

# Northwestern University Feinberg School of Medicine Institute for Pregnancy Research



# Institute for Pregnancy Research

## Overview and Mission

Northwestern's world-class Department of Obstetrics and Gynecology is endeavoring to establish the **Institute for Pregnancy Research** to create an exciting academic hub for bench-to-bedside-to-community maternal health research that encompasses all stages of a person's pregnancy—from conception through the postpartum and interconception periods. Situated at the nexus of the Feinberg School of Medicine and the Northwestern Medicine healthcare system, the institute will be well-positioned to cement Northwestern's position as a leader in maternal-fetal medicine. The department is consistently ranked in the top 5 for NIH research funding, and the institute will centralize and amplify the expertise of its renowned scientists whose research is both building foundational knowledge and making a profound difference in the lives of patients.

The importance of this work cannot be understated. Maternal health inequities and adverse pregnancy and postpartum health outcomes are at a profound high across the country. We know that some women have worse maternal and infant outcomes than others, and we must understand the "why" so that we can improve and extend the health and lives of mothers and babies.

### Bench

Basic and translational research are essential building blocks for understanding how we can improve the health of pregnant people. Currently, we lack significant understanding of the biological underpinnings of maternal health outcomes, which are the key to improving health at the bedside. Focusing on placental biology, developmental biology, and translational avenues—including immunology, metabolism, nutrition, and other intersections of biobehavioral research strategies—will be fundamental to improving health at the bedside.

### Bedside

For too long, pregnant people have been neglected in clinical trials, the development of therapeutic interventions, studies of new medications, and other groundbreaking clinical research. Pregnancy affects everyone—the pregnant person, their offspring, and their families—and this institute will champion a dedicated, invigorated focus on clinical trials to develop the evidence to improve the health of pregnant and postpartum people.

Through this institute, we vow to frame pregnancy as a key life stage integral to women's health across the life course. In addition to lending insights into a patient's present status, pregnancy also serves as a window to a patient's future health. Evidence-based interventions during pregnancy can boost the health of both the pregnant person and child, and health events during pregnancy can help us make informed predictions about the patient's cardiovascular, metabolic, neurologic, and psychiatric health.

### Community

Finally, the institute aims to bring community-based maternal health research into focus. One step towards a healthier future for mothers is implementation science: After we conduct clinical trials and have gathered the knowledge to establish evidence-based practices, we must understand how to successfully, equitably, and sustainably implement these practices across different contexts and ensure their impact is long-lasting.

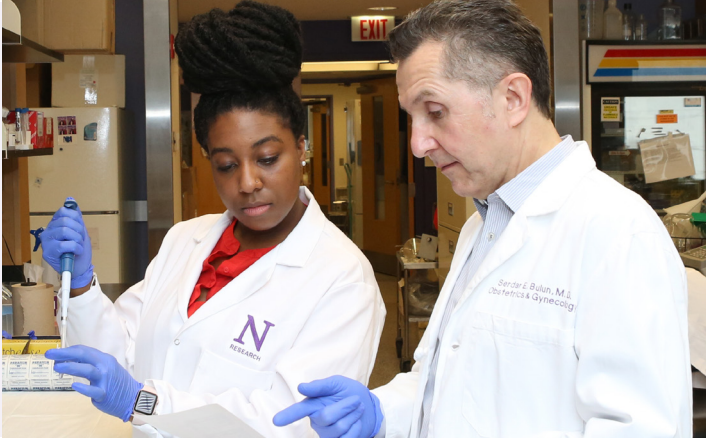


### Lynn M. Yee, MD, MPH

Associate Chief for Research, Division of Maternal-Fetal Medicine  
Associate Professor, Division of Maternal-Fetal Medicine  
Thomas J. Watkins Memorial Professor of Obstetrics and Gynecology

Dr. Lynn Yee is a physician-scientist in the Department of Obstetrics and Gynecology at Northwestern University Feinberg School of Medicine. She received her Doctor of Medicine and Master of Public Health degrees from Northwestern, completed her residency in Obstetrics and Gynecology at the University of California, San Francisco, and completed her fellowship in Maternal-Fetal Medicine at Northwestern.

As associate chief of maternal-fetal medicine for research, she leads a large, multidisciplinary research program that addresses obstetrics-focused health services and clinical research. She has particular interests in the application of implementation science to obstetrics as well as the intersections of patient-centered outcomes, health equity, and social determinants of health related to pregnancy and the postpartum period. Dr. Yee is also the medical director of the Northwestern Memorial Hospital Women's Infectious Diseases Program and the Illinois 24/7 Perinatal HIV Hotline.



*Rates of maternal mortality have increased in recent years. In 2021, 1,205 women died of maternal causes, compared with 861 in 2020 and 754 in 2019.*

*Source: U.S. Centers for Disease Control and Prevention*

## Four Pillars of Research

All that we do in our affiliated laboratories is intended ultimately to transform and enhance the health and well-being of pregnant persons everywhere. Below are the four pillars guiding the proposed Institute for Pregnancy Research's investigations.

