

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

Science marches on. This July, OU Health Harold Hamm Diabetes Center (HHDC) together with Presbyterian Health Foundation, OU Health Stephenson Cancer Center and Oklahoma Reynolds Aging Center, has funded a total of \$2,921,898 for the FY22 Pilot Program Awards. These awards were provided to support four funding themes for new or experienced investigators with innovative ideas and to support collaborative relationships between basic scientists and clinicians.

The HHDC-PHF programs have awarded three Seed grants and six Team Science grant awards totaling \$749,468 and the HHDC-SCC diabetes-cancer programs have awarded four Pre-Team Science grants and one Team Science award totaling \$200,000. In addition, HHDC contributed \$1,165,929 to two large equipment grants totaling over \$1.9 million for a High Resolution Mass Spectrometer for untargeted metabolomics, and equipment for high throughput screening of chemical libraries for the new Center for Therapeutic Sciences (CTS) Drug and Target Discovery core lab. We welcome the newly funded scientists into the HHDC community. Please see the list in this newsletter and on our website. You can also find a story of one of the grant recipients, Dr. Ken Jones, who is using “deep learning” models to understand the links between diabetes and cancer.

In April, Andrew Hattersley, CBE, FMedSci, FRS, from Exeter University in the UK was named the recipient of the 2021 Harold Hamm International Prize for Biomedical Research in Diabetes. Among his many accomplishments, Dr. Hattersley is credited with the discovery of several of the MODY genes (Maturity Onset Diabetes of Youth). The field of applicants was exceptionally strong and included candidates among the best in their field. The awarding of the Hamm Prize will take place this fall (date and place to be determined). Lastly, this month we introduce a new feature by our Native American Diabetes Research Program Coordinator and tribal liaison Jennifer Chadwick.

Enjoy your summer and we will see you all again in the fall at the Metabolic Research Conference.

All the best,

Jed Friedman, Ph.D.

Director, HHDC

CONTENTS

01 Letter from the Director

02 Hattersley Selected as
2021 Prize Laureate

03 Research Spotlight

04 Research Spotlight

05 HHDC Native American
Diabetes Research
Program Coordinator

06 2021 Faculty Awards

08 Clinic Updates
Patent Awards

09 Patent Awards
New Grants

11 New Member Publications
New HHDC Lab Staff



**Andrew T. Hattersley, CBE,
FMedSci, FRS**
Professor
University of Exeter

Hattersley Selected as 2021 Hamm Prize Laureate

Andrew T. Hattersley, CBE, FMedSci, FRS, has been named the recipient of the 2021 Harold Hamm International Prize for Biomedical Research in Diabetes. Hattersley, Professor of Molecular Medicine, University of Exeter Medical School, U.K., was nominated by Alvin Powers, M.D., Vanderbilt University; and Juleen Zierath, Ph.D., Karolinska Institute, Sweden, and University of Copenhagen, Denmark.

The Hamm Prize recognizes and encourages lasting advances in the field of diabetes research. It is awarded to an individual who has either demonstrated lifelong contributions to the field or realized a singular advance, especially one that promotes curative potential. The honor includes a \$250,000 award - the largest of its kind in the world - and will be awarded by OU Health Harold Hamm Diabetes Center at the University of Oklahoma Health Sciences Center.

“This unprecedented international research prize was established as a means to fuel global scientific interest and innovation. its purpose is to drive discovery of a cure for diabetes in this generation,” said Harold Hamm, chairman and CEO of Continental Resources Inc., headquartered in Oklahoma City. ”

Following his lead gift in 2007 to create Harold Hamm Diabetes Center, Hamm also provided the endowment to establish the prize. Provisions of the endowment include awarding the prize every other year in perpetuity. The endowment represents a unique private/public partnership that leverages philanthropic contributions as a catalyst for medical advances where needs are acute. It is particularly significant in an environment marked by the decline of federal funding for medical research.

