and his second dose on January 12, 2021, joining a growing number of essential healthcare workers and first responders inoculating themselves from this virus so they can continue not just treating patients, but their potential life-changing and lifesaving work in the lab as well.

As more people receive their vaccinations, Hammer tells *Endocrine News* that he sees a light at the end of this long, dark tunnel, that the clinical and research communities can move forward with this upgrade in their ability to manage COVID-19. “We can get back to some semblance of normal in terms of our global society, but also in terms of our Endocrine Society,” he says. “We can get back to the work of endocrine science and clinical care, with all of our constituent members back to feeling that they can accomplish their work more effectively.”

Hammer, who serves as the director of the Endocrine Oncology Program at the University of Michigan Rogel Cancer Center in Ann Arbor, sees patients with rare endocrine cancers, many of whom are immunocompromised and live out of state, unable to board a plane during this pandemic. And while he’s been overjoyed to see how the healthcare community — and especially endocrinologists — adopted telemedicine, Hammer says that this method of care isn’t sustainable over the long term for many patients. “Like most clinicians in our program and I suspect our Endocrine

A Welcome **Shot** *in the* **Arm**

Endocrine Society president Gary D. Hammer, MD, PhD, discusses receiving the COVID-19 vaccine and why it’s imperative for endocrinologists to “stand behind the science.”



“ It is essential for us to assure that science is a guardian of truth and decision making in our country. As a scientist, I stand behind the science, where the benefits far outweigh any of the minor risks for a vaccine. **For me, the vaccine was a welcome shot in the arm.**”

— GARY D. HAMMER, MD, PHD, PRESIDENT, ENDOCRINE SOCIETY

Society, I'm looking forward to seeing patients again in person,” he says. “To that end, I'm very supportive of healthcare workers being among those in the early phase to receive the vaccine, so that we can provide appropriate care.”

Hammer says that he feels a bit uncomfortable about being one of the first to receive the vaccine. He points out that he's a healthy middle-age man, and in the larger scheme of things, there are so many ill people who are in need and/or at high risk of suffering significant morbidity if infected. Still, he recognizes his role in providing the best care he can for his patients. “I feel conflicted, but I do feel that by getting the vaccine, it will put less people at risk when they come to see us in the clinic,” he says. “This will hopefully provide some level of comfort and protection for patients coming to our health system from afar to get essential care for endocrine cancers. We are all trying to find a balance between providing the best in-person care and providing the most safety for our patients.”

“Science Is a Guardian of Truth”


The injection itself caused little to no side effects for Hammer, although he says that as more people receive the vaccine, we do expect to see a moderate percentage of the vaccinated experiencing some mild flu symptoms, just like any other vaccine, since that is indicative of (but not necessary to indicate) an adequate and appropriate immune response.

However, Hammer says that there could be some rare cases of severe allergic reactions, which for him, especially in his field, opens the door to appropriate questions about balancing the benefit of vaccine with risk, particularly for the immunocompromised oncology patient and/or any patient receiving glucocorticoid preparations that are known to inhibit the immune system when used in pharmacologic (as opposed to replacement) dosing regimens. He says he's already had questions from patients

who are on these medications and concerned about potential adverse reactions.

But Hammer is quick to reassure not only his patients, but any other endocrinologists who might have similar questions. “When taking replacement doses of glucocorticoids, you are no more immunocompromised than a patient whose adrenals are functioning normally,” he says. “Endocrinologists will continue to get questions from patients who are on hormone replacement therapies of all kinds. I think it behooves all of us in the Endocrine Society to continue to speak to such concerns, which are, except in rare circumstances, minimal.”

And those questions may pale in comparison to the questions many in the general population may have about the vaccine itself. A large amount of distrust remains about the injection, fueled by misinformation and a checkered history among minority communities' relationship with the healthcare community.

For Hammer, this is the time for scientists and indeed the endocrine community to step up and lead in order to make sure as many people as possible get vaccinated. “It is essential for us to assure that science is a guardian of truth and decision making in our country,” he says. “As a scientist, I stand behind the science, where the benefits far outweigh any of the minor risks for a vaccine. For me, the vaccine was a welcome shot in the arm.” 

The Endocrine Society has published a variety of helpful documents related to COVID-19 and endocrine care that can provide useful information to providers.

Please refer to our COVID-19 dashboard for more information:
www.endocrine.org/covid19
www.endocrine.org/covid19endocrinesystem

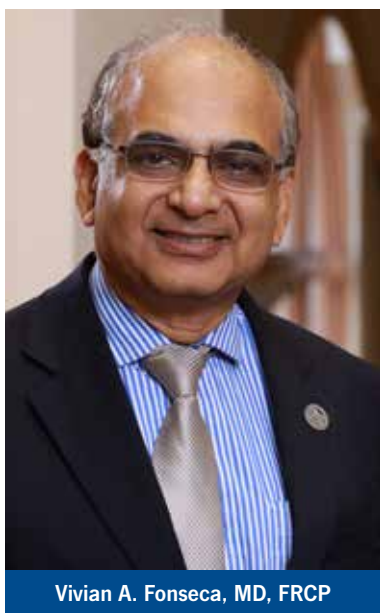
— BAGLEY IS THE SENIOR EDITOR OF *ENDOCRINE NEWS*. IN THE DECEMBER ISSUE, HE WROTE ABOUT THE ENDOCRINE SOCIETY'S NOTABLE ACCOMPLISHMENTS THROUGHOUT 2020.

A close-up photograph showing a hand placing a small, round, white adhesive sensor onto a person's forearm. The person is wearing a blue short-sleeved shirt. The background is blurred, focusing attention on the sensor application.

Cram Session:

The Endocrine Society's New Online CGM Program

Endocrine News speaks with Vivian A. Fonseca, MD, FRCP, and Pamela Kushner, MD, FAAFP, to learn more about the Endocrine Society's new CME program, "Continuous Glucose Monitoring: Merging Patient Satisfaction with Data-Driven Glycemic Control."



