The Vanderbilt Pre³ Initiative

(Preventing adverse Pregnancy outcomes & Prematurity)

A Vanderbilt Transinstitutional Program
Who We Are
Faculty from all corners of the VU-VUMC campus

The Vanderbilt Pre³ Initiative is a transdisciplinary group of faculty and trainees with a shared interest in reducing the burden of adverse pregnancy outcomes & prematurity through discovery, innovation, implementation, & education.
Who We Are

Faculty from all corners of the VU-VUMC campus
OUR VISION

A world where all children are born healthy

- Enhancing the health of mothers & fathers before conception
- Improving maternal health throughout pregnancy
- Diagnosing, preventing & treating complications before problems arise in offspring
WHAT WE DO

The Vanderbilt Pre³ Initiative brings learners, educators & investigators together to solve major challenges in reproductive health

OUR ACTIVITIES

1. Monthly seminar series
2. Fund innovative pilot projects
3. Host visiting experts
4. Engage learners
Why We Do What We Do

Large Global Burden of Adverse Pregnancy Outcomes

- **15** Million preterm birth episodes
- **14** Million episodes of postpartum hemorrhage
- **10** Million episodes of preeclampsia or eclampsia
- **5** Million episodes of maternal sepsis
- **3.7** Million episodes of neonatal sepsis
Some topics we cover:

- Reproductive health
- Perinatal depression
- Infant mortality
- Placenta
- Retention in care
- Preterm birth
- Inflammation
- Macrophages
- Chorioamnionitis
- Developmental programming
- Inequality
- Membrane
- CMV
- Congenital heart disease
- Autism
- Obesity
- Neonatal sepsis
- Epigenetics
- Preeclampsia
- Drug repurposing
- Environmental toxicology
- Public health
- Global health
- Labor
- Stillbirth
- Zika virus
- Gestational diabetes
- Neonatal abstinence syndrome
- Cervical remodeling
Pilot Projects We Sponsor

John B Pietsch, MD, FAAP, FACS, Associate Professor of Pediatric Surgery & Pediatrics

Assessment of Body Composition in Pregnancy

Steven Brunwasser, PhD, Research Instructor, Department of Medicine

Antenatal Depression & Biological Markers of Stress in Exposed Infants

Jennifer Herington, PhD, Research Assistant Professor, Division of Neonatology, Dept of Pediatrics

Discovery of In Vivo Probes that Affect Contractile Pressure & Timing of Labor

Kasey Vickers, PhD, Assistant Professor, Dept. of Molecular Physiology and Biophysics

MicroRNA Dysregulation Promotes Pro-Inflammatory Macrophages in Gestational Diabetes Mellitus
Travel Grants for Trainees

We have awarded Multiple TRAVEL GRANTS