

MEXT Grant-in-Aid for Transformative Research Areas (A)
“Emergence of Brain Functions through the Dynamic Connectome”
学術変革領域研究(A)「動的コネクトームによる脳機能創発機構の解明」

Early-Career Online Seminar “Meet the First Authors” — 4th Seminar
若手オンラインセミナー“Meet the First Authors” 第4回

SeeThrough: A Rationally Designed Skull Clearing Technique for in vivo Brain Imaging and Its Adaptation for Aged Mice

(SeeThrough : 頭蓋骨透明化による非侵襲な生体脳イメージングと老齢マウスへの展開)

Xinyi Liu / 劉 歆儀

Brain Research Institute, Niigata Univ. (Mikuni Group)

新潟大学脳研究所 (三國班)

<https://researchmap.jp/xy-L?lang=en>



Tuesday, September 29, 2026, 17:00–18:00 JST

2026年9月29日(火) 17:00–18:00

Talk: English | Q&A: English or Japanese

講演：英語 | 質疑応答：英語・日本語

【Abstract / 要旨】

SeeThrough is a minimally invasive optical clearing technique that enables high-resolution in vivo brain imaging through the intact mouse skull. Combined with two-photon microscopy, it supports deep imaging of neuronal structures, longitudinal tracking of dendritic changes, and cellular-resolution monitoring of neuronal activity across multiple cortical regions. This seminar will introduce the rationale and development of SeeThrough, together with our ongoing efforts to adapt the approach to aged mice, with the goal of investigating neuronal structure and function during brain aging.

【Featured Article / 論文】 Liu X. et al., Nat Commun 16:7584, 2025.

DOI: [10.1038/s41467-025-62836-1](https://doi.org/10.1038/s41467-025-62836-1)

【Format / 開催形式】 Webinar via Zoom / Zoomによるオンラインセミナー

【Registration / 参加登録】 Please register using the Google Form or the QR code / Google フォーム
または QR コードよりご登録ください。 (<https://forms.gle/s7nmUc9GzF2gMuUj8>)

Register Here



<https://forms.gle/s7nmUc9GzF2gMuUj8>

Speaker Profile



<https://researchmap.jp/xy-L?lang=en>

View Article



<https://www.nature.com/articles/s41467-025-62836-1>

【Contact / お問い合わせ】

Masaaki Sato (Kyoto Institute of Technology)

佐藤正晃 (京都工芸繊維大学)

msato@kit.ac.jp