Tata Institute of Fundamental Research
Survey No. 36/P, Gopanpally Village, Serilingampally, Ranga Reddy Dist., Hyderabad – 500 046

Students' Annual Webinar

Transcriptional diversity of the Vomeronasal neuroepithelium

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The vomeronasal organ (VNO), part of the vertebrate accessory olfactory system, is an important sensory system model to understand how pheromones and kairomones elicit innate behaviours such as mating, aggression and predator avoidance. In similarity with the main olfactory system, VNO neurons regenerate throughout life, but they express completely different and diverse families of GPCRs, MHC and other signalling components. Here, I used a single cell transcriptional profiling approach to identify the diversity of cell types in the VNO sensory epithelium. My results identify genes that help define neuronal sub-populations as well as cell types such as glia and supporting cells. Coupled with in-silico comparative tissue transcriptomic analysis, I will discuss hypotheses related to the functional relevance of gene expression patterns identified.

Friday, May 6th 2022

11:30 AM