



A non-mammalian host model to discover new antibacterial compounds

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The amoeba Dictyostelium discoideum



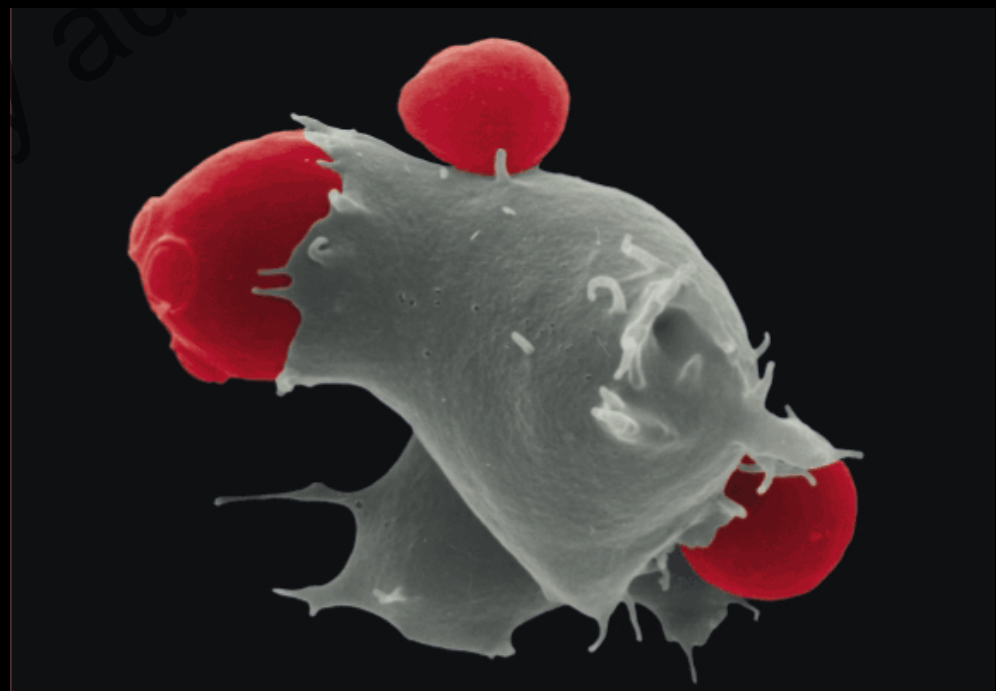
Picture: M. Maniak

The amoeba *Dictyostelium discoideum*

1-Measuring bacterial virulence

2-New anti-Klebsiella compounds

3-New anti-mycobacteria compounds

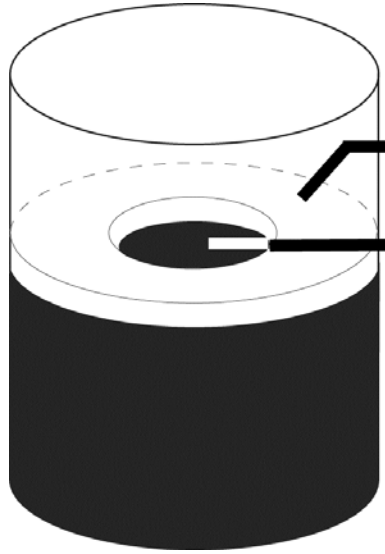




Bacteria

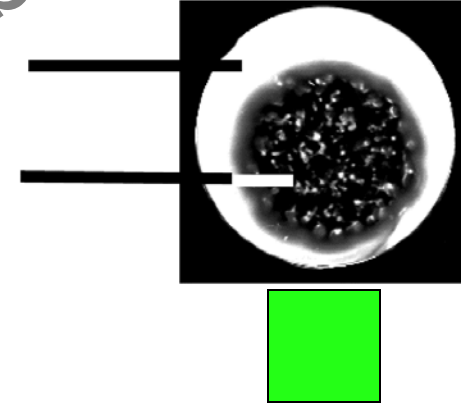


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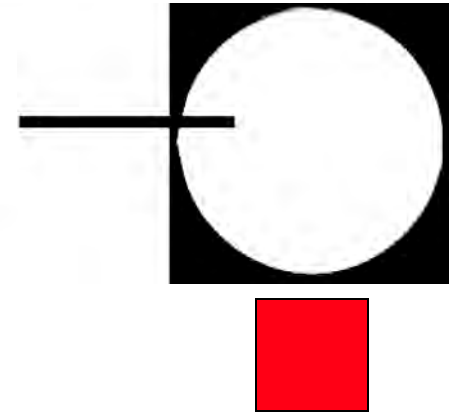


