

6th IRFI-LiSM Seminar

第6回 IRFI-LiSMセミナー

30th Lecture on Molecular Engine

第30回 発動分子科学セミナー



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“Membraneless active droplets mimic features of living systems”

Enzyme-catalysed reactions happen every second in the complex crowded environment of cellular cytosol. Here, we introduce a model system to mimic the high macromolecular crowding found in the cellular cytosol. Our system takes advantage of the tendency of proteins to phase-separate in membrane-less compartments, the lack of membrane barrier allows substrates and products to freely diffuse in the system. In general, this system can be used to study enzyme behavior in a macromolecular crowded and controlled environment. Further we demonstrate how this system can self-generate in situ a pH gradient. We discovered that this pH gradient controls droplets direction and speed, ultimately inducing migration. Our system recapitulates putative biological and pre-biotic conditions.

日時：2023年11月24日（金）

13:30～15:00

場所：東工大すずかけ台キャンパス
G3棟5階セミナー室

連絡先：上野 隆史（内線 5844）

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Molecular Engine

