

NEWSLETTER 2019

#2 - February

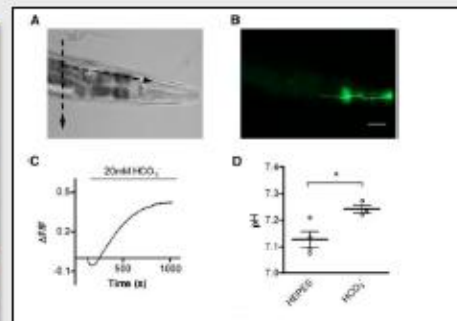
- ✓ Calls for Positions [CfPo]
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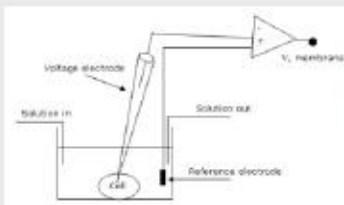
[CfPo] Exchange Student

University of Miami

The Bianchi lab- glia/neuron interactions



2019



Write to: lbianchi@med.miami.edu

Check out our website: <http://www.laura-bianchi.com>

The **Bianchi lab** is seeking an **exchange student** to join the laboratory as soon as possible. The Bianchi lab works on the molecular mechanisms underlying the functional interaction between neurons and glia and how these shape animal behavior, with particular emphasis **on ion channels and transporters**. The Bianchi lab uses a variety of techniques including molecular biology, *C. elegans* genetics, confocal microscopy, functional imaging, electrophysiology and animal behavior. Highly motivated individuals with backgrounds in Physiology, Physics, Neuroscience, and Molecular Biology are encouraged to contact Dr. Bianchi

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[CfPo] [Ebsa] Post-doctoral position in Computational Enzyme Engineering

Instituto de Tecnologia Química e Biológica António Xavier
Application for a Post-Doctoral Fellowship
within project SHIKIFACTORY100

Applications for a Post-Doctoral Fellowship are open at ITQB NOVA within the project entitled SHIKIFACTORY100 - Modular cell factories for the production of 100 compounds from the shikimate

pathway Call: H2020 BIOTEC-03-2018, grant agreement number **814408**, funded by the European Union's Horizon 2020 research and innovation programme.

Scientific Area: Biotechnology / Structural Bioinformatics

Academic Degree: PhD

Other requirements:

(i) Good capacity to perform computational work in the field of biomolecular modelling / Structural Bioinformatics; (ii) good knowledge of spoken and written English; (iii) preference will be given to candidates with previous experience in Comparative Modelling, Molecular Docking and Molecular Dynamics simulation approaches.

Working Plan: The selected candidate will be responsible for the tasks allocated to ITQB NOVA regarding the computational enzyme engineering for the production of several compounds originated in the shikimate pathway. The candidates will have training in the biomolecular modelling and enzyme engineering areas.

Applicable Law and Regulations: Law 40/2004 of 18 August (“Estatuto do Bolseiro de Investigação Científica”), changed and republished by Ordinance 202/2013 of 27 August and changed by Ordinance 233/2012 of 29 October and by Law 12/2013 of 29 January and by Ordinance 89/2013 of 9 July; Fellowship Regulations of Fundação para a Ciência e Tecnologia, I.P. – Law in force (<http://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2018>); Fellowship Regulations of Instituto de Tecnologia Química e Biológica António Xavier (ITQB NOVA).

Working Place: The work will be carried out in the Laboratory of Protein Modelling at ITQB NOVA under the supervision of Doctor Diana Lousa and Professor Cláudio M. Soares, in collaboration with the Laboratory of Synthetic Biology at ITQB NOVA under the supervision of Professor Isabel Rocha.

Duration of the Fellowship: The fellowship will have the duration of 6 months (eventually renewable), expected to start in April 2019, on a full-time basis, according to Fellowship Regulations of Fundação para a Ciência e Tecnologia, I.P. - 2013; Fellowship Regulations of Instituto de Tecnologia Química e Biológica António Xavier (ITQB NOVA). After the initial training period, the fellow can apply to formal contract within the framework of Decree-Law no. 57/2016.

Stipend Amount: EUR 1495, according to the table of values of grants awarded directly by the FCT, I.P. in the Country (<http://www.fct.pt/apoios/bolsas/valores>) and payment will be made, monthly, through bank transfer.

Selection Procedure: The selection procedures will be based on the curricular evaluation and an interview for the best suitable candidates, with 60% and 40% weighting, respectively.