Bacteria

Dictyostelium



Pathogenic bacteria



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Klebsiella pneumoniae virulence

Mouse



Amoeba



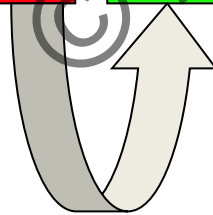
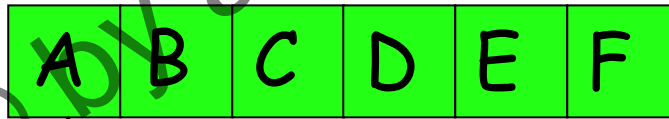
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Klebsiella pneumoniae virulence

Mouse

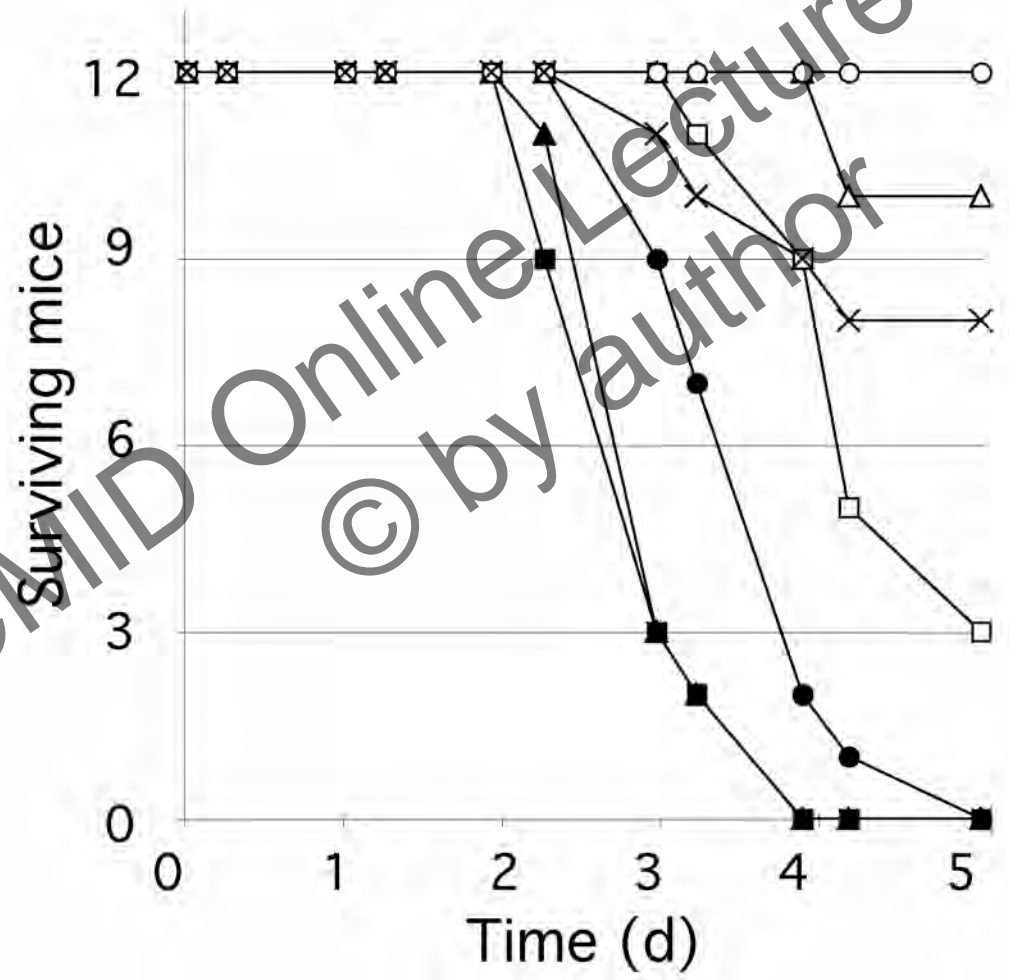


Amoeba



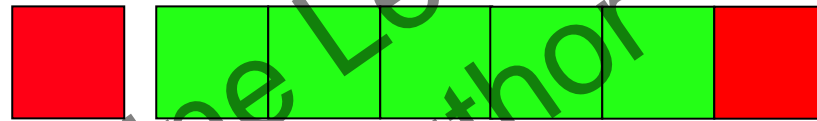
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Killing of mice by Klebsiella

