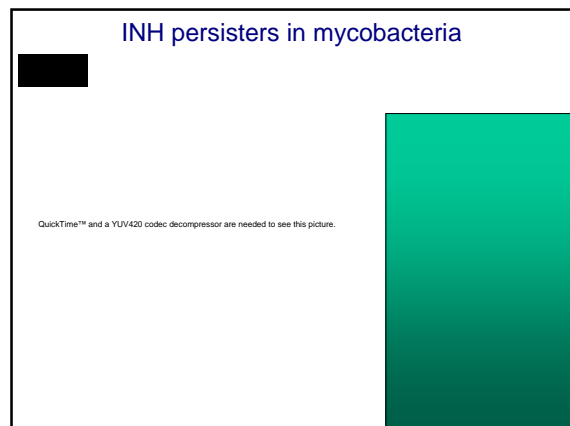
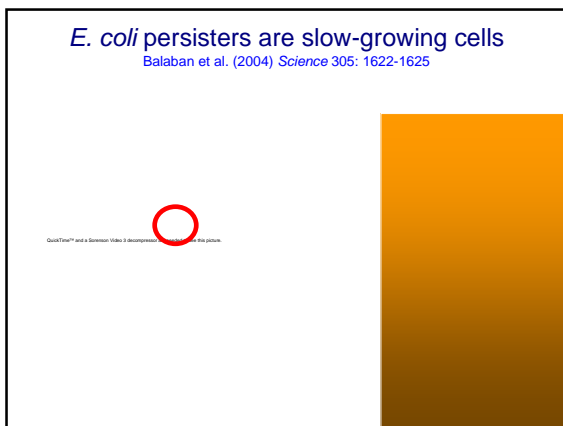
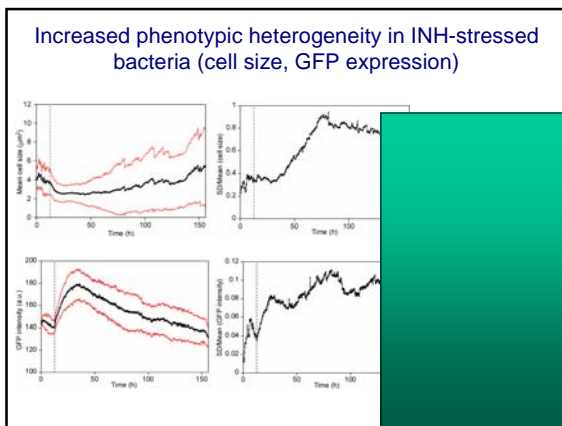
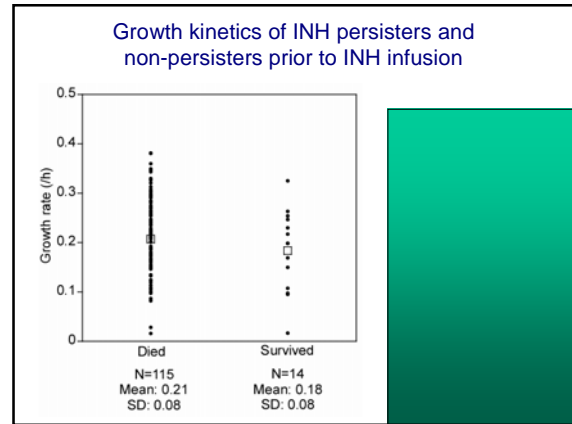
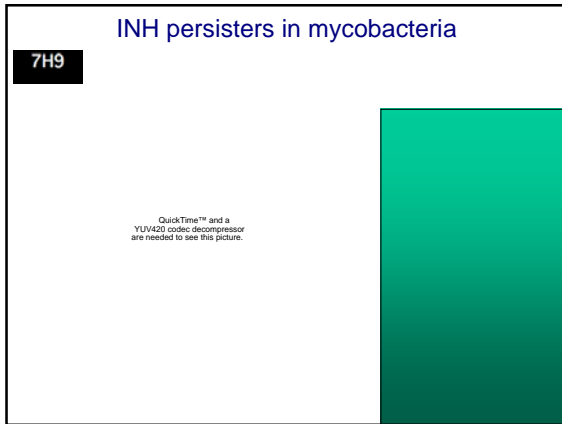


"Persisters are...insensitive to penicillin because they are in a dormant, non-dividing phase, similar to that of bacteria in the lag phase of the growth curve, and because penicillin kills bacteria only when they are dividing or about to divide."

Bigger, J.W. (1944) Treatment of staphylococcal infections with penicillin by intermittent sterilisation. *Lancet* ii: 497-500.





INH persists in mycobacteria

- INH persisters grow and divide at normal rates prior to INH infusion
- All cells immediately cease growth (but not division) after INH infusion
- Cell lysis is delayed until several hours after INH-induced growth arrest
- Slow cell growth and division resume after prolonged exposure to INH
- Persisters rapidly reactivate cell growth and division after INH washout
- Phenotypic heterogeneity increases in INH-stressed cells