Juri Composition: Professor Cláudio Soares, Doctor Diana Lousa and Professor Isabel Rocha, Doctor Manuel Melo (substitute), Doctor António M. Baptista (substitute)

Application Documents: The application should be formalized in a cover letter indicating the corresponding fellowship reference together with the following documents: detailed Curriculum Vitae, degree certificate(s), motivation letter and 2 recommendation letters.

Notification of Candidates: All the candidates will be informed by e-mail of the final result.

Application Period: from 13 to 28 of February 2019.

Applications Should Be Sent To:

Professor Cláudio M. Soares (claudio@itqb.unl.pt)

Ref. 015/BPD/2019

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[CfPo] PhD position at the Italian Institute of Technology, Genova, Italy



PhD position at the Italian Institute of Technology, Genova, Italy

Modeling and Molecular Dynamics Simulation of Neuronal Proteins

A PhD student position is available at the Center for Synaptic Neuroscience and Technology (NSYN) of the Italian Institute of Technology (IIT), Genova, Italy, starting November 2019.

The project will involve structural modeling and molecular dynamics simulation of neuronal proteins and collaboration with experimentalists. Possible specific topics include synaptic and tight-junction proteins, ion channels and proton pumps.

Ideal candidates should have physics and/or chemistry background and experience in molecular dynamics simulations.

Info: <http://neuromat.iit.it/>

Contact (before May 2019): luca.maragliano@iit.it

[CfPo] [Ebsa] 11 PhD student positions available in Halle! (Intrinsically disordered proteins)



MARTIN-LUTHER-UNIVERSITÄT
HALLE-WITTENBERG



RTG 2467

**Research Training Group
Graduate Programme**

**– Intrinsically Disordered Proteins –
Molecular Principles, Cellular Functions, and Diseases**

11 PhD POSITIONS
Start: June 1, 2019
Deadline for Application: March 31, 2019

RTG Website: www.rtg2467.uni-halle.de
Mail: rtg2467@pharmazie.uni-halle.de

Apply Now



[CfPo] [Ebsa] Professorship in Experimental Biophysics at King's College London

The Department of Physics at King's College London is seeking to appoint a Professor in Experimental Biophysics to undertake internationally leading research in the area of Biological and/or Soft matter Physics and take a lead role in the delivery of high-quality undergraduate and postgraduate programmes. The appointee will have research interests in experimental biophysics with the aim of consolidating and diversifying existing research within the Department, which currently includes experimental work in super-resolution imaging; fluorescence microscopy; Raman spectroscopy; and single molecule mechanics, combined with coarse-grained and all-atom simulations. To this end, the areas of particular interest include, but are not limited to, cell mechanics, molecular motors, natural and naturally-inspired molecular machines, biophysical chemistry, biomimetic materials, bio-inspired engineering and biomechanics.

The successful candidate will be expected to work alongside colleagues to develop an internationally-competitive, innovative research programme. They should have a high-quality and growing research profile with an excellent publication record, international esteem and, where appropriate, evidence of research funding.

We particularly welcome applications from female and black and minority ethnic candidates as they are under-represented in the University at this level. For further information, and to apply please go to the following link: [here](https://www.jobs.ac.uk/job/BPU953/professor-in-experimental-biophysics) <<https://www.jobs.ac.uk/job/BPU953/professor-in-experimental-biophysics>>

Dr. Chris Lorenz
Reader in Physics
Assistant Director of the EPSRC Centre for Doctoral Training in Cross-disciplinary Approaches to Non-Equilibrium Systems (CANES)
Biological Physics & Soft Matter Group
Department of Physics
King's College London
020 7848 2639 (phone)



[CfPo] PhD positions in Physics and Chemistry of Biological Systems at SISSA, Trieste

There are 4 positions available for the PhD in "Physics and Chemistry of Biological Systems" at the International School for Advanced Studies (SISSA), Trieste, Italy.

The application deadline is March 21, 2019.

Students are expected to join the written and oral exam on April 8-9. Students that need paperwork in order to obtain a visa to attend the exam are encouraged to apply at their earliest convenience, possibly before **February 25**. See below for contributions towards traveling expenses.

Applicants should have a good background in Physics, Chemistry, Applied Mathematics or related subjects and are expected to obtain their Laurea Specialistica or equivalent degree by Autumn 2019.

The announcement can be found here: <https://www.sissa.it/sbp/phdsection/phd.php>

Notice that **SISSA can cover, in full or in part, the expenses of students** who, after the first screening based on CV and letters of presentations, are admitted to the local entrance exam. Please contact bussi@sissa.it for further information.