“It is a distinct honour to be selected as the recipient of the 2021 Harold Hamm Diabetes International Prize for Biomedical Research in Diabetes,” Hattersley said. “As I consider previous applicants and recipients, it’s clear that I follow in the footsteps of some real giants of diabetes research. I’m still in grateful shock that I was chosen to join this elite company.”

The recipient is selected by an international jury of diabetes scientists. Jury members who gathered in Oklahoma City for final deliberation are: David A. D’Alessio, M.D., Duke University; David M. Nathan, M.D., Harvard Medical School; Alvin C. Powers, M.D., Vanderbilt University; Philipp E. Scherer, Ph.D., University of Texas Southwestern Medical Center; and Juleen R. Zierath, Ph.D., University of Copenhagen, Denmark.

TO READ THE ENTIRE PRESS RELEASE, GO HERE





Ken Jones, Ph.D.
Associate Professor
Harold Hamm Chair in
Adult Diabetes Research

Research Spotlight: HHDC Researcher Awarded Team Science Grant Aimed to Personalize Therapeutic Strategies for Patients with Diabetes and Cancer

Diabetes mellitus is a form of metabolic disease altering the functional pathways for processing glucose. The Centers for Disease Control and Prevention estimate that 0.5% of Americans are diagnosed with diabetes every year and expect a 2-fold increase in adults by 2050. Interestingly, deaths due to cancer have recently overtaken cardiovascular damage as the leading cause of death for diabetics. However, what is not currently known is how diabetic dietary and life history risk factors interact together to exacerbate or abrogate the patient phenotype, and subsequently affect cancer risk and cancer mortality. According to the Centers for Disease Control (CDC), over **554,400 Oklahoma adults** have a diabetes diagnosis; this equates to **14.3%** of the population. In addition,

“Interestingly, deaths due to cancer have recently overtaken cardiovascular damage as the leading cause of death for diabetics.”

“Interestingly **36.9%** adults in Oklahoma (>1.1 million) have pre-diabetes and don’t know it. , deaths due to cancer have. By pairing standard clinical tests (e.g., the comprehensive metabolism panel) and empirical tests on patient plasma/serum (e.g., proteomics and metabolomics), we can start to form a complex model that can inform better the overall metabolic status of diabetic patients, and their response/adherence to their own diabetes treatments. And in doing so, we can identify diabetic patients that will likely fail current cancer treatment regimens, but also understand the potential detriment of subclinical diabetic phenotypes that go undetected in current diagnostics. A priori identification of patients and accompanying predictive prognoses therein would allow reflex to more appropriate cancer treatment protocols, whether that be alternate cancer therapies based on a patient’s current metabolic status, or alterations in diabetic treatment to stabilize a patient’s metabolic status pre-surgery. Our goal is to use advanced deep learning techniques to combine life-history profiles, clinical variables, and patient-derived metabolic variables to better explain the similarities and/or differences in patients as a whole, and then use that knowledge to develop a deep learning model that can then inform the future utility of drug, nutritional, and exercise therapies for that patient.



Weidong Wang, Ph.D.
Associate Professor of Medicine
College of Medicine

Research Spotlight: HHDC Researcher Awarded RO1 Grant

Li Qiang and Weidong Wang, Ph.D. have been awarded a \$2,311,333 RO1 from the National Institutes of Health, titled “Preclinical Validation of PPAR γ Acetylation Inhibitors for Diabetes Prevention and Treatment.”

