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Researchers Advance the Understanding of Preterm Birth

Specific Bacteria May Change the Cervix of a Pregnant Woman and Lead to Preterm Birth

Dallas, Texas, January 30, 2018 – Preterm birth is the leading cause of infant morbidity and mortality worldwide. The causes for preterm birth are complex and not fully understood, however emerging data suggest that the presence of certain bacteria in a woman's vagina and cervix may increase her risk of premature birth. In a study to be presented on February 1, 2018, at the Society for Maternal-Fetal Medicine's (SMFM) annual meeting, The Pregnancy Meeting™, researchers will unveil findings that demonstrate that the byproducts of bacteria induce cervical changes which may lead to preterm birth.

The study to be presented was funded by the March of Dimes Prematurity Research Center at the University of Pennsylvania and examined the effects of three specific bacteria (*Mobiluncus mulieris*, *Gardnerella vaginalis* and *Lactobacillus*) on cervical cells. Researchers found that two of the bacteria studied play a role in spontaneous preterm birth by compromising the cervix and causing changes in the expression of genes. The third bacteria studied did not have the same effect.

“Different bacteria, which are found in the cervicovaginal space, can have diverse effects on the cervix, specifically the cervical epithelial barrier,” said Michal Elovitz, MD, lead author of the study and Professor of Obstetrics and Gynecology, Vice Chair of translational research, and Director of the Maternal and Child Health Research Center at the University of Pennsylvania, School of Medicine. “Recent human studies from our program demonstrated an association of certain bacteria with preterm birth. These studies now provide potential mechanisms by which certain bacteria might actually initiate premature cervical change and lead to preterm birth. These findings are an exciting next step to better understanding spontaneous preterm birth and creating new opportunities for novel therapies.”

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About SMFM

The Society for Maternal-Fetal Medicine (est. 1977) is a non-profit membership organization representing the interests of obstetricians/gynecologists who have additional formal education in maternal-fetal medicine. The Society is devoted to reducing high-risk pregnancy complications by providing continuing education to its more than 2,000 members on the latest

pregnancy assessment and treatment methods. It also serves as an advocate for improving public policy and expanding research funding and opportunities for maternal-fetal medicine. SMFM hosts an annual scientific meeting in which new ideas and research in the area of maternal-fetal medicine are unveiled and discussed. For more information, visit www.smfm.org.