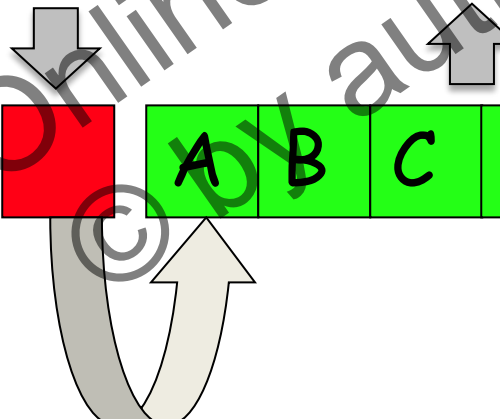
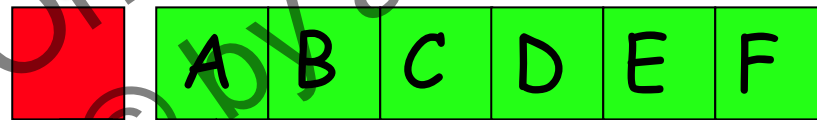


Klebsiella pneumoniae virulence
is similar in mouse and Dictyo

Mouse



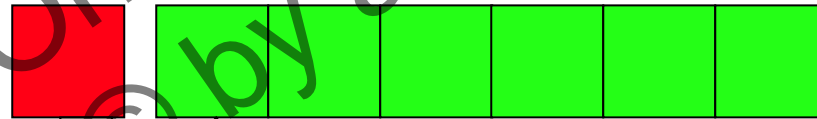
Amoeba



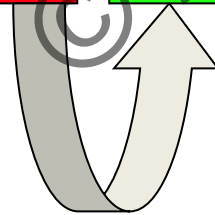
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Klebsiella pneumoniae virulence
is similar in mouse and Dictyo

Amoeba



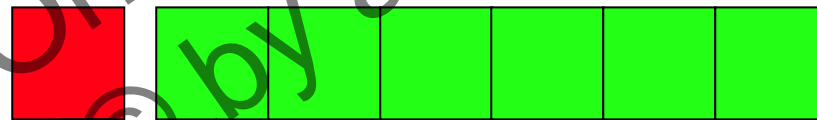
Compounds



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Klebsiella pneumoniae virulence
is similar in mouse and Dictyo

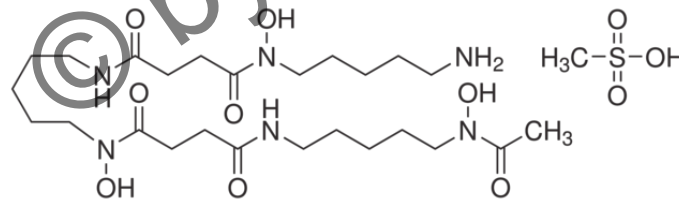
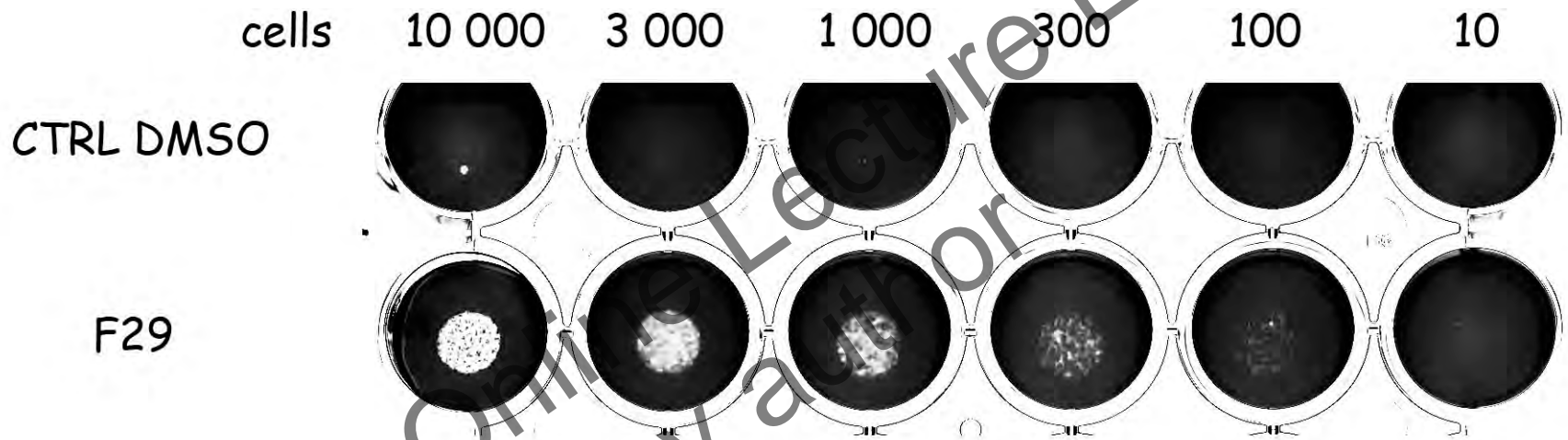
Amoeba



