

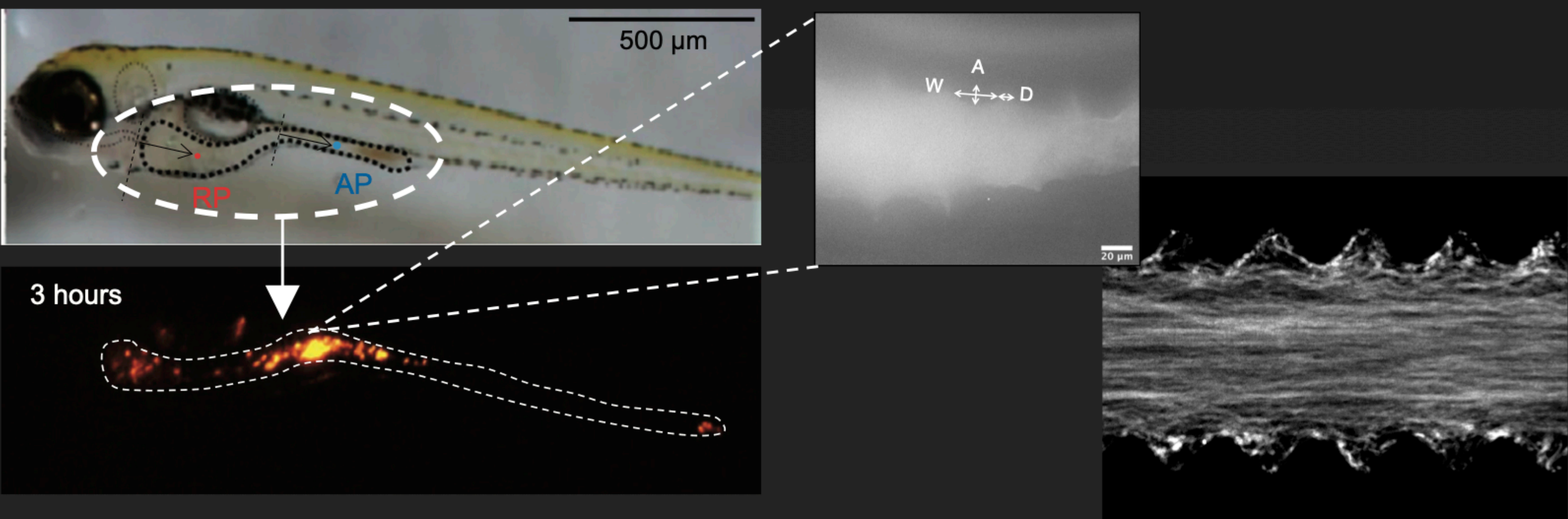
Biological Flow Studies Laboratory

Our research field is **biomechanics**, in which biological functions are clarified from mechanical point of views and utilized for engineering applications.

We do experiment, theory and numerical simulation to overcome various kinds of health and environmental issues.

