

Director's Message

Greetings from Durham North Carolina, home of the Duke Division of Endocrinology. With spring in full bloom and the COVID pandemic fairly quiescent in our region activity across the city is bustling. The gritty, former capital of the cigarette industry has evolved into a more modern, tech driven economy with complementary growth in restaurants, bars, breweries, and parks. Who would have predicted just 10 years ago that condos on Main Street would be selling for \$1 million in quiet, sleepy old Durham? In fact, the whole triangle is booming with steady population growth, and of course, an increased need for endocrinology services. The Division has grown to more than 50 providers working in ambulatory and inpatient services across 4 hospitals and 5 clinics. Our group now sees more than 300 outpatient visits a week and manages ~150 inpatient consults daily. Most of the hospital work and half of our outpatient activity is focused on people with diabetes. However, changes in health care needs have required new programs and we now have busy clinics serving patients with endocrinologic complications related to new cancer treatments and those undergoing Gender transition. We continue to have robust clinical expertise in metabolic bone disease and are using this strength to lead the development of a population management strategy that can also be applied to other common endocrine conditions.

Beyond the growth and specific adaptations of clinical programs in the Division, our research presence has continued to expand. Investigators in endocrinology lead 7 laboratories at the Duke Molecular Physiology Institute, focused across the broad theme of metabolic dysfunction and its relation to vascular and other end organ disease. This group will be complemented and invigorated with the addition of Dr. Rana Gupta, recently recruited from the University of Texas Southwestern. Dr. Gupta is an internationally recognized scientist and a leader in the fields of adipocyte biology and lipid metabolism. His research will fit naturally, and



D'Alessio

augment, the current activities at DMPI. Faculty in the Division continue to be active in clinical research as well with active projects in diabetes therapeutics and novel strategies for diabetes care. In recognition of our research as well as clinical expertise, members of the Division are serving in leadership positions in major organizations in our field, such as the Endocrine Society and the American Diabetes Association and populate the editorial boards of important journals such as *Diabetes* and *Diabetes Care*.

Despite limitations to traditional recruiting imposed by the pandemic, our fellowship program continues to thrive. Under the leadership of Matt Crowley, and with the video and production skills of some of our fellows and younger faculty members, we were able to convey the essence and spirit of Duke and our program to the more than 150 applicants for spots in our fellowship in each of the last two years. This has led to outstanding young people joining us for training and providing the curiosity and enthusiasm that is fundamental to keep an academic unit vibrant. Rather than being restricted by moving our conferences online, we have taken advantage of the format for some alumni cameos. For each of the past two years we have had six or eight graduates of the Duke Endocrine fellowship get onto our Zoom Case Conference and lead a discussion based on an interesting case they have recently managed. Very inspiring for our current trainees and a great way to stay connected to the wider family of Duke Endocrinology. In our fellowship training as in all things, we aim to adapt and advance.

Best regards. Hope things are well with you, and come see us when you are in the area, *Dave*

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Update from the Endocrinology Fellowship Program

Message from Matthew Crowley, MD, MHS, director of the Endocrinology Fellowship Program

Despite the lingering effects of the pandemic over the past year, our fellows and fellowship have continued to thrive! Our first-year fellows – **Luci Cotten**, **Michelle Ponder**, and **Lucy Esteve** – have served as the faces of our Division on the inpatient wards at Duke and the VA. In addition to bringing unfailing positivity and fun to their work, each of our first-years has provided excellent clinical care and continues to develop plans for their scholarly work. Great work, gang!

Our upper-level fellows have continued their outstanding work. **Jashalynn German** received a REACH Equity research award in support of an exciting study examining racial disparities in prescribing of diabetes technology. **Scott Carlson** is doing amazing work examining the metabolic effects of gender-affirming hormone therapy and characterizing gaps in the care of transgender patients. Both Scott and Jashalynn are participating in the [DOM Fellow Research Academy](#) and completing their first year of the [Duke Clinical Research Training Program](#) (CRTP). **Diana Soliman** is wrapping up her Endocrine Fellows Foundation-funded study of factors affecting transfer from pediatric to adult care in type 1 diabetes and finalizing plans for her transition to a faculty position at the University of Miami next year. And last but not least, big congratulations are in order for **Kathryn O'Donnell**, who will be joining our Division's faculty come July 2022 – we are all extremely glad that Kathryn will be staying with us at Duke!



Crowley



Cotten



Ponder



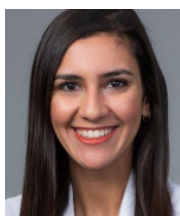
Esteve



German



Carlson



Soliman

I am also thrilled to report that we had another stellar recruiting season, and will be welcoming three wonderful new first-year fellows in July 2022:

- **Felicia Williams, MD (Clinical Track)** Felicia graduated from Wake Forest School of Medicine and completed her residency at UT-Houston; she is currently a Primary Care provider at CentroMed (El Centro del Barrio) in San Antonio. She has strong interests in international health (including in her home country of Belize) and will incorporate global health into her clinical and scholarly work here at Duke.
- **Tamara de Souza, MBBS (Research Track)** Tamara graduated from the University of the West Indies Faculty of Medical Sciences (Jamaica) and is currently a third-year resident at University of Miami. She has strong interests in health equity, thyroidology and medical education. At Duke, Tamara will engage in disparities and implementation research, with a focus on non-diabetes Endocrinopathies.
- **Athavi Jeevananthan, MD (Research Track)** Athavi graduated from the University of Wisconsin School of Medicine and is currently a third-year resident at Rush University Medical Center in Chicago. She has strong interests in health equity, transgender medicine, medical education, and international health, and will explore these areas in both her clinical work and research at Duke.



