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EBRAINS
Italy



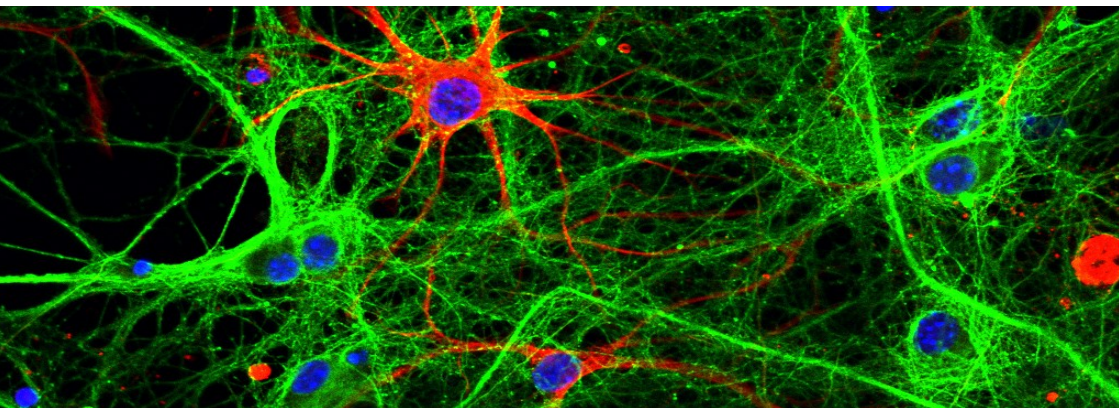
EBRI

European Brain Research Institute
Rita Levi-Montalcini

EBRAINS Workshop **Nanobodies for whole brain imaging and human studies**

Wednesday, 29 October 2025

Biblioteca dell'Accademia Nazionale
delle Scienze detta dei XL
(Scuderie Vecchie di Villa Torlonia)
Via Lazzaro Spallanzani, 1/A - Roma
Registration is required to participate [LINK](#)



10:00-10:10

Welcome

Antonino Cattaneo, President *European Brain Research Institute (EBRI)* 'Rita Levi-Montalcini'

10:10-10:50

Steffen Frey (via Zoom), *NanoTag Biotechnologies (Göttingen)*

Single-domain antibodies: Properties, Discovery and Emerging Applications

10:50-11:30

Antonino Cattaneo, *EBRI (Rome)*

Neuroantibodies: using nanobodies as genes

11:30-11:50

Coffee Break

11:50-12:30

Astrid Musnier, *MABSilico (Tours)*

AI-powered Antibody Discovery

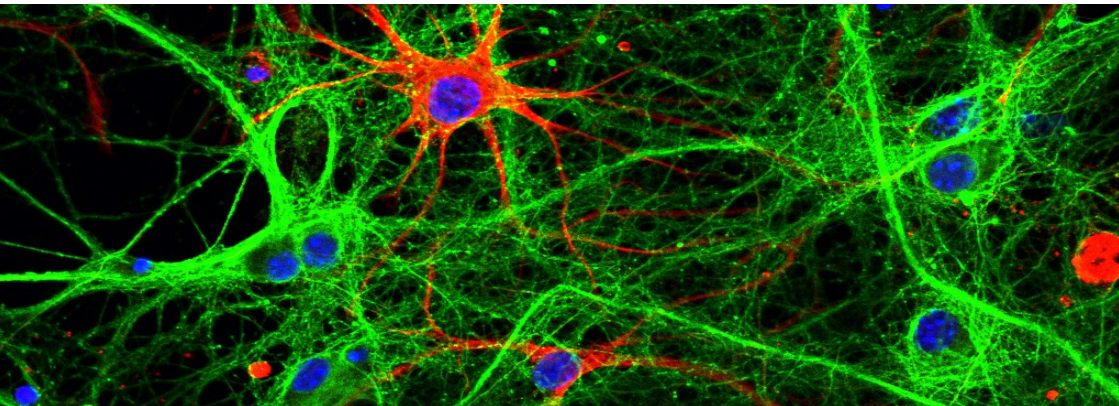
12:30-13:10

Ludovico Silvestri, *LENS—European Laboratory for Non-Linear Spectroscopy (Florence)*

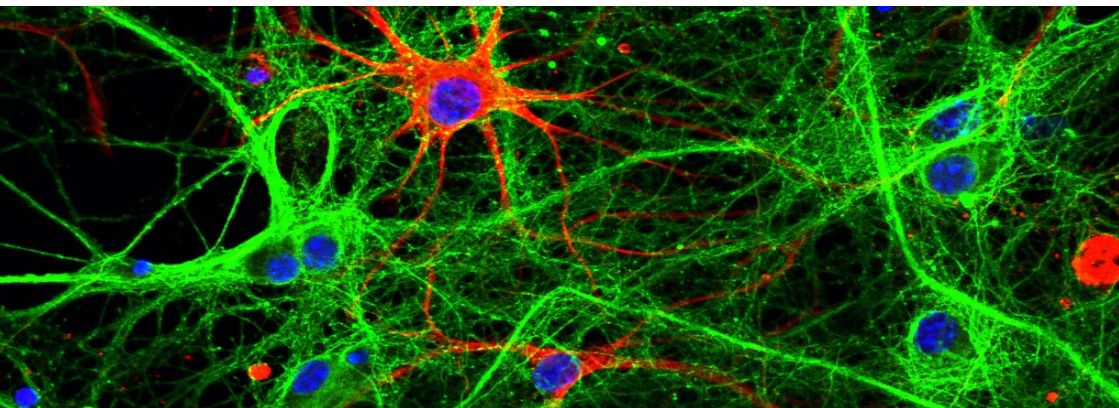
Brain-wide circuits of behavior: optical, computational and statistical challenges

13:10-14:20

Lunch break



- 14:20-15:00 **Laura Marchetti**, *Università di Pisa*
The evolving landscape of fluorescent protein labeling for multi-scale imaging applications
- 15:00-15:40 **Giovanni Meli**, *EBRI/CNR (Rome)*
Novel immunodetection of Alzheimer's A β oligomers in human brain slices through conformational antibody fragments
- 15:40-16:20 **Irene Costantini**, *LENS—European Laboratory for Non-Linear Spectroscopy (Florence)*
Exploring the human brain with tissue clearing
- 16:20-17:00 **Thomas Schlichthärle**, *TUM—Technical University of Munich*
De Novo Protein Design with AI: Engineering TrkA-selective Growth Factor Mimetics
- 17:00 **Conclusions**



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*With special thanks to Accademia Nazionale delle Scienze detta dei XL
for kindly providing the meeting venue*

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