Admitted students will have the opportunity to follow a one-year educational program in an international and interdisciplinary environment, followed by three years of active research in one of the following areas:

- Structural bioinformatics
- Statistical mechanics of complex molecular systems
- Self-assembly
- Biomolecular simulations
- Simulations of rare events
- Data science of complex and biomolecular systems
- Polymer physics

For further information about the available research lines and past entrance exams see: <http://www.sissa.it/sbp/phdsection/entranceexam.php> and related webpages.

You can also find a flyer at this link: <https://www.sissa.it/sbp/phdsection/flyer.pdf>

With my best regards,
Giovanni Bussi

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[CfPo] [Ebsa] PhD student + postdoc positions available at the Technion – Israel

A number of PhD student and postdoc positions are available in my single-molecule biophysics group. We use high-resolution optical tweezers to study the interplay between chromatin structure and dynamics, transcription factors and polymerases, and their role in the regulation of gene expression. For more information please visit: <https://kaplan.net.technion.ac.il/>
Students with a background in biology or physics are welcome to apply. I will much appreciate it if you can share this information with your colleagues and students.

Ariel Kaplan, PhD, Associate Professor
Faculty of Biology & Lorry I. Lokey Interdisciplinary Center
Technion - Israel Institute of Technology, Technion City, Haifa 32000, Israel
email: akaplanz@technion.ac.il
Tel. (972) 77- 8871907, Fax: (972) 4 – 8225153

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[CfPo] [Ebsa] 10 international PhD positions in protein design for synthetic biology

10 international PhD positions in protein design for synthetic biology.



These positions are provided by RNAct, a European Innovative Training Network project. The interdisciplinary research aim of RNAct is the design of novel RNA recognition motif (RRM) proteins for exploitation in synthetic biology and bio-analytics. This includes computational approaches at the sequence and structure levels of proteins and RNA, large-scale phage display experiments with RNA screening, integrative structural biology approaches, implementation of RRM in synthetic biology, and bio-analytics to detect RNA in-cell and design RNA biochips.

RNAct is a collaborative project between 7 teams in 6 countries, from both academia and biotech industry, that will offer a comprehensive and cross-disciplinary structured curriculum for doctoral students. 10 doctoral thesis fellowships (for ESRs, Early-Stage Researchers) are available in the areas of structural bioinformatics, structural biology using NMR and crystallography, synthetic biology and bio-analytics.

Eligible applicants must hold a Masters degree of Science (MSc) in the field of chemistry, biochemistry, physical, life sciences or computational sciences as requested in the respective job description. They must not have stayed in the country of the host lab for more than 1 year during the last 3 years, and be in the first four years (full-time equivalent) of their research careers. Do not apply if you already hold a Ph.D.

Further information: <http://mact.eu>

Contact and information: e-mail to info@mact.eu

Applications must be submitted online at <https://tinyurl.com/mact-eu>

Deadline for applications: 15/03/2019

ESR1: Predicting biophysical characteristics of proteins from their amino acid sequence (Computational, VUB, Brussels, Belgium)

ESR2: Improving the in-silico structure representation of proteins (Computational, VUB, Brussels, Belgium)

ESR3: Collect, integrate and analyse RRM data (Computational, CNRS, Nancy, France)

ESR4: Improve methods to dock RNA with proteins (Computational, CNRS, Nancy, France)

ESR5: Structure calculation and computational design of RRM (Computational/Experimental, HMGU, Munich, Germany)

ESR6: Structural biology (NMR, X-ray crystallography) and biophysical techniques of designed RRM (Experimental, HMGU, Munich, Germany)

ESR7: Analyse RRM dynamics via structural biology (NMR) and biophysical techniques (Experimental, Giotto Biotech, Florence, Italy)

ESR8: Integrate RRM in prokaryotes to create new pathways in synthetic biology (Experimental, CSIC, Valencia, Spain)

ESR9: Create biochips to study RRM/RNA interactions. (Experimental, Dynamic Biosensors, Munich, Germany)

ESR10: Deploy RRM for in-cell analytics (Experimental, Ridgeview Instruments, Uppsala, Sweden)

[Ebsa] Award by the Fourmentin-Guilbert Foundation (EUR 250, 000) to support an experimental research project in biophysics

The Fourmentin-Guilbert Foundation I'm working for is a non-profit organisation acting at the interface between biology, physics and computer science. Nobelist Georges Charpak was a member of our administration board.