O'Donnell



Williams



de Souza



Jeevananthan

Finally, we would be remiss not to mention that our fellowship has added three new Core Faculty: Adrienne Barnosky, Carly Kelley, and Anne Weaver. Adrienne, Carly, and Anne join Bryan Batch, Jennifer Green, Tracy Setji, and Tom Weber as fellowship Core Faculty.

Thanks so much to all of our fellows and faculty for making our fellowship succeed! Looking forward to more good times ahead.

Thanks, **Matt**

The Endocrine Fellows Corner

Diana Soliman recently completed a research project examining the factors associated with timing of pediatric to adult transfer of care among young adults and the impact of timing of transfer on glycemic control and acute care utilization. Her work has been submitted for publication. In addition, she has been involved in the evaluation of a Best Practice Alert for detection of euglycemic diabetic ketoacidosis, which will be presented as a poster presentation at the ADA conference in June. She successfully completed the Clinical Research Training Program this year, earning a Master of Health Sciences.



Soliman

Scott Carlson is a second-year endocrinology fellow currently on the research track. He is pursuing clinical and health services research related to topics in gender medicine at Duke and at the VA. He presented a poster in the Fall of 2021 at the Fenway Institute's Advancing Excellence in Transgender Health Conference on the effects of gender-affirming hormone therapy on lipid metabolism, has participated in several Durham VA Evidence Synthesis Program projects, and co-authored a recently published narrative review of low-carb diets.



Carlson

Jashalynn German's research interests are geared towards Health Services and Health Disparities Research. She is interested in understanding the magnitude of racial/ethnic disparities in the management of diabetes and related outcomes, with the goal of developing interventions to improve access and utilization of health care resources. She has worked with Dr. Bryan Batch and Dr. Matthew Crowley on several projects investigating the use of technology in the outpatient management of diabetes. She has recently completed grant-funded work investigating trends of continuous glucose monitoring prescribing in patients with insulin treated diabetes. She participates in community engagement through community-based research initiatives and patient education.



German

Kathryn O'Donnell is a second-year clinical fellow and will be staying at Duke as faculty in summer 2022. She has an interest in improving diabetic retinopathy screening. She recently gave grand rounds in April and discussed several developments in diagnosis and treat-

ment of diabetic retinopathy at Duke. The Ophthalmology department is currently working to make remote teleophthalmology screening available to our patients. We are also looking forward to the use of the first bispecific antibody approved for treatment of diabetic retinopathy (Faricimab) at Duke very soon.

The first-year fellows are working on a quality improvement project at the Durham Department of Veteran Affairs. **Lucy Cotten, Luci Esteve, and Michelle Ponder** recognized a patient care gap in treating male hypogonadism. When ordering testosterone cypionate injections, there is currently no order set directing the prescriber to order all supplies for testosterone. The prescriber must separately order needles, syringes, and alcohol swabs; with all these separate orders, sometimes things are missed. Together the fellows are designing an order set to help patients get the supplies they need, while improving efficiency and prescribing accuracy for both primary care doctors and endocrinologists at the VA.



O'Donnell



Cotten



Ponder



Esteve

The Gland Central Station

Carly Kelley and Diana Soliman created a podcast last year to teach trainees the fundamentals of clinical endocrinology. The podcast was named **The Gland Central Station**, in honor of the endocrinology fellow work room where they first began recording episodes. Stef Alexopoulos, Jonathan Velez-Rivera, and Kathryn O'Donnell have also been instrumental in this project. For each episode, the hosts interview an endocrinology specialist in their area of expertise. They review screening, diagnosis, and treatment of important endocrine disorders. Currently, the Duke endocrinologists record and edit their own podcasts. Diana received a grant through the Duke AHEAD Health Professions Education & Teaching program that the team will use to improve the quality of the podcast and create a website for interdisciplinary dissemination of the podcast and other endocrinology educational materials. The podcast can be found on Apple Podcasts or at www.theglandcentral.com.

Clinical Practice Updates: The New Duke Endo-Oncology Program

Endo Oncology is an emerging field at the interface of Oncology and Endocrinology that specializes in caring for cancer patients living with new or pre-existing endocrine disease. Both cancer and cancer treatments are associated with a wide variety of endocrine diseases including pituitary dysfunction, new and worsening diabetes, steroids induced hyperglycemia, drug induced thyroid abnormalities, bone disease and primary malignancies of endocrine glands resulting from direct damage or radiotherapy. These effects are well established in chemotherapy treated patients and childhood cancer survivors. More recently, novel targeted cancer therapies including those that target the insulin signaling pathway and immune checkpoints for example, have become staple treatments for many aggressive tumors due to their success in prevention cancer progression and improving cancer free survival.

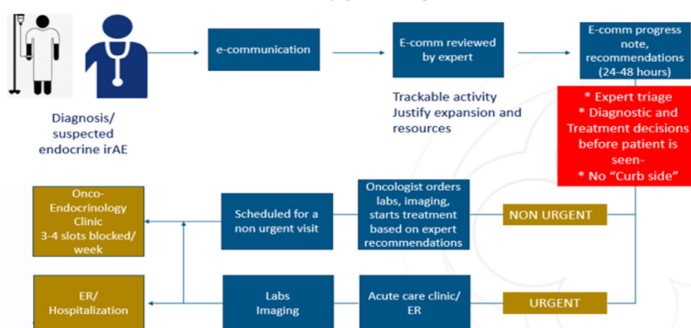
The Director for the Duke Endo-oncology Program, **Dr. Afreen Shariff** has over 7 years of experience in treating cancer and cancer treatment related endocrine toxicities. During her training years at Duke she identified this unmet need for specialized cancer support and started an Immunotherapy focused clinic in 2017 to address this. Over the last 5 years, the practice has grown, and these agents are now FDA approved for 30+ malignancies. Dr. Shariff with the support of Division Chief Dr. David D'Alessio launched the Duke Endo-Oncology Program in Jan 2022 with a mission is to provide high quality, high value and outcome focused care for cancer patients who suffer from endocrine disorders through innovation, collaboration, and compassion. The Duke Endo-Oncology program has 4 key target areas: (1) value based clinical care, (2) transdisciplinary clinical



Shariff

and research infrastructure, (3) multi-Disciplinary collaborations and (4) education for patients, oncology, endocrinology providers and trainees.