Compounds (0.3%)

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F29 inhibits *K. pneumoniae* virulence



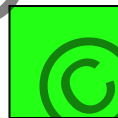
F29 has no antibiotic activity

Mycobacterium marinum virulence

Fish



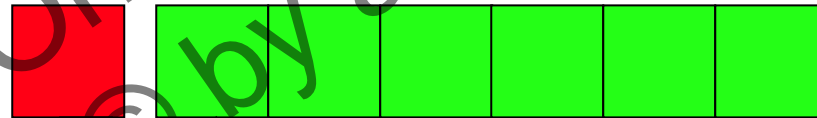
Amoeba



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Mycobacterium marinum virulence

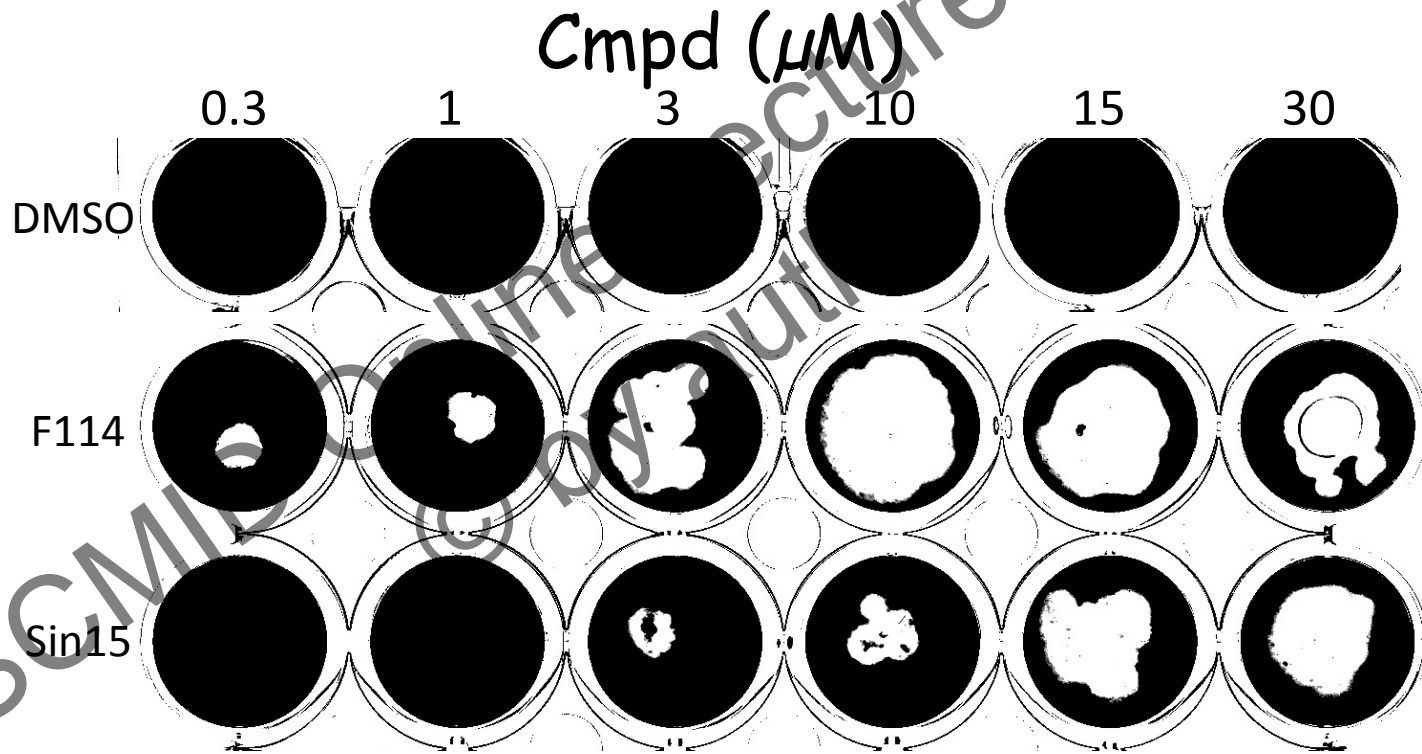
Amoeba



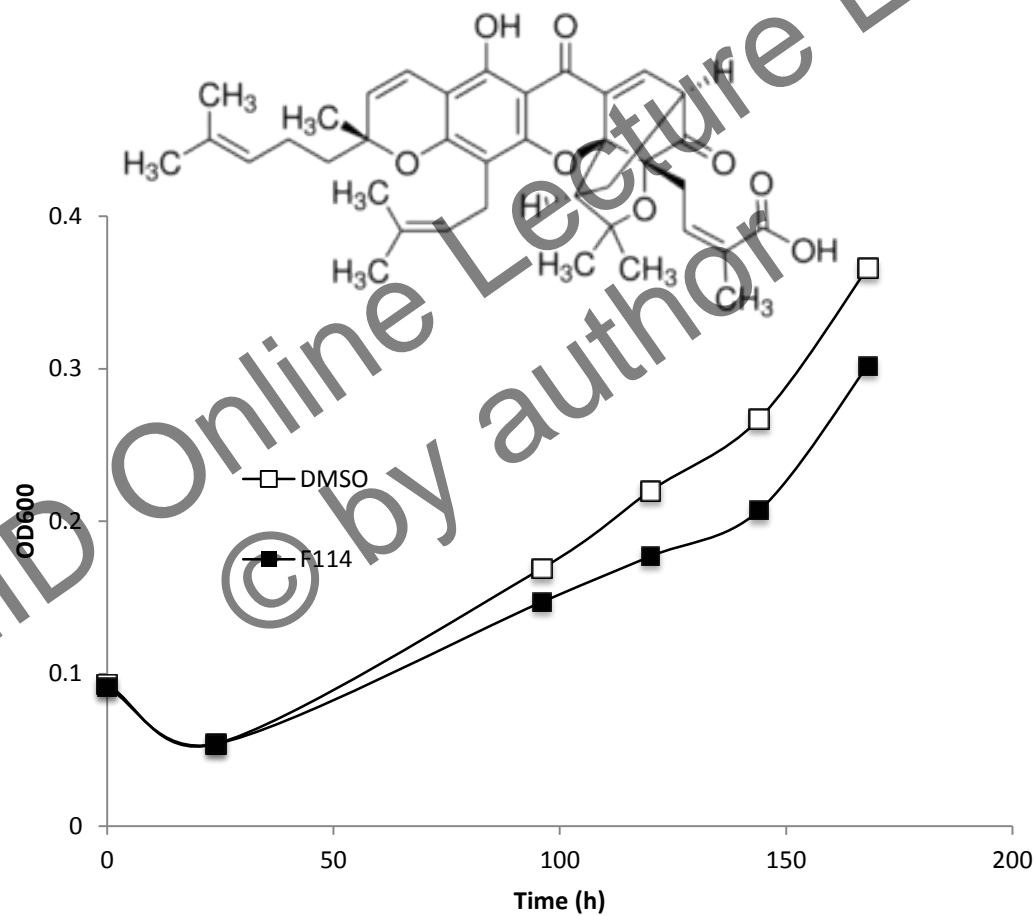
Compounds (1.7%)

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Mycobacterium marinum virulence



F114 has no antibiotic activity



Sinergia project:
H. Hilbi, J. McKinney, L. Scapozza, T. Soldati,

