

OU Health Harold Hamm Diabetes Center Quarterly Newsletter



Jed Friedman, Ph.D.

Director,

OU Health Harold Hamm Diabetes Center
Chickasaw Nation Endowed Chair

Director's Corner

Welcome to the January 2023 newsletter.

Another year has ended and it's time to look forward to a new year ahead. We had a great Diabetes Research Symposium 2022 – thank you to everyone who came and participated in the conference. Tessa Hart (student) won the first place Steven Chernausk award, and Dakota Redling (Research Assistant) won second place in the Fetal/Maternal Interactions category. Rahul Rajala (Doctoral Candidate) won first place and Matthew Rochowski (Doctoral Candidate) won second place in the Adipocyte Biology category. Dr. Sabira Jazir (Postdoctoral Research Fellow) won first place for the Jay Ma award, and Matthew Rochowski won second place for the Liver Disease and Diabetes Complications category. Congratulations to all five winners!

Harold Hamm Diabetes Center (HHDC) held an open house and members of the board of advisors and community members donated \$150,000 to the HHDC (see highlight herein). Members of HHDC received \$17.9 million dollars in NIH grant funding, and published more papers in high impact journals this year than ever before, including NEJM, PNAS, Nature Com, Diabetes, and Diabetes Care. HHDC would not have been the same without your commitment and efforts. A huge thanks to everyone involved – we cannot wait to begin anew with you on board.

2023 is a new beginning. Exciting new medicines for type 1 and type 2 diabetes approved in 2022 herald a new era in diabetes treatment. We will award the 2023 Harold Hamm International Biomedical Prize in Diabetes, with an international jury meeting in Oklahoma City on May 18. The capital campaign for OU, Lead On, launched in October, has begun and architects are busy designing renovation of 5000 sq ft of diabetes research space in the Biomedical Science Education Building (BSEB) third floor.

In addition to clinic updates, media presentations, and publications, in this issue we highlight Dr. Jeanie Tryggstad, who received a new NIH-U01 grant, titled: Identifying Metabolic and Psychosocial Antecedents and Characteristics of youth-onset Type 2 diabetes (IMPACT DM). We are very happy to have made an impact strong enough to warrant a large commitment from the University for the future of HHDC. We are ready to begin a new chapter in 2023.

All the Best,

Jacob E. (Jed) Friedman, Ph.D.

Director, OU Health Harold Hamm Diabetes Center

Reminder for HHDC Members!

Please help us update your profile on the HHDC website.
Click on the icon to enter your information



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OU Health Harold Hamm Diabetes Center Enrolling Pregnant Women in Trial Studying Effectiveness of Supplement for Lowering Triglycerides

OU Health Harold Hamm Diabetes Center at the University of Oklahoma Health Sciences Center is enrolling patients in a clinical trial for pregnant women called the TOTS trial (Therapeutic Omegas for Triglyceride Suppression). It will study the effectiveness of an omega-3 fatty acid supplement in blunting pregnancy-related elevations in triglycerides, a type of fat found in the blood.

“Pregnant women with high triglyceride levels tend to give birth to infants who are above normal weight...”

Pregnant women with high triglyceride levels tend to give birth to infants who are above normal weight and face an increased risk of developing obesity and metabolic conditions as they age. Triglycerides typically increase during pregnancy, but some women reach levels that are 30% to 40% higher than normal by the time they reach their third trimester.

In the randomized controlled trial, women will take 4 grams of an omega-3 supplement each day, or they will receive a placebo as part of the control group. A multidisciplinary team of researchers will analyze blood sugar and triglyceride levels of women during pregnancy and follow their infants after birth.

The TOTS trial is a collaboration between Harold Hamm Diabetes Center, the Section of Maternal-Fetal Medicine in the Department of Obstetrics and Gynecology at the OU College of Medicine, and the University of Colorado. For information about enrollment, call 405-271-8001, extension 48285, or email Elizabeth-Standerfer@ouhsc.edu.



Jeanie B. Tryggestad, M.D.
Associate Professor of Pediatrics,
Section of Diabetes/Endocrinology
CHF Paul and Ruth Jonas Chair in
Pediatric Diabetes/Endocrinology

Research Spotlight

HHDC Researcher Awarded NIH UO1 Grant

OU Health Harold Hamm Diabetes Center research member, Jeanie Tryggestad, MD, has been awarded a \$2.4 million UO1 grant from the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) and the National Institutes of Health (NIH).