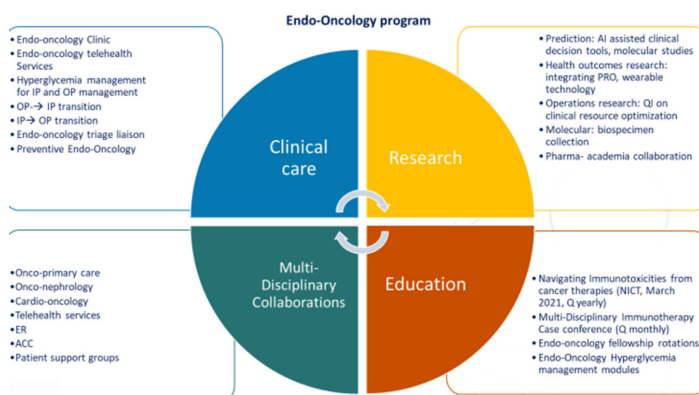
Endo-oncology e-consult based referral system Pathway for a referral



Among these target areas, Dr. Shariff's first priority was to address the "bottleneck" of access and to get cancer patients to see Duke Endo-oncologists in a timely manner by reducing the average wait time from 87 days. Dr. Shariff created a cancer focused electronic consult service with Duke Telehealth Services to provide expert triage through electronic consultations and acuity-based access to Endo-Oncology clinic providers. This intervention has reduced wait time for recommendations to less than 2 days from an average of 52 days and reduced hospital admissions for endocrine toxicities from 11% down to 4% in Duke cancer patients.

More information regarding the program can be found here: <https://www.dukehealth.org/treatments/cancer/endo-oncology>

Outside of Duke, Dr. Shariff continues her work and serves as the chair for the Oncoendocrinology Special Interest Group (SIG) at Endocrine Society. Through this SIG she will assist Endocrine Society in driving the global mission of enhancing networking, encouraging transdisciplinary collaboration, and influencing evidence-based science, practice, and education for other oncoendocrinologists. She also hosts and produces a podcast series CHECKPOINT NOW that engages oncologists and subspecialists from around the country on collaborative patient care, cutting edge topics and latest evidence on managing immune related and other cancer therapy related toxicities with listeners tuning in globally. You can find episodes on <https://checkpoint-now.org>, apple podcasts, google podcasts, spotify and other platforms.



News from the DUH Endocrine Inpatient Endocrine Consultation Service

New Endocrine Faculty Hospitalists at DUH

The DUH Endocrine Inpatient Consultation Service continues to grow and provide high quality Endocrine services including diabetes management. The average census on the service is now 85-90 patients. This service includes four full time Nurse Practitioners, a teaching team consisting of an Attending, fellow, resident(s) and student(s), and the new addition of an Endocrine Hospitalist. **Drs. Lauren Mozingo, Nitya Kumar, and Anne Weaver** serve in the role of the Endocrine Hospitalist in which they provide consultative services to patients with general Endocrine disorders as well as diabetes. The Endocrine Hospitalists are working with Oncology to partner closely on patients admitted for chemotherapy that may affect blood glucose control and/or cause other endocrine abnormalities such as pituitary, thyroid, and adrenal disease.

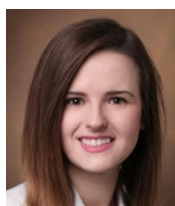
Inpatient Quality Improvement Projects

The inpatient Endocrine teams at DUHS are continually striving to optimize endocrine care, particularly diabetes care as 35-40% of hospitalized patients have hyperglycemia. Recently, the DUH Diabetes Clinical Nurse Specialists **Lisa Gilmore** and **Susan Freeman** led an extensive chart review analyzing the effects of the DUHS hypoglycemia protocol. **Drs. Lauren Mozingo, Jonathan Velez Rivera, Jennifer Merrill, and Tracy Setji** assisted in the chart review. Through their work, they identified ways to achieve faster and more consistent normalization of glucose after a hypoglycemic episode. Their results provided guidance for a revision of the DUHS hypoglycemia protocol and were accepted for

publication in the Journal Clinical Nurse Specialist. Further, our Endocrine Fellows, **Drs. Diana Soliman, Kathryn O'Donnell, Jashalynn German, and Scott Carlson**, worked with **Drs. Clay Musser, Tracy Setji, and Jason Jackson** to create a best practice alert in the electronic health record that serves as a safety net to help identify hospitalized patients that are at risk of having euglycemic diabetic ketoacidosis, a rare but life-threatening side effect of SGLT2 inhibitors. Their work has been accepted at the American Diabetes Conference where Dr. Soliman will be presenting.

Duke Regional Hospital Strives for Diabetes Joint Commission Certification

At DRH, **Dr. Beatrice Hong** and **Sarah Bologna** are leading efforts to have Duke Regional Hospital become certified in inpatient diabetes through the Joint Commission. As part of these efforts, all hypoglycemia events are being reviewed to determine etiology and opportunities for process improvement. The inpatient DRH group is expecting a site visit in the fall and if successful, DRH will become the first hospital in North Carolina to be certified in inpatient diabetes by the Joint Commission. Dr. Hong and Sarah Bologna are also leading a systemwide DUHS Glycemic Safety committee that meets on a monthly basis. The respective hospital glycemic safety teams equally contribute to this group which then reports to the system wide medication safety committee. This new group has facilitated communication between all three hospitals and has allowed for the development of systemwide glycemic policies.



