

脳神経医学セミナー (来聴歓迎・事前登録不要)

Signaling dynamics in early dorsoventral patterning
of human and mouse brains during development

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場所 金沢大学宝町キャンパス 医学図書館2階十全スタジオ
<http://square.umin.ac.jp/top/map/med-lib.pdf>

The early processes that give rise to human forebrain during development are poorly understood. When the early mammalian forebrain (~E9 in mice, ~CS12 in humans) is patterned by Shh ventrally and Wnt/BMP dorsally, we investigated the differences in human and mouse forebrains by comparing single cell transcriptomic (scRNAseq) data and 3D wholemount images. We have identified intriguing clusters of human progenitor cell types which are not present in mice, suggesting that there is heterochrony in developmental forebrain in humans. We have optimised a 5-colour 3D wholemount imaging technique, based on hybridization chain reaction (HCR) staining and iDISCO clearing methods, that can be performed over multiple rounds to validate these findings in humans. These results revealed intriguing differences between human and mouse forebrain during development.

医学専攻・博士課程専攻共通Up-to-dateセミナーおよび医学類選択科目・医学研究特設プログラム・最新医学研究、MR Tプログラムセミナーに認定します。

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