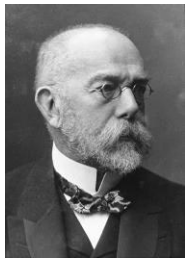


The Persister (Dormant) State

Where does *E. coli* O157:H7 go when they die?



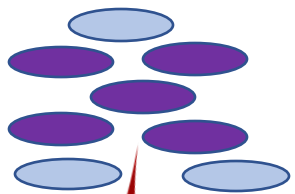
Robert Koch



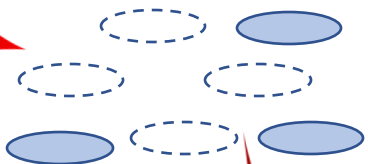
J.W. (Joe) Bigger
1924-1952

F.S. (Stanley) Stewart
1952-1975

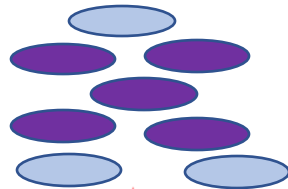
Professors of Bacteriology
and Preventive Medicine



Antibiotics



Removal of
Antibiotic Stress



Methyl Pyruvate
Ester

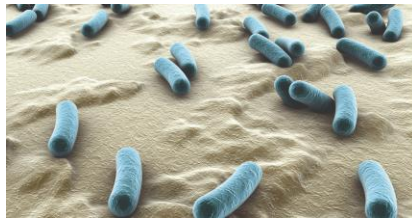
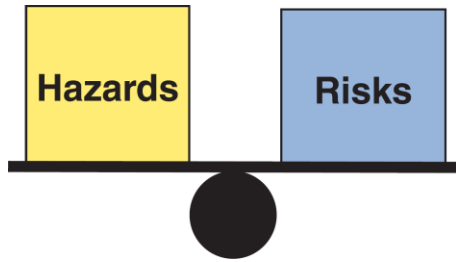


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Time



- Viable Cells
- Lysed Cells
- Persister II
- Persister III
- Viable But Culturable



Biofilms
Long term survival
Stress resistance
Genetic Exchange



Diagnostics
False-negative
Non-culturable



Persister



Environmental Persistence
Survival in soil and water
Contamination on plants

Risk Assessment
Environmental dissemination
Animal infections
Human infections
Foodborne illness



Latent infections
Reoccurring infection
False Negative



Stress Tolerance
Antibiotics
Sanitizers
Thermal