Mozingo



Kumar



Weaver



Gilmore



Freeman



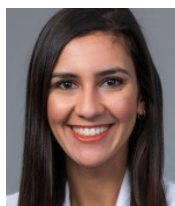
Velez Rivera



Merrill



Setji



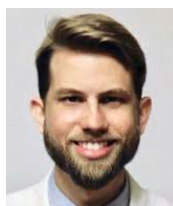
Soliman



O'Donnell



German



Carlson



Musser



Hong



Bologna

(Jason Jackson not pictured)

Clinical Research Updates:**Hospital Transition of Care in Hispanic/Latino Populations**

"The Hispanic/Latino populations are disproportionately affected and have a higher risk of developing diabetes than their non-Hispanic White counterparts and worse diabetes-related outcomes," states **Dr. Leonor Corsino**. Diabetes continues to be an economic burden.



Corsino

This economic burden is partially due to the significantly higher rates of hospital readmission for individuals with diabetes. People with diabetes, particularly those who are members of racial/ethnic minority groups are at higher risk for readmission and emergency department (ED) visits. Despite recommendations regarding the transition of care, an optimal approach to the transition of care for ethnic/minority patients remains unclear," states Dr. Corsino.

In order to look at this further, Dr. Corsino and her colleagues studied self-identified Hispanic/Latino adults with diabetes to design, develop, and pilot a transition of care model. They conducted semi-structured interviews with patients and providers followed by a

questionnaire. Study subjects admitted to the hospital were enrolled to receive the newly designed transition of care model followed with additional social support. Corsino then analyzed readmission and emergency department visits within 30 days post-discharge. She also studied the feasibility outcomes including the number of participants identified, number of patients enrolled, number of participants who completed all the questionnaires, number of participants with a 30-day follow up call, and number of participants who completed the 30-day post-discharge questionnaire.

Corsino and her colleagues found that transition of care for Hispanic/Latino patients with diabetes remains a major area of interest that requires further research. She states "the pandemic required that we adapted the study to reflect the realities of health care systems during a time of crisis" including the "ongoing changes in the transition of care due to the pandemic burden on the health care systems." The methods used in her study can help other investigators design future studies.

EXTEND Study: Telehealth Study for Poorly-Controlled type 2 diabetes and Hypertension Patients

The EXTEND study is a NIH-funded randomized trial comparing two technology-enabled telehealth approaches for patients with poorly-controlled type 2 diabetes and hypertension.

Please visit the [EXTEND website](#) for additional information about the study, and do not hesitate to reach out to us for any questions whatsoever at extendstudy@duke.edu!

Here are a few important facts for EXTEND clinic sites:

- Participating clinic sites include select DPC clinics and Duke Endocrinology clinics.
- Our study processes are carefully designed to prevent any interruptions of clinic workflow.
- We will use a centralized recruiting process, under which our team will identify patients through Epic and reach out to them directly using an IRB-approved process. Direct referrals will also be permitted.
- The EXTEND interventions are designed not to generate extra work for established providers.
- Care with established providers will continue for all patients during the study period.

We look forward to collaborating with you and are hopeful that this study will be helpful for our patients. Again, please reach out anytime for questions.

Sincerely,

Matt Crowley (co-PI)

Ryan Shaw (co-PI)

The EXTEND team



Crowley



Shaw

Transgender and Gender Diverse Patient Registry, Research, and Outreach

Dr. Carly Kelley and colleagues from the Duke Global Health Institute were awarded the Duke CTSI Multidisciplinary Vision Program award from May 1, 2021, through April 2022. They built a registry of transgender and gender diverse patients seen at Duke Adult Gender Medicine with the goal of prospective analyses to better understand gender affirming hormone therapies, particularly the long-term risks of treatment. Dr. Kelley states "since there is so little evidence in the medical literature - much of what we do is extrapolated from cisgender populations or based on experience/expert opinion. Our goal is to collaborate with other academic institutions throughout the U.S. to share data for large scale multi-site studies. We have established a multi-institutional advisory board with Mount Sinai, UCSF, University of Colorado, and Mayo." Dr. Kelley's research team gathers patient reported data that includes medical history, goals for therapy and transition, mental health history, social history, levels of emotional support, anxiety, and depression. Dr. Kelley and colleagues have also partnered with the Duke Institute for Health Innovation (DIHI) to pull data from EPIC: demographic data, diagnoses, vitals, labs, health maintenance, referral patterns, ED visits, COVID related data, social determinants of health, etc.



Kelley

differ." Dr. Kelley states. "We hope our study will represent a diverse population (racial/ethnic minorities) and assess the impact of intersecting identities on gender affirming care and healthcare access."

To date, Dr. Kelley and her colleagues have 200 patients consented for the Registry with a 90% participation rate. She presented this work at the Duke SGM symposium March 21 and 22. (<https://dukesgmhealth.org/symposium-2022/>)

They have students, residents, and fellows (Scott Carlson) working on their research team and presenting their findings. Dr. Carlson recently presented some preliminary work looking at lipid changes after starting hormone therapy at the Fenway conference for advancing *LeGrand* excellence in transgender health 2021. Dr. Kelley also collaborates with other research members from the Duke Global Health Institute and CHPIR <https://chpir.org/>. Her co-PI is Sara LeGrand who is co-Director of the Duke SGM Research Program. Drs. Kelley and LeGrand have recognized how important it is to engage the community throughout all aspects of this research. They have been meeting with both patient and stakeholder advisory boards during their study and have just completed asynchronous online focus groups with transgender and gender diverse community members to assess key research priorities and factors affecting access to healthcare.



As for the future, they have just applied for more internal funding and will aim for a future PCORI or NIH grant.



Giving back

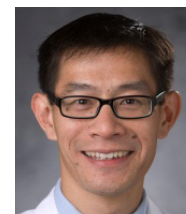
The possibilities for advancing all aspects of our mission are virtually limitless. We invite you - our faculty, staff, former trainees, and friends - to join us in shaping the future of endocrinology. Generous supporters like you will make it possible for us to open doors of discovery that might otherwise remain closed, and train tomorrow's leaders in endocrinology.

