

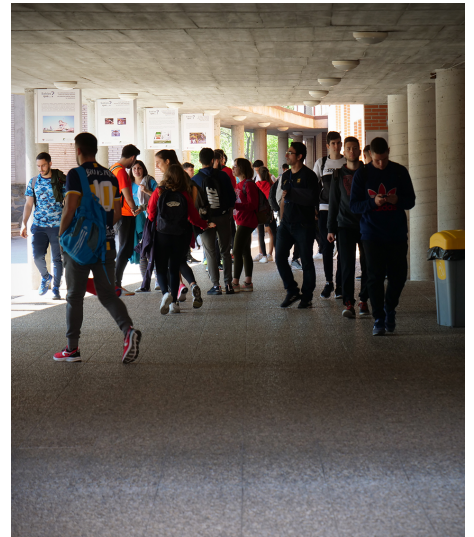


## **CONFERENCIA: Computational Biomechanical Models of Human Pregnancy. Evaluating the Risk of Preterm Birth**

07/07/2020

### **Novedades**

The reproductive soft tissues that support the fetus undergo some of the most dramatic and unique growth and remodeling events in the human body. During pregnancy, the uterus and fetal membrane must grow and stretch to accommodate the fetus. Simultaneously, the cervix must remodel and be a mechanical barrier to keep the fetus within the uterus. All three tissues must withstand mechanical forces to protect, support, and maintain an optimal growth environment for the developing baby. Then, in a reversal of roles, ideally nearing term, the uterus begins to contract and the cervix deforms to allow for a safe delivery. I will also specifically characterize cervical material properties using a hyperelastic constitutive model that accounts for the cervical collagen fiber architecture and hormone-mediated remodeling relationships. Through this experimental and modeling effort I aim to identify which factor or combination of factors is responsible for clinically-observed mechanical dysfunction in pregnancy.



- **CONFERENCIANTE:** Kristin Myers

Associate Professor of Mechanical Engineering, Columbia University, USA

- **FECHA Y HORA:** Martes 7 de Julio 2020. 11:00 h.
- **LUGAR:** Seminario I, planta 4 de la E.T.S.I. Caminos, C. y P.

**+ INFORMACIÓN \*\***

<http://masteres.ugr.es/estructuras/>