

Poster 225

18:30-20:00 Monday & Tuesday

IS REPAIR BETTER THAN SEGREGATION OF DAMAGE FOR AGING CELLS IN A BIOFILM?

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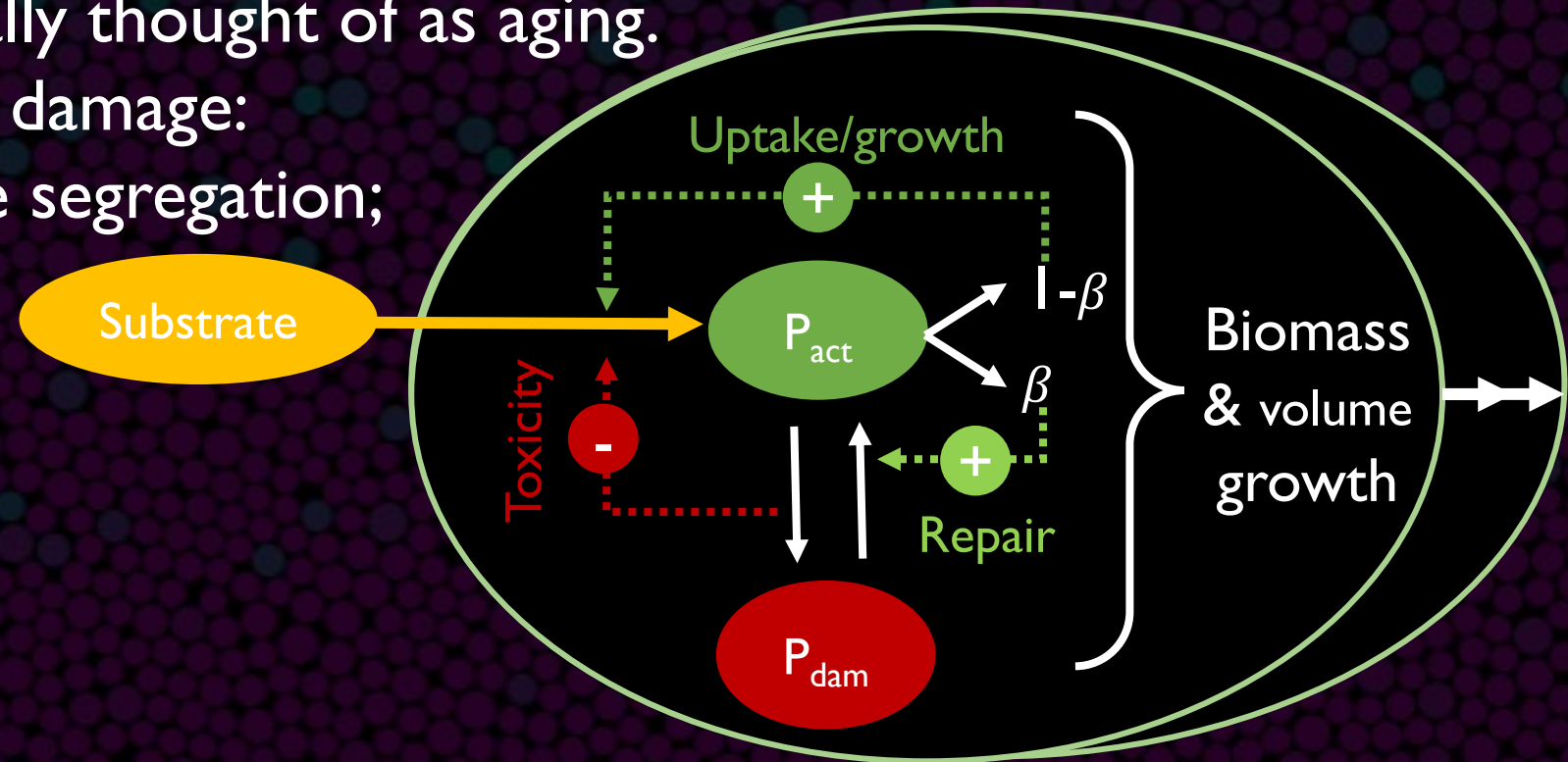
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INTRODUCTION:

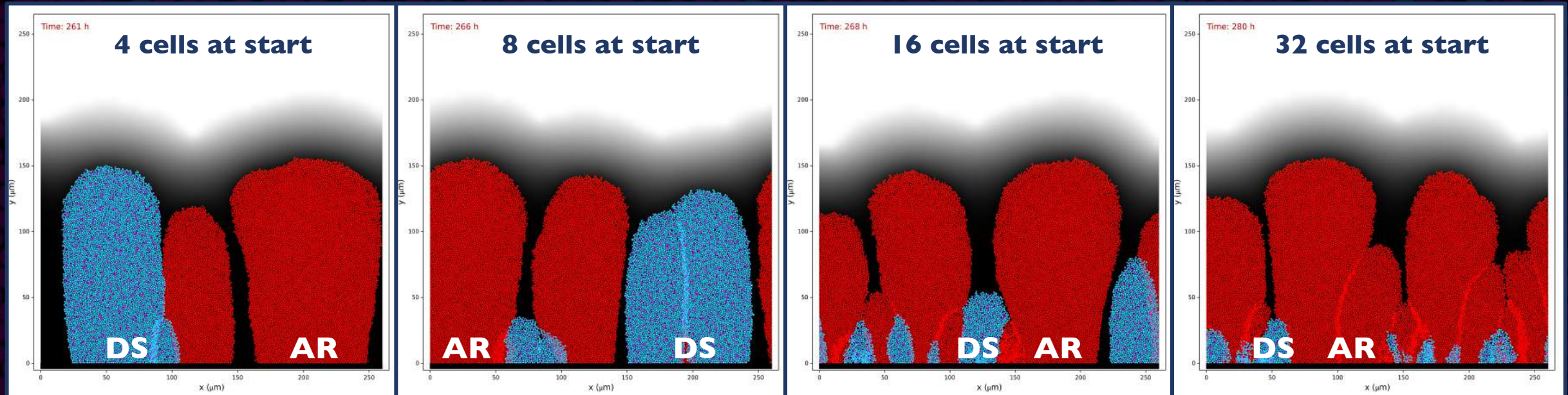
- Aging is a loss of function or an accumulation of damage with increasing age.
- Bacteria are not traditionally thought of as aging.
- Strategies for dealing with damage:
 - Asymmetric damage segregation;
 - Repair.



- Our previous study (Clegg *et al.*, 2014) found a fixed, optimal investment into repair to be a fitter strategy than damage segregation (in a chemostat).

AIMS AND FINDINGS:

- Develop an adaptive repair strategy.
- Test this strategy against the previous fixed, optimal repair strategy.
- Apply this to a model of growth in biofilms (comparing adaptive repair, AR, with damage segregation, DS).



→ Outcome depends upon starting cell density.