Following a highly competitive review process, the University of Oklahoma Health Sciences Center with Dr. Tryggestad as Principal Investigator, was selected as part of a multi-site NIH study into the predictors and causes of youth-onset Type 2 diabetes. Aggregating national participation from fifteen clinical centers, the study will be overseen by a coordinated center, the Biostatistics Center of the George Washington University, in Washington, DC.

“Youth onset type 2 diabetes (YOT2D) has been increasing in prevalence by approximately 5% per year.”

The project is geared at identifying metabolic and psychosocial antecedents and characteristics of youth-onset Type 2 diabetes. Youth onset type 2 diabetes (YOT2D) has been increasing in prevalence by approximately 5% per year. It is a rapidly progressive disease that disproportionately affects youth from minority racial and ethnic groups.

Drawing from over 20 years of data and five years of experience managing and directing the Treatment Options for Type 2 Diabetes in Adolescents and Youth (TODAY) trial and its successor trial, TODAY 2, Dr. Tryggestad and her team have witnessed the relentless progression of YOT2D, a direct result of beta cell failure, despite attempts to optimize treatment. Notably, TODAY demonstrated that youth with Type 2 diabetes develop significant microvascular complications within 15 years of diagnosis, leading to life-long health complications. Although some YOT2D risk factors are known, it remains unclear how contributing risk factors interact to produce beta cell failure and ultimately progress into diabetes.

Dr. Tryggestad's work will focus on elucidating the determinants of beta cell failure in youth, to develop a comprehensive model to predict YOT2D. Beyond identifying the key glycemic features that predict YOT2D, the study will investigate the physiologic and psychosocial factors that are major drivers in the development of YOT2D.

Assembling a cohort to include youth most at risk for developing YOT2D, the study will follow participants for 3 years, in order to deeply phenotype them physically, metabolically and psychosocially, ultimately leading to the development of targeted interventions to prevent YOT2D through maintaining beta cell function.

Research reported in this news release is supported by the National Institute of Diabetes and Digestive and Kidney Diseases, a component of the National Institutes of Health.



Dr. Jeanie Tryggestad presented the TODAY Study and NIH's appreciation of the Oklahoma City Area Indian Health Service research partnership to the OKC Area IHS IRB Co-Chair Captain Ryan Schupbach, PharmD.

TODAY Study Dissemination

This fall, TODAY Study Team have been busy sharing study results with partnering communities through health fairs, presentations, and medical meetings.

First, the Kickapoo Tribal Health Center in McCloud invited Harold Hamm Diabetes Center to share diabetes care information and the TODAY Study results with their community members at their annual fall health fair. The health fair was a success with over 60 vendors and approximately 300 people attending the outdoor event.

“Students asked insightful questions regarding study design and outcomes...”

Next, Dr. Jessica Reece invited the team to present the study's findings to the OUHSC College of Health Chronic Disease Epidemiology Class. Students asked insightful questions regarding study design and outcomes and how these results might impact public health prevention initiatives.

In addition to the Epidemiology Class presentation, the team presented TODAY Study results at the Chickasaw Medical Center's Medical Grand Rounds as well as the Absentee Shawnee Tribal Health System's All-Staff Meeting. Both presentations were virtual and resulted in informative questions and ideas for follow-up presentations.

Also, this fall, Dr. Tryggestad, the TODAY Study PI, presented at the 2nd Annual Diabetes Health and Wellness Educational Conference at the Caddo Kiowa Technology Center in Fort Cobb sponsored by the All-Tribal Special Diabetes Program for Indians. The conference brought together diabetes professionals, community leaders, and tribal members from the Apache Tribe, the Comanche Nation, the Cheyenne and Arapaho Tribes, and the Kiowa Tribe.

To wrap up this fall's dissemination efforts, the TODAY Study team met with the Oklahoma City Area Indian Health Service leadership including Rear Admiral Travis Watts, PharmD the Director of the OKC Area IHS, Rear Admiral Gregory Woitte, MD the Chief Medical Officer for the OKC Area IHS, and the IHS OKC Co IRB Chairs LCDR Brett Whitehead, PharmD and Captain Ryan Schupbach, PharmD. The meeting concluded with the possibility of future partnering endeavors.