Vivian A. Fonseca, MD, FRCP



Pamela Kushner, MD, FAAFP

As *Endocrine News* showed in its December 2020 issue, breakthroughs in endocrine science and research continue to take place at a breakneck pace in recent months, despite the lockdowns around the world. This research is vital to improve the health of those patients living with a variety of endocrine disorders, and one of the most prevalent is diabetes.

Since the debut of insulin 100 years ago, treatments for people living with diabetes have been flourishing, from new insulin formulations and care delivery to the types of devices patients can use to monitor their health on a daily, even hourly, basis. Continuous glucose monitoring (CGM) has been at the forefront since the systems were first approved by the U.S. Food and Drug Administration (FDA) in 1999. Since that time, new developments in CGM technology have been rapidly evolving.

Staying on top of these new developments can be a challenge for a busy endocrinologist and is one of the reasons why the Endocrine Society partnered with Clinical Care Options, LLC, to offer a primer program on the latest in CGM technology. Regardless of where clinicians are in their practice levels, they will no doubt find the program, “Continuous Glucose Monitoring: Merging Patient

“ Even though most endocrinologists have embraced the use of CGM, **learning the nuance of interpretation, particularly from the patient’s perspective, will help your patients obtain the full benefit of this technological advance.”**

— VIVIAN FONSECA, MD, FRCP, TULLIS-TULANE ALUMNI CHAIR IN DIABETES, PROFESSOR OF MEDICINE, CHIEF, SECTION OF ENDOCRINOLOGY, TULANE UNIVERSITY SCHOOL OF MEDICINE, NEW ORLEANS, LA.

Satisfaction with Data-Driven Glycemic Control” extremely informative while also garnering CME credits.

“Even though most endocrinologists have embraced the use of CGM, learning the nuance of interpretation, particularly from the patient’s perspective, will help your patients obtain the full benefit of this technological advance,” says the program’s director Vivian Fonseca, MD, FRCP, Tullis-Tulane Alumni Chair in Diabetes, professor of medicine, chief, Section of Endocrinology, Tulane University School of Medicine, New Orleans, La.

So far, the program has reached more the 3,000 clinicians of all stripes — physicians, nurses, pharmacists, and certified diabetes educators (CDEs). *Endocrine News* sat down with Fonseca and faculty member Pamela Kushner, MD, FAAFP, clinical professor, University of California Irvine Medical Center, Irvine; director, Kushner Wellness, Los Alamitos, Calif., for their top tips from the program.

Endocrine News: Who would benefit most from participating in this CME program?

Pamela Kushner: The advances in CGM technology are a condition-changing opportunity for the people living with diabetes and for the clinicians who treat them. But that also means there’s an ever-evolving learning curve for both patients and physicians. This program will help even out that curve and provide clinicians with the most current information. Since it’s online, they can attend and learn the recent advances in CGM technology on their own schedules.

Vivian A. Fonseca: Even though most endocrinologists have embraced the use of CGM, learning the nuance of interpretation, particularly from the patient perspective, will be useful in patients obtaining the full benefit of this technological advance.

EN: Are there certain patients with diabetes who would be better served than other patients by continuous glucose monitoring?

Kushner: CGM is appropriate for all patients receiving diabetes medication. It allows patients to play an active role in their diabetes care, which is so important in shared decision making. CGM teaches patients how their medications, specific foods, exercise, stress, work, and other factors influence their daily glucose results.

CGM can help motivate patients to make positive lifestyle changes. Identifying the individual patient needs will ensure that appropriate expectations for the clinician and patient are met.

EN: What is the evidence that CGM is a benefit to people with diabetes?

Fonseca: Although early trials simply demonstrated a reduction in hypoglycemia and were mainly in type 1 diabetes, more recent randomized trials have demonstrated a range of benefits including improved glycemic control with less hypoglycemia, and some trials have demonstrated benefit in type 2 diabetes.

Recent CGM trials include:

- ▶ **DIAMOND** and **GOLD**, which showed improved glycemic control in patients with type 1 diabetes receiving multiple daily injections;
- ▶ **IMPACT** and **REPLACE**, which showed significantly less hypoglycemia in patients with flash (intermittently scanned) glucose monitoring in patients with both type 1 and type 2 diabetes, respectively; and
- ▶ **CONCEPTT**, which showed improved pregnancy outcomes.

EN: How do you teach people with diabetes to use CGM devices and how to react to the various results?

Kushner: Most CGM devices have excellent online patient support videos and other materials from the manufacturers to help with a smooth start. However, clinicians play a key role in patient satisfaction and adherence.

After initial CGM sensor placement, patients should be advised to keep a detailed profile of meals, exercise, medication administration, alcohol, and sleep. They should be given a follow-up appointment to review the data, and they should be advised to continue with any therapy changes until that follow-up.

At the follow-up visit, patients and clinicians can work together to recognize hypoglycemia risk, evaluate patterns of low or high readings, uncover any obstacles to monitoring, and consider potential therapy changes.

For personal-use CGM devices, trend arrows allow patients to see the rate and direction of their glucose changes, allowing patients to adjust the insulin dose as needed to prevent potentially dangerous glycemic events.

EN: How do you efficiently incorporate CGM review into your patient workflow?

Kushner: Particularly in primary care, the clinician needs to schedule adequate time to use CGM effectively, making it clear that the focus of the visit is to review CGM data. This makes it a priority over other issues that often are brought up in a primary care visit.

As an active participant, the patient is urged to scan as much as possible and ideally upload the data to an online portal. Alternatively, the clinician can use professional CGM where there is no patient-initiated scanning. To be most efficient, data can be downloaded prior to the clinician entering the room. This allows the patient to review daily graphs that include AGP and TIR and better understand the concepts.

Having more detailed profile sheets kept by the patient also helps save time by making it simpler to recognize patterns.

EN: With the world currently battling the COVID-19 pandemic, and many of these patients requiring care in intensive care units (ICU), can people with diabetes still use the CGM if they are in an ICU?

Fonseca: CGM devices are generally not approved for ICU use. However, the FDA has approved use of one specific flash glucose monitoring system in the hospital setting during the COVID-19 pandemic only, allowing for remote monitoring of glucose levels.