Measuring biological flows

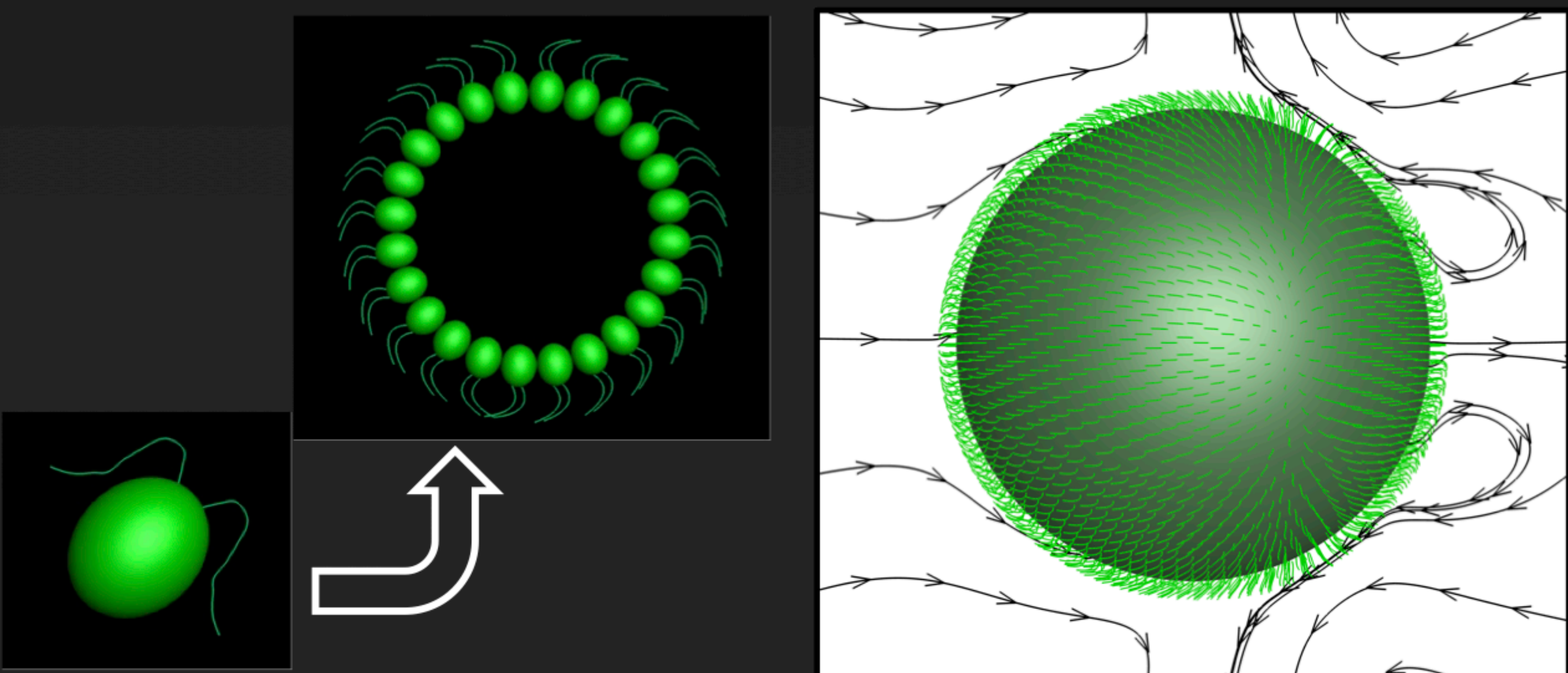
Flow measurement of bacterial flora



Kikuchi et al, Am J Physiol Gastrointest Liver Physiol (2020)