Harold Hamm Diabetes Center informational booth at the Kickapoo Tribal Health Center Fair



Pictured from left to right: Founder Harold Hamm, member and donor Brad Haines, Board Chair Shelly Lambertz, and HHDC Director Dr. Jed Friedman



Pictured from left to right: Dr. Jeanie Tryggestad, Dr. Laura Fischer, and Dr. David Short



Board Members and spouses, from left to right: Pete Brown, David Little, Angela Little and Barbara Brown

HHDC Board of Advisors Takes the Lead for Year-End Giving Effort

November was National Diabetes Month, a time when communities across the country team up to bring attention to diabetes. To help us kick off this month of awareness, the HHDC Board of Advisors hosted our biennial Fall Open House on the evening of November 10th, in the Meinders Atrium of the Hamm Diabetes Center. The event was attended by members of the Board, many of our distinguished research faculty and guests, as well as friends and potential friends of the HHDC.

Ahead of the event, member Brad Haines, Chairman of Bank7, had pledged a gift of \$50,000 to support diabetes research. That evening, the check was presented to Founder Harold Hamm, Board Chair Shelly Lambertz, and HHDC Director Dr. Jed Friedman. Afterwards, Mr. Haines took to the podium and encouraged attendees to seriously consider making a gift, regardless of how large or small.

HHDC friend and longtime Gala supporter, Christian Kanady was also present that night. Christian is the Founding Partner of Echo, an Oklahoma City-based investment firm. He, too, had reached out to Dr. Friedman in the weeks prior to the event, writing, “Your mission is mission critical for Oklahoma and I’ll lend whatever resources I can to your vision for the cure.” Encouraged by Mr. Haines’ presentation, he spoke with Mr. Hamm and pledged to match the \$50,000 gift.

One member of the board that could not be in attendance that evening was David Le Norman. Dave is the Managing Partner and Founder of Reign Capital Holdings, LLC in Oklahoma City and has been a long-time supporter of HHDC. He heard about the events of the evening, and while speaking with Mr. Hamm the following day, he also pledged to match Mr. Haines’ gift. He stated, “My wife,



Harold Hamm expresses gratitude for the research of HHDC

Cory, and I have been advocates for children's health and wellness for a long time now. We know the first 1,000 days of a child's life is critical in reversing or preventing the onset of diabetes. This is one of the reasons why it is my pleasure to serve on the board of the Harold Hamm Diabetes Center and to contribute to diabetes research and health services. I'd also like to acknowledge Brad Haines from Bank7. It was

his recent generosity and encouragement to match funds that inspired this particular gift and we hope it continues to inspire others to support this important cause."

These were not the only donors that evening. During the program, Dr. David Sparling gave insight about pediatric diabetes at HHDC OU Children's. Dr. Sparling is the Section Chief for the Department of Pediatrics, Section of Diabetes and Endocrinology. He introduced a month-long crowd funding effort that was launched that evening, to raise \$10,000 in scholarships for HHDC's pediatric diabetes summer camp, Camp Blue Hawk. Before the end of the event, two board members responded to the challenge and donated \$1,000 each. By morning, we met our initial goal when two additional members donated \$5,000 each. By the end of December, members of the HHDC Board of Advisors had given \$132,450 in donations to Camp Blue Hawk, HHDC's annual fund Partners for Progress, as well as giving to research.

To all our stakeholders, we truly appreciate your support as we seek to elevate HHDC, its work and its mission. As HHDC grows stronger and gains stature as a nationally recognized biomedical research center, our resources can be deployed in new directions that optimize our search for a cure, which will end the diabetes pandemic.

Harold Hamm Diabetes International Prize

Awarded biennially and in the amount of \$250,000, the Harold Hamm International Prize for Biomedical Research in Diabetes recognizes innovation in the field of diabetes research with an emphasis on progress toward a cure. The Prize, established in 2012, celebrates the scientific achievements of an outstanding researcher, team of researchers, or research institution selected by a rotating Jury of national and international leaders in the diabetes community.

The open call for nominations is now open! Submit your **Letters of Recommendation** to HammPrize@ouhsc.edu by February 12, 2023.

Save the Date: Hamm Prize Symposium

May 19, 2023

Learn more about the Harold Hamm Internal Prize, the selection process, jury and deadlines [here](#).



“Half of childhood obesity occurs by age 5...”