In patients who are hemodynamically unstable or who are on medications that may interfere with measurement, CGM results should be interpreted with caution. In such situations, confirmation of a very abnormal reading with capillary blood glucose monitoring is appropriate. **EN**

The Endocrine Society partnered with Clinical Care Options, LLC, for this program. Eli Lilly provided additional support through an educational grant.

To access “Continuous Glucose Monitoring: Merging Patient Satisfaction with Data-Driven Glycemic Control,” go to: www.clinicaloptions.com/cgm.

“ CGM is appropriate for all patients receiving diabetes medication. **It allows patients to play an active role in their diabetes care, which is so important in shared decision making. CGM teaches patients how their medications, specific foods, exercise, stress, work, and other factors influence their daily glucose results.”**

— PAMELA KUSHNER, MD, FAAP, CLINICAL PROFESSOR,
UNIVERSITY OF CALIFORNIA IRVINE MEDICAL CENTER, IRVINE;
DIRECTOR, KUSHNER WELLNESS,
LOS ALAMITOS, CALIF.



BY DEREK BAGELY

CULTURE Clashes:

How COVID-19 Heightened Awareness of Treating Vulnerable Populations

From a distrust of authorities to language and cultural barriers, the COVID-19 pandemic has laid bare uncomfortable facts about treating some of the most vulnerable populations.

Caregivers and healthcare professionals need to be acutely aware of how to deal with these patients by overcoming several obstacles from language barriers to accepted cultural norms.

Last November, as the COVID-19 pandemic entered its ninth month in the U.S., a paper appeared in *SGIM Forum*, the official newsletter of the Society of General Internal Medicine, that shed some light on the most vulnerable populations affected by the virus — those who are at a higher risk for developing more severe illnesses due to the novel coronavirus.

The authors of the paper, writing on behalf of the Presidential Leadership Scholars & Aspen Institute Health Innovators — a group of physicians and other healthcare professionals — directly address health systems across the country, pointing to segments of the population who are at greater risk of complications, and more importantly, detailing why these groups face the challenges they do, and what can be done about



it. “To reduce morbidity and mortality from COVID-19, it’s critical that health systems proactively address the challenges faced by vulnerable populations, such as lack of economic resources, language barriers, fear of seeking treatment due to immigration policies, poor access to healthcare, and mobility challenges,” the authors write.

The paper focuses on three broad populations — adults, children, and residents of rural communities — and identifies the challenges patients might face while suggesting best practices for intervening and treating these patients so they receive optimal care. “During the COVID-19 pandemic, it is critical physicians and healthcare systems understand the challenges that vulnerable populations face, and the measures that will help mitigate risk for these patients,” the authors write.

Here, we’ll take a look at some of these challenges and what lessons some of our frontline healthcare workers have learned during this significant moment in medical history.

Translating to Reality

The authors of the *SGIM Forum* paper realized that each group had unique obstacles to address, and they knew the adult group would especially pose a problem, since that group could be broken down into any number of vulnerable groups. “In the adult group, the biggest issue is that there are multiple parts,” says Ricardo Correa, MD, EsD, FACP, FAPCR, FACMQ, program director of the Endocrinology, Diabetes and Metabolism Fellowship and director for Diversity on GME at the University of Arizona College of Medicine in Phoenix and one of the paper’s authors. “We tried to focus as much as we can on not just one part like ethnicity or sexual preference, but on everyone in general.”



“

The way that the information was given to [Hispanic communities] was really not applicable For example, in New York, when they were saying, ‘You have to quarantine from the rest of your family if you become COVID positive.’ You can do that if you live in a house with four bedrooms **But when you’re living in a house with 10 people with one bedroom, then how can you do it? [COVID-19 awareness campaigns were] not translated to reality.”**

— RICARDO CORREA, MD, EDD, FACP, FAPCR, FACMQ,
PROGRAM DIRECTOR, ENDOCRINOLOGY, DIABETES AND METABOLISM
FELLOWSHIP, UNIVERSITY OF ARIZONA COLLEGE OF MEDICINE,
PHOENIX, ARIZ.



For instance, it’s been well established that racial or ethnic minorities and the elderly are at greater risk for developing more severe COVID-19 complications, but the authors of the paper also point to the LGBTQ+ community, the incarcerated, immigrants and refugees, and the socioeconomically disadvantaged, to name a few, writing that these populations face greater complications because of stigmatization that affects not just their physical health but their mental and emotional health as well.

And again, there’s no doubt that Black, Hispanic, and Native populations have been hit harder by the COVID-19 pandemic than their white counterparts. A study recently published in *The Journal of Clinical Endocrinology & Metabolism* analyzed data from 180 people with type 1 diabetes and COVID-19 from 52 clinical sites in the U.S. and found that Black patients were four times more likely to be hospitalized for diabetic ketoacidosis than Caucasians. Black and Hispanic patients were also less likely to use diabetes technology like continuous glucose monitors (CGMs) and insulin pumps, and they had worse glycemic control than white patients.

“Our findings of troubling and significant inequities call for urgent and targeted interventions, such as culturally appropriate diabetic ketoacidosis awareness campaigns, increased continuous glucose monitoring coverage for minority patients and healthcare provider participation in a Quality Improvement Collaborative,” says study author Osagie Ebekozen, MD, MPH, of the T1D Exchange in Boston, Mass.

And while awareness campaigns are definitely warranted, Correa paints a vivid picture of just how much finesse may be required to successfully deploy any messaging. For example, he says, for the Hispanic community it may not always be the language barrier that needs to be cleared but the cultural barrier. “The way that the information was given to them was really not applicable in a way,” he says. “For example, in New York, when they were saying, ‘You have to quarantine from the rest of your family if you become COVID-19 positive.’ You can do that if you live in a house with four bedrooms, and then you just go to one of them and stay there. But when you’re living in a house with 10 people with one bedroom, then how can you do it? It was not translated to reality.”