In brief, the Fourmentin-Guilbert Foundation, a French non-profit organization, is launching a €250,000 seed award to support an experimental research project in biophysics exploring the algorithmic processing of information in biological systems. Please see

<https://www.i2cell.science>

and the attached documents for details.

Let me know if you need more information,

Damien Larivière, PhD

General delegate

Fourmentin-Guilbert Foundation

E-mail: damien@fourmentinguilbert.org

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[Conf] [Ebsa] 11th International Conference "Structure and Stability of Biomacromolecules SSB2019" held in Kosice, Slovakia on September 3-6, 2019

I would like to ask about the possibility to promote 11th International Conference "Structure and Stability of Biomacromolecules SSB2019" held in Kosice, Slovakia on September 3-6, 2019. This conference is organized by the Slovak Biophysical Society.

SSB is biennial meeting aimed to bring together senior and junior scientists to stimulate discussion in biophysics, biochemistry of biomacromolecules and related fields. The first conference was organized in 1999 and it has gradually become the traditional meeting platform for international biophysical scientific community. SSB is organized by Department of Biophysics, Institute of Experimental Physics, Slovak Academy of Sciences, in cooperation with Slovak Biophysical Society and Slovak Physical Society. The main topics are experimental and theoretical approaches to study the structure, stability and aggregation of biomacromolecules, and their applications in medicine, drug design or nanotechnologies.

All the information is available at conference website: <https://www.ssb2019.saske.sk/>

We would be very grateful for possibility to promote our 11th International Conference "Structure and Stability of Biomacromolecules SSB2019".

Erik Sedlak, President of Slovak biophysical society

Head of Center for Interdisciplinary Biosciences, Technology and Innovation Park, P.J. Safarik

University, Jesenna 5, 040 01 Kosice, Slovakia, www.cib-center.org , www.skbs.sk , www.biophysics.sk

[Conf] [Ebsa] EBSA-IUPAP2019 satellite meeting on proteo-lipid nanostructures (ProLiN2019)



TOPICS

- *ProLiNs in membrane remodelling*
- *ProLiNs functions in vitro and in vivo*
- *ProLiN-inspired technologies*
- *Biological and physical principles behind ProLiN emergence*

SPEAKERS

- Atul Parikh** (UC Davis, US)
- Aurélien Roux** (University of Geneva, CH)
- Catherine Picart** (Grenoble-INP, FR)
- Félix Campelo** (ICFO, ES)
- Jonas Riez** (EMBL, DE)
- Marcus Deserno** (Carnegie Mellon, US)
- Marcus Müller** (University of Göttingen, DE)
- Michael Mayer** (Adolphe Merkle Institute, CH)
- Stefan Howorka** (University College London, UK)
- Vadim Cherezov** (USC, US)
- Yvonne Jones** (University of Oxford, UK)

ORGANIZER

Vadim Frolov
Biofisika Institute
(CSIC, UPV/EHU), ES

CO-ORGANIZERS

Sergi Padilla-Parra
University of Oxford, UK

David Rodriguez-Larrea
Biofisika Institute (CSIC, UPV/EHU), ES

Aitor Hierro
CIC bioGUNE, ES

Anna Shnyrova
Biofisika Institute (CSIC, UPV/EHU), ES

REGISTRATION

Students/Postdocs - 250 euro
Academic - 350 euro
Industry - 500 euro

**Deadline for abstract
submission**
15 April 2019

URL: <http://prolin2019.com>

CONTACT

info@prolin2019.com



[WS] [Ebsa] CECAM Workshop 2019 - Toulouse, September 30 to October 2 - Modeling phase separation in health and disease

We are glad to announce that the CECAM Workshop entitled "Modeling phase separation in health and disease: from nano- to meso-scale" will be held in Toulouse (France) from September 30th to October 2nd, 2019:

<https://www.cecarn.org/workshop-1-1706.html>

This website will have to be improved further but you can already register if you wish to attend the event. If you also envisage to present a talk and/or to show a poster, please let us now.

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Nicolas Destainville
Lab. de Physique Théorique
Université Toulouse III-Paul Sabatier/CNRS
Toulouse, France

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[CS] [Ebsa] CENTURI Summer School 2019 - June 3 - 12, 2019: From data to biology and back – Reverse engineering biological networks

The Turing Centre for Living Systems is organising a Summer School on the Luminy campus **from June 3 to June 12, 2019** entitled "[From data to biology and back – Reverse engineering biological networks](#)", this interdisciplinary training programme aims at **building bridges between engineers and scientists**. It is a unique opportunity for **engineering students** to apply their skills in mathematics, physics and computational science to biological questions.