Obesity-linked insulin resistance is the key driving force for Type 2 diabetes (T2D) and other metabolic disorders. Despite the wide use of commonly used anti-diabetic drugs for T2D treatment, the prevalence of T2D continues to soar with an annual cost over \$300 billion in the US. The transcription factor

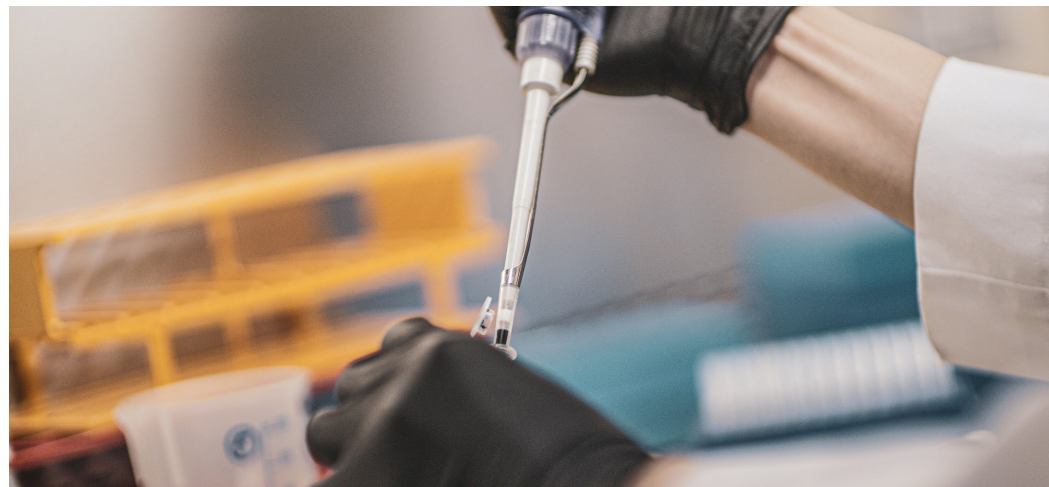
“...TZD drugs are associated with adverse side effects including heart failure and weight gain...”

peroxisome proliferator-activated receptor γ (PPAR γ) is an important therapeutic target for insulin sensitization and its full agonist TZD drugs are by far the most potent insulin-sensitizing drugs.

However, TZD drugs are associated with adverse side effects including heart failure and weight gain, as TZD-induced full agonism of PPAR γ activates not only the expression of genes responsible for insulin sensitizing but also of those genes associated with side effects, thereby severely hampering the clinical use of TZDs.

Recent studies have indicated that PPAR γ posttranslational modifications (PTMs) are responsible for insulin sensitization, thus resulting in the decoupling of the beneficial effects on insulin sensitizing from the TZD-related adverse effects. Our team recently discovered that deacetylation at K268 and K293 in PPAR γ by the NAD⁺-dependent deacetylase SirT1 plays a key role in such decoupling.

In this grant, the team is developing a small molecule drug that specifically inhibits PPAR γ acetylation. As shown in our pilot study, this molecule, the first-in-class PPAR γ acetylation inhibitor, is expected to improve insulin sensitivity and increase white-to-brown adipocyte conversion (browning) and energy expenditure without causing TZD-associated side effects.





Jennifer Chadwick, B.S. (Choctaw)
Native American Diabetes Research
Program Coordinator
Department of Pediatrics

Native American Research Partners

Currently, the Pediatric Diabetes and Endocrinology Section of Harold Hamm Diabetes Center has clinical and research partnerships with Native American nations and tribes, as well as the Oklahoma City Area Office of the Indian Health Service. These partnerships were initially established to provide care for Native American children with research relationships evolving over time.

Beginning in 2000, pediatric endocrinologists started providing diabetes and endocrinology services on-site, within Native American communities. Soon discussions with the Absentee-Shawnee Tribe, the Cherokee Nation, the Chickasaw Nation, the Choctaw Nation, and the Oklahoma City Area Office of the Indian Health Service

“...Type 2 diabetes in youth, a growing concern in American Indian communities, resulted in a formal partnering research agreement.”

regarding their interest in researching Type 2 diabetes in youth, a growing concern in American Indian communities, resulted in a formal partnering research agreement. “Treatment Options for Type 2 Diabetes in Youth and Adolescents” (TODAY), sponsored by the National Institutes of Health (NIH) was the first clinical trial for young people with Type 2 diabetes. Throughout the trial, Native American partners helped the TODAY Study’s leadership understand the unique cultural and historical factors involved in conducting research with Native American communities, tailored the TODAY protocol to be culturally relevant, identified unique risks and benefits for Native American participants, and assisted with the development of all publications and presentations.

