

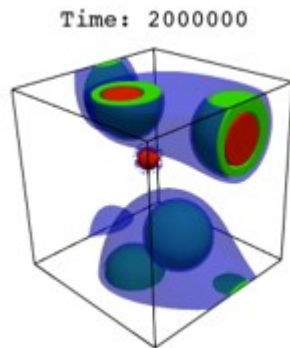
Materials Research Science and Engineering Centers

iSuperSeed: Harnessing the Rules of Life to Enable Bio-Inspired Soft Materials

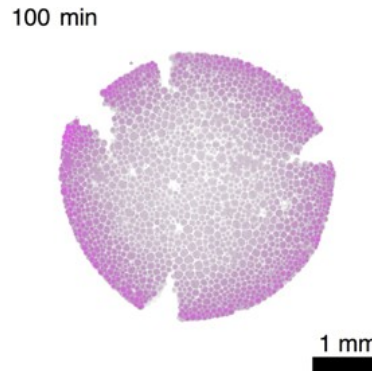
Participants (3 departments): H Stone, (MAE), S. Datta (CBE), A. Košmrlj (MAE), B. Bassler (MOL BIO), C. Brangwynne (CBE); multiple collaborative papers to date

Goal: Focusing on two scales of biological organization - the intra- and extra-cellular levels - *how do polymers drive biological function?*

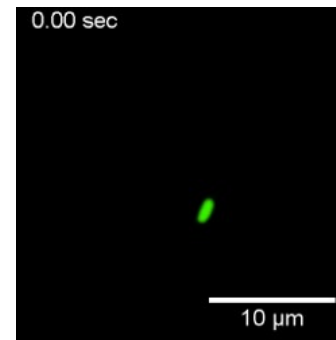
Innovations in visualization, quantitative experiments and simulations/theory.



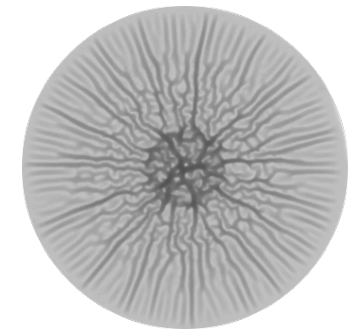
Intracellular phases and evolution



Macromolecular assemblies and bacterial transport



Biofilms: mechanics, wrinkling, transport



Polymeric phases central to observed responses at different length scales.