



UNIVERSITÀ  
DI TRENTO

Dipartimento di  
Biologia Cellulare, Computazionale e Integrata - CIBIO

02 MARCH

2:00 P.M.

ROOM A102 - POVO 1

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● ● **A TALE OF TWO TRACTS: MAPPING HUMAN**  
● ● **REPRODUCTIVE DEVELOPMENT WITH**  
● ● **SINGLE-CELL AND SPATIAL GENOMICS**

The human **reproductive tract** develops from shared embryonic precursors that undergo **sex-specific differentiation** and **axial patterning**. By integrating **single-cell transcriptomics**, **chromatin accessibility**, and **spatial genomics**, we mapped **differentiation trajectories** and **spatial gradients** underlying the emergence, regression, and regionalisation of the **Müllerian and Wolffian ducts**. This work identifies candidate regulators of sexual differentiation and provides a **framework to study developmental patterning** in human tissues.