1

### **Clinical trials and health services research.**

Developing and testing diagnostic strategies, therapeutics, and other types of interventions for treatment or prevention of specific conditions, diseases, or problems that affect pregnant people and their fetuses

2

**Life course research.** Developing knowledge around how pregnancy serves as a window to future health, and generating evidence regarding interventions for pregnant or postpartum people that can promote long-term health



3

### **Pregnancy physiology and the human placenta.**

Developing knowledge around the human placenta, maternal metabolism and immune system, fetal development, and other areas of basic and translational research that are the foundational building blocks to improving human health

4

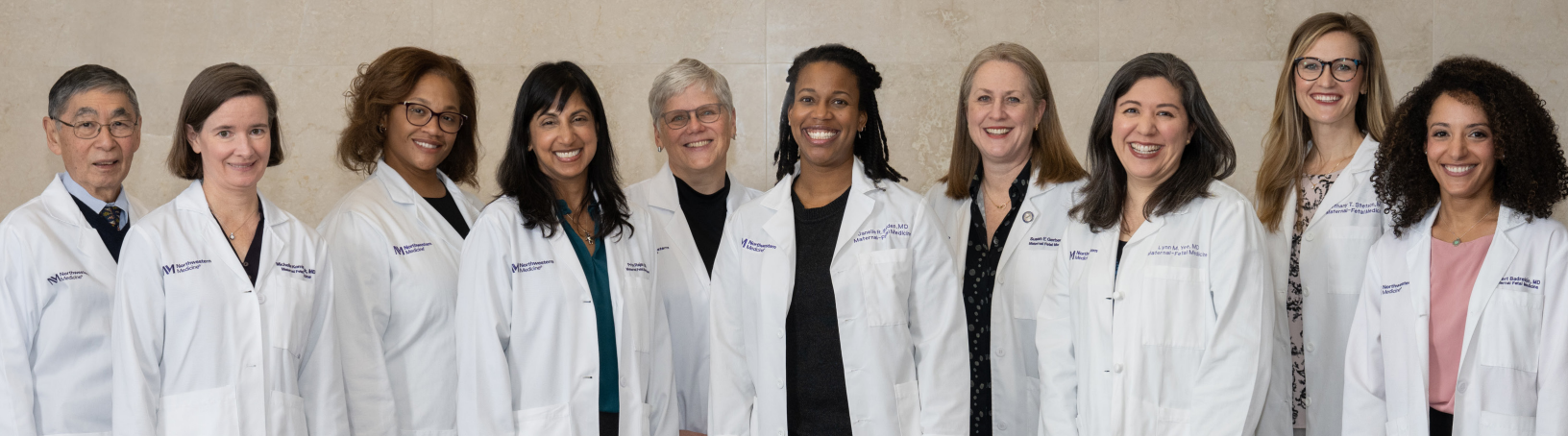
### **Public health, health equity, and social justice.**

Understanding the role of racism, inequity, and structural and social determinants of health on the maternal health crisis in the United States and beyond

## Maternal Health Conditions of Interest

- Hypertensive disorders of pregnancy, cardiovascular disease, and cardiovascular health after pregnancy
- Preterm birth
- Gestational diabetes mellitus, obesity, and metabolic health after pregnancy
- Postpartum hemorrhage and complications of labor and delivery
- Perinatal mental health
- Perinatal infectious diseases





## A Call for Your Partnership

We invite loyal donors and interested friends to join Dr. Yee and her colleagues in advancing the new **Institute for Pregnancy Research** at Northwestern. Your gifts of outright support and endowment will provide the resources we need to lead bench-to-bedside-to-community maternal health research that focuses on all stages of a person's pregnancy, from conception through the postpartum and interconception period. These studies can lead to breakthroughs and innovations that can make a profound difference in the lives of patients globally.

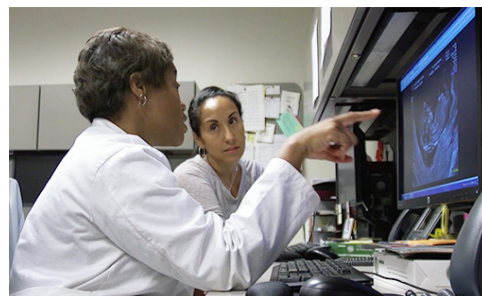
### Funding Priorities

Leadership gifts of endowment and outright funds will help to grow and sustain our infrastructure, help us to recruit the best and brightest faculty talent from around the world, and fulfill the extraordinary potential of the Department of Obstetrics and Gynecology. A gift of \$25 million would fully endow and name the institute.

For more information about giving to the Institute for Pregnancy Research, please contact:

#### **Mary Kreller**

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## About the Department of Obstetrics and Gynecology

The Department of Obstetrics and Gynecology, one of the highest-ranked departments of its kind in the country, aims to be the global leader in obstetrics, gynecology, women's health and healthcare delivery through innovations in person-centered care, research, and education. The department's many divisions underscore its vast array of expertise, including in Maternal-Fetal Medicine, Clinical Genetics, Diagnostic Ultrasound, Family Planning, Female Pelvic Medicine & Reconstructive Surgery (Urogynecology), General Obstetrics & Gynecology, Gynecologic Oncology, Minimally Invasive Gynecologic Surgery, Reproductive Endocrinology & Infertility, and Reproductive Science in Medicine.

For more information about the Department for Obstetrics and Gynecology, visit [feinberg.northwestern.edu/sites/obgyn](http://feinberg.northwestern.edu/sites/obgyn)