Sepideh Dolatshahi, PhD University of Virginia

# Uncovering Immune Inflammatory Axes of Racial Disparities Linked with Gestational Weight Gain in Pregnant Women

#### IMPACT OF JEFFRESS TRUST AWARD

"The Jeffress Trust Award has enabled our highly interdisciplinary

research to uncover the root causes and molecular underpinnings of racial disparities in immunity during pregnancy and their link to vast disparities in pregnancy outcomes. Our team is excited to contribute by generating data and

(Top: S. Dolatshahi; Above: Dolatshahi in lab with student Remziye)

#### AWARD PROJECT SUMMARY

Obesity is more prevalent in non-Hispanic Black (NHB) women of Virginia. Although weight gain tracks inversely with pre-pregnancy BMI, normal and underweight but not obese Black women experience an increased risk of inadequate Gestational Weight Gain (iGWG) compared to White women within the same BMI groups. Importantly, obesity and iGWG are both associated with adverse pregnancy outcomes such as preterm birth, which in turn predispose the newborn to a myriad of early-life health complications. For example, elevated levels of proinflammatory cytokines associated with obesity can trigger the premature onset of labor. As such, concurrent higher prevalence of iGWG and obesity in NHB might seem paradoxical but points to distinct profiles of Social Determinants of Health (SDoH) that drive these risk factors that separately contribute to preterm birth disparities. Meanwhile, pregnancy is a dynamic process that involves immunosuppressive reprogramming at the maternal-fetal interface to accommodate for the tolerance of paternal antigens. The proposed study aims to dissect these two hypothesized distinct pathways of racial disparities from the root/trunk (SDoH) to the middle branches (perturbed baseline immunity and the immune remodeling) to the outer leaves (adverse clinical outcomes) of the tree. While sparse attempts to stratify the contributors to obesity and iGWG as they relate to pregnancy outcomes have been published, these studies are essentially lacking in the Virginia. Moreover, African Americans have been underrepresented in immunological studies of pregnancy. To address these limitations, we will use innovative systems biology approaches that combine SDoH information with high-plex maternal and placental measurements, and data-driven statistical modeling approaches to examine longitudinal human specimen from a unique cohort of racially diverse pregnant women of Virginia and further targeted recruitment, which will highlight novel social and immune axes that may be manipulated to enhance pregnancy outcomes through the design of preventative, diagnostic, and therapeutic strategies.





# **Research Award**

# Jeffress Trust Awards Program in Research Advancing Health Equity - 2023 Awardees

# Matthew Loos, MD, FACS, MBA **Ballad Health** in partnership with Appalachian School of Law - Virginia Tech -STRONG Accountable Care Community

Impact of Medical-Legal Partnership (MLP) Collaborative Upon Social Determinants of Health of Low-Income Individuals in Rural Southwest Virginia

## **IMPACT OF JEFFRESS TRUST AWARD**

"Ballad Health is thrilled to partner with the Jeffress Trust to expand access to the social and legal resources of the Medical-Legal Partnership (MLP). During the first three years of the MLP, we have had a profound impact on lowincome individuals working to resolve legal obstacles impacting health such as quality housing, income supports, education, and personal stability. Through this grant, we will be able to work at the community level to better understand the current needs and develop best practices to expand this impact of the MLP." - Matthew Loos, Ballad Health

"The research project awarded a Jeffress Trust grant will establish an Advisory Council to collectively study and develop MLP best practices for programmatic and coordinated community response. The creation of an Advisory Council of internal and external community partners will ensure a diverse arena in which to collect data and develop a robust research program. We anticipate the data will illuminate how health-harming legal needs are impacted through MLP intervention with free legal services to address social determinants of health (SDOH) for low-income patients.

The grant was awarded to support research activities to analyze the impact of the IHELP MLP model (Income/Insurance, Housing, Education, Legal status, Personal family stability) on participants' SDOH. This program will leverage established partnerships and engage new partnerships to expand our research and best-practice response."

