



UNIVERSITÀ
DI TRENTO

Dipartimento di
Biologia Cellulare, Computazionale e Integrata - CIBIO

19 MAY

2.30 P.M.

ROOM A208 - POVO1

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ICM - PARIS BRAIN INSTITUTE



● ● AXON GUIDANCE AND WIRING ● ● IN HUNTINGTON DISEASE

Huntington's disease (HD) is traditionally considered an adult-onset neurodegenerative disorder, but its origins may begin much earlier during development. Beyond the well-known symptoms that appear later in life, HD may already affect **neurodevelopmental processes** in **fetal stages**, when neural circuits are formed.

Our work focuses on a less explored aspect of HD: its **impact on cytoskeletal dynamics and axonal guidance**, processes essential for **proper neuronal connectivity**. We show that HD alters these mechanisms and the expression of guidance molecules early in development, potentially **reshaping brain connectivity long before clinical onset**.

By studying these early molecular events, we aim to identify **targets for interventions** that could preserve healthy neural wiring and help prevent or delay disease onset.