Getting to the Root of Childhood Obesity



Ashley Weedn, M.D., MPH, FAAP

Associate Professor,
Department of Pediatrics
Medical Director,
Healthy Futures
Director, Pediatric Obesity
Research Program

Childhood obesity is a growing epidemic in the United States. According to the Centers for Disease Control and Prevention, the number of children and adolescents who are obese has more than tripled since the 1970s. Many factors contribute to childhood obesity, including genetics, diet, physical activity and socioeconomic status.

OU Health Harold Hamm Diabetes Center (HHDC) faculty members have begun to uncover some of the most important physiological processes underlying childhood obesity and diabetes risk. The first

1,000 days – identified as one of the HHDC 3 pathways to a cure – begins at conception through two years of age, and what happens during this time can set a child on the course of health or disease. This groundbreaking research seeks

to get to the root of childhood obesity to prevent and cure childhood obesity and diabetes.

The First 1,000 Days: Understanding the Origin of Childhood Obesity

Half of childhood obesity occurs by age 5, which supports research findings that have uncovered some of the most important physiological processes underlying childhood obesity and diabetes risk. During the first 1,000 days, maternal nutrition and microbiome influence the

“nearly 70% of American women enter pregnancy either overweight or obese...”

development, structure and function of the fetal tissues and organs and also determines the infant microbiome and future health or predisposition to obesity and diabetes.

The strong association between maternal diet and obesity/diabetes and childhood obesity is of particular concern

because nearly 70% of American women enter pregnancy either overweight or obese, and up to 30% of pregnant women develop gestational diabetes mellitus (GDM). If the mother is overweight or obese or develops gestational diabetes, there is a greater risk of this condition contributing to metabolic risk in the child. This creates a vicious, detrimental cycle of intrauterine transmission of metabolic disease from the mother to her children.

Researchers at HHDC work to determine how nutritional exposures beginning in mothers affect a child's predisposition to disease during the first 1,000 days and how to interrupt cross-generational cycles of obesity and diabetes by preventing or reversing these triggers.

Groundbreaking Research Has Potential to Stop Childhood Obesity

Childhood obesity is a serious medical condition that can start children on the path to health problems — that were once considered adult health conditions — like diabetes, high blood pressure, high cholesterol and non-fatty liver disease.

Jed Friedman, Ph.D., director of the OU Health Harold Hamm Diabetes Center and Chickasaw Professor of Physiology at the OU Health Sciences Center College of Medicine, is leading a study that seeks to understand how maternal obesity and a high-fat diet alter the microbiome and development of a child's immune system to be predisposed to obesity and diabetes.

With the new understanding of the infant microbiome and its development, we can solve these challenges with major, lasting change.

Are Some Children More at Risk for Obesity?

Childhood obesity is a growing problem in developed countries. But are some children more at risk for obesity than others?

Several factors can increase a child's risk for obesity. These include having obese parents, being born into a low-income family (which can make it difficult to access healthy food), and having certain medical conditions. Certain lifestyle choices can also increase a child's risk for obesity, such as a lack of physical activity and a poor diet.

While all children are at risk for obesity, some are more susceptible than others. By understanding the factors contributing to obesity, we can help ensure that all children have a healthy future.

Consequences of Childhood Obesity

Childhood obesity is a serious problem that can have many



negative consequences. Obesity can lead to severe health conditions, including non-insulin-dependent diabetes, cardiovascular problems, bronchial asthma, obstructive sleep apnea (OSA), hypertension, hepatic steatosis, gastroesophageal reflux (GER) and psychosocial issues such as anxiety, depression, low self-esteem and lower self-reported quality of life. There are also social problems, such as bullying and the stigma associated with obesity.

Breaking the Cycle of Childhood Obesity

Exciting HHDC research proves it's possible to proactively prevent health issues associated with obesity rather than retroactively trying to reverse them. Families can take steps to prevent childhood obesity even before the child is born or conceived. HHDC research provides an exciting opportunity to understand how to prevent or reverse the development of chronic childhood health conditions that have adverse health effects and continue through adulthood. This research shows that the mother's health and diet predetermine a child's propensity for obesity and associated health conditions like diabetes during the first 1,000 days.

Instill Healthy Lifestyle Habits in the First 1,000 Days

Eating healthy and staying active are two foundational pieces to a healthy lifestyle, and it's never too late to start. In addition, staying within a healthy weight range will positively affect your or your child's life and future offspring.

