

Mullerian duct development and the unexplored oviductal regional heterogeneity



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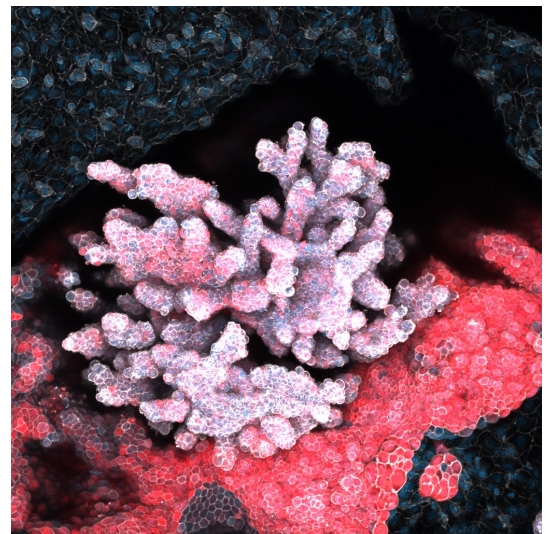
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Date: July 9, 2026 (Thu), 16:00-17:30

Venue: E131, School of Science

The oviduct/Fallopian tube is an essential organ for internal fertilization. It originates from the rostral end of the Mullerian duct (MD), an embryonic primordium of the female reproductive duct in vertebrates. Despite its importance in reproduction, the organ has received little attention because *in vitro* fertilization techniques have bypassed any issues within this organ. However, the recent recognition that Fallopian tube epithelial cells are the cell of origin of high-grade serous ovarian carcinoma (HGSO) has created an urgent need to understand this organ.

My group demonstrated that the oviduct has previously unappreciated regional cellular heterogeneity. Each region consists of a unique pair of multiciliated and secretory cells, with distinct gene expression profiles. Interestingly, we found that regional heterogeneity arises at the onset of MD formation, suggesting that MD progenitors comprise at least three regional populations. MD initiation did not occur through invagination, as the current model suggests, but rather through ingression with EMT from the coelomic epithelium. I'll discuss the potential implications of our findings for vertebrate evolution.



This seminar will be conducted in English; however, the Q&A session may be conducted in Japanese.
講演は英語で行われますが、質疑応答は日本語でも受け付けます。