Numerical simulations

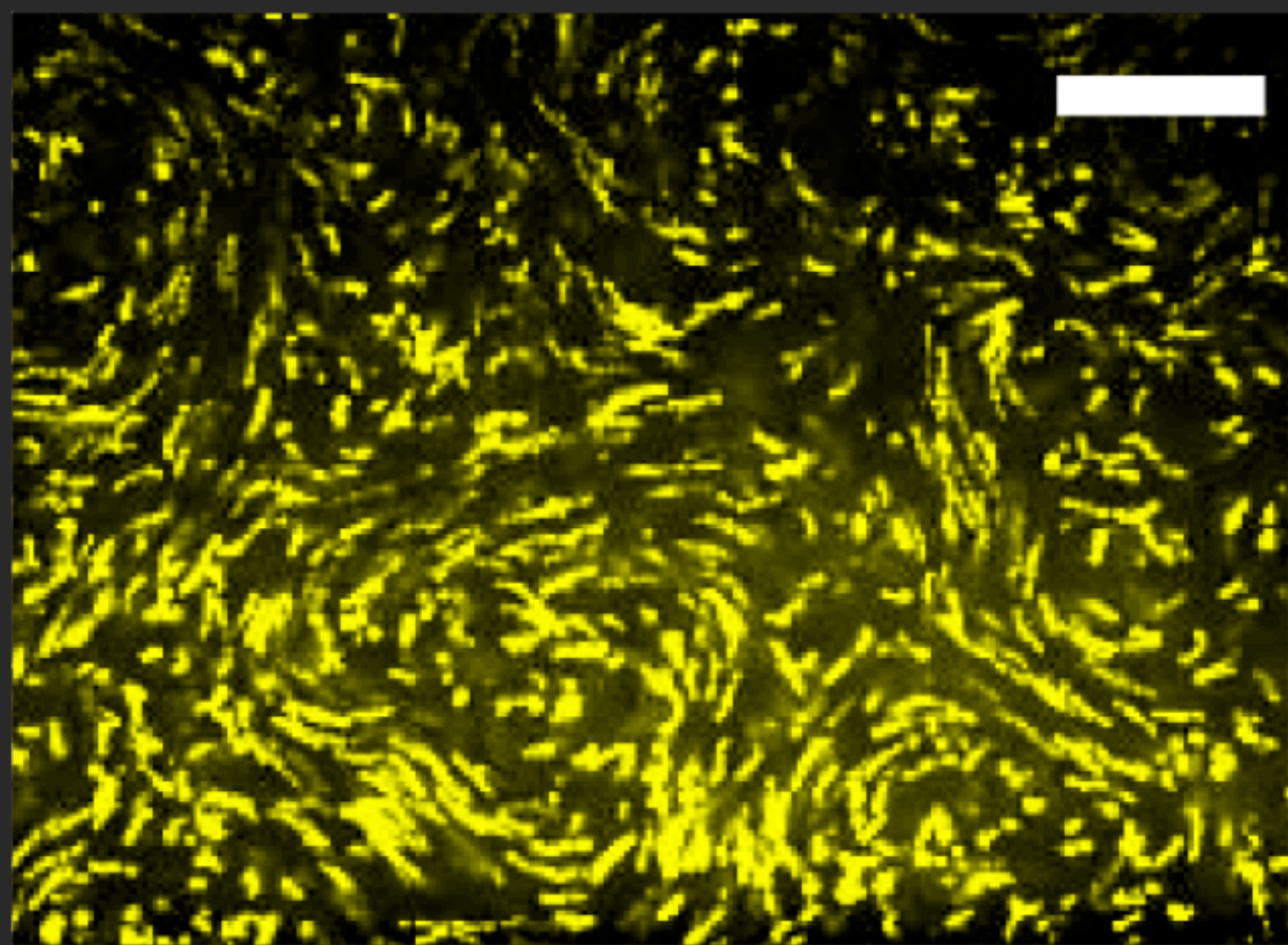
Morphological evolution and flow



Multicellularization

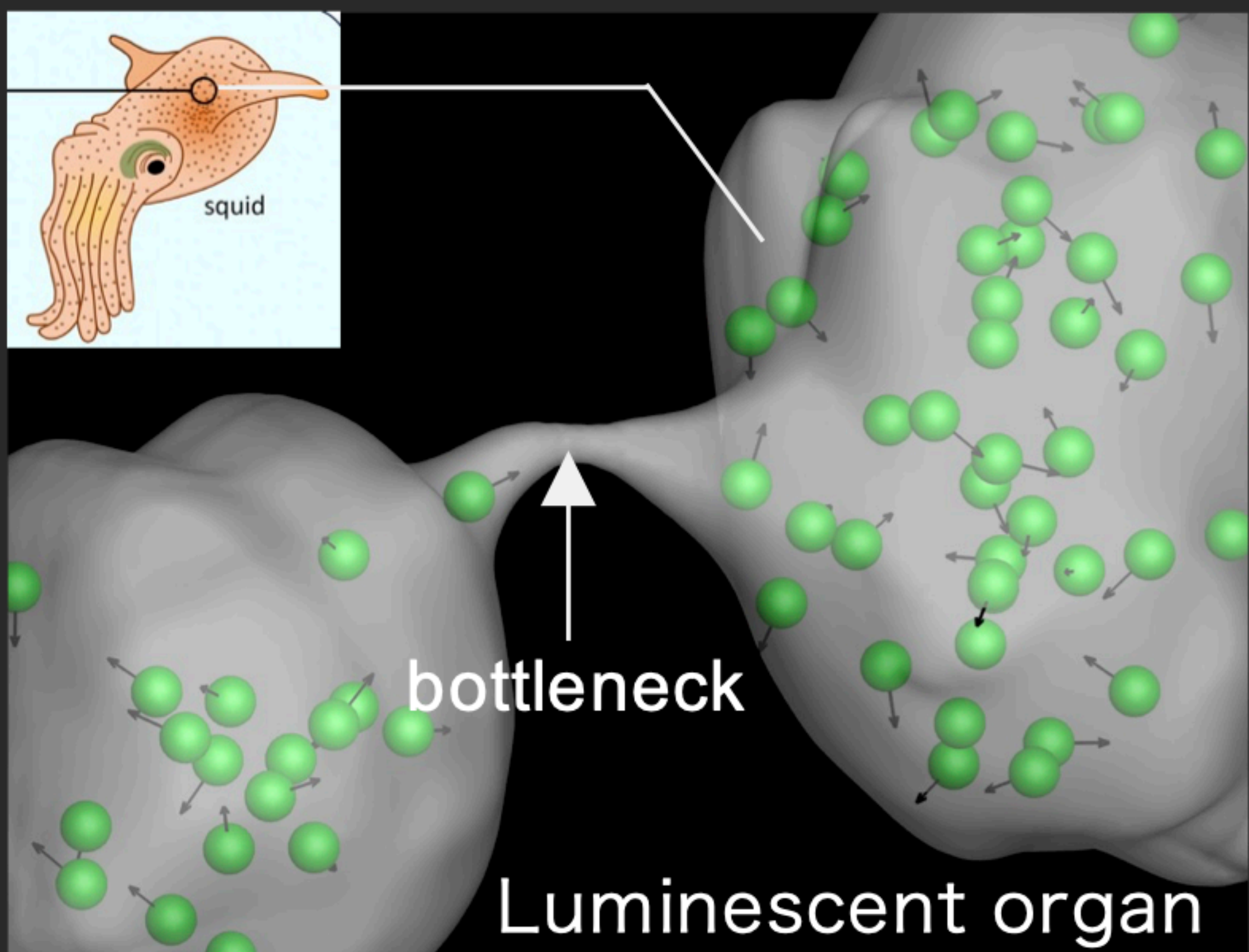
Omori et al, PNAS (2020)