Correa also points to the deep distrust many people in these populations have for physicians and other medical professionals. There were reports last year of officials sterilizing undocumented females in Atlanta — women detained by U.S. Immigration and Customs Enforcement (ICE) were allegedly forced to have hysterectomies. “We are still living in that world,” he says. “How do you convince them that [a vaccine or treatment] isn’t a chip to monitor you?”



Multi-Generational Impact

Children have been relatively less impacted by COVID-19, at least as far as the virus itself goes. Correa and his co-authors note a Chinese study that found there were about 6% of pediatric critical cases compared to 18.5% of adult cases. But children are impacted all the same when it comes to the more intangible consequences of the pandemic. “It’s more of a problem not for the children per se,” Correa says, “but for the people who provide for the children — parents losing jobs, and then not having money to buy food, which affects the children.”

Many schools remain closed, which means parents who work full time have to make accommodations for educational opportunities, which can often mean it falls to the grandparents — an extremely high-risk population themselves — to care for the children. “Living in a house with your parents and grandparents, someone has to go out and make money,” Correa says. “And if that person gets contaminated, what will happen to the household?”

And with schools closed, the children who relied on school meals may experience food insecurities. The authors write that food banks and pantries are already strained, and that several caregivers have reported the inability to buy baby formula as stores sell out. What’s worse, some children have even lost caregivers to the pandemic, leaving child protective services struggling to find appropriate placement of potentially, COVID-19 positive children.

Rural Healthcare Needs

When the pandemic began to first sweep over the country, all eyes were on places like New York City and other metropolitan areas, since the density of a population contributes to a virus’s spread. But the authors write that about 46 million Americans live in rural areas, and even before the COVID-19 pandemic, this population was already at higher risk of adverse health outcomes due to higher rates of obesity, smoking, opioid overdoses, and car accidents.

Compounding the problem is that rural hospitals and health centers struggle with finances and capacity. The authors write that 117 rural hospitals have closed in the past 10 years. “We are seeing an increase in rural cases,” Correa says. “And one of the main reasons is the closure of hospitals because they weren’t profitable.”

However, rural hospitals and providers seem to be pulling together to address these problems to fight the pandemic. Elective surgeries have been canceled to preserve PPE, telemedicine continues to expand, and according to Correa and his co-authors,

AT A GLANCE

- ▶ The COVID-19 pandemic has shed light on some of the unique hardships the most vulnerable populations face.
- ▶ Healthcare professionals should be aware of how to engage with these populations, including how to navigate not just language barriers but cultural ones as well.
- ▶ While things are looking up with availability of a COVID-19 vaccine, some in these vulnerable populations may still distrust the vaccine and the healthcare professionals who are administering it.



“Our findings of troubling and significant inequities call for urgent and targeted interventions, **such as culturally appropriate diabetic ketoacidosis awareness campaigns, increased continuous glucose monitoring coverage for minority patients, and healthcare provider participation in a Quality Improvement Collaborative.**”

— OSAGIE EBEKOZIEN, MD, MPH, T1D EXCHANGE, BOSTON, MASS.

governors in states like Tennessee and Illinois have plans to open closed rural hospitals to handle overflow demand from urban facilities.

Combatting Distrust

The *SGIM Forum* paper ends with a call to action — a roadmap of solutions for healthcare providers to ensure that these vulnerable populations receive the care they desperately need, including dissemination of educational materials that are culturally sensitive, providing free or subsidized access to the Internet for those distance learning or working from home and who would benefit most from telehealth, and providing food to low-income COVID-19 positive families.

“Health systems serving these populations often lack needed resources but have opportunities to create strategic partnerships with other regional medical centers, businesses, foundations, community-based organizations, or local and state government programs,” the authors write. “Through these partnerships, they may have potential to increase their capacity for rapid lab testing and obtain PPE, hospital beds, ventilators, medications, and social services programming.”

And at least for now, things seem to be looking up. Several pharmaceutical companies have produced FDA-approved COVID-19 vaccines, and many healthcare workers have received their first dose. (Correa tells *Endocrine News* he received his at the end of last year.)

But again, much work has to be done. Distrust about the vaccine among vulnerable groups has to be addressed, as does distrust among elected officials who argue certain groups should not receive the vaccine. “That’s my only concern and that’s why we’re working a lot harder in this vulnerable population and minorities, because of all the prior stories and conspiracy theories about the vaccine,” Correa says.

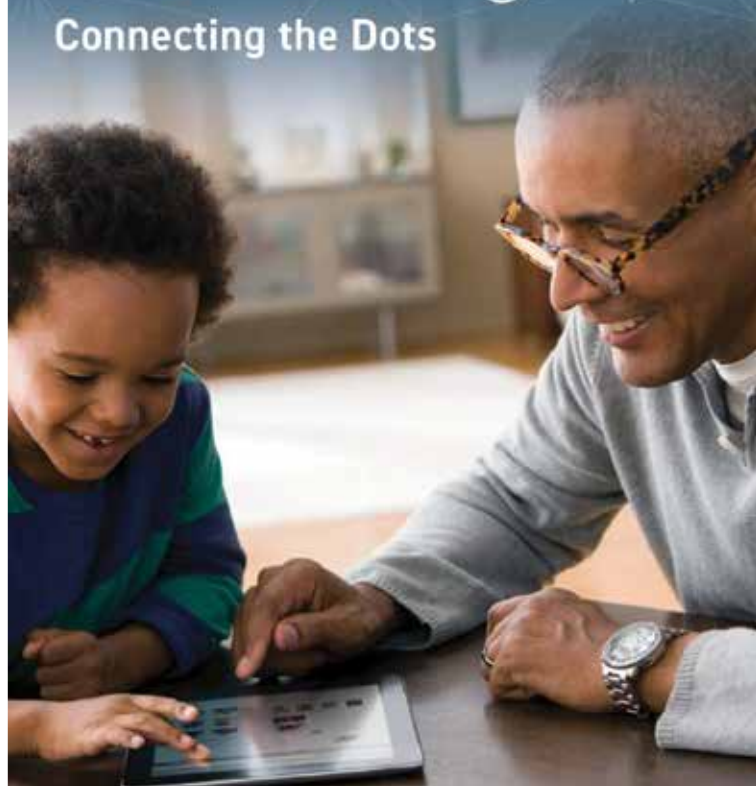
It’s February, which marks the one-year anniversary of the spread of this novel coronavirus. And as the virus continues to disrupt society as we know it, it has also laid bare deep, long-ignored issues that affect millions of those who need our attention the most.

