

# SIBPA

Società Italiana di Biofisica Pura e Applicata  
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- **Calls for Positions [CfPo]**
- **Congresses [CONGR]**
- **Conferences/Meetings [CONF/MT]**
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## **[bySIBPA] XXVII Congresso Nazionale SIBPA 2024**

Si sta avvicinando la scadenza per sottomettere abstract (15 marzo) per il nostro prossimo congresso che si terrà a Genova dal 16 al 20 giugno. Ulteriori informazioni e dettagli alla pagina:

<https://www.sibpa.it/CongressoNazionaleSIBPAGenova/index.php>



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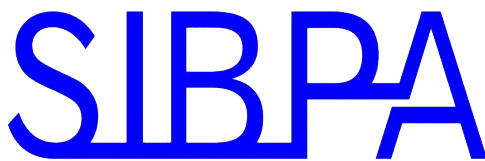
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## [CfPO] Open PhD position: Investigation into the structural dynamics-activity relationship of a novel E.coli chaperone of the Secretory pathway

YecA is a bacterial molecular chaperone (MC) newly identified in E.coli in 2020. This MC interacts with different proteins synthesized by the ribosome to maintain their unfolded state prior to their periplasmic translocation across the membrane (Secretory pathway, Sec). Due to its recent discovery, the mechanism of client protein binding/release from a kinetic point of view including the implication of the structure has not yet been characterized for YecA.

This thesis subject aims to analyze the structural dynamic-activity relationship of YecA by integrative biophysical approaches. Isothermal Titration Calorimetry (ITC) and Dynamic Light Scattering (DLS) techniques will be used initially to investigate kinetic and thermodynamic aspects of the substrate recognition mechanism of YecA. These measurements will determine the affinity strength of YecA for its partners and discriminate between its possible holdase or unfoldase activity in the Sec pathway. The implication of the structural dynamics of YecA in its function will be further studied using Site Directed Spin Labeling (SDSL) associated to EPR spectroscopy. In vitro as well as in bacterial (in-cell) EPR experiments will be conducted to investigate YecA conformational transitions at the molecular level upon interacting with its partner proteins. Another aspect of the PhD project involves the development of innovative strategies based on a protein trans-splicing method to enlarge the domain of application of SDSL-EPR approaches. The integration of all the results will permit to decipher the chaperone activity of YecA in the Sec pathway and the link between structural dynamics and its mechanism of action. The complementary nature of the two laboratories is key to undertake this project and the PhD candidate will have the opportunity to acquire both biochemical and biophysical knowledge on proteins in an ideal scientific environment.



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The co-supervisors Valérie BELLE, Alessio BONUCCI, Laboratoire de Bioénergétique et Ingénierie des Protéines – BIP ([abonucci@imm.cnrs.fr](mailto:abonucci@imm.cnrs.fr)), Déborah BYRNE, Institut de Microbiologie de la Méditerranée – IMM ([byrne@imm.cnrs.fr](mailto:byrne@imm.cnrs.fr))

Location: BIP and IMM, Campus Joseph Aiguier, Marseille, France

Doctoral school: Life and Health Sciences (ED 62), Aix-Marseille université (<https://ecole-doctorale-62.univ-amu.fr/>)

Candidate Profile: Candidate with background in biochemistry, biophysics and biotechnology is particularly appropriate for this PhD project. Previous practical experiences and theoretical knowledge on protein production using DNA-recombinant strategies, chromatography techniques for biomolecule purification and magnetic resonance are considered as a solid advantage. The candidate should show strong motivation and enthusiasm for the experimental research activities.

Soft skills: Autonomy, Teamwork, Good (written and oral) communication skills in English are required.

Application for an interview: In order to apply for an interview, candidates must send copies of the following documents to A.Bonucci ([abonucci@imm.cnrs.fr](mailto:abonucci@imm.cnrs.fr)) & D.Byrne ([byrne@imm.cnrs.fr](mailto:byrne@imm.cnrs.fr)) by email before April 1st 2024:

- Curriculum Vitae (CV)
- A motivation Letter explaining his/her interest for this PhD fellowship
- A supporting letter from previous scientific supervisors
- A list of master exam grades and the specialization ranking (if available)

Interviews will be scheduled on the first week of April. Do not hesitate to contact the co-supervisors (A.Bonucci & D.Byrne) for more information.

