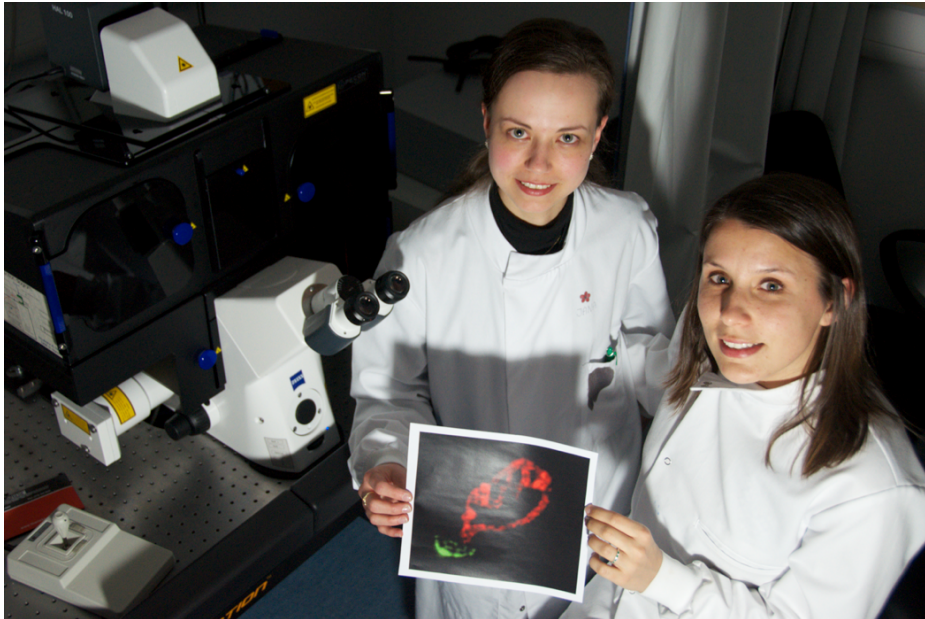


Sheiner Lab – *Toxoplasma gondii* cell-biology



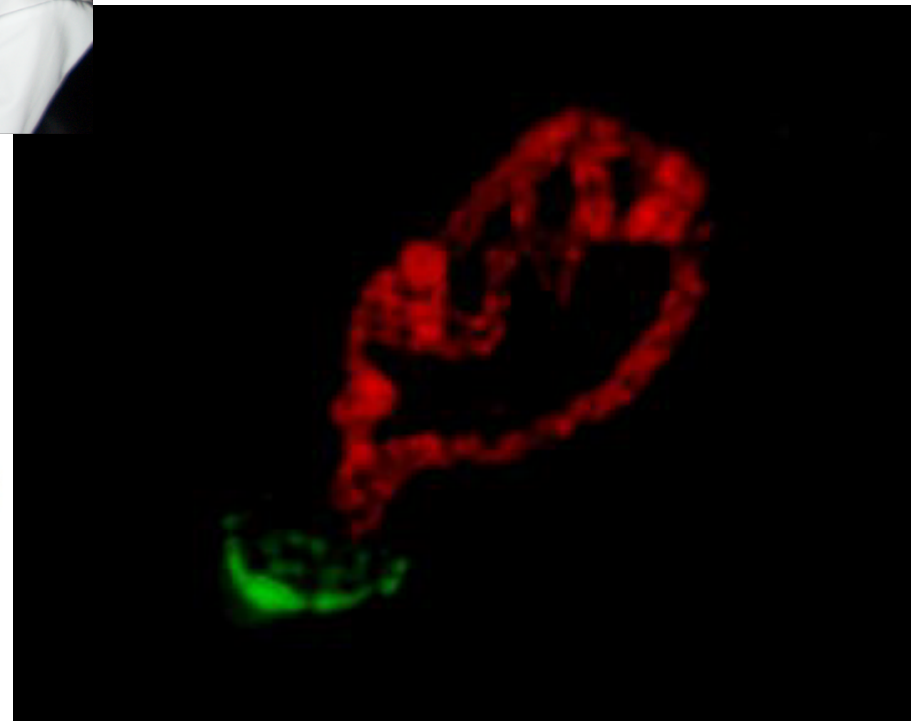
@SheinerLab



lilach.sheiner@glasgow.ac.uk



<http://lilachsheiner.wix.com/sheinerlab-wtcmp>



University
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Wellcome Trust Centre
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Strategic Award

