

Special Guest Speaker

Monday, May 2, 2016
SCIE 2315 at 1:30 p.m.

Dr. Graham Stafford

University of Sheffield Dental School

"Molecular determinants of host-pathogen interactions by periodontal pathogens: the role of OMPs and glycan active enzymes"

The talk will summarise our recent work in the area of host-pathogen interactions of oral bacteria that contribute to the widespread condition-periodontitis, where supporting structures of the teeth are eroded and lost due to a combination of bacterial and host-factors, including innate immune responses. Periodontal disease is also increasingly associated in systemic conditions such as rheumatoid arthritis, cardiovascular disease and incidence of preterm-birth. It is strongly associated with dysbiosis of the oral microbiota with three organisms- termed the red-complex (consisting *Porphyromonas gingivalis*, *Tannerella forsythia* and *Treponema denticola*). A summary of recent work will be presented with the influence of sialic acid, sialidases, host-glycans and associated glycan active enzymes becoming evident among the causative organisms of this disease, alongside evidence we have gathered on a direct interaction of surface exposed loops of OmpA of *Porphyromonas gingivalis* and human epithelial cells. Our work aims to identify new antimicrobial targets and also on understanding glycan active enzymes for exploitation in biotech.



Everyone is welcome to attend!

For more information, please contact Dr. Chris Whitfield in MCB