NUS National University of Singapore | Department of Biological Sciences, Faculty of Science

SEMINAR

Tues, 16 May 2017 | 11am | DBS Conference Room 1

Hosted by A/P Cynthia He

Translating the trypanosome surface

By **Michael A.J. Ferguson**

Professor, Regius Professor of Life Sciences and Academic Lead for Research Strategy, School of Life Sciences, University of Dundee, UK

This talk will cover our current understanding of the African trypanosome cell surface, and in particular the biosynthesis and roles of protein N-glycosylation and glycosylphosphatidylinositol (GPI) membrane anchoring in this organism.

The peculiarities of these post-translational modifications, and associated nucleotide sugar metabolic pathways, provide drug discovery opportunities for trypanosomiasis.

The desire to exploit these, and several other, discoveries led groups at The University of Dundee to establish a Drug Discovery Unit that both translates parasite biology through to preclinical candidates and develops drug candidates phenotypically, performing drug target deconvolution at the end of the process. Examples of both approaches will be given.

The Drug Discovery Unit capabilities established for parasitic diseases are also applied to innovative targets in several other therapeutic areas, and some of these will be briefly mentioned.

Acknowledgements: I am particularly grateful to The Wellcome Trust, which has supported our work on trypanosomatids since 1988. I also thank all of my colleagues in the Division of Biological Chemistry & Drug Discovery and the Drug Discovery Unit who's work I am drawing on in this overview.

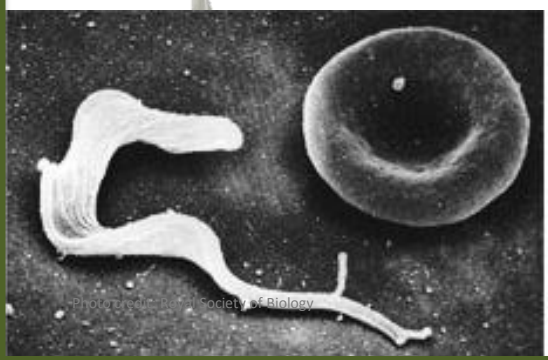
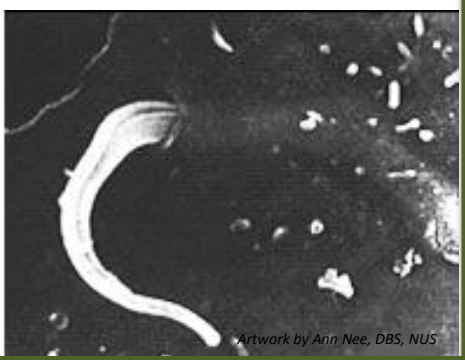


Photo credit: Royal Society of Biology



Artwork by Ann Nee, DBS, NUS