

# New Therapies for Pathogenic Bacteria

Jamie Triccas, Infectious Diseases and Immunology,  
Central Clinical School, FMH

## Area of Research

- Identification of new antibacterial from natural products
- Screening for anti-bacterial activity against drug resistant pathogens
- Development of new vaccines for lung pathogens (*Mycobacterium tuberculosis*, *Pseudomonas aeruginosa*)



VANCOMYCIN-RESISTANT  
ENTEROCOCCUS (VRE)

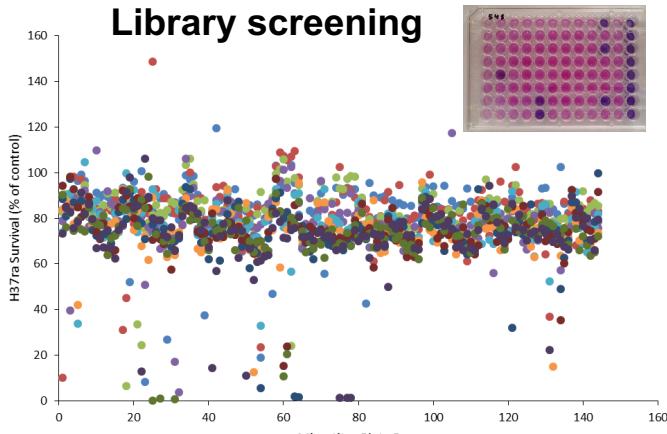
MULTIDRUG-RESISTANT  
PSEUDOMONAS AERUGINOSA

DRUG-RESISTANT  
TUBERCULOSIS

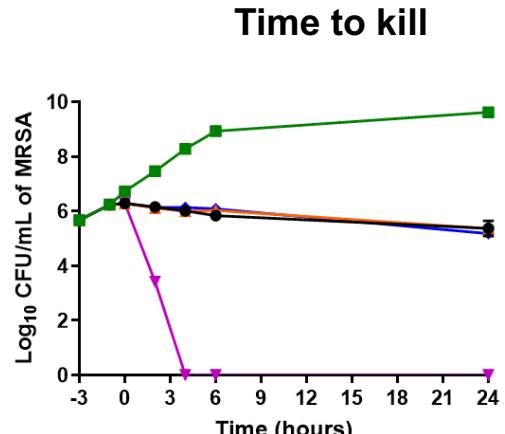
METHICILLIN-RESISTANT  
STAPHYLOCOCCUS AUREUS  
(MRSA)

# Expertise

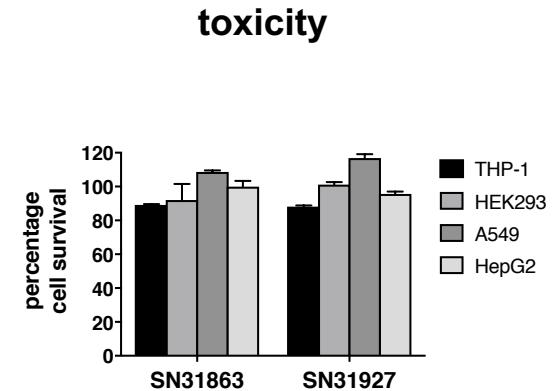
- Screening for anti-bacterial activity against pathogens