Dr. Jeanie Tryggerstad, a co-investigator in the TODAY study, received funding from NIH to follow-up on the TODAY trial participants. She will be examining plasma biomarkers for diabetes and complications in this cohort (see April newsletter).

In 2020, the TODAY Study concluded; however, the Pediatric Diabetes and Endocrinology Section’s clinical and research partnerships with Native American nations and tribes continue and remain an outstanding model for future partnering endeavors.



2021 FACULTY AWARDS



Yun-Zheng Le, Ph.D.,
Professor of Medicine,
College of Medicine

REGENTS' AWARD: SUPERIOR RESEARCH & CREATIVE ACTIVITY

Dr. Le serves as Professor of Medicine, Adjunct Professor of Cell Biology and Ophthalmology, Harold Hamm Chair in Diabetes Research, and Co-Director of the NIH diabetes CoBRE Animal Core. He is an expert in diabetic retinopathy, neurobiology, and mouse genetic engineering, with over 80 publications (over 2,000 citations). His work is supported by over \$9 million from NIH and major vision and diabetes research agencies. Dr. Le's collaborative nature has made impactful contributions to OUHSC, resulting in successful application, renewal, and execution of over 30 NIH R01 grants and 12 CoBRE project grants. He has trained many students, scholars, fellows, and mentored young faculty.



Michael H. Elliott, Ph.D.,
Associate Professor of Ophthalmology,
College of Medicine

PRESIDENT'S AWARDS: PRESBYTERIAN HEALTH FOUNDATION PRESIDENTIAL PROFESSOR

Michael H. Elliott, Ph.D., FARVO is Associate Professor of Ophthalmology and Physiology at the Dean McGee Eye Institute and University of Oklahoma Health Sciences Center (OUHSC). Dr. Elliott received his B.A. degree in Human Biology and his Ph.D. degree in Physiology and Cell Biology from the University of Kansas where he worked on oxidative protein modifications in the retina. Dr. Elliott continued his training as a postdoctoral fellow under the guidance of Dr. Robert E. Anderson at OUHSC. His current research on caveolins/caveolae in ocular physiology/pathophysiology is/has been supported by the National Eye Institute, Research to Prevent Blindness, Inc, BrightFocus Foundation, **American Diabetes Association**, Presbyterian Health Foundation, Oklahoma Center for the Advancement of Science and Technology, and the Oklahoma Center for Adult Stem Cell Research. Dr. Elliott is a Silver Fellow of the Association for Research in Vision and Ophthalmology (ARVO), a member of the Alcon Research Institute, and the Trabecular Meshwork Study Club, a glaucoma research think-tank.



Marianna S. Wetherill, Ph.D.,
Assistant Professor of Health Promotion
Sciences, Hudson College of Public Health

PRESIDENT'S AWARDS: HENRY ZARROW PRESIDENTIAL PROFESSOR

Marianna Wetherill, Ph.D., MPH, RDN-AP/LD, Associate Professor of Health Promotion Sciences, Hudson College of Public Health and the OU-TU School of Community Medicine at the Tulsa campus, adopts a highly collaborative, interprofessional approach to advancing nutrition and health equity among vulnerable and other high-risk populations. She is the co-founder of the Culinary Medicine Project, which involves academic, research, and service components. Its curriculum has been integrated across three newly-required academic courses and one elective course at OU-Tulsa is the subject of an NIH R01-funded randomized controlled trial and is being disseminated through multiple communities, student-led service initiatives. Dr. Wetherill is currently designing a series of cooking classes for HHDC, with an emphasis on the first 1,000 days for mothers and infants.

