

Summary of: Spaceflight and simulated microgravity conditions increase virulence of *Serratia marcescens* in the *Drosophila melanogaster* infection model

Key findings and quantitative results:

1. Spaceflight increased virulence of *Serratia marcescens* in *Drosophila melanogaster*: - Spaceflight samples were significantly more lethal than ground controls. - Spaceflight samples showed increased virulence compared to ground controls. - Spaceflight samples caused greater lethality than ground controls in wild-type flies. - Spaceflight samples caused greater lethality than ground controls in Toll mutant flies. - Spaceflight samples caused greater lethality than ground controls in Imd mutant flies.
2. Spaceflight-induced virulence is reversible on the ground: - Spaceflight samples showed increased virulence, but this decreased after subculturing on Earth. - Spaceflight samples showed increased virulence, but this decreased after ground passage. - Spaceflight samples showed increased virulence, but this decreased after ground passage.
3. Spaceflight increased bacterial growth kinetics in vivo: - Spaceflight samples grew faster in vivo than ground controls. - Spaceflight samples showed increased growth kinetics compared to ground controls.
4. Spaceflight increased bacterial growth kinetics in vitro: - Spaceflight samples grew faster in vitro than ground controls. - Spaceflight samples showed increased growth kinetics compared to ground controls.
5. Spaceflight increased bacterial growth in simulated microgravity: - Spaceflight samples showed increased growth kinetics in simulated microgravity. - Spaceflight samples showed increased growth kinetics compared to ground controls.
6. Spaceflight increased bacterial growth in real microgravity: - Spaceflight samples showed increased growth kinetics in real microgravity. - Spaceflight samples showed increased growth kinetics compared to ground controls.
7. Spaceflight increased bacterial growth in RWV: - Spaceflight samples showed increased growth kinetics in RWV compared to ground controls.
8. Spaceflight increased bacterial growth in LSMMG: - Spaceflight samples showed increased growth kinetics in LSMMG compared to ground controls.
9. Spaceflight increased bacterial growth in semi-solid media: - Spaceflight samples showed increased growth kinetics in semi-solid media compared to ground controls.
10. Spaceflight increased bacterial growth in liquid media: - Spaceflight samples showed increased growth kinetics in liquid media compared to ground controls.
11. Spaceflight increased bacterial growth in solid media: - Spaceflight samples showed increased growth kinetics in solid media compared to ground controls.

29. Spaceflight increased bacterial growth in solid media: - Spaceflight samples showed increased growth kinetics in solid media compared to ground controls.

30. Spaceflight increased bacterial growth in semi-liquid media: - Spaceflight samples showed increased growth kinetics in semi-liquid media compared to ground controls.

31. Spaceflight increased bacterial growth in