

# Superbugs – what are they and why should we be worried?

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# The plan -

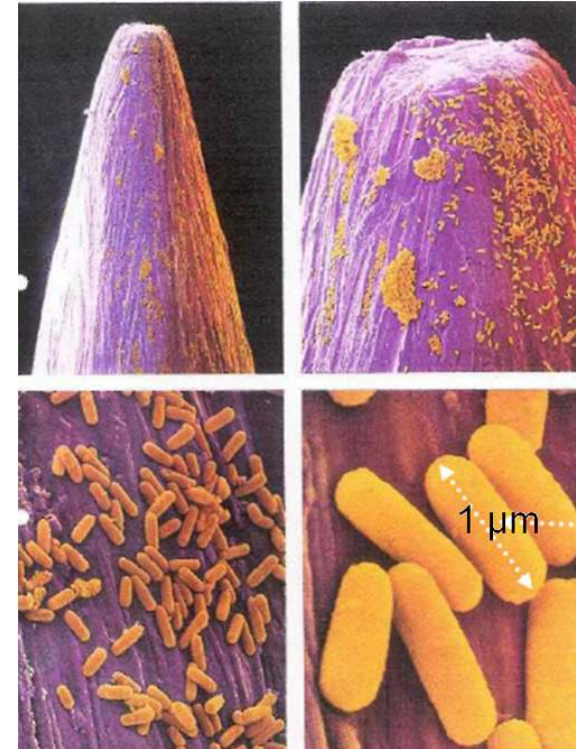
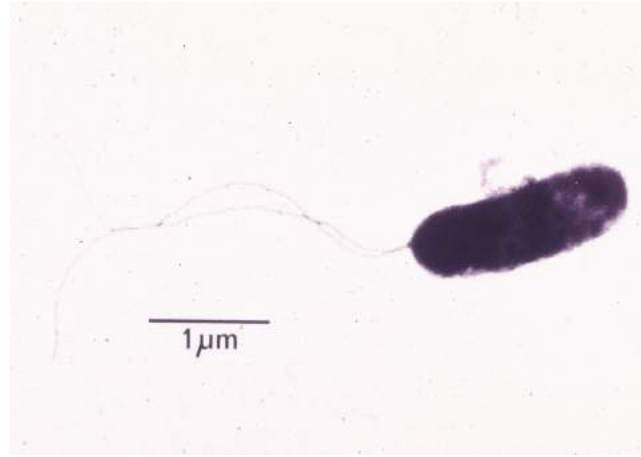
- How have superbugs come about?
- Why should we be worried?
- What can be done?

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# Bacteria ...