To find out how you can partner with us, please contact Duke Health Development and Alumni Affairs: 919-385-0059, gregory.bolwell@duke.edu

Basic and Translational Research Section

Dr. Richard Lee finds novel metabolic profiles associated with incident fracture among older adults with type 2 diabetes mellitus:

"Type 2 diabetes mellitus (DM) is associated with an increased risk of fracture despite a paradoxically higher average bone mineral density. Additional markers of fracture risk among older adults with DM are needed to identify at-risk individuals." Lee states. Dr. Lee is working with The MURDOCK study, which is an ongoing, longitudinal cohort study, initiated in 2007, of residents in Cabarrus and surrounding counties, based in Kannapolis, North Carolina. Lee and his colleagues used health questionnaires and biospecimen samples to assess the association between incident fracture and various metabolic profiles. Lee's study found novel biomarkers with potential mechanisms associated with fracture risk among older adults with DM. His study findings will be presented at Endocrine Society 2022.



Lee

Basic Science and Translation Research Collaborations

Olga R. Ilkayeva, PhD, and **James R. Bain, PhD**, are faculty members of Duke's Endocrine Division who are based in the metabolomics core lab at the Duke Molecular Physiology Institute (<https://dmpi.duke.edu/>), which receives support from the North Carolina Diabetes Research Center (<https://ncdiabetesresearch.org/>), are collaborating with a number of intra- and extramural investigators, including:

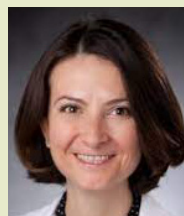
- Duke pediatric endocrinologist, **Pinar Gumus Balikcioglu, MD, MHS**, who is examining markers of branched-chain amino acid (BCAA) and lipid metabolism in obesity, including the weight gain associated with Prader-Willi Syndrome. She is also exploring the roles that BCAA, tryptophan, and stability of circadian rhythms in catecholamines might play in the pathogenesis of youth-onset, type 2 diabetes (T2D).
- **Richard H. Lee, MD, MPH**, Duke Endo, who is studying metabolic profiles associated with incident fracture among older adults from Cabarrus County and vicinity, North Carolina, in the presence or absence of T2D).
- **Florin Despa, PhD**, Department of Pharmacology and Nutritional Sciences, University of Kentucky College of Medicine, who is investigating whether in-vivo downregulation of pancreatic amylin in diabetic mice might improve recognition memory.
- Dr. Bain was a Visiting Professor at the University of Kentucky in May 2022.



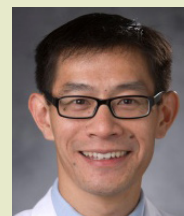
Ilkayeva



Bain



Balikcioglu



Lee



Despa

Upcoming and Recent National Presentations

American Diabetes Association Annual 82nd Scientific Meeting. New Orleans, Louisiana. June, 2022

Anastasia-Stefania Alexopoulos, Diana Soliman, Allison Lewinski, Elizabeth Strawbridge, Linda Sanders, Karen Steinhäuser, David Edelman, **Matthew Crowley**. "Simplifying Therapy to Assure Glycemic Control and Engagement (STAGE) for Patients with Clinic Refractory Diabetes." Poster Presentation. ADA 82nd Scientific Sessions, June 2022.

Jennifer Green. "Understanding the Relationship between Improvement of Glycemia and Body Weight Reduction with a Dual GIP/GLP-1 Receptor Agonist" as part of the symposium "The Future of Diabetes—The Next Frontier with Dual Incretins." Oral Symposium Presentation. American Diabetes Association Annual Scientific Meeting. New Orleans, Louisiana. 2022

Jennifer Green. "Personalized Approach Based on Patient Characteristics and Comorbidities" as part of the symposium "Joint ADA/EASD Recommendations—Management of Hyperglycemia in Type 2 Diabetes." Oral Symposium Presentation. American Diabetes Association Annual Scientific Meeting. New Orleans, Louisiana. 2022

Soliman D, Musser RC, Jackson J, **German J**, **Carlson S**, **O'Donnell K**, **Setji T**. "The Impact of a Passive Alert on Screening for Euglycemic Diabetic Ketoacidosis In Hospitalized Patients Using a Sodium-Glucose Cotransporter 2 Inhibitor." Poster Presentation. American Diabetes Association Annual Scientific Meeting. New Orleans, Louisiana. June 5, 2022.

ENDO 2022, annual meeting of the Endocrine Society, Atlanta, Georgia. June 11-14, 2022

K. Blew, M. Ramaker, M. Crawford, R.P. Grant, **J.R. Bain**, **M. Muehlbauer**, N. Jain, D. Hsia, S. Armstrong, **M. Freemark**, and **P. Gumus Balikcioglu**. "Disrupted circadian rhythm in catecholamines in youth-onset Type 2 Diabetes." Accepted for oral presentation, ENDO 2022, annual meeting of the Endocrine Society, June 11-14, 2022, Atlanta, Georgia.

Leonor Corsino, MD. Endocrine Society Early Career Forum. Oral Presentation and Discussion, ENDO 2022, annual meeting of the Endocrine Society, June 11-14, 2022, Atlanta, Georgia.

Jashalynn German, Hadley Reid, Connor Drake, **Leonor Corsino**, **Bryan Batch**. "Delivery of Type 2 Diabetes Care using Telemedicine: Provider Experiences and Perspectives." Accepted for poster presentation, ENDO 2022, annual meeting of the Endocrine Society, June 11-14, 2022, Atlanta, Georgia.