“The COVID-19 pandemic has unveiled the uncomfortable truth about the existing socioeconomic inequities of our society,” the authors of the *SGIM Forum* paper write. “It has exposed the festering and often neglected problems facing our vulnerable population that are rooted in systemic racism.” ^{EN}

Pocket Guide

Continuous Glucose Monitoring

Connecting the Dots



CONTINUOUS GLUCOSE MONITORING POCKET GUIDE: CONNECTING THE DOTS

DEVELOPED IN COLLABORATION WITH THE ENDOCRINE SOCIETY AND SIX LEADING DIABETES CARE ORGANIZATIONS, THE CGM POCKET GUIDE PROVIDES A COMPREHENSIVE OVERVIEW INTO CONTINUOUS GLUCOSE MONITORING AND THE LATEST DEVICES THAT HAVE MADE THE GOLD STANDARD FOR MANAGING BLOOD GLUCOSE.

CGMs help with:

- Understanding glucose trends so you can manage eating, exercise, and medication
- Providing more comfort at night and managing hypoglycemia
- Understanding the importance of taking medication and timing of medication

WHETHER YOU TREAT PATIENTS WITH TYPE 1 OR TYPE 2 DIABETES, THIS EXPERT-CRAFTED GUIDE WILL HELP GUIDE PATIENTS IN FINDING THE PERFECT CGM. VISIT [HORMONE.ORG/CGMGUIDE](https://hormone.org/cgmguide) OR SCAN THE QR CODE BELOW TO LEARN MORE.



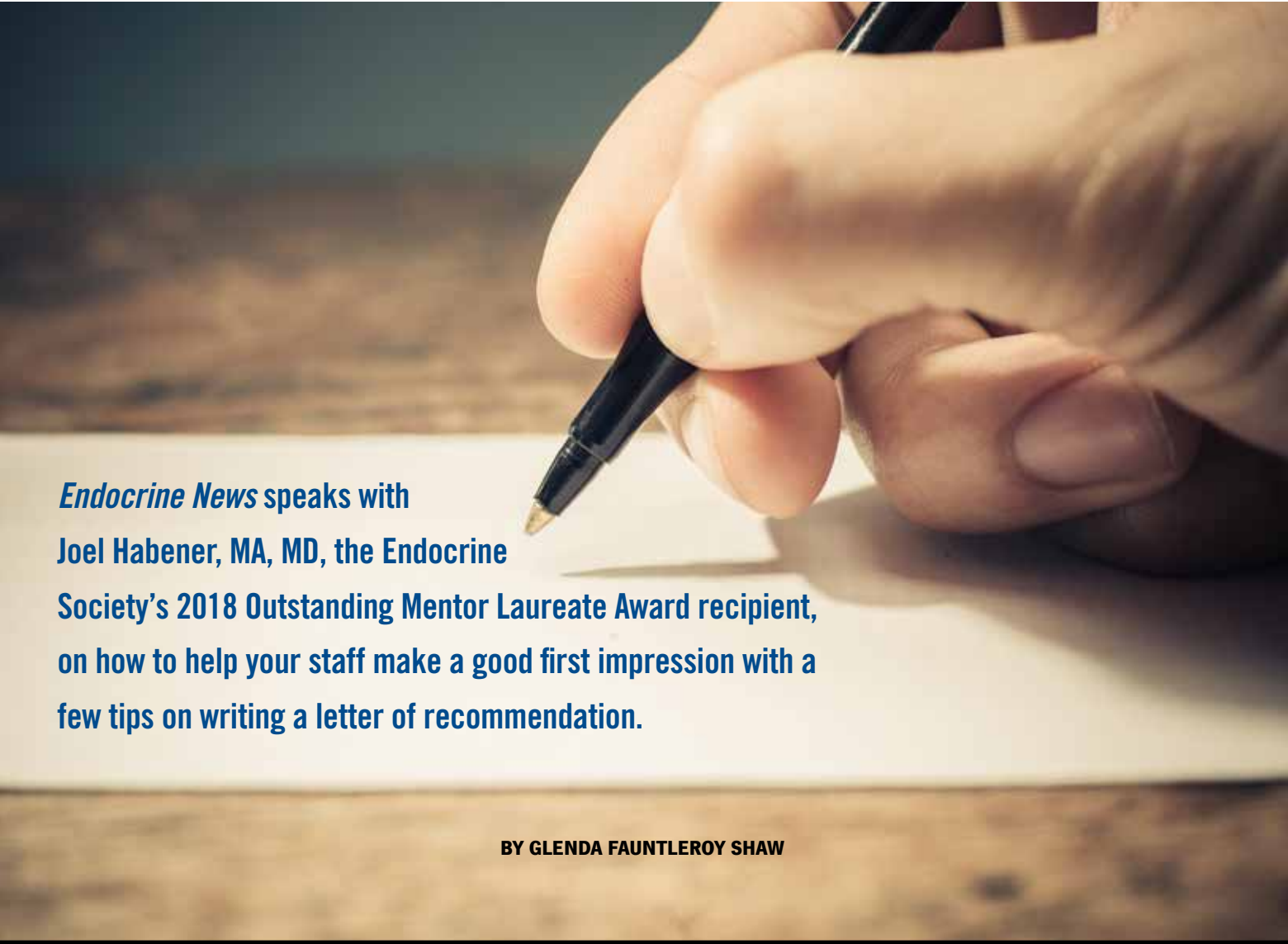
The development of this guide was made possible by the generous support of Abbott Diabetes Care, Inc.

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Highly Recommended:

Writing Recommendation Letters



Endocrine News speaks with Joel Habener, MA, MD, the Endocrine Society's 2018 Outstanding Mentor Laureate Award recipient, on how to help your staff make a good first impression with a few tips on writing a letter of recommendation.