The programme is divided in 2 parts:

- **Morning courses**, where students will explore open questions in biology and discover experimental approaches in biology
- **Group projects** in the afternoon, where students will work in small groups (3-4 students) on biological data analysis challenges, using state-of-the-art technologies

The summer school will include lectures from **four prominent speakers**: Stanislas Dehaene (Collège de France), Jérémy Harroch (Quantmetry), Thomas Lecuit (Collège de France) and Eric Vivier (CIML, Innate Pharma).

The summer school is also coupled with an [internship program](#), proposing **funded internships** in our research laboratories (3 to 6 months). Students can apply for the internship program alone, for the summer school alone, or for both.

Who can apply?

The CENTURI Summer School 2019 is open to engineering students (priority will be given to 2nd or 3rd year students). Housing will be provided free of charge to non-local attendees.

How to apply'

Students can apply for the summer school at this address: <http://centuri-livingsystems.org/application-css/>

Deadline: March 31, 2019

Registration fees: 50€

Best regards,

Matthias Merkel, Ph.D.,

Centre de Physique Théorique, Alan Turing Center for Living Systems, Aix-Marseille Université

matthias.merkel@posteo.de , <http://www.matthiasmerkel.de>

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[CS] [Ebsa] Biological Surfaces and Interfaces: the Mechanistic View

Dear Colleagues and Friends,

I am pleased to let you know that we are now accepting applications for the upcoming FEBS advanced lecture course on

Biological Surfaces and Interfaces: the Mechanistic View

June 30, 2019 – July 5, 2019

Sant Feliu de Guixols, Catalonia, Spain

Applications can be submitted via the following course webpage which provides all information about the meeting : <https://biointerfaces2019.febsevents.org/>.

Application deadline: **April 1st**, please follow the instructions detailed here:

<https://biointerfaces2019.febsevents.org/attending-the-course>.

The conference will bring together leading researchers from diverse disciplines (physics, chemistry, biology, engineering, clinical disciplines) studying interfaces between biological systems and artificial materials, and within biological systems (such as cell membranes and their model, cell-extracellular matrix and cell-cell contacts, etc) at Hotel Eden Roc in Sant Feliu de Guixols, in Catalonia, Spain. Historically, this conference has had a particularly strong focus on promoting interactions between the attendees, with plenty of time set aside for discussion – after the lectures, at the coffee breaks and during the poster sessions. We have an excellent line up of speakers, further information can be found on the attached flyer and under <https://biointerfaces2019.febsevents.org/>.

We look forward to seeing you in Sant Feliu de Guixols in the summer of 2019.

Chris Lorenz

Vice Chair – FEBS advanced course on Biological Surfaces and Interfaces

Reader in Physics, Assistant Director of the EPSRC Centre for Doctoral Training in Cross-disciplinary Approaches to Non-Equilibrium Systems (CANES), Biological Physics & Soft Matter Group,

Department of Physics, King's College London, 020 7848 2639 (phone), chris.lorenz@kcl.ac.uk

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[Media e Comunicazione] RAI Scuola - Memex Doc : Vita da ricercatore

RAI Scuola - Memex Doc : Vita da ricercatore - pt.15: Alberto Diaspro

<http://www.raiscuola.rai.it/programma-unita/memex-doc-vita-da-ricercatore-pt-15-alberto-diaspro/322/43111/default.aspx>

Bestiario del mondo della scienza. Con Davide Coero Borga andiamo alla scoperta della vita quotidiana del ricercatore. Bestia rara, figura bizzarra e aliena per molti, il ricercatore è una persona come noi: sorpresa! Lavora sodo, tiene famiglia e il mercoledì sera ha il calcetto con gli amici. Ma cosa combina dentro il laboratorio? Dove vive? Che posti frequenta? Lo scopriremo sul campo perché, come diceva Feynman: "l'esperimento è il solo giudice della verità scientifica". In questa puntata incontriamo Alberto Diaspro, fisico.



[Memex Doc - Vita da
ricercatore - pt.15: Alberto
Diaspro](http://www.raiscuola.rai.it/programma-unita/memex-doc-vita-da-ricercatore-pt-15-alberto-diaspro/322/43111/default.aspx)

www.raiscuola.rai.it

Bestiario del mondo della scienza. Con Davide Coero Borga andiamo alla scoperta della vita quotidiana del ricercatore. Bestia rara, figura bizzarra e aliena per molti ...