N. Delgado, M. Ramaker, **O. Ilkayeva**, **M. Muehlbauer**, M. Crawford, R.P. Grant, D. Hsia, N. Jain, **J.R. Bain**, S. Armstrong, **C. Newgard**, **M. Freemark**, and **P. Gumus Balikcioglu**. "Branched-chain amino acid and tryptophan metabolism and the pathogenesis of youth-onset type 2 diabetes mellitus (T2D)." Oral presentation, Outstanding Abstract Award, ENDO2022, Annual meeting of the Endocrine Society, Atlanta, GA, Sunday, June 12, 2022, 11:00 a.m.-12:30 p.m.

R. Lee, **M.J. Muehlbauer**, **J.R. Bain**, C. Pieper, and **O.R. Ilkayeva**. "Metabolic profiles associated with incident fracture among older adults with type 2 diabetes mellitus: A nested case-control study." Accepted for oral presentation at ENDO 2022, annual meeting of the Endocrine Society, June 11-14, 2022, Atlanta, Georgia.

At the Heart in Diabetes Annual Meeting

Jennifer Green, MD. "Combinations of SGLT2 Inhibitors & GLP-1 Receptor Agonists: Potential Impact on the Kidney and the Heart" as part of the symposium "State of the Art Management of Cardio-Renal-Metabolic Diseases." Oral Symposium Presentation, At the Heart in Diabetes Annual Meeting, June 2022.

Recent National and Regional Presentations

ACP Precourse- Diabetes for the Internist, Chicago, IL. April 26, 2022

Adrienne Barnosky, DO. "Treatment of Diabetes in Pregnancy." Oral Presentation at ACP Precourse- Diabetes for the Internist, April 26, 2022.

Michael Canos, MD. "Use of Diabetes Technology in the Primary Care Office." Oral Presentation at ACP Precourse- Diabetes for the Internist, April 26, 2022.

Andrea Coviello, MD. "Prevention of Cardiovascular Disease – What's New in Risk Factor Modification." Diabetes for the Internist, April 26, 2022.



Left to right; Dr. Lillian Lien (Duke Alumni), Dr. Andrea Coviello, and Dr. Adrienne Barnosky at the ACP Precourse

Other Recent Presentations

Liz Bell-McClure, NP. "What Comes After Metformin." NCNP spring Symposium in Asheville NC, March, 2022.

Liz Bell-McClure, NP. "Management: A Practical Prescribing Guide." Duke APP grand rounds. Durham, NC, April, 2022

Leonor Corsino, MD, MHS. "Determining Where you want to go." Endocrine Society Flare (Future Leaders Advancing Research in Endocrinology) Program. New York City, March 24, 2022

Leonor Corsino, MD, MHS. "Building Collaborations: Team Building Group Activities." Endocrine Society Flare (Future Leaders Advancing Research in Endocrinology) Program. New York City, March 26, 2022

Jashalynn German, MD. "Diabetes Prevention and Management." Tau Gamma Delta Sorority, Inc. Regional Virtual Conference March 2022

Jashalynn German, MD. "Diabetes Prevention and Management." Reaping the Harvest Christian Church Women's Health and Wellness Day. Garner, NC March 2022

Jashalynn German, MD. "Diabetes Prevention and Management." Johanna's Project Inc. Inaugural Burgandy Ball. April 2022. Vero Beach, FL.

Kathryn Kreider, DNP. "Insulin Management in Poorly Controlled Type 2 Diabetes." Practical Updates in Primary Care. Virtual conference that occurred in May, July, Sept, November.

Kathryn Kreider, DNP and Tracy Setji, MD. "Perioperative Diabetes Management: Nuts and Bolts." Evidence-Based Perioperative Medicine Conference (Presentation and Panel Discussion, virtual, international- Ireland-UK/ Chicago).

Diana McNeill, MD. "Setting Professional Boundaries." Alliance of Academic Internal Medicine meeting in Charlotte, NC

Diana McNeill, MD. "The Imposter Syndrome." Alliance of Academic Internal Medicine meeting in Charlotte, NC

Diana McNeill, MD. "A Bonus not a Tax: Changing the Culture on DEI work." Alliance of Academic Internal Medicine meeting in Charlotte, NC

Diana McNeill, MD. "Mentoring Fosters Leadership" Keynote address at the inaugural Department of Medicine Education Day, May 4, 2022

Susan Spratt, MD. "Quality Engagement/ DLP Webinar: Creating a Health System Strategy to Identify and Address Social Risk" April 2022

Susan Spratt, Genie McPeck Hinz, Janet Bettger, Lisa McNerney, Elena Tenenbaum, Fred Johnson, Sara Johnson, Tara Kinard, Emily Baldwin, Carolyn Avery, Angel Romero-Ruiz, Karly Gregory. "Social Risk Identification A Step to Health Equity." 2022 Annual Duke Quality and Safety Conference Poster Session Presentation

Susan Spratt, MD presented at Baylor College of Medicine's Center of Excellence in Health Equity, Training and Research (COE) 2022 Summer Research Summit

Key Division Publications

Jennifer Green's publications:

Dr. Green co-authored the annual update of the American Diabetes Association Standards of Medical Care in Diabetes. For the past three years, Dr. Green has been primarily responsible for revision and updating of the Cardiovascular Disease and Risk Management section of the Standards, a section which is co-endorsed by the American College of Cardiology. Draznin B, Aroda VR, Bakris G, Benson G, Brown FM, Freeman R, Green J, Huang E, Isaacs D, Kahan S, Leon J, Lyons SK, Peters AL, Prahalad P, Reusch JEB, Young-Hyman D, Das S, Kosiborod M. Standards of Medical Care in Diabetes-2022. *Diabetes Care*: Vol 45, Supplement 1 (January 2022). PMID: (multiple sections) 34964812-3496488710.