2021 FACULTY AWARDS



Michael Stout, Ph.D.,

Assistant Professor of Nutritional Sciences,
College of Allied Health
Member, Harold Hamm Diabetes Center

PROVOST'S AWARDS: RESEARCH - JUNIOR FACULTY

Dr. Stout joined OUHSC in 2016 as a Senior Research Scientist from Mayo Clinic where he received a highly competitive NIH K99 "Pathway to Independence" award. In 2018, Dr. Stout was appointed as Assistant Professor in the College of Allied Health and a principal investigator for the Oklahoma Center for Gerosciences. Dr. Stout has 42 publications encompassing his doctoral, postdoctoral and academic appointments – 20 of these since arriving at OU. During his time at OU, he has secured over \$2 million in federal and state competitive grants, mentored trainees ranging from undergraduates through those appointed as faculty and served as a highly lauded collaborator and mentor by scientists at OUHSC, the Oklahoma Medical Research Foundation, the Mayo Clinic, and the National Institutes of Health. Dr. Stout's focus on aging and interventional strategies aimed at curtailing disease burden is highly relevant for our state's aging population and the significant health challenges this presents.



**Katherine O'Neal, Pharm.D., MBA, BCACP,
CDE, BC-ADM, AE-C, CLS, FAAD**

Associate Professor of Pharmacy Clinical and
Administrative Sciences, College of Pharmacy

ROBERT A. MAGARIAN FACULTY AWARD

Dr. Katherine S. O'Neal, Associate Professor in the Department of Clinical and Administrative Sciences in the College of Pharmacy, has been a faculty member for 7 years, during which she has made significant contributions to the teaching mission of the university. Dr. O'Neal is devoted to effective teaching and has made a great impact on the education of pharmacy students and residents. She consistently receives high instructor ratings from students each year as she brings a genuine passion for teaching and engaging students in the learning process. Dr. O'Neal makes full use of active learning strategies during her teaching experiences and employs team-based learning exercises to encourage application and audience participation. Dr. O'Neal's teaching philosophy seeks to foster critical thinking and problem-solving skills to empower her students as practitioners and patient educators, this extends to creating an attitude of life-long learning. Dr. O'Neal is a strong believer in continuous self-improvement. She continues to refine her teaching acumen by annually attending national conferences with an emphasis on education strategies for students and patients. Dr. O'Neal is an enthusiastic, highly energetic faculty member who is fully committed to her students' learning and embodies the ideals of faculty who are worthy of the Robert A. Magarian Faculty Award.

Congratulations to Dr. O'Neal who is a member of the HHDC planning committee for the annual Diabetes Care Summit.



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

As the summer months are upon us, the pediatric clinic has been continuing to deal with the trend that began earlier this year; namely, we have seen a significant increase in new patients with Type 1 diabetes, at a rate faster than we've ever experienced.

This trend has been noticed nationally, and the current thinking is that the pandemic has possibly led to an increase in the appearance of cases. We've seen an increase in children with Type 2 diabetes as well. Lots of work to do! In recent great news, Brittany Farquhar, one of our outstanding RNs, passed her Certified Diabetes Care and Education exam, adding to our outstanding certified education team.

Finally, we continue to recruit for TrialNet, the national Type 1 diabetes natural history and prevention study, as well as studies on Type 2 diabetes treatments in youth.



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

Clinic Updates

Adult Diabetes & Endocrinology Clinic

Happy New Year! For us at the Adult Endocrinology Clinic at the HHDC, our "New Year" begins on July 1, 2021 - the beginning of our academic year. We will be welcoming 2 new fellows on campus to begin their 2-year endocrinology fellowships. Our second year fellows will be moving on to begin the next phase of their careers. It is a bittersweet time saying goodbye and welcoming new trainees.

Our clinic has slowly returned to pre-Covid normal operations. Almost all patients are now being seen in person. I look forward to a productive and less-stressful year.

Patents Awarded to HHDC Members:

William H. Hildebrand, Ph.D.