It's critical to examine the consequences of maternal diet on infant intrauterine and postnatal development, along with providing community resources to help families instill healthy habits from an early age.

Talk to your OU Health doctor about how you can take control of your health before conceiving, or if you've already had a child, how you can help yourself, your child, and your family live a healthy lifestyle. Take advantage of the healthy pediatric weight management programs available to you through Oklahoma Children's Hospital OU Health, such as Healthy Futures Program in Oklahoma City and Early Lifestyle Intervention Program in Tulsa.



David Sparling, M.D., Ph.D.,
Assistant Professor
Associate Section Chief of
Pediatric Endocrinology
CHF Paul and Ann Milburn
Chair in Pediatric Diabetes

Clinic Updates

Pediatric Diabetes & Endocrinology Clinic

We are excited as the year comes to a close to continue to have new team members about to arrive (more soon on that!), and to work with companies to bring new drugs to market, including Teplizumab (more to come on that, too!). We're now treating well over 1000 kids with all forms of diabetes in our practice, with our last pace this year being >185 new patients to our center.

Led by **Joni Beck, PharmD, BC-ADM, CDCES**, the program has renewed its recognition by the American Diabetes Association Education Recognition Program for the diabetes education services we provide meeting the National Standards for Diabetes Self-Management Education and Support. This 4-year recognition speaks to the ongoing strength of Joni's team as a whole, along with **Rebecca Allen, RD/LD, CDCES**, leading and training our next generation of Certified Diabetes Care and Education Specialists, all while providing top-flight care to all our kids with diabetes.



Mary Zoe Baker, M.D.,
David Ross Boyd
Professor of Medicine
Department of Internal
Medicine

Clinic Updates


Adult Diabetes & Endocrinology Clinic

There have been some exciting changes in the Adult Endocrine and Diabetes Section. Our fellows clinic has moved over to the HHDC Adult Endocrine Clinic from the hospital. Our fellows are learning a new clinic system but are excited for the move. With this move, our faculty and fellows clinics are now integrated into the same clinic. This will allow all of our patients to access services such as diabetes education, nutrition counseling and insulin pump support much easier.

In addition, on December 1, **Dr. Nabeela Shakir** joined the Endocrine Faculty. She will be involved in fellow education and will see patients in the HHDC Adult Endocrine Clinic. Dr. Shakir completed her fellowship here at OU this past summer. We are very glad to welcome her to the Adult Endocrine and Diabetes Section.

Metabolic Research Conference

Metabolic Research Conference is a series of lectures in the style of Grand Rounds where guests are invited to present on various topics. Talks are held twice monthly during the academic year in person and virtually.

Get more information about presentation dates here 



New Grants to HHDC Members:

NIH GRANT (06/2022 – 05/2023)

PI: Norman Hord, PhD, MPH, RD

Department: Nutritional Sciences

Funding Organization: NIH Office of Dietary

Supplements/ USDA/ FDA

Grant Type: Interagency Agreement 58-8040-2-016

Title of Grant: *Nitrate and Nitrite in Foods and Botanical Dietary Supplements*

Dates: 06/01/2022 – 05/31/2023

Amount Awarded: \$130,000

NIH R01 GRANT (09/2022 – 05/2027)

PI: Benjamin Miller, PhD

Department: Physiology

Funding Organization: National Institutes of Health (NIH)

Grant Type: R01

Title of Grant: *Dissecting the Integrated Mechanisms of Protein Turnover to Prevent Proteostatic Decline with Aging*

Dates: 09/30/22 – 05/31/27

Amount Awarded: \$3,320,293

NIH/NIDDK U01 GRANT (12/2022 – 11/2028)

PI: Jeanie Tryggstad, MD

Department: Pediatrics

Funding Organization: National Institutes of Health/National Institute of Diabetes and Digestive and Kidney Diseases (NIH/NIDDK)

Grant Type: U01

Title of Grant: *Understanding and Targeting the Pathophysiology of Youth-onset Type 2 Diabetes – Clinical Centers*

Dates: 12/2022 – 11/2028

Amount Awarded: 2.4 million, split between 15 clinical centers

New Publications:

Borowik AK, Davidyan A, Peelor 3rd FF, Voloviceva E, Doidge SM, Bubak MP, Mobley CB, McCarthy JJ, Dupont-Versteegden EE, **Miller BF**. Skeletal Muscle Nuclei in Mice are not Post-mitotic. *Function (Oxf)*. 2022 Nov 22;4(1):zqac059.

