



© Janelia Research Campus, HHMI

Shaohe Wang

Janelia Research Campus, HHMI, Ashburn, Virginia, USA

Shaping Organs via Dynamic Cell and Matrix Interactions

Complex tissue structures arise from the dynamic interplay between cells and extracellular matrices (ECMs), enabling animals to meet diverse physiological needs. Remarkable examples include tree-like hierarchical architectures in mammalian organs such as lungs, kidneys, and many glands, where specialized functional units for air exchange, blood filtration, or secretion are connected via branching ductal systems. Despite significant progress, we are only beginning to understand how such tissues are structured during organ development. In this seminar, Dr. Wang will present insights into how tissues are structured during organogenesis, focusing on the mouse embryonic salivary gland as a model. By integrating cutting-edge techniques—high-resolution live whole-organ imaging, single-cell transcriptomics, mechanical force mapping, and tissue reconstitution—Dr. Wang's research uncovers the interplay of cellular and ECM dynamics that underpin the formation of functional tissue structures.

Thursday, 06.03.2025, 1:00 pm

Host: Melina Schuh / Jochen Rink



Large Seminar room
Fassberg Campus

MAX-PLANCK-INSTITUT
FÜR MULTIDISZIPLINÄRE
NATURWISSENSCHAFTEN