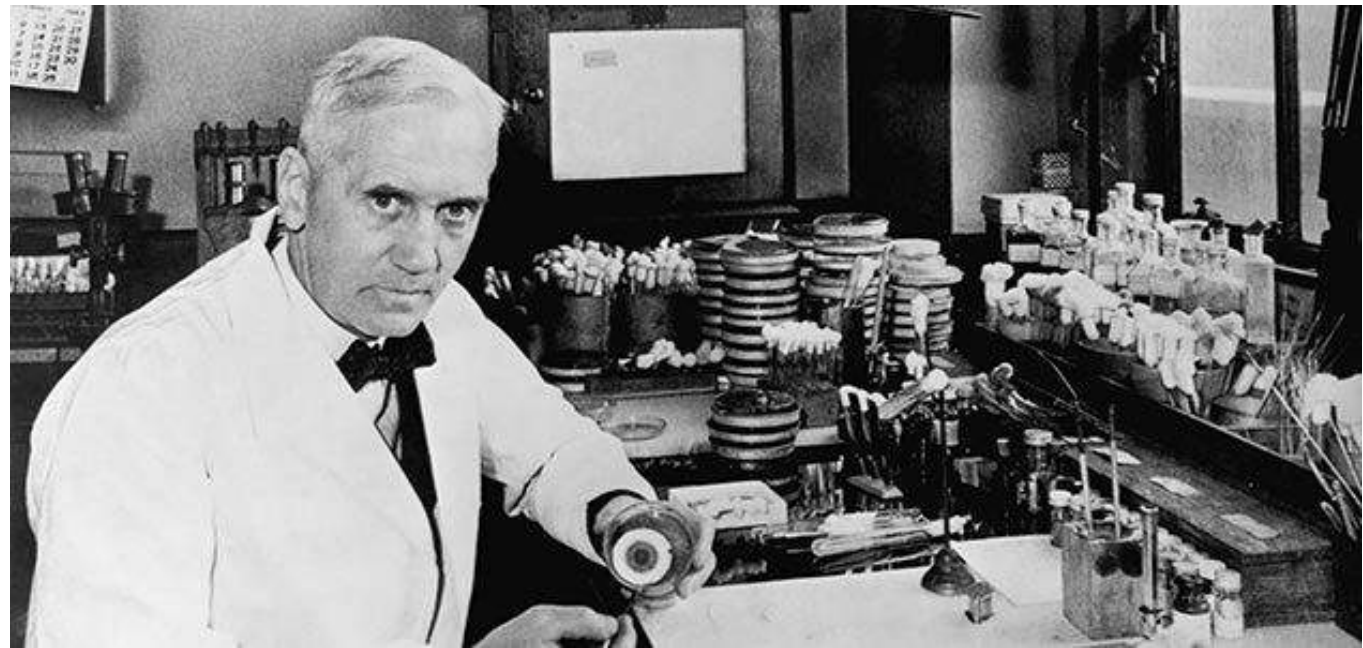


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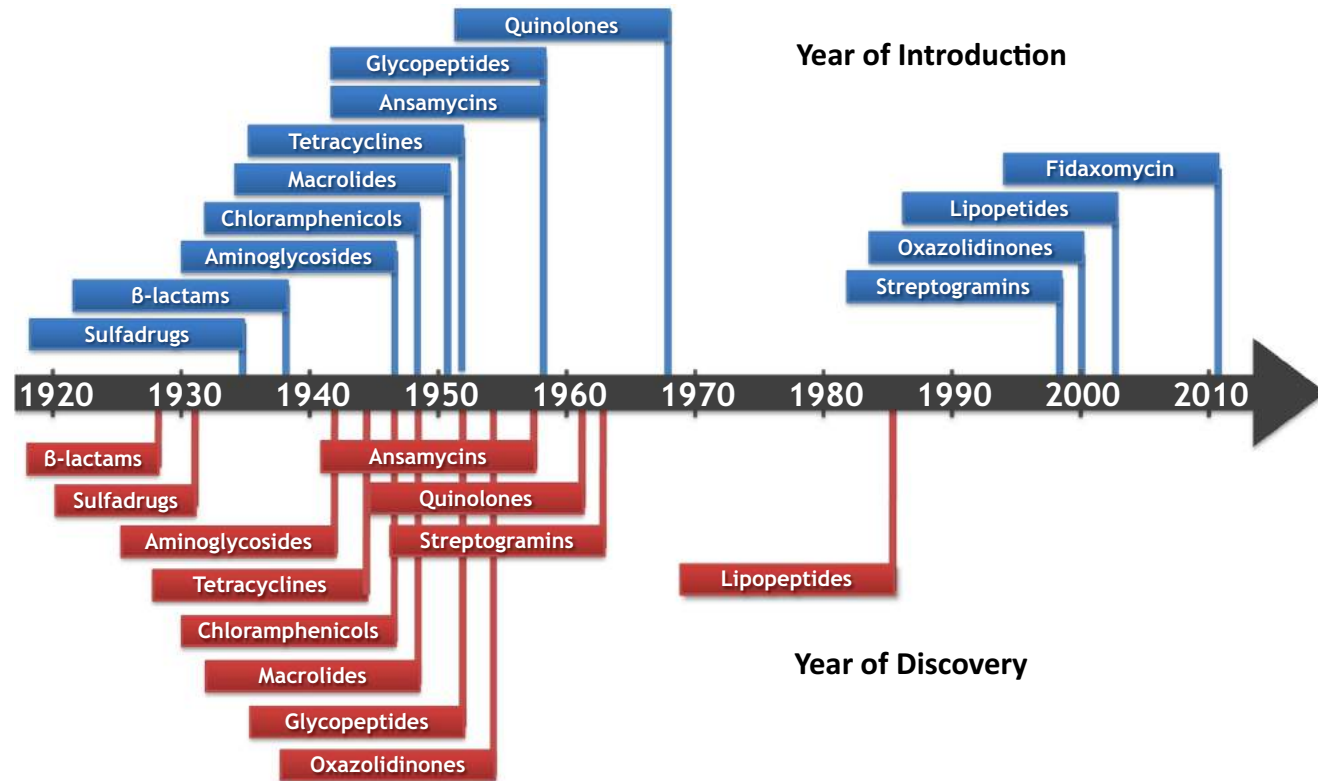
*Te Whare Wānanga o Ōtago*