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THE ROYAL
SOCIETY
OF EDINBURGH

Toxoplasma gondii

Toxoplasmosis

Trainspotting



He never knew he could get toxoplasmosis from cat shit

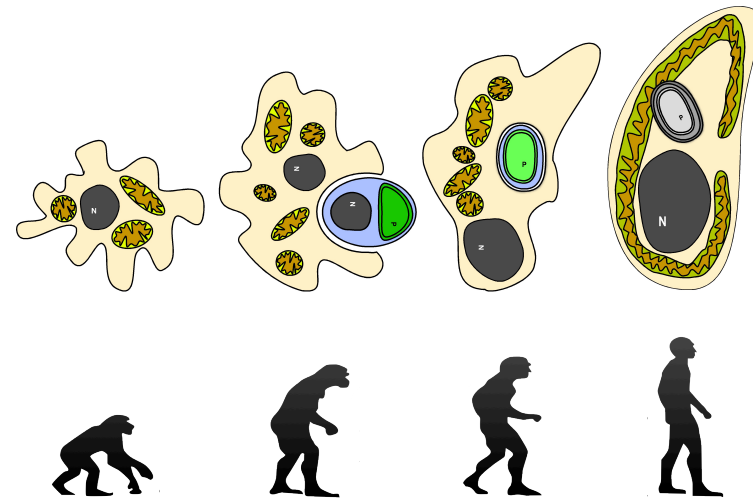
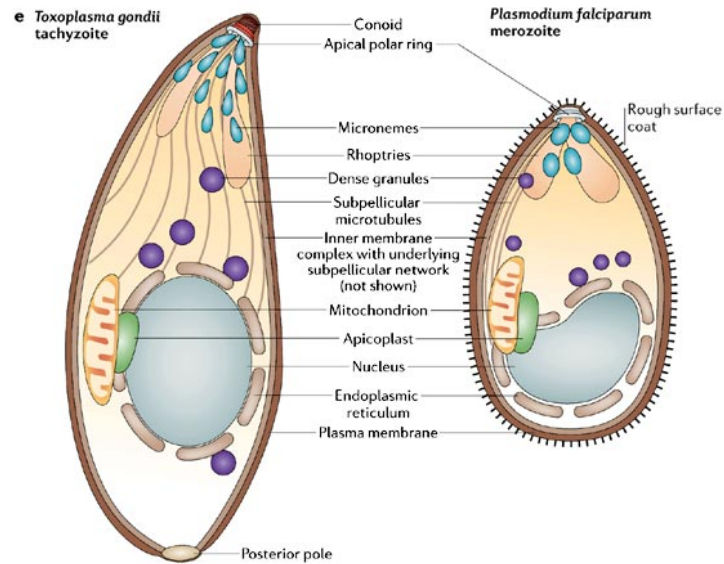
Neither did I, what is it?

