

Wednesday, Oct. 5, 2016

LSC 3 | 12:00 - 1:00PM



DR. PAUL KUBES

Professor, Departments of Physiology & Pharmacology,
Medicine and Microbiology, Immunology & Infectious Disease

Director, Snyder Institute of Infection, Immunity and Inflammation
Immunology and Gastrointestinal Research Groups

AHFMR Scientist and CRC Chair

“Platelets neutrophils and NETs in infection and inflammation”

Platelets have been considered to be only important in hemostasis but now they also are becoming important in fighting infection. The platelets appear to be able to catch bacteria out of the main stream of blood, they can induce disseminated intravascular coagulation and they aid intravascular macrophage to catch bacteria. In addition platelets help neutrophils to make Neutrophil Extracellular Traps to catch and kill bacteria. This interaction occurs in the vasculature, to help catch bacteria but can cause damage to the local vessels. Proteases and PAD4 are also very important in this process. In terms of therapy, reducing NET production reduces injury while simply dismantling DNA leaves remnants on the vessel wall leading to significant injury. In sterile injury platelets also help in the healing process but seem to not cause NET production suggesting that NETs may be induced by PAMPs more so than DAMPs.

Live Online Seminar Viewing:
<http://tinyurl.com/cbrseminaronline>