The Laboratory of Brain and Sleep Research is seeking for **1 full time research fellow** (assegno di ricerca) to study brain circuit function across the fields of sleep and mental health.

What will you be doing?

You will study brain circuit function in vivo using electrophysiological recordings (EEG/EMG, local field potentials and multi units) and calcium imaging (miniaturized microscope) in freely behaving animals whose sleep has been manipulated. You will take a lead role in organizing day to day activities, performing experiments and analysis independently. You will also have the possibility to contribute intellectually to the ongoing research, produce reports of experiments and communicate findings at scientific meetings.

Qualifications and requirements

- PhD degree (awarded or imminent)
- Strong interest in Neuroscience and sleep
- Experience in calcium imaging and/or electrophysiology is desirable
- Experience in using Matlab, Python or R is an advantage
- First-authored publications in peer-reviewed journals are preferred
- Good communication skills and self-motivation
- Fluent in spoken and written English

Offered contract: 12-month contract, renewable. Annual salary starting from 24000 EUR, negotiable. Preferable starting date: Spring-Summer 2022, negotiable.

For application details please enquire (luisa.devivo@unicam.it)

The scientific environment

The lab aims at understanding the role of sleep and the mechanisms that regulate it. One main line of research wants to address the role of sleep in promoting mental health. Sleep disturbances are comorbid with most neuropsychiatric disorders, often preceding disease onset by many years. However, it is not clear whether, and to which extent, sleep impairment is a causal factor of the disease. Our research aims to map the molecular, cellular, circuit and behavioural consequences of sleep impairment across the lifecycle and to characterize the interaction between sleep disruption and other environmental and genetic factors. The research goal is to use this knowledge to develop novel and personalized strategies of prevention and treatment of mental conditions. To this goal, we combine a variety of approaches, including in vivo recording of neuronal activity, neuromorphological studies of brain cells, molecular biology, and behavioral testing.

The lab explores also scientific questions linking sleep to glial cells, gut microbiome, cellular metabolism, adipose tissue, torpor, etc, thanks to the collaboration with other research groups within Unicam and outside. Some of the collaborators in Unicam include Prof. Roberto Ciccocioppo (pharmacology and addiciton), Prof. Michele Bellesi (sleep), Prof. Valerio Napolioni (epigenetics), Prof. Anna Maria Eleuteri (gut microbiome), Prof. Emanuela Merelli (computation).

For further information check:

https://www.bsr-laboratory.org/

https://armeniseharvard.org/scientists/luisa-de-vivo/

The University of Camerino (UNICAM)

UNICAM is a 'city campus university' chartered in 1336, with about 8,000 undergraduate students, and 180 PhD candidates, of which ~40% are foreigners. For a substantial number of programs in foreign languages and a high percentage of international students, UNICAM has been top rated for international orientation (2019 U-Multirank report). Moreover, UNICAM hosts the International School of Advanced Studies, responsible for coordinating interdisciplinary PhD programs that span upon the major key research areas of the University, including Life and Health Sciences, and Science and Technology.

UNICAM has excellent research facilities including 1500 m^2 vivarium fully equipped for mouse and rat breeding, maintenance and behavioural testing, sleep monitoring and electrophysiology recordings, equipped histology labs, wet labs with all basic molecular biology and biochemistry equipment, light, confocal and electron microscopes.

UNICAM campus offers an interdisciplinary environment with experts in diverse fields of science, national and international collaborations with other universities and industry.

The campus offers also housing for students and excellent facilities for indoor and outdoor sports:

https://www.cuscamerino.it/

To know how to reach us, click here

The town

Camerino is a small medieval town located in the Apennines bordering Umbria, between the valleys of the rivers Potenza and Chienti, about 64 kilometres (40 mi) from Ancona's airport. Camerino, immersed among the Marchigian hills, is the perfect place for outdoor activities such as hiking and mountain bike riding.

Links to outdoor activities:

https://www.bandierearancioni.it/approfondimento/che-cosa-vedere-e-cosa-fare-camerino

https://camerinomeraviglia.it/

https://www.offroad.terredeivarano.it/percorsi

http://www.sibillinibikemap.it/

https://www.sibilliniweb.it/schede/itinerari-monti-sibillini/

https://www.frasassi.com/