She also co-authored the DCRM Multispecialty Practice Recommendations for the management of diabetes, cardiorenal, and metabolic diseases. Handelsman Y, Anderson JE, Bakris GL, Ballantyne CM, Beckman JA, Bhatt DL, Bloomgarden ZT, Bozkurt B, Budoff MJ, Butler J, Dagogo-Jack S, de Boer IH, DeFronzo RA, Eckel RH, Einhorn D, Fonseca VA, Green JB, Grunberger G, Guerin C, Inzucchi SE, Jellinger PS, Kosiborod MN, Kushner P, Lepor N, Mende CW, Michos ED, Plutzky J, Taub PR, Umpierrez GE, Vaduganathan M, Weir MR. DCRM Multispecialty Practice Recommendations for the management of diabetes, cardiorenal, and metabolic diseases. *J Diabetes Complications*. (February 2022). PMID: 34922811

Dr. Green is also the US Coordinating Center Principal Investigator and US Representative to the EMPA-Kidney trial, which has recently been halted for efficacy. The design of EMPA-Kidney and baseline characteristics of the enrolled participants have been recently published: Herrington WG, Wanner C, Green JB, Hauske SJ, Judge P, Mayne KJ, Ng SYA, Sammons E, Zhu D, Staplin N, Preiss D, Stevens W, Wallendszus K, Dayanandan R, Knott C, Hill M, Emberson J, Brenner S, Ceika V, Cheung AK, Liu Z, Li J, Chen P, Hooi L, Liu W, Kadowaki T, Nangaku M, Levin A, Cherney D, Pontremoli R, Maggioni AP, Goto S, Tomita A, Deo R, Tuttle K, Eilbracht J, Hantel S, Hopley M, Landray MJ, Baigent C, Haynes R. Design, recruitment, and baseline characteristics of the EMPA-KIDNEY trial. EMPA-KIDNEY Collaborative Group. *Nephrology, Dialysis, Transplantation* (March 2022). PMID: 35238940.

Tracy Setji and Beatrice Hong's publications:

Bouldin MG, Hong B, Setji T, Greenlee J, Cooper A, Thompson J, Capes K. Evaluation of the Efficacy and Safety of an eGlycemic Management System in a Community Hospital Setting. *Journal of Diabetes Science and Technology* 2021 Mar 15(2):236-241. doi: 10.1177/1932296820980026. Epub 2020 Dec 16.

Lenk TA, Whittle J, Aronson S, Miller TE, Fuller M, Setji T. Quality Improvement Success Story: Duke University Medical Center Perioperative Diabetes Management Program. *Clinical Diabetes* 2021 Apr 39(2):208-214. cd200029. <https://doi.org/10.2337/cd20-0029>

Gilmore L, Amarasekara S, Maza S, Freeman S, Setji TL. Evaluation of the Efficacy of a Hypoglycemia Protocol to Treat Severe Hypoglycemia. *Clinical Nurse Specialist: The Journal of Advanced Nursing Practice*. In press

Matt Crowley, Stef Alexopoulos, and Diana Soliman's publications:

Alexopoulos AS, Kobe EA, German J, Moylan CA, Soliman D, Jeffreys AS, Coffman CJ, Crowley MJ. Underrecognition of nonalcoholic fatty liver disease in poorly-controlled diabetes: A call to action in diabetes care. *J Endocr Soc*. 2021 Oct 6 [Epub ahead of print] PMID: 34755002

Kobe EA, Lewinski AA, Jeffreys AS, Smith VA, Coffman CJ, Danus S, Sidoli E, Greck BD, Horne L, Saxon DR, Shook S, Aguirre LE, Esquibel MG, Evenson C, Elizagaray C, Nelson V, Zeek A, Weppner WG, Scodellaro S, Perdew CJ, Jackson GL, Steinhauer K, Bosworth HB, Edelman D, Crowley MJ. Implementation of an intensive telehealth intervention for rural patients with clinic-refractory diabetes. *J Gen Intern Med*. 2022 Jan 3 [Epub ahead of print] PMID: 34981358

James Bain's publications:

S. van Vliet, J.R. Bain, M.J. Muehlbauer, F.D. Provenza, S.L. Kronberg, C.F. Pieper, and K.M. Huffman. "A metabolomics comparison of plant-based meat and grass-fed meat indicates large nutritional differences despite comparable Nutrition Facts panels." *Scientific Reports*, 2021. 11(1): 13828. doi: 10.1038/s41598-021-93100-3. PMID: 34226581. PMCID: PMC8257669.

Kathryn Kreider and J. Rowell's publications:

Kreider, K. E., Rowell, J. V., Bowers, M., McGee, K. S., & Padilla, B. I. (2022). Effective interprofessional precepting in a specialty clinic: Utilizing evidence and lived experiences to optimize the training of diverse learners. *Journal of Interprofessional Education & Practice*, 26, 100490. <https://doi.org/10.1016/j.xjep.2021.100490><https://doi.org/10.1016/j.xjep.2021.100490>

Nitya Kumar's publications:

Kumar NK, Merrill JD, Carlson S, German J, Yancy WS Jr. Adherence to Low-Carbohydrate Diets in Patients with Diabetes: A Narrative Review. *Diabetes Metab Syndr Obes*. 2022 Feb 18;15:477-498.

Kumar, N., & D'Alessio, D. A. (2022). Slow and steady wins the race: 25 years developing the GLP-1 receptor as an effective target for weight loss. *The Journal of Clinical Endocrinology & Metabolism*. <https://doi.org/10.1210/clinem/dgac276>

Key Division Publications *continued*

Susan Spratt's publications:

Whitfield N, Gregory P, Liu B, Spratt S, Smith BH. Impact of pharmacist outreach on glucagon prescribing. *Journal of the American Pharmacists Association*. 2022 Jan 31.

Spratt SE, Ravneberg D, Derstine B, Granger BB. Feasibility of Electronic Health Record Integration of a SMART Application to Facilitate Patient-Provider Communication for Medication Management. *Computers, Informatics, Nursing: CIN*. 2022 Feb 28.