BY GLENDA FAUNTLEROY SHAW



“ Invite the recipient of the letter to phone with requests for additional information, meaning information that would be considered negative, such as problems with performance, behavior, or interpersonal relations. **This keeps the negative information ‘off the record.’**”

— JOEL HABENER, MA, MD, CHIEF, LABORATORY OF MOLECULAR ENDOCRINOLOGY, MASSACHUSETTS GENERAL HOSPITAL; PROFESSOR OF MEDICINE, HARVARD MEDICAL SCHOOL, BOSTON, MASS.

Grad schools, fellowship applications, and potential employers all depend on recommendation letters to help reveal applicants’ best accomplishments and strengths. As a lab manager or senior-level faculty member, odds are high that you have been asked to author such a letter for students or young employees advancing to the next stages of their careers.

Writing recommendation letters are a familiar process. Good letters are specific and include facts and anecdotes whenever possible. For instance, share whether the applicant has any unusual competence, talent, or leadership skills. What excites this person? What do you remember most about him or her?

As the Endocrine Society’s 2018 Outstanding Mentor Laureate Award winner, Joel Habener, MA, MD, has written more than his fair share of recommendation letters in his position as the chief of the Laboratory of Molecular Endocrinology at Massachusetts General Hospital and professor of medicine at the Harvard Medical School in Boston. *Endocrine News* caught up with him to share his best advice for others who get the “ask.”

Endocrine News: Do you follow any set guidelines when asked to write a recommendation letter?

Joel Habener: The guidelines I follow are: 1) Determine when the recommendation is required by the requestor; 2) Place the preparation of the recommendation at the top of the list of things to do. Remember that letters are extremely important for the career development of the individual requesting the recommendation; and 3) Focus on the positive aspects of the experience with the individual, such as accomplishments, effort, personality, and relationship with peers. Invite the recipient of the letter to phone with requests for additional information, meaning information that would be considered negative, such as problems with performance, behavior, or interpersonal relations. This keeps the negative information “off the record.”

EN: Is it OK to ask the requesters to write what information they want the recommender to include?

Habener: Absolutely. It is helpful, if not essential, to sit down with the requestor and obtain a good understanding of the purpose of the letter and if there is specific information that is requested. In reality, many recommendation letters are forms requesting numerical evaluations of certain criteria relating to the individual, followed by a section for inserting comments.

EN: Is there a best way to decline writing a recommendation?

Habener: That is an interesting question. I don't recall ever declining writing a recommendation. I imagine that such would occur under two circumstances. First, if I did not have sufficient information about the requestor, such as a very limited contact, relationship, or experience, and second, if the relationship/experience was not a good one.

In the former instance, I would prepare a brief letter documenting the nature of the experience, the time spent, and that objectives were met.

EN: Do you often hear from the requestor about the outcome of their application?

Habener: Yes, and by "often" I would say maybe 75% of the time I receive a thank you and an update of the outcome. Most of the letters I have written have been for trainees who are moving up to the next step in their career ladder, such as an application to medical school, a graduate program, or to a junior faculty position. The letters precede their leaving the lab so we can keep informed on the progress of the applications. My last research student was accepted to all five medical schools he applied to, requiring an additional request for advice from me. **EN**



MAKE YOUR ASK AN A+

If you are on the "asking" side of the recommendation request, these tips can go a long way to making a good impression.

- ▶ Choose people you know best. Asking "big name" scholars only carries weight if the person knows you well and can write a personal, substantial recommendation.
- ▶ Ask early. No one wants to write a recommendation on a short deadline. Allow at least four weeks before the due date.
- ▶ Give background materials. Send along your CV, application essays, transcript, and any other documents that can help paint the biggest picture of your accomplishments.
- ▶ Keep in touch. By all means, do not forget to send recommenders a thank you note for their support and include an update of your progress.

— FAUNTLEROY SHAW IS A FREELANCE WRITER BASED IN CARMEL, IND. SHE IS A REGULAR CONTRIBUTOR TO *ENDOCRINE NEWS*.

Society Publishes Updated Recommendations to Lower Cost of Insulin; Working with Congress and Biden Administration



Photo: Andriy Blokhin / Shutterstock.com

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As Congress and the Biden administration look to address this important issue, the Society will continue to be a leader in advocating for insulin affordability by urging policy makers in Congress and the administration to consider these solutions to lower the cost of insulin.

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The Endocrine Society released an updated position statement in January with recommendations to address insulin access and affordability.

The position paper, which was published in *The Journal of Clinical Endocrinology & Metabolism*, recommends allowing the government to negotiate for lower drug prices. The paper also offers a range of other recommendations to lower the cost of insulin such as increased transparency, lowering patient cost sharing, increased competition through the approval of biosimilar insulin, and limiting future insulin price increases to the rate of inflation.

As the cost of insulin continues to rise, millions of Americans living with diabetes who rely on this lifesaving medication need access to affordable insulin. Shortly after the release of the Society's position paper, the Senate Finance Committee

released a report on the findings of its bipartisan investigation into the price of insulin, which points to the need for action to address this ongoing problem.

Passing legislation to lower the cost of prescription drugs remains a top legislative priority for the new Congress and a top priority for the Biden administration. In 2019, Congress seemed poised to pass major legislation addressing high drug prices. Both the House and Senate moved separate bills in their respective chambers. However, negotiations on a final package stalled, and Congress focused their attention toward passing coronavirus relief legislation.

As Congress and the Biden administration look to address this important issue, the Society will continue to be a leader in advocating for insulin affordability by urging policy makers in Congress and the administration to consider these solutions to lower the cost of insulin.

Congress Makes Changes to CY 2021 Medicare Physician Payment

On December 1, 2020, the Centers for Medicare & Medicaid Services (CMS) released the Medicare Physician Fee Schedule (MPFS) final rule for CY 2021.

This rule updates payment policies and payment rates for Part B services furnished under the MPFS, as well as makes changes to the Quality Payment Program (QPP). In an unusual move, Congress made some changes to the rule in the end-of-year legislation it passed at the end of December.

