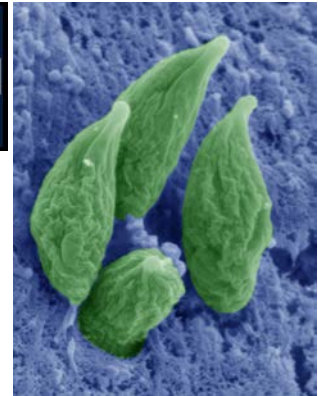


## POSTDOCTORAL POSITION AVAILABLE ESCRT-*Toxoplasma* interactions

Vern B. Carruthers, PhD ([vcarruth@umich.edu](mailto:vcarruth@umich.edu))  
Professor and Associate Chair  
Department of Microbiology and Immunology  
University of Michigan Medical School



Applications are welcomed for an exciting training opportunity to uncover mechanisms of pathogen exploitation of ESCRT in infected cells. *Toxoplasma gondii* is an opportunistic protozoan parasite that can cause severe disease (encephalitis, retinitis, birth-defects) in humans and animals. Considered a paradigm for intracellular parasitism, *T. gondii* is easily grown in culture, has excellent animal models, and is readily amenable genetic manipulation. Experience with *T. gondii* or parasitology is an asset but not a requirement. Candidates with a background in microbiology, biochemistry, cell biology, and/or genetics along with a keen interest in microbial pathogenesis are encouraged to apply.

Our recent work has shown that *Toxoplasma* recruits and exploits host ESCRT to facilitate parasite endocytosis of material from the cytosol of infected cells [1]. In the short term (1-2 years), the successful candidate will extend two active lines of investigation, namely to: (1) Further define interactions between the *T. gondii* secretory effector protein GRA14 and various components of host ESCRT; and (2) Determine how a second *T. gondii* secretory protein functions in the recruitment and exploitation of the ESCRT accessory protein ALG-2. In the longer term, the candidate will expose an integrated model ESCRT biology as it relates to *T. gondii* infection and disease. The candidate is expected to compete for external fellowship support and develop an independent line of investigation during their period of training.

Candidates must have a Ph.D. and/or M.D., or equivalent degree. Previous experience in parasitology is not necessary. Competitive applicants will have a record of outstanding achievements and the potential for success as a leader in academic or industry research. Alumni of the Carruthers lab have successfully competed for faculty positions in academia and leadership positions in industry (Pharma, Biotech, healthcare) and government (NIH). The Carrutherslab strives to achieve and maintain a work environment that is diverse, equal, and inclusive. Applications are welcomed from all individuals regardless of their ethnicity, race, gender, political views, or sexual orientation.

The University of Michigan is consistently ranked within the top 3 American public research institutions. The university is in Ann Arbor, Michigan, widely considered one of the most desirable small cities in the USA. Ann Arbor is situated within a 30-minute drive of Detroit International Airport, providing easy access to destinations in the USA and beyond.

Please send an **e-mail** to [vcarruth@umich.edu](mailto:vcarruth@umich.edu) with a cover letter stating interests and career goals, a C.V. including list of publications, and the contact info for three individuals willing to provide reference letters.

1. Rivera-Cuevas, Y., Mayoral, J., Di Cristina, M., Lawrence, A.-L., Olafson, E.B., Patel, R., Thornhill, D., Waldman, B.S., Ono, A., Sexton, J.Z., Lourido, S., Weiss, L.M., Carruthers, V.B. (2021). *Toxoplasma gondii* exploits the host ESCRT machinery for parasite uptake of host cytosolic proteins. *PLOS Pathogens*. 17:e1010138. [highlighted on the cover].