George Lynn Cross Research Professor of Microbiology and Immunology, College of Medicine

Patent titles:

- *Identification of Mhc Class I Phospho-Peptide Antigens from Breast Cancer Utilizing Shla Technology and Complementary Enrichment Strategies*
- *Compositions Comprising Soluble Hla/M. Tuberculosis-Specific Ligand Complexes and Methods of Production and Use Thereof*

David Kem, M.D

Regents' Professor and George Lynn Cross Research Professor of Medicine

Patent titles:

- *Compositions Comprising D-Amino Acid Peptides and Methods of Production and Use Thereof for Inhibiting Autoantibodies*
- *Methods and Compositions for Treating Diseases and Conditions Associated with Gonadotropin Releasing Hormone Receptor*

Patents Awarded to HHDC Members:

James Tomasek, Ph.D.

David Ross Boyd Professor of Cell Biology, College of Medicine

Patent title:

- *Animal Wound Model and Methods of Use*

Weidong Wang, Ph.D.

Associate Professor of Medicine, College of Medicine

Patent title:

- *2,4-Diaminoquinazoline Derivatives for Inhibiting Endoplasmic Reticulum (Er) Stress*

Xichun Yu, M.D.

Professor of Research, Department of Medicine, College of Medicine

Patent title:

- *Methods and Compositions for Treating Diseases and Conditions Associated with Gonadotropin Releasing Hormone Receptor*

New Grants to HHDC Members:

PI: Qiang, Li; Wang, Weidong, Ph.D. (Contact)

Funding Organization: NIH

Grant Type: R01

Title of Grant: *Preclinical Validation of PPAR γ Acetylation Inhibitors for Diabetes Prevention and Treatment*

Dates: 2021-2026

Amount Awarded: \$2,311,333

PRE-TEAM SCIENCE GRANTS

PI: Laura Fischer, M.D., M.S.

Funding Organization: HHDC and SCC

Grant Type: Pre-Team Science

Title of Grant: *Bariatric Surgery Among Women with Obesity and Low Risk Endometrial Cancer: A Pilot Study*

Dates: 7/1/2021 to 6/30/2022

Amount Awarded: \$25,000

PI: Deepa Sathyaseelan, Ph.D.

Funding Organization: HHDC and SCC

Grant Type: Pre-Team Science

Title of Grant: *Role of necroptosis and inflammation in obesity-mediated hepatocellular carcinoma progression*

Dates: 7/1/2021 to 6/30/2022

Amount Awarded: \$25,000

PI: Elizabeth Wellberg, Ph.D.

Funding Organization: HHDC and SCC

Grant Type: Pre-Team Science

Title of Grant: *Obesity-induced alteration in exosome profiles in a model of breast cancer progression*

Dates: 7/1/2021 to 6/30/2022

Amount Awarded: \$25,000

PI: Xin Zhang, M.D., Ph.D.

Funding Organization: HHDC and SCC

Grant Type: Pre-Team Science

Title of Grant: *Role of Maternal Obesity in Breast Cancer and Diabetes Risk, and the Contribution of CD82*

Dates: 7/1/2021 to 6/30/2022

Amount Awarded: \$25,000

TEAM SCIENCE GRANTS

PI: Yan Chen, Ph.D.

Funding Organization: HHDC and PHF

Grant Type: Team Science – Year One

Title of Grant: *Mitochondrial Trx2 in the pathogenesis of diabetic retinopathy*

Dates: 7/1/2021 to 6/30/2022

Amount Awarded: \$100,000

PI: Jed Friedman, Ph.D.

Funding Organization: HHDC and PHF

Grant Type: Team Science – Year Two

Title of Grant: *Infant Gut Microbial Species and Programming Innate Immunity*

Dates: 7/1/2021 to 6/30/2022

Amount Awarded: \$100,000

PI: Ken Jones, Ph.D.

