

第190回 創薬科学セミナー

GTRセミナー / CIBoGセミナー

日時：2024年11月7日（木曜日）16:00～17:30

場所：創薬科学研究館2階 講義室

このセミナーは創薬科学研究科・先端薬科学特論の単位認定となります

講演タイトル：

Guiding Cell Fate and Tissue Regeneration Using Biomimetic Scaffolds

講師：

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講演要旨：

The extracellular matrix (ECM) microenvironment plays a crucial role in regulating cell fate and tissue regeneration. Therefore, designing tissue-engineered scaffolds that replicate the key biophysical and biochemical properties of the natural ECM can stimulate physiologically relevant cell and tissue responses. In this talk, we present our findings on biofunctional scaffold engineering, with a focus on incorporating biomolecules and utilizing RNA interference to promote nerve regeneration and remyelination. Specifically, we shall highlight fiber constructs that closely mimic the size and architecture of the native ECM, as well as 3D-printed scaffolds that will facilitate the design of patient-specific constructs and cell transplantation. Additionally, we shall discuss how the biophysical properties of scaffolds influence central nervous system regeneration and remyelination.



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