### **[CfPO] Open research fellow positions, University of Leeds**

We have two very exciting opportunities at the Astbury Centre at the University of Leeds. Please consider whether you would like to apply and advertise it among your group and colleagues across the globe.



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Reference: FBSAS1073, Research Fellow in Biochemistry and Biophysics of Chaperone Function <https://jobs.leeds.ac.uk/vacancy.aspx?ref=FBSAS1073>

Reference: FBSAS1075, Research Fellow in Membrane Protein Biology/Biophysics <https://jobs.leeds.ac.uk/Vacancy.aspx?ref=FBSAS1075>

Helen McAllister (Mrs), [h.mcallister@leeds.ac.uk](mailto:h.mcallister@leeds.ac.uk)

## [WS] Peptides in Biology and Materials

### Peptides in Biology and Materials: Bridging Simulation and Experimental Data

#### Topics:

Bioactive peptides  
Peptide design  
Peptide-based nanomaterials

**Organizers:**  
Gianfranco Bocchinfuso,  
Paolo Calligari,  
Anela Ivanova,  
Manuel N. Melo,  
Marco Pagliari,  
Lorenzo Stella

**Satellite event of the  
EPS/IPS Symposium 2024**

**30<sup>th</sup> – 31<sup>st</sup> August 2024**  
**University of Florence**

**cecamm**  
Centre Européen de Chimie Atomique et Moléculaire

**37<sup>th</sup> EPS**  
European Peptide Symposium  
26-28 August 2024  
Florence, Italy

**14<sup>th</sup> IPS**  
International Peptide Symposium  
29-31 August 2024  
Florence, Italy

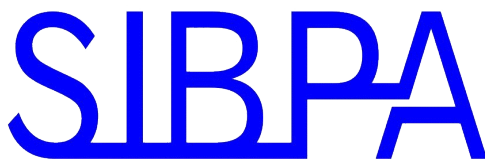
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THINK CLOUD

Dear Colleagues,

it is our great pleasure to announce the CECAM Flagship Workshop titled: "Peptides in biology and materials: bridging simulation and experimental data" to be held in Florence (University Campus - "Centro DidaEco Morgagni") on August 30th-31st, 2024. The workshop is also an independent satellite event of the joint 37th European Peptide Symposium and 14th International Peptide Symposium. Registration to the workshop is currently open (deadline May 31st), and participation is free of charge. The number of participants will be limited, to enhance discussion among attendees.





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Confirmed Speakers:

Robert Vacha (CEITEC Brno)

Martin Zacharias (Technical University of Munich)

Carole Perry (Nottingham Trent University)

Ora Schueler-Furman (Hebrew University)

The Italian Society of Pure and Applied Biophysics (SIBPA) will support the workshop by offering four bursaries, to partially cover travel and lodging expenses of its young members.

For more information and registration, please see <https://www.cecarn.org/workshop-details/1333>

### [WS] 4th Meeting of Young Biophysicists

Dear Biophysics Community,

The Portuguese Young Biophysicists Group (PYBphy) of the Portuguese Biophysics Society (SPBf) is pleased to announce the 4th Meeting of Young Biophysicists - Biophysics Festival 2024, which will take place on May 9th and 10th, 2024. The event will be held at the "Anfiteatro das Sessões Solenes" (Amphitheater of Solemn Sessions) in the Faculty of Sciences (Pole I) of the University of Beira Interior (UBI), Covilhã, Portugal. The preliminary program may be found on our website.

This meeting will be an excellent opportunity for students and young researchers to share their work and discuss their ideas with peers and renowned researchers from several fields of Biophysics. The 4th Meeting of Young Biophysicists will include lectures from national and international speakers but also oral communications and poster presentations from the participants.

Registration for this event is open via Google Forms . You can submit up to 2 abstracts of different works to present an oral and/or poster communication. Abstract submissions will be open until March 22th, 2024.

We are happy to announce that PYBphy will support 5 bursaries of €100 each to help MSc and PhD students, and early-career researchers (5 years after PhD conclusion) from outside the host country to participate in the Biophysics Festival 2024. The deadline for application is March 13th, 2024.

It is mandatory to submit an abstract to be eligible!



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Please check the eligibility criteria in attachment and on our website. PYBphy bursaries are not available to students/postdocs resident in Portugal.