Funding Organization: HHDC and SCC

Grant Type: Team Science – Year One

Title of Grant: *Using Machine Learning models to quantify molecular phenotypes and personalized therapeutic strategies for diabetic cancer patients*

Dates: 7/1/2021 to 6/30/2022

Amount Awarded: \$99,661

New Grants to HHDC Members:

PI: Karen Jonscher, Ph.D.

Funding Organization: HHDC and PHF
Grant Type: Team Science – Year Two
Title of Grant: *Role of maternal fiber in development of diabetes-promoting invariant T cells*
Dates: 7/1/2021 to 6/30/2022
Amount Awarded: \$100,000

PI: Dean Myers, Ph.D.

Funding Organization: HHDC and PHF
Grant Type: Team Science – Year Three
Title of Grant: *Development of a Baboon (Papio anubis) Model of Western Diet and Maternal Obesity-Mechanisms for Fetal Epigenetic Programming of Behavior and Metabolism*
Dates: 7/1/2021 to 6/30/2022
Amount Awarded: \$100,000

PI: Michael Rudolph, Ph.D.

Funding Organization: HHDC and PHF
Grant Type: Team Science – Year One
Title of Grant: *Maternal Exercise Improves Milk Metabolic Profiles, Mammary Cell Mitochondrial Activity, and Infant Metabolism*
Dates: 7/1/2021 to 6/30/2022
Amount Awarded: \$100,000

PI: Archana Unnikrishnan, Ph.D.

Funding Organization: HHDC and PHF
Grant Type: Team Science – Year One
Title of Grant: *The Long-Term Effects of Maternal Obesity on Aging and Healthspan*
Dates: 7/1/2021 to 6/30/2022
Amount Awarded: \$99,468

SEED GRANTS

PI: Shaoning Jiang, Ph.D.

Funding Organization: HHDC and PHF
Grant Type: Seed Grant
Title of Grant: *Peroxisomes And Fetal Programming Of Metabolic Diseases*
Dates: 7/1/2021 to 6/30/2022
Amount Awarded: \$50,000

PI: Aditya Joshi, Ph.D.

Funding Organization: HHDC and PHF
Grant Type: Seed Grant
Title of Grant: *Deciphering Hepatoprotective Role Of Cinnabarinic Acid In Non-Alcoholic Fatty Liver Disease*
Dates: 7/1/2021 to 6/30/2022
Amount Awarded: \$50,000

PI: Sowmya Krishnan, M.D.

Funding Organization: HHDC and PHF
Grant Type: Seed Grant
Title of Grant: *Postpartum follow up in Infants and Mothers following Omega 3 RCT during Pregnancy*
Dates: 7/1/2021 to 6/30/2022
Amount Awarded: \$50,000

PI: Kruti Shah, M.D.

Funding Organization: PHF
Grant Type: Clinician Scientist Grant
Title of Grant: *Effect of Maternal Health on Breast Milk microRNA Composition and its Role in Infant Growth*
Dates: 7/1/2021 to 6/30/2022
Amount Awarded: \$75,000

PI: Cammi Valdez, Ph.D.

Co-PI: Joshua Butcher, Ph.D.

Funding Organization: OK-INBRE/NIH
Grant Type: Collaborative Grant
Title of Grant: *Targeting Oxidant Stress in Diabetic Retinopathy*
Dates: 6/1/2021 to 4/30/2022
Amount Awarded: \$63,003

PI: Cammi Valdez, Ph.D.

Funding Organization: Northeastern State University
Grant Type: Faculty Research Committee (FRC) Grant
Title of Grant: *Investigating Diabetic Retinopathy: New tool Development for Cell Identification and Counting*
Dates: 7/1/2021 to 6/30/2022
Amount Awarded: \$8,000

PI: Cammi Valdez, Ph.D.