Bacterial turbulence

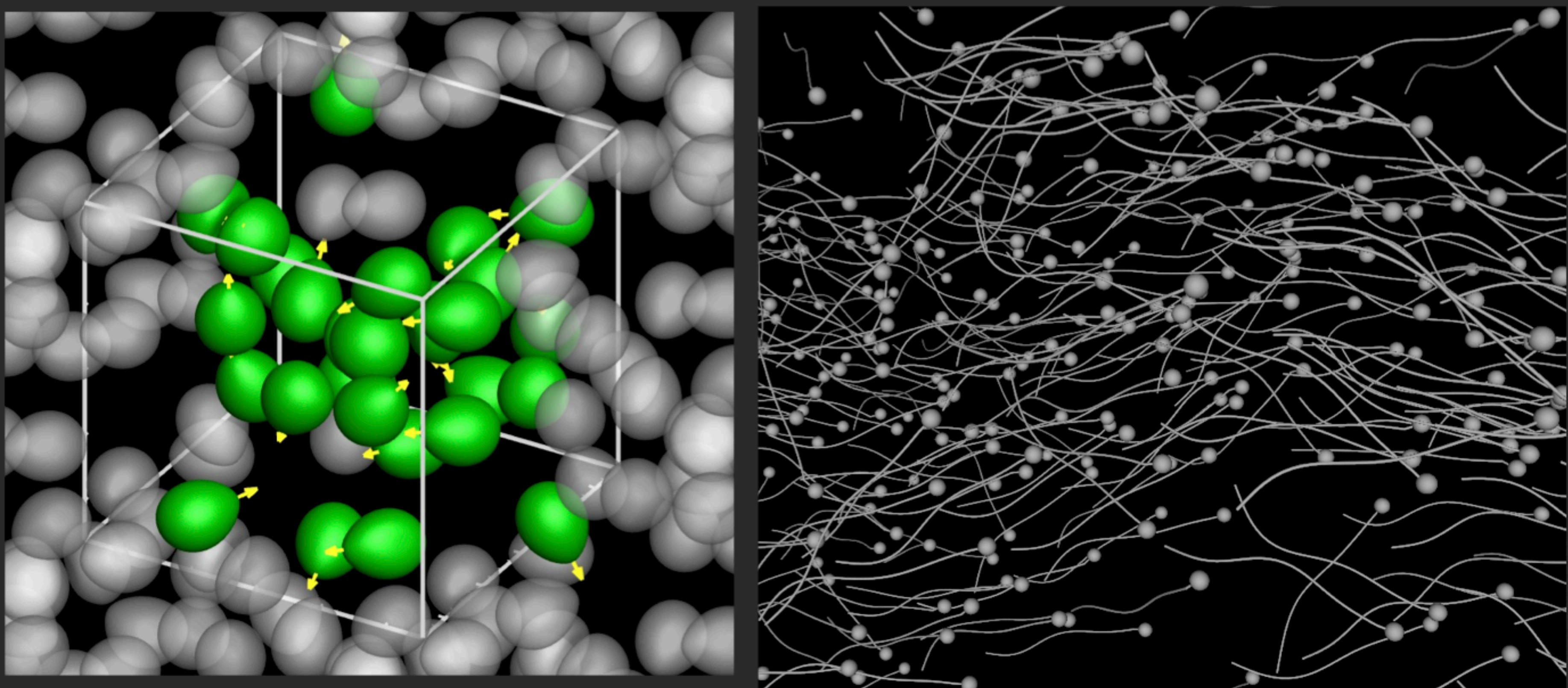


Ishikawa et al, APL Bioengineering (2020)

