

DSV Seminars 2015



PhD Program in Molecular Biomedicine

Tuesday, 17 November 2015 - 14:30

H3 Building, 3B room – Via Valerio 12/2

Uday KISHORE

Director Centre for Infection, Immunity
and Disease Mechanisms
College of Health and Life Sciences
Brunel University
London (UK)

Host: Roberta Bulla

COMPLEMENT-DEPENDENT AND INDEPENDENT FUNCTIONS OF C1Q

Complement system is a potent innate immune mechanism designed at recognition and clearance of pathogens. It involves a conglomeration of soluble and membrane bound factors and regulators that can initiate a cascade leading to lysis of target cells. The complement system is activated via the classical, alternative and lectin pathways, depending on the ligand patterns recognised by their respective recognition subcomponents: C1q, C3 and MBL. Complement deficiency is linked with a variety of pathophysiological processes. Recently, it has become evident that a number of soluble complement factors can be synthesised locally and in response to inflammatory insult. Molecules such as C1q, MBL, factor H and Properdin can act as versatile pattern recognition receptors and link innate and adaptive immunity. Our recent work on pattern recognition by complement proteins involving Mycobacterium, Influenza A Virus, HIV-1 and nanoparticles will be discussed.

