

# Biomedical Research Seminar Series

## *Speaker Announcement*

**Friday, March 16, 2018 @ 3:30 pm**

**Domenici Hall, Room 109**

(Refreshments served at 3:00)



## ***Gil Mor, MD, PhD***

*Professor*

*Department of Obstetrics*

*Gynecology & Reproductive Sciences*

**Yale University School of Medicine**

### *Unique immunological and microbial regulatory mechanisms during pregnancy*

The immunologic paradigm of pregnancy led to the conceptualization of pregnancy as an organ transplant which requires, for its success, a systemic immune suppression of the maternal immune system. Growing scientific evidence suggests that in many ways the placenta functions as a tumor rather than a transplant and the immune regulation of the maternal-fetal interface is the result of the coordinated interaction between all its cellular components, including bacteria. The role of microbiota in reproduction is in its infancy, but there is growing literature that supports its relevance. We discuss a potential normal function of bacteria in the establishment of immune-tolerance and the compelling evidence that a viral infection might be the underlying cause of perturbation of homeostasis. There is compelling evidence that many infectious diseases of humans are caused by more than one microorganism and are defined as polymicrobial infections. We propose that pregnancy complications, such as preterm birth, are the result of polymicrobial infections. We examine the potential cellular and molecular mechanisms by which a viral infection of the placenta might disrupt the normal interaction between the cellular component of the implantation site and bacteria. As we better understand the normal homeostasis between the maternal immune system, placenta and commensal, we will be able to elucidate the pathogenic conditions and design better approaches to treat pregnancy complications associated with infection.

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For more information or to meet with the speaker please contact Ryan Ashley at [ryashley@nmsu.edu](mailto:ryashley@nmsu.edu)