Flow and symbiosis

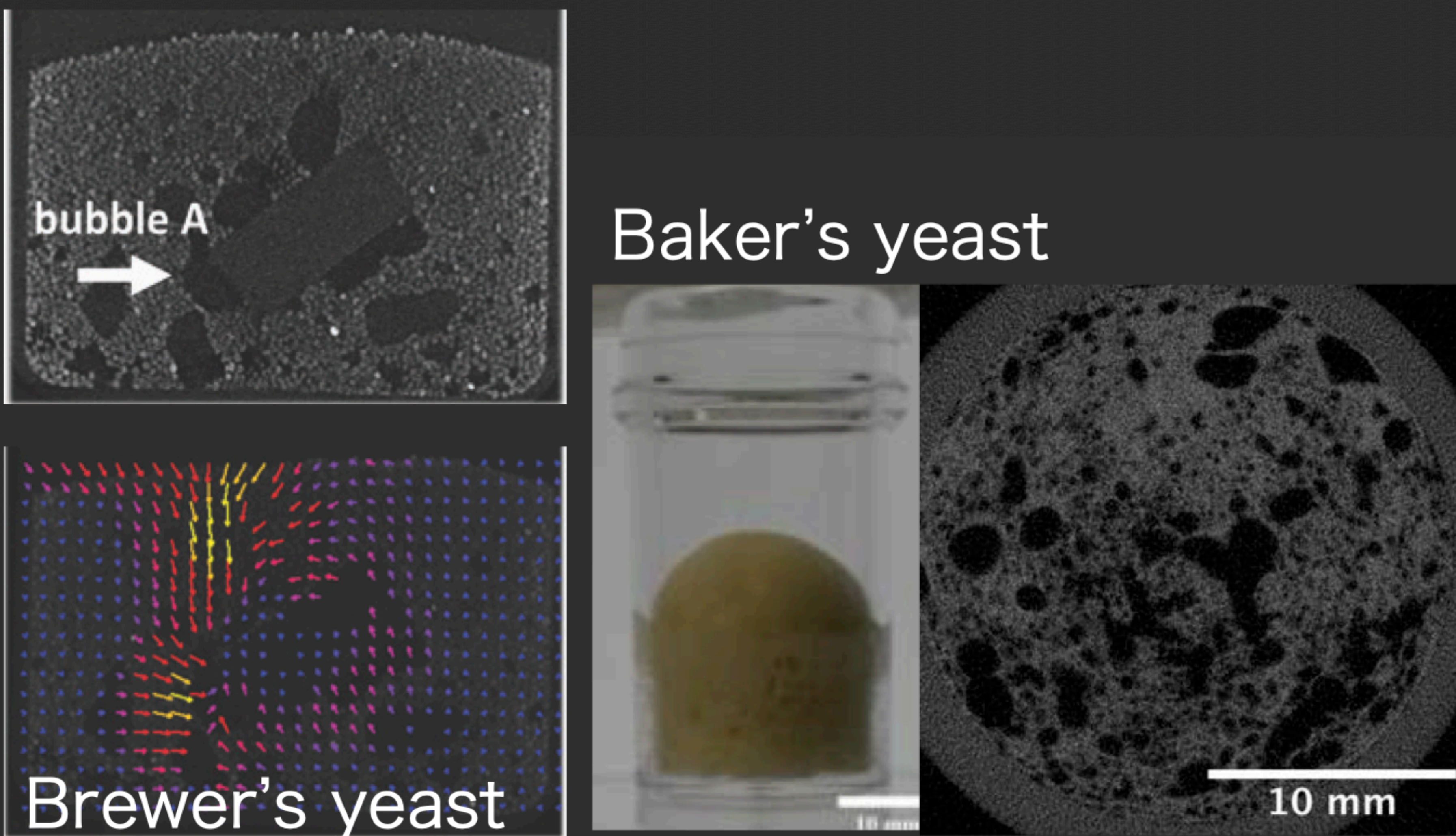


Self-organization of microorganism



Taketoshi et al, Phys Fluid (2020)