Sata SS, Spratt SE, Edmonston DL, Pagidipati N. Clinical progress note: Indications for and management of sodium-glucose co-transporter-2 (SGLT-2) inhibitors in hospitalized patients. *Journal of Hospital Medicine*.

Carley Kelley's publications:

Kelley CE, Davidge-Pitts CJ. Breaking Down Barriers to Reproductive Care for Transgender People. *AACE Clin Case Rep*. 2021 Sep 25;8(2):96-98. doi: 10.1016/j.aace.2021.08.001. PMID: 35415232; PMCID: PMC8984180.

Sag AA, Kazaure HS, Kelley CE. Role of Thyroid RFA in the Treatment of Autonomously Functioning Thyroid Nodules. *Tech Vasc Interv Radiol*. 2022 Jun;25(2):100823. doi: 10.1016/j.tvir.2022.100823. Epub 2022 Mar 12. PMID: 35551806.

Leonor Corsino's Publications:

Jee-Young Moon¹, Simin Hua¹, Qibin Qi¹, Daniela Sotres-Alvarez², Josiemer Mattei³, Sarah S Casagrande⁴, Yasmin Mossavar-Rahmani¹, Anna María Siega-Riz⁵, Linda C Gallo⁶, Sylvia Wassertheil-Smoller¹, Robert C Kaplan^{1,7}, Leonor Corsino⁸. [Association of Sugar-Sweetened Beverage Consumption with Prediabetes and Glucose Metabolism Markers in Hispanic/Latino Adults in the United States: Results from the Hispanic Community Health Study/Study of Latinos \(HCHS/SOL\)](#)

Affiliations

- PMID: 34558625
- PMCID: PMC8754574 (available on 2022-10-27)
- DOI: 10.1093/jn/nxab334

Palacios C, Pérez CM, González-Sepúlveda L, Corsino L, Albrecht SS, Siega-Riz AM, Durazo-Arvizu RA, Casagrande S, Sotres-Alvarez D, Avilés-Santa ML. [Vitamin D, Calcium, Magnesium, and Potassium Consumption and Markers of Glucose Metabolism in the Hispanic Community Health Study/Study of Latinos](#). *J Am Nutr Assoc*. 2022 Jan;41(1):20-29. doi: 10.1080/07315724.2020.1833790. Epub 2020 Nov 30. PMID: 33252321

Shantavasinkul PC, Omotosho P, Corsino L, Muehlbauer MJ, Chattranukulchai P, Torquati A. [Changes of Circulating Irisin and High-Sensitivity C-Reactive Protein Levels in Morbidly Obese Individuals with Type 2 Diabetes After Roux-en-Y Gastric Bypass](#). *J Laparoendosc Adv Surg Tech A*. 2022 Feb 11. doi: 10.1089/lap.2021.0558. Online ahead of print. PMID: 35443789

Shantavasinkul PC, Omotosho P, Muehlbauer MJ, Natoli M, Corsino L, Tong J, Portenier D, Torquati A. [Metabolic profiles, energy expenditures, and body compositions of the weight regain versus sustained weight loss patients who underwent Roux-en-Y gastric bypass](#). *Surg Obes Relat Dis*. 2021 Dec;17(12):2015-2025. doi: 10.1016/j.soard.2021.09.007. Epub 2021 Sep 10. PMID: 34635422

Corsino L, Railey K, Brooks K, Ostrovsky D, Pinheiro SO, McGhan-Johnson A, Padilla BI. [The Impact of Racial Bias in Patient Care and Medical Education: Let's Focus on the Educator](#). *MedEdPORTAL*. 2021 Sep 2;17:11183. doi: 10.15766/mep_2374-8265.11183. eCollection 2021. PMID: 34557589 Free PMC article.

Corsino L, Fuller AT. [Educating for diversity, equity, and inclusion: A review of commonly used educational approaches](#). *J Clin Transl Sci*. 2021 Aug 9;5(1):e169. doi: 10.1017/cts.2021.834. eCollection 2021. PMID: 34733545 Free PMC article. Review.

Martinez-Bianchi V, Maradiaga Panayotti GM, Corsino L, Felsman IC, Gonzalez-Guarda RM, Nagy GA, Peña A. [Health and Wellness for Our Latina Community: The Work of the Latinx Advocacy Team & Interdisciplinary Network for COVID-19 \(LATIN-19\)](#). *NC Med J*. 2021 Jul-Aug;82(4):278-281. doi: 10.18043/ncm.82.4.278. PMID: 34230183 Free article. No abstract available.

Books:

Leonor Corsino and Jonathan Velez Rivera. Cardiovascular Disease Risk Factors in the Hispanic/Latino Population. Cardiovascular Disease in Racial and Ethnic Minority Populations. Editors: Carlos J. Rodriguez, Herman A. Taylor, Keith C. Ferdinand, Taylor, Jr. (Herman A.) Springer, 2021.

Leonor Corsino and Jasmine McNeill. Diabetes and Breast Cancer. Common Issues in Breast Cancer Survivors. Editors: Gretchen G. Kimmick, Rebecca A. Shelby, Linda M. Sutton. Springer, 2021

Book Chapters:

Amro Ilawy, Jennifer V. Rowell, Beatrice D. Hong. "Insulin and Heroin. An Unfortunate mix in an Overlooked Population." Boris Draznin (ed). Diabetes in Practice. Arlington, VA, American Diabetes Association, 2021, pp 202-204

Jashalynn German, Lauren M.B. Burke, and Jennifer V. Rowell. "Clinical, Laboratory, and Radiological Diagnosis of Pancreatic Islet Cell Tumors." H. Yu et al.(eds). Diagnosis and Management of Endocrine Disorders in Interventional Radiology/Introduction & Guidelines. Switzerland AG, Springer Nature, 2022, pp 75-89