Please visit the Endocrine Society website at www.endocrine.org/improving-practice/macra for updated information on how the revised rule will affect endocrinologists and an updated fact sheet on Evaluation and Management codes.

Increased Funding for Research Is a Top Society Priority

Congress and the Biden administration have begun work on the upcoming year's (FY 2022) budget and appropriations priorities.

As in previous years, the Society will advocate for increased funding for the National Institutes of Health (NIH) and other federal research funding agencies that keeps pace with inflation and gives the Institutes and Centers flexibility to respond to new opportunities and developments. For FY 2022, we are requesting a funding level of at least \$46.1 billion for the NIH. This represents a \$3.2 billion (7.4%) increase to the NIH budget over the FY 2021 program level, reflecting the need to substantially increase the NIH budget given the need to study the long-term effects of COVID-19 while addressing other important research questions.

In addition to the request for the NIH base appropriation, we recognize that researchers continue to face challenges reopening their labs and recovering from pandemic-related restrictions on research operations. We will therefore continue to advocate for a robust emergency supplemental package that includes additional funds for the NIH to ensure that the research workforce is supported during this difficult time.

To maintain pressure on the new Congress, the Endocrine Society is sponsoring a virtual Research Hill Day in March, when our members will conduct video calls



Despite the FY 2022 budget possibly being delayed, the incoming Biden administration is prioritizing a COVID-19 stimulus package that could include funding for research recovery.

Photo: Spike Johnson / Shutterstock.com

with members of Congress and their staffs to explain the importance of endocrine research and reinforce the need for robust federal research funding. We will also launch an online

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With a strong push from our members and the rest of the research community, we are hopeful that our efforts will help ensure that the NIH can adequately fund biomedical research and also continue to address the COVID-19 emergency.

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advocacy campaign so that all of our members can contact their representative and senators and add their voices. With a strong push from our members and the rest of the research

community, we are hopeful that our efforts will help ensure that the NIH can adequately fund biomedical research and also continue to address the COVID-19 emergency.

As this article goes to press, the incoming Biden administration is reporting that the president's budget recommendations for FY 2022 will likely be delayed; however, they are also prioritizing additional stimulus packages to address COVID-19 that could include additional funds for research recovery. While we expect that the Biden administration will eventually advance a budget that reflects the importance of biomedical research, the administration is likely to face competing priorities with slim majorities in both the House and Senate. Advocacy will continue to be necessary to maintain the strong bipartisan support that has been instrumental to achieving increases in the NIH base budget in recent years.

Please visit endocrine.org/advocacy/take-action for more information and to join our online advocacy campaign.

NIH Launches New COVID-19 Website Featuring Research Response

The National Institutes of Health (NIH) has launched a new website that provides the research community and the public with trusted, up-to-date, accurate information about research on COVID-19 at the NIH and across the NIH-supported research community. The website offers the NIH COVID-19-related information in one location, including funding opportunities and research news on vaccines, treatments, and testing. Users can search funding information for COVID-19 research by state, institution, congressional district, and more.

To support ongoing efforts to direct the public to evidence-based information on COVID-19, the website also provides information and resources on joining clinical trials, donating plasma, and directs users to the Centers for Disease Control and Prevention, U.S. Department of State, and other federal agency websites.

Visit covid19.nih.gov to learn more.





St. Luke's University Health Network, the region's largest, most established health system, a major teaching hospital, and one of the nation's 100 Top Hospitals is seeking BC/BE Adult Endocrinologists to join an expanding practice of 5 adult and 1 pediatric endocrinologist. The center is a modern, spacious facility of 9,000 square feet that includes on-site education, an insulin pump program, lab testing, ophthalmology, dynamic testing and podiatry. Our group is expanding to cover additional network hospital consults and a growing outpatient practice. We have a competitive income structure, excellent benefits, paid malpractice, and an open, collaborative environment.

We have opportunities in multiple locations!

In joining St. Luke's you'll enjoy:

- Team-based care with well-educated, dedicated support staff
- A culture in which innovation is highly valued
- Exceptional compensation package, starting bonus, and relocation reimbursement
- Rich benefits package, including malpractice, health and dental insurance, CME allowance
- Teaching, research, quality improvement and strategic development opportunities

About St. Luke's University Health Network

Founded in 1872, St. Luke's University Health Network (SLUHN) is a fully integrated, regional, non-profit network of more than 16,000 employees providing services at 12 hospitals and 300+ outpatient sites. With annual net revenue greater than \$2 billion, the Network's service area includes 11 counties: Lehigh, Northampton, Berks, Bucks, Carbon, Montgomery, Monroe, Schuylkill and Luzerne counties in Pennsylvania and Warren and Hunterdon counties in New Jersey.

Dedicated to advancing medical education, St. Luke's is the preeminent teaching hospital in central-eastern Pennsylvania. In partnership with Temple University, St. Luke's created the Lehigh Valley's first and only regional medical school campus. It also operates the nation's longest continuously operating School of Nursing, established in 1884, and 38 fully accredited graduate medical educational programs with 347 residents and fellows. To learn more, please visit www.slhn.org

Qualified applicants should contact Christine Figler, Physician Recruiter at Christine.Figler@sluhn.org



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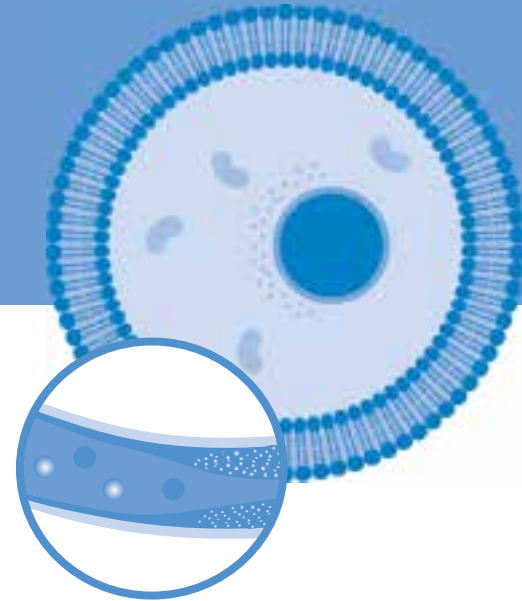
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LEARN YOUR LIPIDS

Lipids are essential to our health and wellbeing. Lipids also play a role in protection, lubrication, insulation, and are the building blocks for certain hormones. Our bodies only need a small amount of lipids to function. Complications can occur if lipid levels are too high or too low.

