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[bySIBPA] XXVI Congresso SIBPA

Ringraziamo tutti i partecipanti al XXVI Congresso SIBPA ed il comitato organizzatore e scientifico. Speriamo di rivederci presto! Vi aggiorneremo presto per l'invio dei contributi a Biomolecular Concepts.

[bySIBPA] XXVII School of Pure and Applied Biophysics

The Società Italiana di Biofisica Pura e Applicata (SIBPA), the Istituto Veneto di Scienze Lettere e Arti (IVSLA), along with the Italian Society for Extracellular Vesicles (EVIta) and the H2020-FET-Proactive project BOW, promote the XXVII School of Pure and Applied Biophysics on contemporary and emerging scientific topics related to Extracellular Vesicles (EVs):

- EVs colloidal and surface properties,
- Techniques for biophysical characterization,
- EVs versus other (synthetic and extracellular) nanoparticles,
- EVs manipulation and engineering.

The selected subjects will draw young researchers' attention to frontier research issues of considerable scientific and educational impact. The School will be held in the magnificent Palazzo Franchetti, in the historical centre of Venice.











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Applications are encouraged from all young scientists (PhD students and postdocs). The participation fee is 600 €, which includes five nights accommodation. Students who do not need an accommodation may request a reduced fee (300 €). The deadline for pre-registration is October 15th 2022. Further information at http://venice2023.ibf.cnr.it/

[CfPo] PhD/Postdoc Position at The Max Planck Institute

Project: Theory and Algorithms for Structure Determination from Ultrafast Single Molecule X FEL Diffraction and Fluctuation Correlation X-Ray Scattering Experiments".

The Department of Theoretical and Computational Biophysics strives to obtain a first principles understanding of the molecular motions and mechanisms underlying and enabling biomolecular recognition and function through atomistic computer simulations, with a particular focus on proteins and protein complexes. The goal of this particular research project is to develop Bayesian methods to obtain high-resolution molecular structures and dynamics from sparse and noisy experimental data.

More details: https://www.mpinat.mpg.de/628848/SM-Ultrafast-XRay-Diffraction
Your profile: the successful candidate has a keen interest and strong skills in theoretical and computational physics and probability theory and a strong interest in interdisciplinary research and collaboration with experimental groups. PhD candidates hold (or expect to complete soon) a Masters or equivalent degree; Postdocs hold a PhD or equivalent degree in any of these or a related field.

What we offer: • State of the art on-site compute facilities

- Competitive research in an inspiring, world-class environment
- A wide range of offers to help you balance work and family life: on-campus kindergarten places including vacation care, parent-child offices, etc.
- Further training opportunities and free in-house language courses

The group language is English. Position Details: PhD students will have the opportunity to participate in one of several available PhD programs, with three years funding, in collaboration with the University of Göttingen. Masters students aiming at a fast track PhD are also welcome. The Postdoc position is limited to two years with a possibility of extension. Payment and benefits are based on the German Public Service Payscale (TVöD Bund) guidelines. The starting date is











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flexible. The Max Planck Society is committed to increasing the number of individuals with disabilities in its workforce and, therefore, encourages applications from such qualified individuals. The Max Planck Society strives for diversity and gender equality and welcomes applications from all backgrounds. Applications will be reviewed on a rolling basis until the position is filled.

Please submit your application including a cover letter (explaining background and motivation), a CV and transcripts (translated to English or German, if applicable) preferably via e-mail and as a single PDF file to:

ausschreibung45-22@mpinat.mpg.de

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Germany

Web: https://www.mpinat.mpg.de/grubmueller

[CfPo] Postdoc Position at IBF, CNR, Trento

POSITION: Post-Doc (Senior)

RESEARCH TITLE: Functional evaluation of nutraceutical neuroprotection of neuronal ion channels in neurodegenerative diseases: a putative molecular target for neuroresilience

PROJECT: Neurodegenerative diseases (NDD) are irreversible and incurable disorders of the nervous system and the brain that cause progressive degeneration, leading to the death of neurons. In NDDs, the analysis of neuronal excitability is crucial for monitoring the disease. The neuronal signal is generated and diffused by transmembrane proteins, called ion channels, crucial in the control of membrane physiology and neurotransmission. The pathogenic role of ion channels lies in the alteration of the intrinsic excitability of the cell and in the pathophysiological signs of disease. In previous works on SBMA-Spinal and Bulbar Muscular Atrophy we have: 1) proposed the alteration of neuronal excitability as a marker of the pathological phenotype of the disease; 2) demonstrated the role of different drugs in improving the symptomatic picture of the disease through the improvement of impaired excitability. The project, with the use of different NDDs' cell models and biophysical-pharmacological approaches, intends to quantitatively establish whether natural and/or











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nutraceutical compounds can exhibit neuroprotective and neuroresilient effects, acting as symptomatic rescuers in NDD through the regulation of ion channels electric activity.

