



Call for applications- Methods in Neuronephrology Training School 2022

COST ACTION CONNECT (Cognitive decline in neuronephrology) CA19127

Application deadline

October 20, 2022 08:00 - 12:30

Health professionals, researchers and healthcare students from all ages are invited to join the Methods in Neuronephrology Training School that will be held in presence format from Naples, Italy on 21-23 October 2022. The main aim is to deepen the knowledge about top-of-the-art methods that allow studying brain modifications in models of kidney disease and other metabolic disorders.

Program and more details: see below

6 grants are available and will be applied to trainees per COST Action participating Country. Additional grants might be available depending on budget issues

Rules for Training schools and reimbursements are available at the COST Action website: <u>https://www.cost.eu/uploads/2021/04/Vademecum-28-</u><u>April-2021.pdf</u>

Selection criteria:

- 1. PhD students, postdoctoral fellows, Early Career Researchers, or investigators employed by, or affiliated to, an institution, organisation or legal entity which has within its remit a clear association with performing research in the field of neuroscience or kidney physiology.
- 2. Speaking English
- 3. Appropriateness of CV and statement of interest sent for the application (see below)

How to apply:

Applicants should send an email to Davide Viggiano: <u>davide.viggiano@unicampania.it</u> and attach in one single document:

- A cover letter with a statement of interest of up to one page
- Short CV

Additional information:

Language: English / Number of participants: 6 reimbursed / No registration fee / Trainees can be reimbursed for their long-distance travel expenses in line with the COST eligibility rules. The reimbursement covers the incurred accommodation, meals, and local travel expenses.

Trainees eligible for reimbursement: • Trainees from COST Full Members / COST Cooperating Member participating in the Action. • Action MC Observer from NNC participating in the Action. • Trainees from Approved European RTD Organizations participating in the Action. COST Policy and Rules, in particular, the Excellence and Inclusiveness Policy will be considered when selecting the participants.

Details regarding the venue and suggestions for accommodation will be provided to the selected applicants upon confirmation of participation in the course.

Acknowledgements:

This Training School is organized by COST Action CA19127 CONNECT (https://connectcost.eu), supported by COST (European Cooperation in Science and Technology). Funded by the Horizon 2020 Framework Programme of the European Union. COST (European Cooperation in Science and Technology) is a funding agency for research and innovation networks. Our Actions help connect research initiatives across Europe and enable scientists to grow their ideas by sharing them with their peers. This boosts their research, career and innovation.

We are also grateful to ANED and AST for their support.









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Methods in Neuronephrology Training School 2022

Promoted by COST Action CONNECT

Program details

DAY 1 - 21 October (Room SA3, Sant'Andreadelle Dame square, 9)

13:30 Greetings from local authorities.

Prof Alessandra Perna, Head UOC Nephrology Univ. "Vanvitelli"

14:00 Giovambattista Capasso. CONNECT: past, present and future and by Scientific Director of BIOGEM Institute

14:30 Chiara Schiraldi - Visit the laboratory Big Instruments of Univ. of Campania

15:00 Michele Caraglia. Cell cultures, small RNA transcriptomics and spatial transcriptomics

15:30 coffee break

16:00 Antonio Cassinese Electrochemical transistors. OCT. Impedance spectroscopy

16:30 Antonella Scorziello – Methods to study mitochondrial dynamics

DAY 2 – 22 October (UOC Nephrology and Dialysis, Building 17, Policlinico, via Pansini 5)

14:30 Margherita Borriello - Lab on a Chip: review, history and future

15:00 Bernhard Wolfrum. Microelectrode arrays for electrophysiology and dopamine sensing

15:30 Maie Bachmann. On a modern use of EEG.

16:00 coffee break

16:30 Eugenio Lippiello. Introduction to modelling: why minimal models capture avalanche statistics

17:00 Fabrizio Esposito. Analysis of fMRI data

17:30 practical session: Softwares and programming: R, Matlab, Python, ImageJ





DAY 3 – 23 October

9:30 Davide Viggiano. AFM and expansion microscopy

10:00 Salvatore Pulcrano. Differentiation of dopamine neurons from stem cells

10:30 coffee break

11:00 practical session: Softwares and programming: R, Matlab, Python, ImageJ

11:30 Other techniques: Superresolution, Optogenetics

The program could be modified due to limitations imposed by the COVID pandemic. Any modification will be immediately communicated to the trainees









Venue

Day 1: Univ. of Campania "L. Vanvitelli", Room SA3 (II floor), Sant'Andreadelle Dame square, 9, 80138 Naples, NA (Day 1). **The nearest metro station is Line 1, Piazza Dante Station**

Google Maps Coordinates: 40.8527137226775, 14.25286889195757



Day 2-3:UOC Nephrology and Dialysis, Building 17, Policlinico, via Pansini 5, Naples, Italy (Day 2-3). Google maps coordinates: 40.86742564330002, 14.21700295190306. The nearest metro station is: **Line 1, Policlinico Station**



Local organizers:Davide Viggiano; Giovambattista Capasso

About the Trainers:



Maie Bachmann. Associate professor at Tallinn University of Technology (Estonia). She is an expert in algorithms for the automatic detection of brain

disorders based on advanced EEG signal-processing techniques.



Bernhard Wolfrum. Associate professor of neuroelectronics at Technical Univ. Munich (Germany). He develops electrochemical sensor arrays and interfaces for mapping chemical cues and

stimulating signals in cellular networks.



Davide Viggiano. Associate professor of Nephrology at Uni. Campania (Italy), and researcher at BIOGEM. He is an expert in neuroanatomical and behavioural

phenotyping of knock-out mice models and clinical nephrologist

Lecturers:

Giovambattista Capasso (scientific Director of Biogem, Italy)

Alessandra Perna (head of unit of Nephrology, Unicampania, Italy)

Eugenio Lippiello (president of Physics Course, Unicampania, Italy)

Antonio Cassinese (full professor of Physics, Univ. Naples, Italy)

Salvatore Pulcrano (researcher Institute Genetics and Biophysics, Italy)

Michele Caraglia (president of the Italian Association for Cell Cultures, Unicampania, Italy)

Antonella Scorziello (full professor Pharmacology Univ. Naples, Italy)

Chiara Schiraldi (full professor of Biochemistry, Univ. Campania, Italy)

Fabrizio Esposito (president of the Bioengineering course, Unicampania, Italy)

Margherita Borriello (assistant professor Clinical Biochemistry, Unicampania, Italy)