[PMID: 36569816](#).

Esparham A, Shoar S, Kheradmand HR, Ahmadyar S, Dalill A, Rezapanah A, Zandbaf T, **Khorgami Z**. The Impact of Bariatric Surgery on Cardiac Structure, and Systolic and Diastolic Function in Patients with Obesity: A Systematic Review and Meta-analysis. *OBES Surg*. 2023 Jan;33(1):345-361. [PMID 36469205](#).

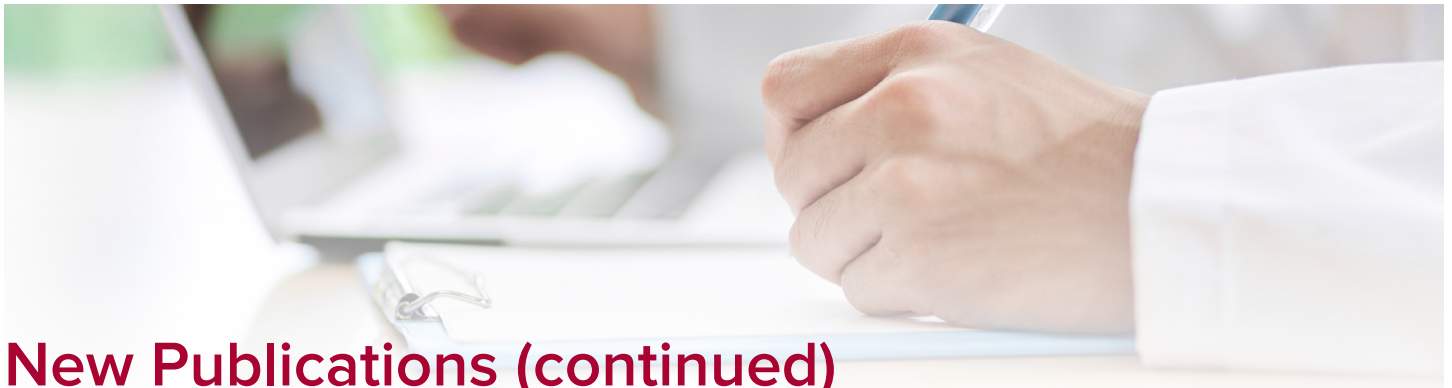
Hampl SE, Hassink SG, Skinner AC, Armstrong SC, Barlow SE, Bolling CF, Avila Edwards KC, Eneli I, Hamre R, Joseph MM, Lunsford D, Mendonca E, Michalsky MP, Mirza N, Ochoa ER, Sharifi M, Staiano AE, **Weedn AE**, Flinn SK, Lindros J, Okechukwu K. Clinical Practice Guideline for the Evaluation and Treatment of Children and Adolescents With Obesity. *Pediatrics*. 2023 Feb 1;151(2):e2022060640. [PMID: 36622115](#).

Hampl SE, Hassink SG, Skinner AC, Armstrong SC, Barlow SE, Bolling CF, Avila Edwards KC, Eneli I, Hamre R, Joseph MM, Lunsford D, Mendonca E, Michalsky MP, Mirza N, Ochoa ER, Sharifi M, Staiano AE, **Weedn AE**, Flinn SK, Lindros J, Okechukwu K. Executive Summary: Clinical Practice Guideline for the Evaluation and Treatment of Children and Adolescents With Obesity. *Pediatrics*. 2023 Feb 1;151(2):e2022060641. [PMID: 36622135](#).

Higgins J, **Chernausek SD**, Ghormli LE, Isganaitis E, Kelsey MM, Marcus MD, McKay S, Siska M, Srinivasan S, Gubitosi-Klug R. Long-term Outcomes Among Young Adults with Type 2 diabetes Based on Durability of Glycemic Control: Results From the TODAY Cohort Study. *Diabetes Care*. 2022 Nov 1;45(11):2689-2697. [PMID 36190810](#).