REQUIREMENTS: The candidate must have a PhD in neuroscience or neuropharmacology or neurobiophysics, and documented previous research work experience The successful candidate would have strong ability to work independently, independence in planning, performing experiments and data analysis, full command of English, be self-motivated, goal-oriented and have a positive attitude.

Essentials: Strong experience in electrophysiology (patch-clamp), in establishing and/or maintenance of cell culture, in molecular biology techniques and pharmacological approaches.

Desirables: Experience with molecular imaging techniques (functional imaging, ion- and voltage probes) and with iPSCs. Previous experience in studying neurodegeneration would be an asset.

HOST LABORATORY: The lab of "Neurosystems and Photosensory Biophysics" (Dr. Carlo Musio, PI) belongs to the Institute of Biophysics (IBF) of the Italian National Research Council (CNR) located in Trento, Italy. The lab is engaged in researches dealing with the role of the physiological and altered neuronal activity, at ion channels level, in the pathogenesis of neurodegenerative diseases. This project is funded by an Italian banking foundation, Fondazione CariVerona, based in Verona, Veneto, with the synergy of an Italian nutraceutical company and the lab of Stem Cells at University of Trento. We are equipped for patch-clamp recordings, functional imaging, microscopy, molBio and cellBio.

DURATION AND SALARY: 1+1 years, gross salary € 26.000 p.a., net salary € 22.965 p.a. (≈ € 1.900 monthly).

APPLY: Candidates are requested before 23rd October 2022 to send inquiries a/o a letter of interest explaining how they would fit, a CV, a record of their academic results and the names of two references to: Dr. Carlo Musio, carlo.musio@cnr.it The final recruitment will follow the formal procedures for "Assegno Senior" established by the CNR and Italian public administration and should be concluded by the end of November 2022.











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[CfA] The Michèle Auger Award for Young Scientists' Independent Research

In late 2018, long time Editorial Board Member of the Biophysical Reviews journal, Professor Michèle Auger, sadly succumbed to illness. As a mark of our respect for Michèle, the Biophysical Reviews' Board, together with the support of Springer-Nature Corporation, created a perpetual memorial award in honor of her life and service. 'The Michèle Auger Award for Young Scientists' Independent Research' is to be granted each year to a single candidate performing biophysical research who, at the time of application, is under 40 years of age. The award will consist of a plaque, a free personal subscription to the journal and an invitation to submit a single author review article to Biophysical Reviews (with gold open access costs to be paid by the journal). The winner's published Review will carry a short foreword about the life of Professor Michèle Auger, along with her work associated with teaching and training the next generation of biophysical scientists. Nominations can be made in the form of a candidate's one page curriculum vitae, along with their five best original manuscripts, and can be submitted by email to any of the Biophysical Reviews' senior editors, prior to 2022, October 31st. Judging will be carried out by a special committee assembled from approximately twenty senior biophysical scientists (at the senior Professor, Head of Institute, Head of Department level) with this assembly taking place after the submission deadline. Results will be announced in late December, with the winner's single author Review to be published in Issue 5 of the following year. Submissions can be made via email in the form described above to any of the Biophysical Reviews' senior editors.

[CfP] Call for Paper: "Ion Channels and Neurodegenerative Disease" Special Issue - Life MDPI (IF 3.251)

https://www.mdpi.com/journal/life/special issues/38L6X14SR5

Deadline for submission: 21 march 2023

I am pleased to invite you to contribute to this Special Issue in Life on the topic "Ion Channels and Neurodegenerative Disease".

Most of the currently known neurodegenerative diseases (NDDs) report alterations in neuronal excitability due to dysfunction of molecular and/or functional features in ion channels. Nevertheless, the link between ion channel











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alterations underlying neuronal excitability and disease onset has been neglected in some disorders, while for others, research is increasing rapidly.

The aim of this Special Issue is to provide new achievements in the research on pathophysiological changes and structural altered phenotypes in ion channel misfunction. A particular interest could be addressed to drug screening and targeting in order to propose putative therapeutic avenues (including also nutraceutics and/or ethnopharmacology) that can be developed to treat or alleviate these incurable diseases. Multi- and inter-disciplinary research contributions, possibly combining structural, functional, and pharmacological approaches with different methods/techniques, including clinical ones, will be greatly appreciated.

Carlo Musio (IBF-CNR, Trento, Italy), Guest Editor

[CONGR] XXII GEM CONGRESS

We announce the next GEM (Membrane Study Group, a thematic group from the French Biophysical Society) meeting. The GEM congress will focus on the structure, dynamics and function of membranes. It will be held for the first time in the French Alps and will be locally organised by researchers from different institutes in Grenoble, where several well-known European and national research facilities are located.

Registration is now open and further details at: https://workshops.ill.fr/event/320/