Trainspotting

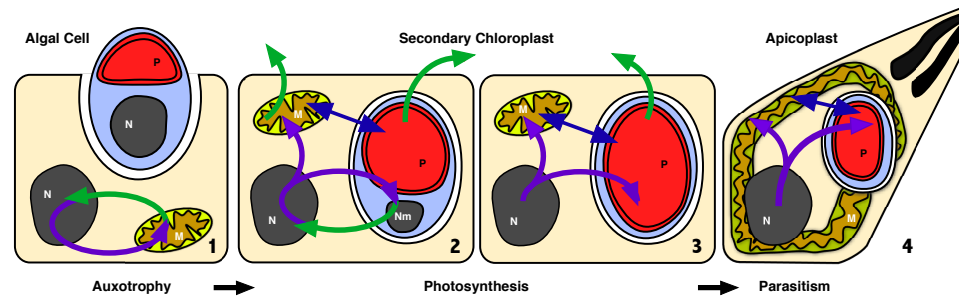


Fu@#ing horrible, it's like an abscess in your brain

T. gondii endosymbiotic organelles

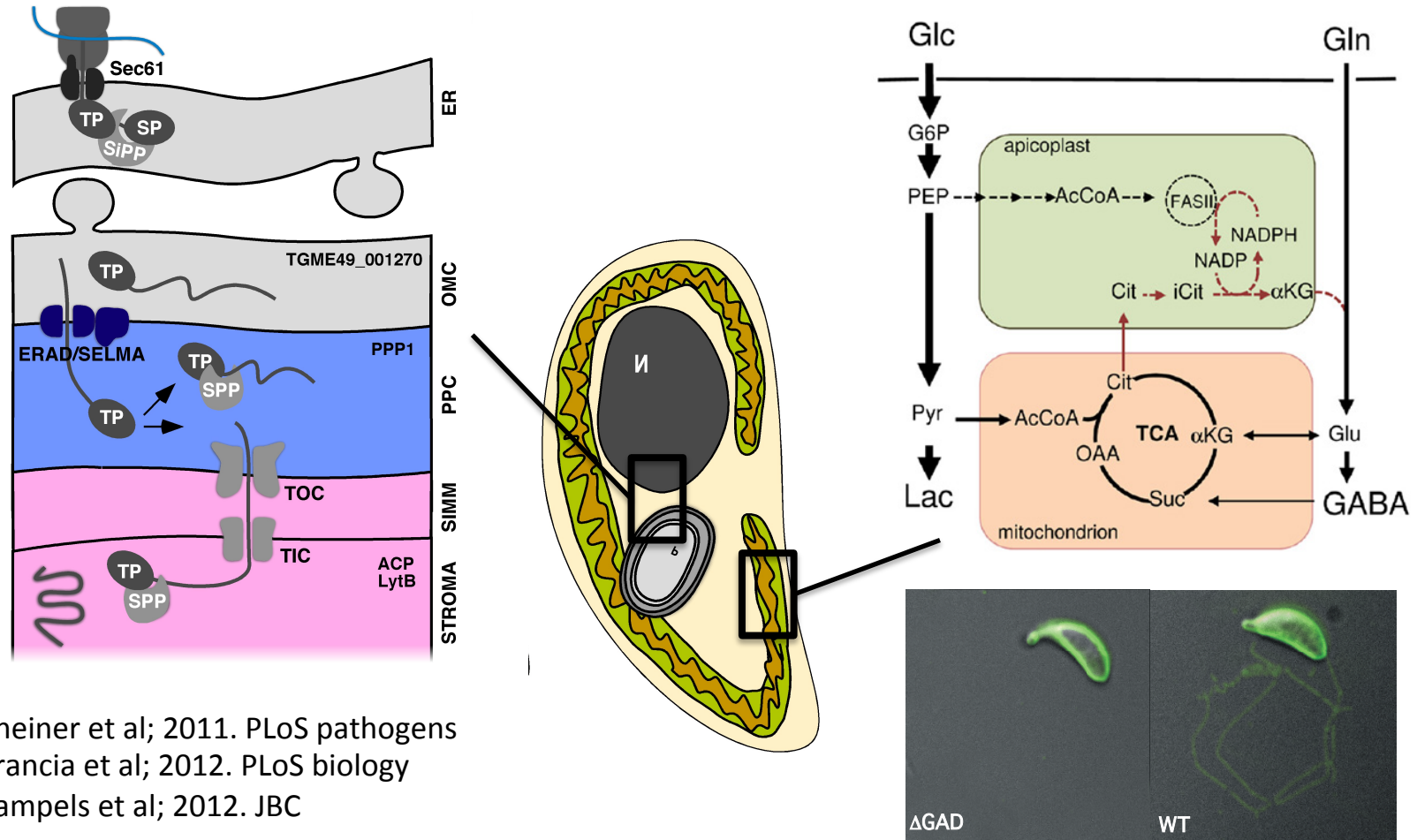


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Sheiner et al; Curr Opin. Microbiol 2013

