

令和7年度 第6回

# NCNP 国際セミナー



## Dynamics of muscle stem/niche cells in development, regeneration and disease

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**Time: 3-4 pm**



**Venue: 教育研修棟 多目的室**

### Abstract

Muscle stem cells (MuSCs) are intricately controlled by multiple intrinsic and extrinsic pathways. We have investigated the quiescent state in during homeostasis and in pathological conditions as well as their lineage progression to differentiation using different experimental approaches including continuous intravital and ex vivo cell tracking and imaging. We show that quiescent MuSCs exhibit unusual perturbations in different pathological models. We also developed pipelines that uncouple cell fates of MuSCs and their migration properties in normal and disease niche conditions. These findings resolve some long-standing debates on muscle stem cell function by delineating the interplay between intrinsic and extrinsic factors.

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