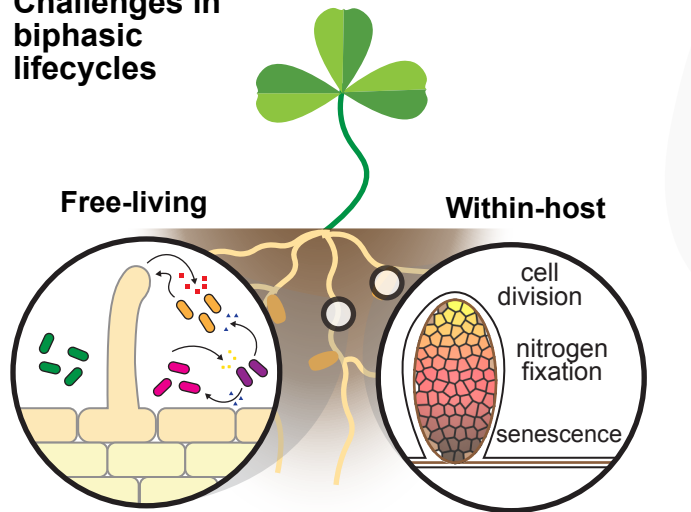


A Challenges in biphasic lifecycles



microbial competition
host access

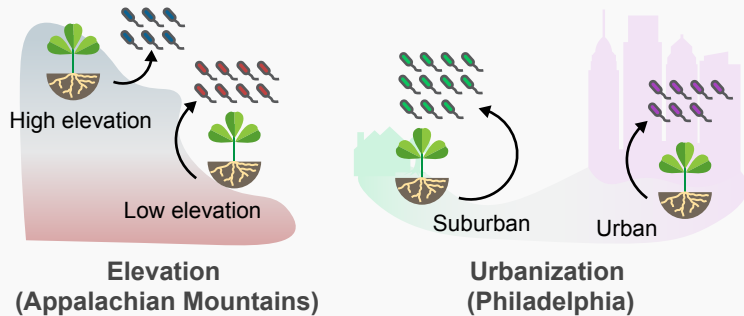
adaptation to host environment
symbiont competition

Free-living assays:
growth curve

Within-host assays:
Plant experiment (I)
native host *Medicago lupulina*
Plant experiment (II)
novel host *Medicago sativa*

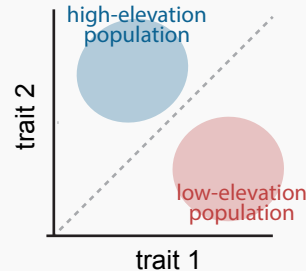
B

Two environmental gradients



C

Population divergence



No divergence