D. Quan

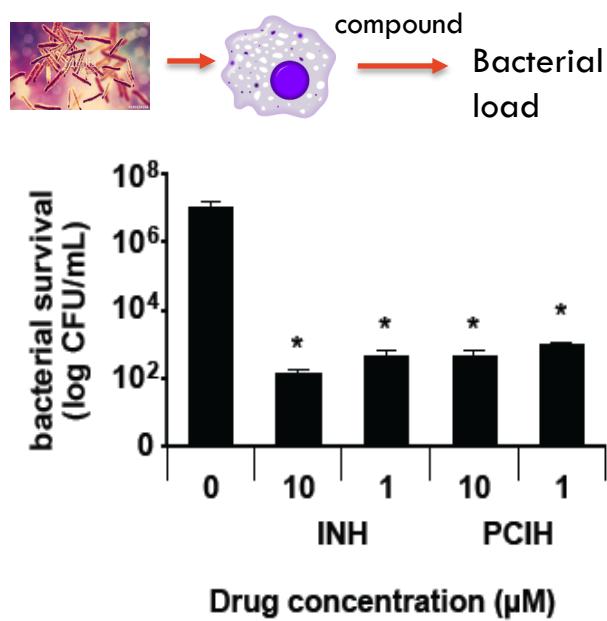


M. Galetta

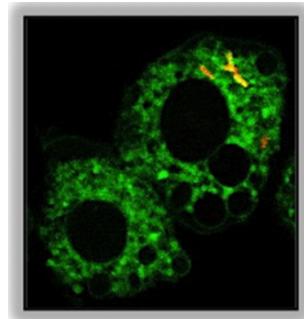


D. Quan

# In vitro and in vivo compound efficacy

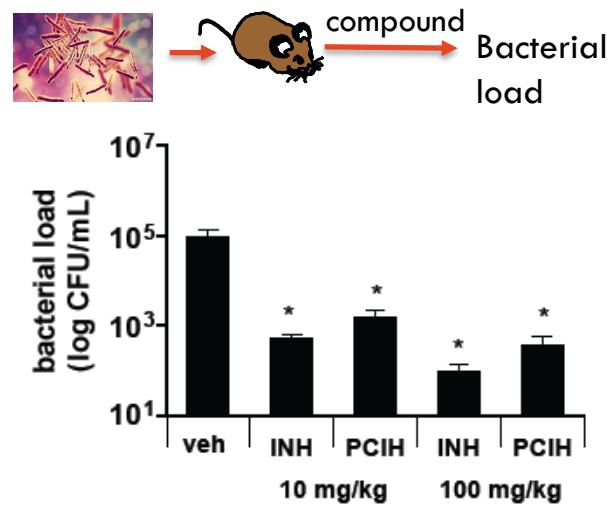


## Mycobacteria compound



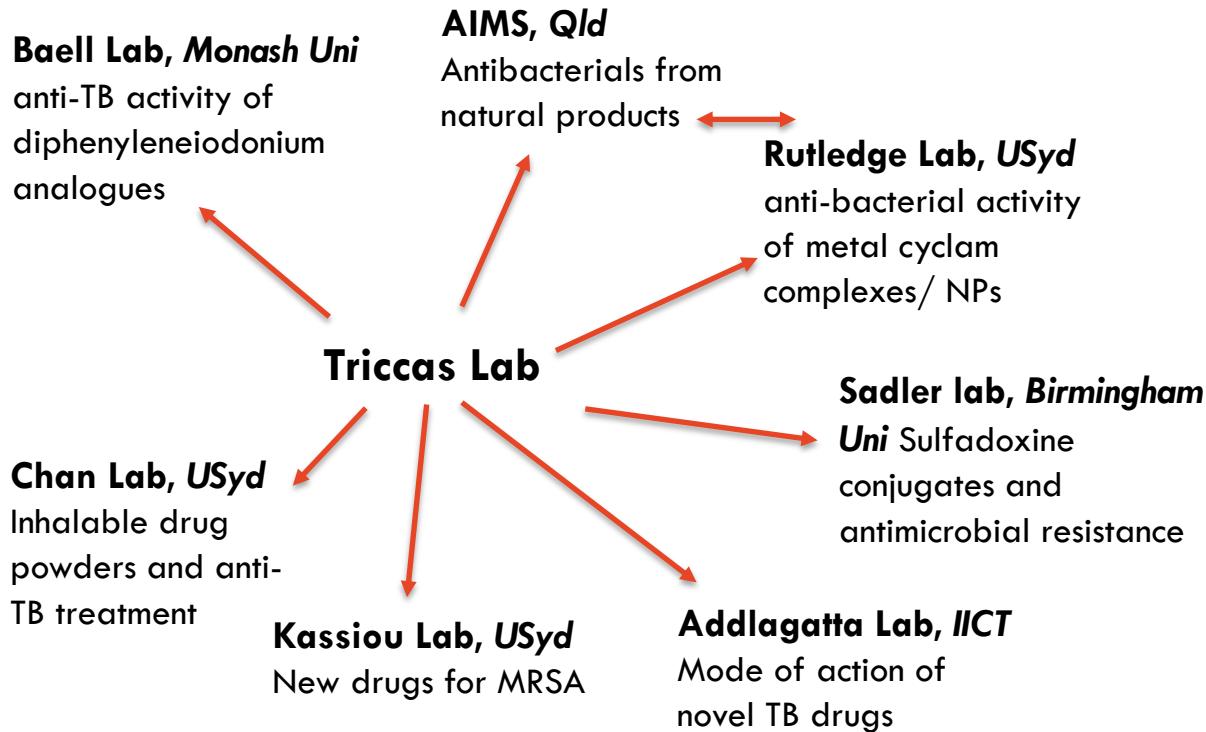
Yu et al J Med Chem, 2016 59:5917-21.

## DRUG-RESISTANT TUBERCULOSIS METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (MRSA)



Ellis et al, Mol Pharmacol, 2014, 85: 269-278

# Drug Development Network and requirements



- Mode of action (target identification, enzyme inhibition assays)
- Natural product synthesis
- Drug delivery