- Suzan Moore, Appalachian School of Law

## **AWARD PROJECT SUMMARY**

The proposed Medical-Legal Partnership (MLP) research collaborative will enhance and build cross-collaboration across hospitals, legal service agencies, academic institutions, and community-based organizations to examine the root causes and barriers to health equity experienced by low-income patients. The Appalachian School of Law, Virginia Tech University, Ballad Health, and the STRONG Accountable Care Community (ACC) serve as the core collaborators working within a Medical-Legal Partnership. Ballad Health is one of the backbone organizations for the STRONG ACC, which stands for Striving Toward Resilience & Opportunity for the Next Generation. The STRONG ACC is an independent, multi-sector coalition of 360+ partner organizations working together to improve physical, social, and economic health in our region. The MLP serves a large, rural population in Southwest Virginia which faces significant social determinants that negatively impact health. The MLP works to remove barriers to health equity by providing free legal services to low-income patients aimed at resolving legal obstacles impacting health such as quality housing and income supports. Despite the establishment of numerous MLPs throughout the





# Partnership/Collaborative Establishment Award

#### Jeffress Trust Awards Program in Research Advancing Health Equity – 2023 Awardees

U.S., there are few published studies on the impact of MLPs on healthcare and outcomes. The proposed collaborative project establishes an Advisory Council to collectively study and develop MLP best practices for programmatic and coordinated community response. The Advisory Council, created of internal and external community partners, will ensure a diverse arena in which to collect data and develop a robust research program. We anticipate the data will illuminate how health-harming legal needs are impacted through MLP intervention with free legal services to address social determinants of health (SDOH). We seek funding to support activities to analyze the impact of the IHELP model (Income/Insurance, Housing, Education, Legal status, Personal family stability) on participants' SDOH. This program will leverage established partnerships and engage new partnerships to expand our research and best-practice response.

# Freddy Mejia

The Commonwealth Institute for Fiscal Analysis in partnership with Sacred Heart Center – Peter Paul Development Center – Virginia Poverty Law Center – Virginia Community Voice

Keep People Covered: Analyzing the Medicaid Unwinding and Redetermination Process through a Person-Centered, Racial Equity Lens

## IMPACT OF JEFFRESS TRUST AWARD



"The Commonwealth Institute is grateful to have been selected for the 2023 Jeffress Trust Award. We are committed to monitoring Medicaid unwinding in Virginia and mitigating unnecessary coverage loss for communities of color, immigrant populations, and children. With the additional funding, we can convene monthly meetings with trusted grassroots partners to learn about issues with healthcare access before they show up in the data and remove barriers to health coverage through ongoing data analysis, state legislative advocacy, and centering the voices of those most impacted."

# Award Project Summary

In April 2023, Virginia will begin to review all Medicaid enrollees' eligibility, a process called "unwinding" and start ending coverage for those found ineligible. The unwinding process will require enrollees to update contact information and submit all required paperwork in a timely fashion. Caught in the middle of this process are approximately 160,000 individuals and families who remain eligible but who are nevertheless most at risk of losing coverage because of administrative hurdles and/or language access issues. The current administration in Virginia has not shared its posture on the Medicaid redetermination process. This is concerning to advocates due to national research from the Department of Health and Human Services that estimates children, Black, and Latino individuals are most likely to be disenrolled while still being eligible for coverage.

At the core of this project are three goals: First, through research and analysis, act as a watchdog that brings accountability and an equity focused lens on a complex process that may leave individuals and families uninsured on account of technicalities. Second, drive education efforts to help as many people as possible weather the "unwinding" storm and preserve their health insurance. Third, leverage the research to change systems to improve the current redetermination process in the moment and create better health access programs, processes, and communications in the future.

Using a participatory research approach combined with analysis of data from EnrollVA and state agencies, and advocacy action we can achieve both meaningful research findings and changes in public policies. We plan to create and maintain a real-time dashboard that can inform decisions during the three year period, push out our findings with strategic communications and coordinate with our partners including members of the Collective Work coalition focused on racial justice and the Health Equity Action Leaders program.

# **Research Award**

# Sara Rothenberg, MPH

Partnership/Collaborative Establishment Award

Eastern Virginia Medical School

in partnership with The Consortium for Infant and Child Health – SonShine and Rainbows Lactation – From the Start Holistic Doula Services – #757Breastfeeds

# Centering Black Voices: An Exploration Of Current And Historical Black Breastfeeding Experiences In Their Own Words



(L to R: Sara Rothenberg, Jasmine Kittrell, Nichelle Clark, Tierra Lingsley)

## IMPACT OF JEFFRESS AWARD

"Our efforts to address and uproot structural racism underpinning maternal and child health inequities would not be possible without the generous support of the Jeffress Trust Award. Through centering Black voices, building awareness and knowledge, and collecting sound, unbiased data we can begin to truly understand, address and uproot the racial underpinnings of health inequities in Virginia."

