

## QUANTITATIVE & SYSTEMS BIOLOGY COLLOQUIUM: The neuroimmunological niche of a parasite in your brain

## Emma Wilson Professor of Biomedical Science and Associate Dean of Graduate Division UC Riverside

<u>Date:</u> 9/16/2022

<u>Time:</u> 2:30 PM - 3:45 PM

Location: COB2 140

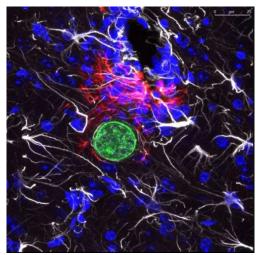


## About The Speaker:

Professor Wilson conducted her undergraduate degree in Ecology at the University of Dundee and her PhD in immunology of immune responses to filarial worms at the University of Strathclyde, Glasgow in Scotland. She moved to Philadelphia in 2002 and began her career in Toxoplasma research with Chris Hunter at the University of Pennsylvania. In 2008 she started her own lab in the Division of Biomedical Sciences at UC Riverside focused on the immune response to Toxoplasma in the brain. She has since graduated 9 PhD students, her publications have been cited over 6000 times and she is now Associate Dean in the Graduate Division. She remains Toxo negative despite years of cat ownership!

## Abstract:

The parasite Toxoplasma gondii is an obligate intracellular pathogen that can infect any nucleated cell of mammals. At any one time it is estimated that a third of the world's human population is infected with Toxoplasma. The parasite resides for the lifetime of the host as cysts within neurons in the brain and can cause severe disease in the immune compromised. The Wilson lab investigates the mechanisms that maintain a careful balance between preventing parasite-induced pathology and the normal function of the brain. This includes the phenotyping of immune cells such as neutrophils and T cells and determining their anti-parasitic effector functions, their role in tissue homeostasis and the critical interactions with CNS resident cells.



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