# Alexander Fleming – discoverer of penicillin

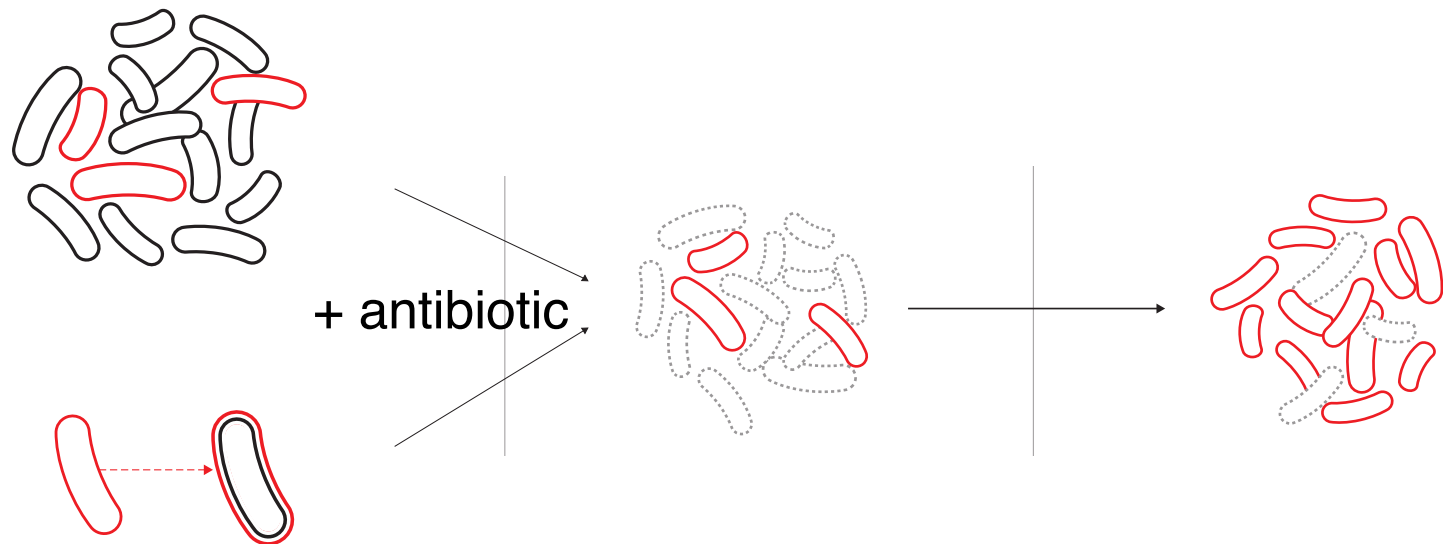


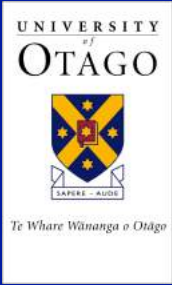


# Antibiotic discovery ...



# How do bacteria become resistant to antibiotics?





# How worried should we be?

~ 70,000 people die each year due to infection by antibiotic-resistant bacteria

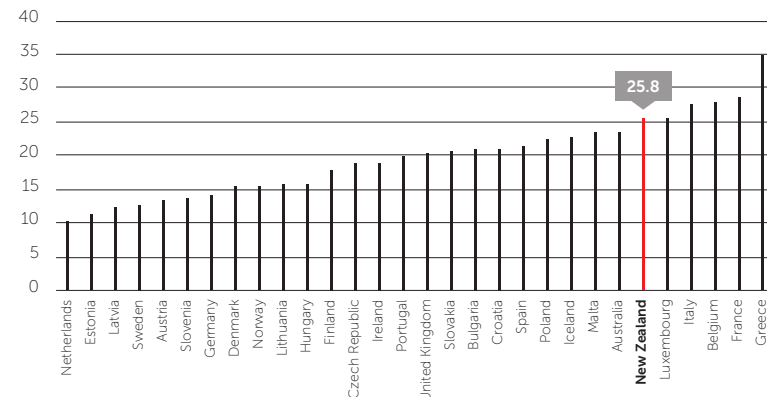
- Estimated to rise to about 10,000,000 per year by 2050s



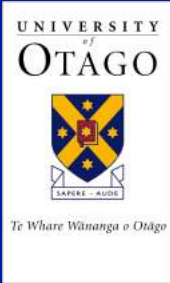
# So what can we do?

## Society -

- Use antibiotics wisely
- “Repurpose” antibiotics
- Invent more







# So what can we do?

Individually -

- don't use antibiotics unnecessarily
- finish a course of antibiotics unless Dr advises otherwise



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# My research team .....

*Pseudomonas aeruginosa*, one of the most problematic superbugs