Key observations in the past 5 years



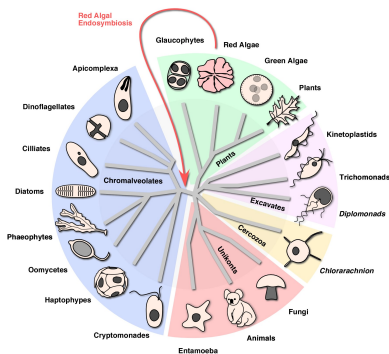
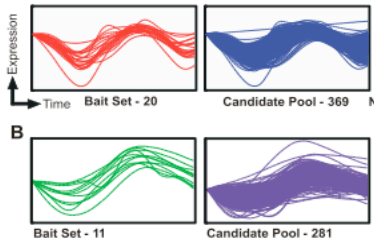
Sheiner et al; 2011. PLoS pathogens
 Francia et al; 2012. PLoS biology
 Sampels et al; 2012. JBC

In prep:
 Sheiner et al; (minor revisions) Traffic
 Williams et al; (under revision) Mbio

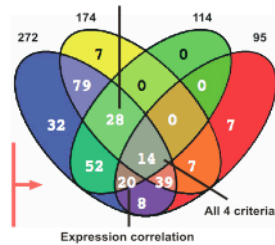
Macrae & Sheiner et al;
 Host Cell & Microbes. 2012

Main Sheiner lab methods

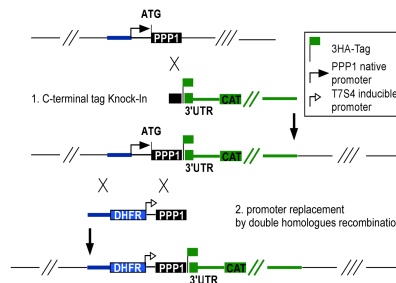
Bioinformatics



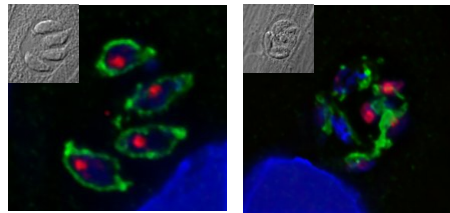
Expression correlation



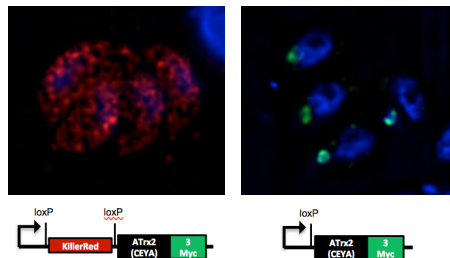
Genetic manipulation and Reverse genetics



CRISPR/Cas9 interference

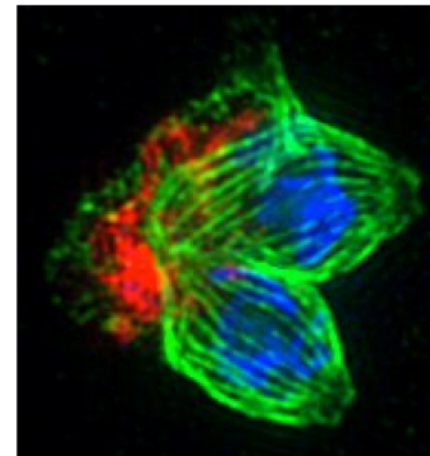


Split-Cre/loxP over-expression

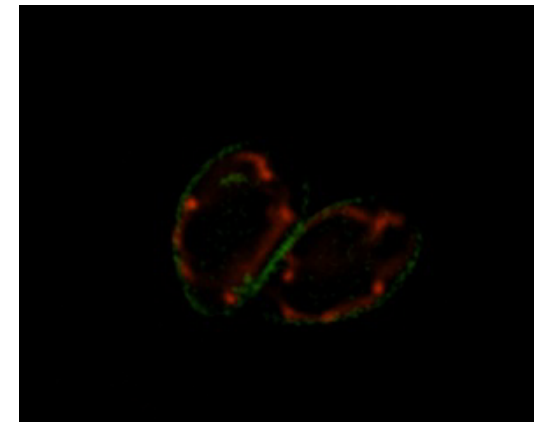


Microscopy

3D SIM



Live fluorescence



Where can we use help?

- High throughput imaging based on microscopy
- Samples from Toxoplasmosis cases.