Krishnan S, Aston CE, **Fields DA**, **Teague AM**, Lyons TJ, **Chernausek SD**. Bone Mass Accrual in First Six Months of Life: Impact of Maternal Diabetes, Infant Adiposity and Cord Blood Adipokines. *Calcif Tissue Int*. 2022 Sep;111(3):248-255. [PMID: 35622095](#).

Nash MJ, Dobrinskikh E, **Janssen RC**, Lovell M, Schady D, Levek C, **Jones K**, D'Alessandro A, Kievit P, Aagaard KM, McCurdy CE, Gannon M, **Friedman JE***, **Wesolowski SR***. Maternal western diet programs distinct pre-clinical pediatric NAFLD phenotypes in Juvenile Non-human Primate offspring. *Hepatology Communications*, 2023 (In Press). *Co-Senior Authors.



New Publications (continued)

Patil NY, **Friedman JE**, and **Joshi AD**. Role of hepatic Aryl Hydrocarbon Receptor in Non-alcoholic Fatty Liver Disease (NAFLD). AHR Symposium on Toxicity to Therapeutics. *MDPI Receptors*, 2023 (In Press). <https://doi.org/10.3390/receptors2010001>.

Sciarrillo CM, **Short KR**, BH Keirns, Elliott DC, Clarke SL, **Palle S**, **Emerson SR**. Postprandial Triglycerides and FGF19 as Potential Screening Tools for Pediatric Non-Alcoholic Fatty Liver Disease. *Pediatr Obes*, Accepted Jan 4, 2023.

Skinner AC, Staiano AE, Armstrong SC, Barkin SL, Hassink SG, Moore JE, Savage JS, Vilme H, Weedn AE, Liebhart J, Lindros J, Reilly EM. Appraisal of Clinical Care Practices for Child Obesity Treatment. Part I: Interventions. *Pediatrics*. 2023 Feb 1;151(2):e2022060642. [PMID: 36622110](https://pubmed.ncbi.nlm.nih.gov/36622110/).

Skinner AC, Staiano AE, Armstrong SC, Barkin SL, Hassink SG, Moore JE, Savage JS, Vilme H, **Weedn AE**, Liebhart J, Lindros J, Reilly EM. Appraisal of Clinical Care Practices for Child Obesity Treatment. Part II: Comorbidities. *Pediatrics*. 2023 Feb 1;151(2):e2022060643. [PMID: 36622098](https://pubmed.ncbi.nlm.nih.gov/36622098/).

Sugino KY, Mandala A, **Janssen RC**, Gurung S, Trammell M, Day MW, Brush RS, Papin JF, Dyer DW, **Agbaga MP**, **Friedman JE**, **Castillo-Castrejon M**, **Jonscher KR**, **Myers DA**. Western diet-induced shifts in the maternal microbiome are associated with altered microRNA expression in baboon placenta and fetal liver. *Front. Clin. Diabetes Healthc.*, 08 September 2022, Sec. Diabetes and Pregnancy. <https://doi.org/10.3389/fcdhc.2022.945768>.

Sureshchandra S, Chan CN, Robino JJ, Parmelee LK, Nash MJ, Wesolowski SR, Pietras EM, **Friedman JE**, Takahashi D, Shen W, Jiang X, Hennebold JD, Goldman D, Packwood W, Lindner JR, Roberts Jr CT, Burwitz BJ, Messaoudi I, Varlamov O. Maternal Western-Style Diet Remodels the Transcriptional Landscape of Fetal Hematopoietic Stem and Progenitor Cells in Rhesus Macaques. *Stem Cell Reports*. 2022 Dec 13;17(12):2595-2609. [PMID: 36332628](https://pubmed.ncbi.nlm.nih.gov/36332628/).

Varshney R, Das S, Trahan GD, Farriester JW, Mullen GP, Kyere-Davies G, Presby DM, Houck JA, Webb PG, Dzieciatkowska M, **Jones KL**, Rodeheffer MS, **Friedman JE**, MacLean PS, **Rudolph MC**. Neonatal Intake of Omega 3-Fatty Acids Enhances Lipid Oxidation in Adipocyte Precursors. *iScience*. 2022 Dec 6;26(1):105750. [PMID: 36590177](https://pubmed.ncbi.nlm.nih.gov/36590177/).

Wu J, Gulati S, **Teague AM**, Kim Y, **Tryggstad J**, **Jiang S**. AMPK regulates DNA methylation of PGC-1 α and myogenic differentiation in human mesenchymal stem cells. *Stem Cells Dev*. 2023 Jan 3. [PMID: 36594575](https://pubmed.ncbi.nlm.nih.gov/36594575/).