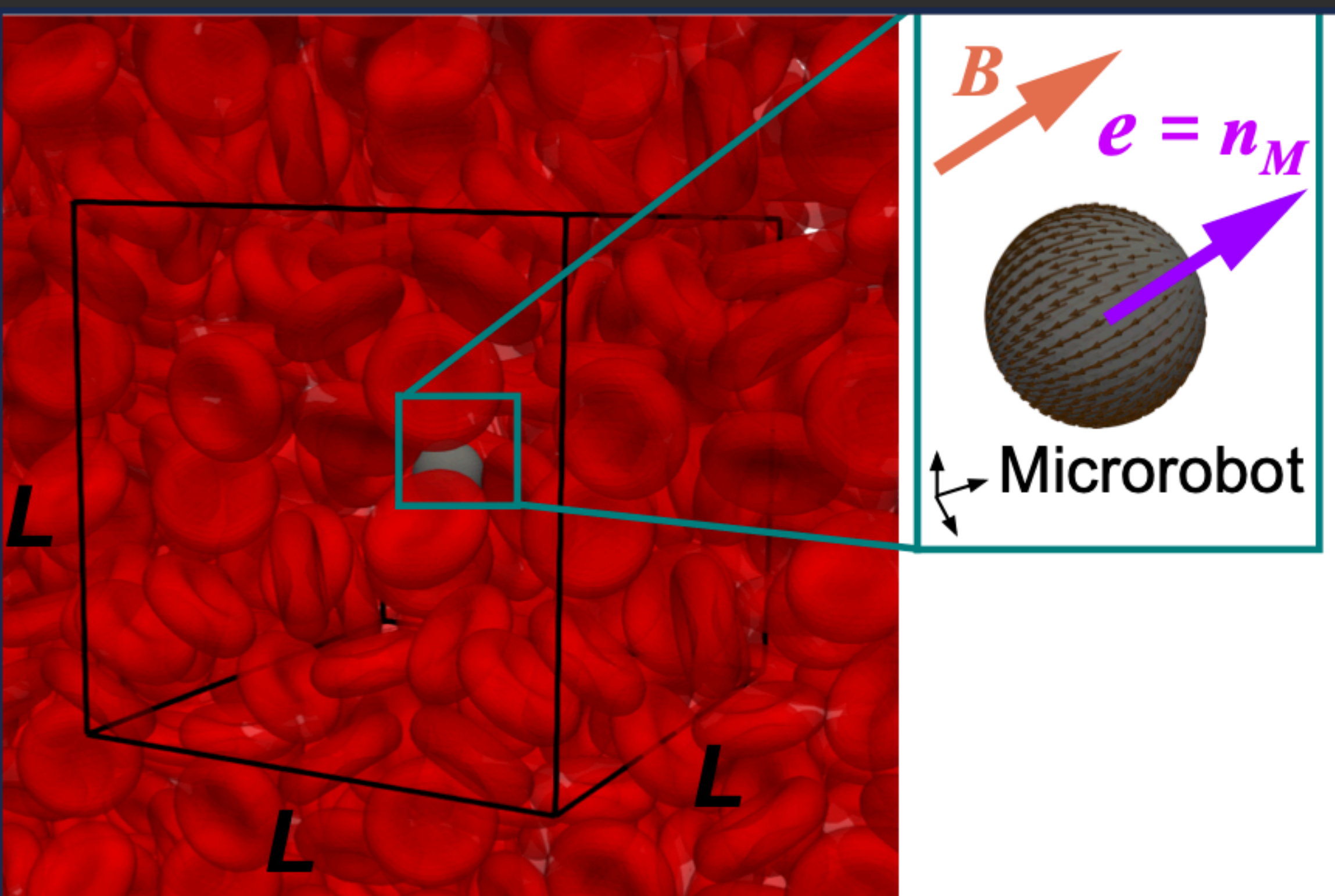
Bubble flow produced by yeast



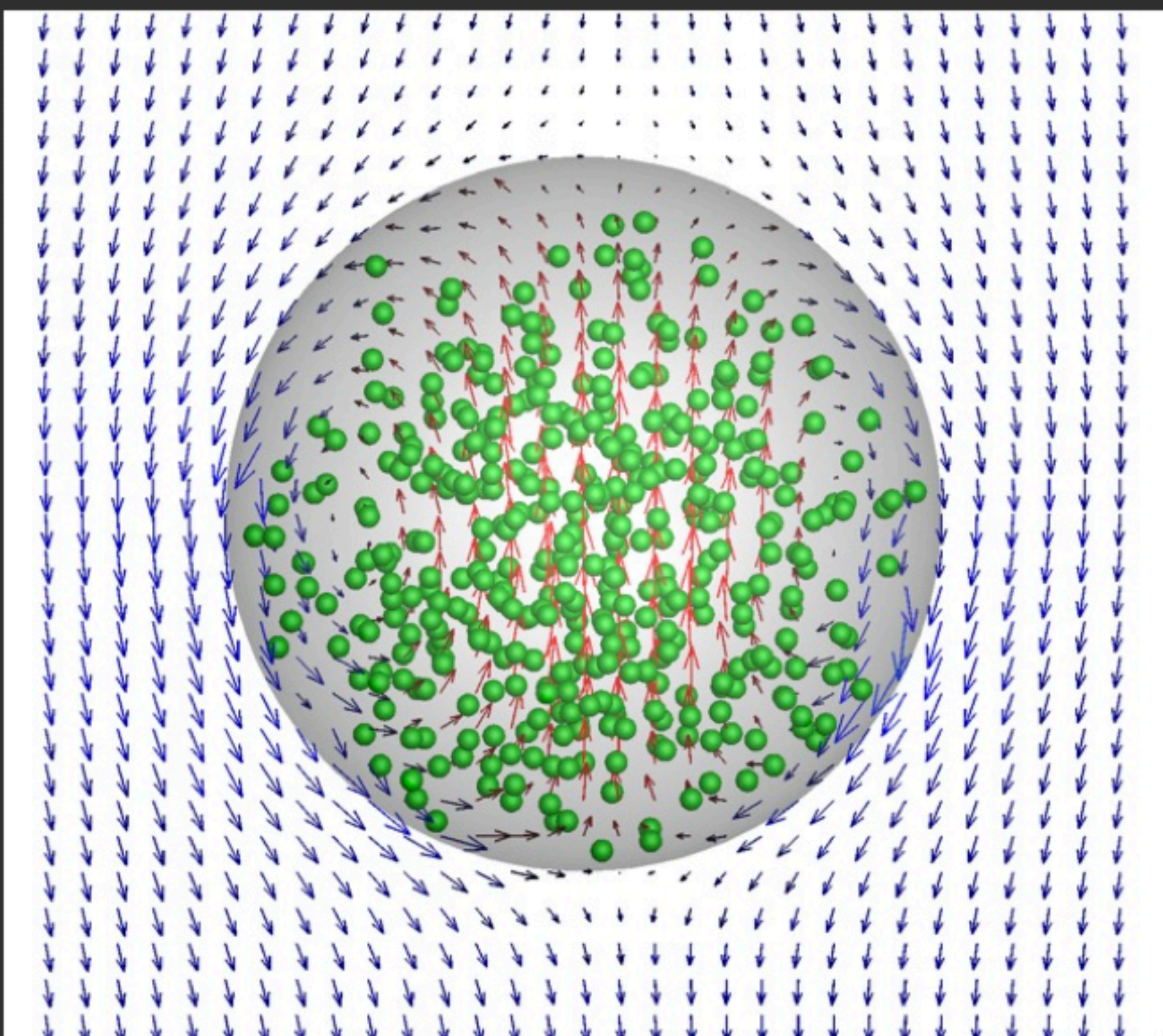
Srivastava et al, Soft Matter (2021)

Device development

Medical robot



Active droplet



Huang et al, Phys Rev E (2020)