WHAT ARE LIPIDS?

Lipids are a group of fats that include cholesterol and triglycerides. Cholesterol is needed to make vitamin D and some hormones. Triglycerides provide long-term energy storage. Having lipid levels that are too high or too low is known as dyslipidemia. High cholesterol levels can cause fat deposits to develop in the artery walls. This can increase the risk for heart disease and stroke. High triglycerides can cause inflammation of the pancreas, a condition called pancreatitis. Some endocrine conditions are associated with abnormal lipids. These include diabetes, polycystic ovary syndrome (PCOS), hyperthyroidism, and obesity. In rare cases, individuals may have lifelong low lipid levels, which may sometimes indicate an underlying condition such as cancer.



WORDS TO KNOW



Lipoproteins: a combination of protein and fat (cholesterol and/or triglycerides) that transport cholesterol and triglycerides through blood plasma.



Triglycerides: a type of fat in the blood that serves as an important source of energy. If triglycerides are too high, pancreatitis may develop.



Cholesterol: a waxy, fat-like substance that is found in all cells in the body. It is also found in foods from animal sources.



High-density lipoprotein (HDL): this is known as good cholesterol! It picks up excess cholesterol in the blood stream and higher levels are associated with a lower risk of heart disease and stroke.



Low-density lipoprotein (LDL): this is bad cholesterol! It makes up most of your body's cholesterol. High levels of LDL can increase the risk for heart disease and stroke.



Fasting Lipid Panel: measures total cholesterol, LDL cholesterol, HDL cholesterol and triglycerides. It requires a 12 hour fast of no food or any drinks besides water before blood is taken for the test.



Non-fasting Lipid Profile: allows patients to eat before a blood test. This may be a preferred method for patients with diabetes who may experience hypoglycemia after fasting.



Metabolic Syndrome: a cluster of risk factors that increase the chances of developing heart disease, stroke, and diabetes. Common risk factors are large amounts of abdominal (belly) fat, low HDL levels, high triglycerides, as well as high blood pressure and blood sugar levels.



Dyslipidemia: having abnormal levels of cholesterol and triglycerides.

DIAGNOSING ABNORMAL LIPID LEVELS AND WHAT YOU SHOULD KNOW

A lipid panel, or a blood test, will be conducted to measure LDL and HDL cholesterol and triglycerides. In most cases, lipid testing can be done without making changes to your daily routine. Your doctor may request you to fast for 12 hours prior to testing to avoid significant changes in lipid levels that can be affected by foods eaten. If your lipid levels are high, additional testing may be done to eliminate causes of high lipids, such as thyroid disease or other endocrine conditions. Diagnosis of some lipid disorders may require referral to a specialist.

Visit hormone.org for more information.

Additional editing by Connie Newman, MD, *New York University School of Medicine* and Savitha Subramanian, MD, *University of Washington*

Lipid levels can be abnormal because of the following:



Lifestyle



Genetics



Certain drugs



Endocrine diseases such as hypothyroidism, hyperthyroidism, Cushing syndrome, chronic use of steroids, acromegaly, PCOS



Obesity



Diabetes

LIPID PATHWAYS AND HORMONES



Your hormones control the pathway for fats and proteins. The primary hormones involved in this process are estrogen, testosterone, insulin, cortisol, thyroid hormone, growth hormone, and glucagon.

DID YOU KNOW



High cholesterol and triglycerides often have no symptoms. They can only be detected by a lipid profile.

ADVICE FOR SCREENING AND TREATMENT

- If you have been diagnosed with an endocrine disorder, a lipid panel can be done to determine your cholesterol and triglyceride levels.
- Lifestyle changes can help you to lose weight, and lower triglyceride levels.
- Diet, exercise, and medications may be recommended for patients with high triglycerides to prevent pancreatitis.
- If you have had weight loss surgery, your doctor can measure your lipid panel to determine the risk for heart disease.
- Statins in addition to diet and exercise can be used to reduce the risk of heart disease in adults with type 1 and type 2 diabetes, Cushing Syndrome, postmenopausal women, and obesity.
- If you were diagnosed with hypothyroidism, the lipid panel should be re-evaluated after your thyroid is functioning properly.
- Lifestyle changes can help lower lipids in women with PCOS. Lipid therapy isn't advised to treat symptoms of high testosterone levels or infertility in women with PCOS.
- Traditional guidelines should be followed when assessing cardiovascular risk in transgender patients.

TREATMENT OPTIONS FOR REDUCING HEART DISEASE



Lifestyle changes are recommended first and may include weight loss, eating a healthy diet, and increasing physical activity. Common treatment options recommended may include reducing LDL cholesterol, blood pressure, and elevated glucose levels, and quitting smoking. Medications are dependent on the type of lipid abnormality or underlying condition, and recommendation from doctors.

QUESTIONS TO ASK YOUR HEALTHCARE PROVIDER

- What should I expect during a lipid panel test?
- What are the common goals for total cholesterol, HDL cholesterol, LDL cholesterol, and triglycerides?
- What lifestyle changes should I make to lower my cholesterol and triglyceride levels?
- Based on my endocrine condition, what is my risk of heart disease, and which treatment method is right for me?



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Patients Have Questions. We Have Answers.

The Hormone Health Network is your trusted source for endocrine patient education. Our free, online resources are available at hormone.org.

Developed for patients based on *Lipid Management in Patients with Endocrine Disorders: An Endocrine Society Clinical Practice Guideline*



SCAN THIS CODE TO LEARN MORE ABOUT LIPIDS OR TO FIND AN ENDOCRINOLOGIST NEAR YOU!



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