Please do not hesitate to contact us at our email (pybphy2022@gmail.com) or by sending us a message on our social media (Facebook, X/Twitter and Instagram).

We look forward to meeting you in Covilhã!

Kind regards,

Portuguese Young Biophysicists Group (PYBphy)

### **[WS] Workshop on Structural Biophysics in Bordeaux**

Dear colleagues,

We would like to invite you to the 3rd edition of the Workshop on Structural Biophysics in Bordeaux. Applications are open for the 3rd edition of the Workshop on Structural Biophysics from Oct. 14-18th 2024 in the beautiful city of Bordeaux. Deadline for application May 7th !

Places are limited

All information can be found here: <https://biophysics2024.sciencesconf.org/>

### **[CS] Single molecule biophysics in cell lysates**

13th-17th May 2024, Institute of Biotechnology, Czech Academy of Sciences, Vestec, Czech Republic (MoB-IBT)

This basic-level school is aimed at biologists, biophysicists, biochemists, structural biologists, etc., who want to learn a technique enabling high throughput screening for dynamic parameters of biochemical interactions on a single molecule level.

Single molecule imaging techniques enable following bio-molecular interactions with unprecedented resolution. Following single molecules in cells is often challenging due to the complex geometry of the intracellular environment. By contrast, in in vitro reconstituted systems, comprising only few bio-molecules of interest, single molecule imaging is achievable e.g. by placing the sample in close vicinity of a glass surface and using Total Internal Reflection Fluorescence (TIRF) microscopy. However, the main obstacle of this method is obtaining functional bio-molecular samples in high enough quantity and purity. During the Basic Level



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School, we will explore an experimental approach combining the best of the two worlds by imaging bio-molecular interactions with single molecule resolution in cell lysates. This method employs the usage of established in vitro methods, such as TIRF imaging, while not being dependent on laborious sample preparation, and, importantly, enables following single molecule dynamics in the presence of other cellular components. Hands on training will be provided on TIRF-based single molecule imaging in cell lysates and basic image analysis of the acquired data. As an example, for one experimental system we will explore interactions between microtubules and microtubule-associated proteins, such as molecular motors.

Invited speakers: Carsten Janke, Institut Curie & Tim Mitchison, Harvard Medical School

The course will combine both theoretical and practical content, starting with a short introductory round and theoretical lectures and will then continue with hands-on microscopy and data analysis sessions. Finally, there will be presentations of the acquired results.

Other details: The course is aimed at trainees with little experience in the domain and/or people wanting to acquire new scientific and technical skills: graduate and PhD students, post-doctoral fellows, early career scientists, technicians, core facility staff.

Visit the website to find out more and to apply to take part in the course.

<https://www.mosbri.eu/training/basic-level-schools/bls2/>

### **[WS] FEBS Workshop on Protein Dynamics**

The Les Houches - Telluride FEBS Workshop on Protein Dynamics will take place from 2nd to 7th June 2024 at the Les Houches Physics school in the French Alps near Chamonix.

This workshop is a forum for presenting and discussing results from the application of state-of-the-art experimental methods (including, but not limited to optical, NMR and neutron spectroscopies, time-resolved X-ray crystallography, electron microscopy and scattering methods) and computational/theoretical approaches to studying equilibrium and out-of-equilibrium protein dynamics.



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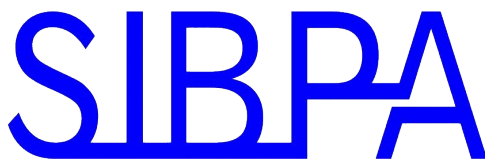
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Within five days and in a small group and lively discussions, participants will be exposed to the frontiers in protein dynamics research, allowing everyone to widen their knowledge across fields. About 30 invited speakers give oral presentations that comprise a pedagogic introduction to the method and methodology employed, followed by applications from their own work. Poster sessions complement the scientific program, which is seconded by exchange outside the lecture hall (in the bar, during hikes,...). The Les Houches - Telluride FEBS Workshop on Protein Dynamics is held biennially since 2014 and complements the TSRC Protein Dynamics Workshop at the Telluride Science Research Center in Telluride, Colorado. See previous editions here. Places are limited, in order to keep the spirit of the meeting as a place of open and straightforward exchange in a small setting. Participants are selected from applications.

For details and application, see the workshop website:  
<https://proteindynamics2024.febsevents.org/>



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