New Presentations:

Friedman, JE. Maternal Western Diet Epigenetically Rewires Trained Immunity and Fibrosis in Fetal and Juvenile Non-human Primates through Hematopoietic Stem Cells. Presented at Keystone Conference: Inter-Organ Crosstalk in Non-Alcoholic Steatohepatitis (NASH). August 10, 2022. Whistler, CN.

Friedman, JE. Invited Speaker at symposia for a think-tank of investigators in Reproductive Sciences. November 3, 2022. Lake Tahoe, CA.

Krishnan S, Chadwick JQ, Wang H, Chernauek SD. Bone Trabecular Score in Adolescents with Type 1 Diabetes: Relation to Urinary Pentosidine. Abstract presented as poster at the American Society of Bone Mineral Research. September 2022. Austin, TX.



Visiting guest speaker, Dr. Julia Busik Keynote address from Dr. Alvin Powers

Award Winners receive recognition. Pictured left to right: Rahul Rajala (background), Matthew Rochowski, Dr. Sabira Jazir, Dr. Ann Louise Olson.

Congratulations to our 2022 Research Symposium Winners!

The Harold Hamm Diabetes Center Research Symposium was held on November 11, 2022. On-site at the Samis Education Center, the event marked our first year back to an in-person format since 2019. With 100 participants in attendance, we showcased presentations from 11 speakers, including visiting guest lecturer Julia Busik, Ph.D., Professor of Physiology at Michigan State University, and featured keynote speaker, Alvin Powers, MD, Professor at Vanderbilt University Medical Center, and Director of the Vanderbilt Diabetes Center.

21 eligible abstracts were selected for short talk presentations, based on the themes of Fetal/Maternal Interactions, Adipocyte Biology, and Liver Disease and Diabetes Complications. The winners from each group received a cash prize, certificate, and were announced at that evening's Awards Presentation.

GROUP 3A: Fetal/Maternal Interactions

First place, The Steven Chernausek Award: **Tessa Hart**

Improving Genetic Prediction of Type 2 Diabetes Using an Ancestry-specific Polygenic Score

Second place: **Dakota Redling**

Circulating miRNAs in Youth Onset Type 2 Diabetes: Predictors of Glycemic Failure and Complications

GROUP 3B: Adipocyte Biology

First place: **Rahul Rajala**

Identifying how Endothelial Protease-activated Receptors Control Insulin Signaling: Implications for Diabetes

Second place: **Matthew Rochowski**

SARS-COV-2 Infection Induces Alteration of Glucose Metabolism in a Feline Model

GROUP 3C: Liver Disease and Diabetes Complications

First place, The Jay Ma Award: **Sabira Jazir, PhD**

Necroptosis Contributes to Age Associated Hepatic Inflammation and Steatosis

Second place: **Matthew Rochowski**

Influenza Viral Replication is Dependent on Bronchial Epithelial Glucose Metabolism

Save the Date

Kenneth Copeland Visiting Professorship

Endocrinology Grand Rounds

Wednesday, February 22

Samis Education Center — Rainbolt Auditorium

12:15 - 1:15 p.m.

Perrin C. White, M.D.

Professor of Pediatrics

Director, Division of Pediatric
Endocrinology

UT Southwestern Medical
Center

*Optimizing Outcomes in
Diabetic Ketoacidosis*



For more information contact David-Sparling@ouhsc.edu



Job Openings at OU

The Health Promotion Center at OUHSC is seeking **Tenure Track Faculty Applicants at the Health Promotion Research Center**, with interest in Nutrition, Obesity and health:

<https://healthpromotionresearch.org/About/News/article/hprc-opens-multiple-tenure-track-faculty-positions>

The OU-Norman and OUHSC seeks an Executive Director for the Integrative Life Sciences Institute. The successful candidate will steer the vision of the Integrated Life Sciences Institute, capitalizing on existing strengths on the OU-Norman campus, bridge to the OU Health Sciences Center, and expand in new areas to build productive partnerships, with a major goal of growing NIH funding and helping to steer new strategic faculty hires.

<https://www.ou.edu/ilsi>

View more job opportunities on the Harold Hamm Diabetes Careers [webpage](#).