Funding Organization: OK-INBRE
Grant Type: Summer Mentoring and Research Training (SMaRT) Program
Title of Grant: *Investigating Diabetic Retinopathy: New tool Development for Cell Identification and Counting*
Dates: 5/24/2021 to 7/16/2021
Amount Awarded: \$5,990

HHDC Members New Publications:

Elsakr JM, Zha SK, Ricciardi V, Dean TA, Takahashi DL, Sullivan E, Wesolowski S, Carrie E McCurdy. CE, Kievit P, **Friedman JE**, Aagaard KM, Digna R. Velez-Edwards DR, Gannon M. Western-style diet consumption impairs maternal insulin sensitivity and glucose metabolism during pregnancy in a Japanese macaque model. *Scientific Reports*, 2021 (In press).

Nguyen AT, **Jones EJ**. Diabetes Beliefs, Culturally Influenced Self-Management Practices, and Interventions Among Vietnamese Adults: A Systematic Review. *J Transcult Nurs*. 2021 May;32(3):266-275. doi: 10.1177/1043659620988317. Epub 2021 Jan 20. PMID: 33472539.

McCloskey L, Bernstein J, The Bridging The Chasm Collaborative. Bridging the Chasm between Pregnancy and Health over the Life Course: A National Agenda for Research and Action. *Women's Health Issues*. 2021 May-Jun;31(3):204-218. doi: 10.1016/j.whi.2021.01.002. Epub 2021 Mar 8. PMID: 33707142; PMCID: PMC8154664.

McCloskey L, Bernstein J, Goler-Blount L, Greiner A, Norton A, **Jones E**, Bird CE. It's Time to Eliminate Racism and Fragmentation in Women's Health Care. *Womens Health Issues*. 2021 May-Jun;31(3):186-189. doi: 10.1016/j.whi.2020.12.007. Epub 2021 Mar 7. PMID: 33691995; PMCID: PMC8154716.

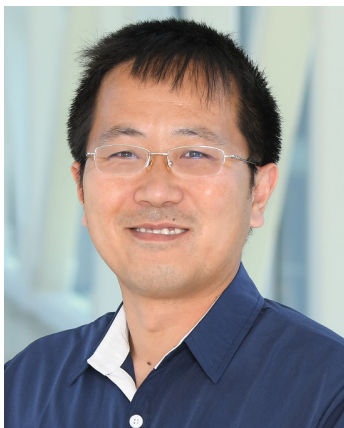
Le, Y., Xu, B., Chucair-Elliott, A.J., Zhang, H. Zhu, M. (2021) VEGF mediates retinal Müller cell viability and neuroprotection through BDNF in diabetes. *Biomolecules* 11, 712.

David Matye, Yuan Li, Cheng Chen, Xiaojuan Chao, Huaiwen Wang, Hongmin Ni, Wen-xing Ding, **Tiangang Li**. Gut-restricted apical sodium-dependent bile acid transporter inhibitor attenuates alcohol-induced liver steatosis and injury in mice. *Alcoholism: Clinical and Experimental Research*. (2021) April 22 (In Press). PMID: 33885179

David J. Matye, Huaiwen Wang, Wenyi Luo, Rachel R. Sharp, Cheng Chen, Lijie Gu, Kenneth L. Jones, Wen-Xing Ding, Jacob E. Friedman, **Tiangang Li**. Combined ASBT inhibitor and FGF15 treatment improve therapeutic efficacy in experimental non-alcoholic steatohepatitis. *Cellular and Molecular Gastroenterology and Hepatology* (2021) April 26. (In Press)

Hui Qian, Xiaojuan Chao, Jessica Williams, Sam Fulte, **Tiangang Li**, Ling Yang and Wen-Xing Ding. Autophagy in Liver Diseases: A review. *Molecular Aspect of Medicine*, June 2021 (In Press)

New HHDC Lab Staff:



Wanke Zhao
Senior Staff
Research Assistant
Dr. Friedman Lab



SAVE THE DATE
2021 HHDC Research Symposium
Friday, November 12, 2021
Samis Center