Yale School of Medicine **Department of Obstetrics, Gynecology & Reproductive Sciences** 

## Shaping Future Health: Early-Life Determinants of Brain and Metabolic Disease Risk



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### March 11, 2021 • 4:00-5:00 pm

Dial-In: 203.432.9666; Meeting ID: 201.194.039; https://zoom.us/j/201194039

#### There is no corporate support for this activity.

Course Director/Host: Lubna Pal, MBBS, FRCOG, MS, FACOG

#### **ACCREDITATION:**

The Yale School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

#### **TARGET AUDIENCE:**

ObGyn attending physicians, house staff/fellows, medical students, nurses, PA's, community Ob/Gyn's, residents, midwives, nurses and researchers.

#### **NEEDS ASSESSMENT:**

- Childhood obesity rates have increased dramatically and are coupled with an alarming 30% rise in the prevalence of type 2 diabetes (T2D) among children and adolescence over the last decade. There is mounting evidence suggesting that in utero exposures to maternal obesity and/or gestational diabetes emellius (CBM) play a role in these upward trends.

  'While the biological underpinnings of such maternal-fetal programming are poorly understood, compelling studies in animal models show that in tate or exposure to maternal obesity and/or diabetes causes abnormal development of brain pathways involved in regulation of appetite and glucose homeostasis, leading to obesity and T2D later in life.

  'This talk will discuss new studies suggesting that in utero exposures to GDM and/or obesity cause altered development of brain appetite pathways leading to long-term energy imbalance and susceptibility for obesity, insulin resistance and T2D.

  'Given the growing number of pregnancies complicated by maternal obesity and GDM, the well-being of our next generations may depend to an important degree on understanding the biological links between intrauterine exposure to maternal metabolic disorders and childhood obesity and T2D in order to develop early interventions to mitigate the vicious cycle of maternal-fetal transmission of metabolic disorders.

#### **LEARNING OBJECTIVES:**

At the end of this presentation, attendees will be able to:

- 1. Understand neural underpinning linking prenatal exposure to gestational diabetes with high risk for obesity in childhood;
- 2. Review recent literature showing that prenatal exposure to gestational diabetes and/or maternal obesity is associated with risk for cognitive impairments in offspring; and
- 3. Discuss strategies to ameliorate the adverse effects of prenatal exposure to gestational diabetes and/or maternal obesity on cognitive impairments in offspring.

#### **DESIGNATION STATEMENT**

The Yale School of Medicine designates this live activity for 1 AMA PRA Category 1 Credit(s)  $^{\text{TM}}$ . Physicians should only claim the credit commensurate with the extent of their participation in the activity.

#### **DISCLOSURES:**

Course Director: Lubna Pal, MD Flo Health, Consultant

Speaker: Kathleen A. Page, MD

None

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