

BIOENGINEERING SEMINAR: MACROPHAGES AND BIOMATERIALS

Speaker

Dr. Rene Olivares-Navarrete

Location

Research Hall 163

Date

Thursday, April 13, 2017

11:30am-12:30pm

(Lunch will be provided)

Biography: Rene Olivares-Navarrete, D.D.S., Ph.D., is an Assistant Professor of Biomedical Engineering at VCU. Olivares-Navarrete obtained his D.D.S at Universidad Nacional Autonoma de Mexico (UNAM) and spent several years in private practice and teaching Dental Biomaterials and Human Physiology in the School of Dentistry at UNAM. In 2006, he obtained his Ph.D. in Biomaterials/Cell Biology (UNAM) focusing on material-cell interactions to elucidate the role of surface chemistry and topography on stem cell behavior.

Talk Overview: Biomaterials are used in medicine to replace lost or damaged tissues, facilitate healing and regeneration, or as drug delivery systems. Recent studies have focused on directing stem cell fate to promote the formation of tissue *de novo* and integration following implantation. Circulating cells of the innate immune system interact with a material surface and elicit a response before initiation of tissue regeneration. We will explore the role of macrophages, one of the first cells to be in contact with the biomaterial, in determining the fate of materials following implantation into the body.