## AWARD PROJECT SUMMARY

Eastern Virginia Medical School (EVMS), the Consortium for Infant and Child Health (CINCH), #757Breastfeeds, SonShine & Rainbows Lactation, and From the Start Holistic Services will establish a collaborative partnership to understand how contemporary and historic experiences of racism explain Black breastfeeding disparities and perpetuate maternal and child health inequities in Virginia. The lead project team consists of public health professionals and researchers, lactation and birth workers, and community members with lived experience in Black breastfeeding. The project seeks to address and uproot structural racism that underpins maternal and child health inequities by centering Black voices, building community capacity, and decolonizing breastfeeding research. The work of the project team will be guided by the following major goals over a two-year period: 1) Build community capacity through collaboration, training, and education to dismantle racism underpinning Black maternal child health and breastfeeding inequities. 2) Create a safe space for authentic, respectful engagement of Black families to listen and understand their breastfeeding experiences, focused on how intergenerational perspectives and experiences of racism impact breastfeeding success rates. 3) Engage in research and data collection to understand the extent of racial inequities in breastfeeding rates and outcomes and identify evidence-based solutions/areas for future research to address these disparities. 4) Amplify Black voices and perspectives to increase awareness and visibility of the Black maternal and child health crisis in the broader community and across the Commonwealth. Through sustainable, respectful collaboration, this project will lay the groundwork for future research, publication, and more effective public health strategies for advancing maternal child health equity.

## Jeffress Trust Awards Program in Research Advancing Health Equity - 2023 Awardees

Shuntay Z. Tarver, PhD, MSW Partnersl Old Dominion University in partnership with African American Creative Community Series – James Barry Robinson Institute – Hampton-Newport News Community Services Board

# Advancing Health Equity through a Regional Coalition for reducing Opioid and Substance Use





(Above: S. Tarver; Below: Tamika Lett, Latiesha Handle, Chaniece Winfield, Jason Sawyer)

**IMPACT OF JEFFRESS TRUST AWARD** "Black families are increasingly dying from opioid addiction with little to no collective understanding of the pervasiveness of the issue. Despite the availability of resources to



combat the issue, the impact of the epidemic on Black and low-income communities continues to increase, leading to a rise in fatalities among these groups. Consequently, raising public awareness of available resources is critical to destigmatize help-seeking behaviors and achieving health equity within Black and low-income communities. Funding from the Jeffress Trust Award has a significant impact on advancing health equity for Black and low-income families within targeted Hampton Roads communities."

#### AWARD PROJECT SUMMARY

There is a critical need in Hampton Roads Virginia to reduce opioid and substance use (O/SU) and overdose related deaths. Current trends reveal health disparities exacerbated systemically by racism and poverty. There has been 140% increase in Black people dying from opioid overdose since the start of the Covid-19 pandemic (Gupta, 2021). Yet, Black families are less likely to have access to care, and face systemic barriers such as cultural stigma, threat of family separation, and economic issues that discourage help seeking behaviors (Roberts et al., 2018; Tarver, et al., 2021). Resource disintegration between service providers, researchers, and community stakeholders across neighboring cities impede adaptation of strategies to engage populations, which may be highly transient across cities; although service providers are uniquely positioned with resources to engage in data-driven approaches. Integrating culturally-informed approaches with data-driven strategies, is necessary to reduce O/SU and overdose related deaths. The project is broadly designed to advance health equity through establishment and maintenance of a culturally-informed, data-driven regional coalition to decrease O/SU and overdose related deaths among Black and low-income families within the cities of Norfolk, Hampton, and Newport News, VA that have a Black population of 42%, 43%, and 50% respectively. Long-term objectives include: 1) organization of existing services to decrease O/SU and overdose related deaths across targeted cities; 2) development of a plan for collaborative data sharing and assessment; 3) establishment and maintenance of a regional coalition committed to advancing health equity through decreased O/SU and overdose related deaths. Specific aims are to a) analyze existing data; b) assess community needs related to O/SU and overdose related deaths; c) present data findings to community stakeholders to building capacity for a regional coalition, and d) develop a collaborative plan to decrease O/SU and overdose related deaths among Black and low-income families in targeted cities.