

The 1st MOSBRI scientific conference @ Institut Pasteur.

Registration is open for the first **MOSBRI** conference that will be held at the Institut Pasteur (Paris, France). The conference will start at 14:00 on the 16th of February, ending at 12:30 on the 18th of February 2022.

This in-person conference follows on from the successful ARBRE-MOBIEU meetings (Porto 2017, Warsaw 2018, Zagreb 2019, Prague 2020), and will include talks by:

- representatives from all 15 centres of the **MOSBRI** European Research Infrastructure
- 4 scientists who have already benefitted from the **MOSBRI** Trans-National Access scheme, allowing them to carry out TNA visits to Groningen, Hamburg, Marseille and Rome
- two members of the **MOSBRI** Scientific Advisory Board (Chris Genick from Novartis in Basel, and Rob Gilbert from the University of Oxford)
- Representatives from several innovative instrumentation companies

The full list of confirmed speakers is available at <https://www.mosbri.eu/events/conferences/paris-2022/speakers/>, and the precise schedule of the presentations will be communicated soon.

Please note that:

- 1) A significantly **reduced registration fee** (150€ instead of 240€) is offered, upon proof of status, to students and for post-doctoral fellows up to 2 years after their PhD thesis defence.
- 2) **20 bursaries** are available for graduate and PhD students, and for post-doctoral fellows. These will cover the registration fee + 2 nights of accommodation in a hotel within walking distance of Institut Pasteur. Apply before the 15th of December 2021 with a short CV (2 pages maximum) and motivation letter, which should be sent to mosbri2022@pasteur.fr

Visit the conference website for more details and to register:

<https://www.mosbri.eu/events/conferences/paris-2022/>.

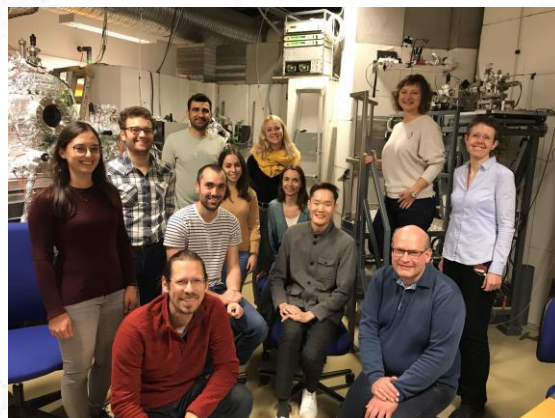
Note: The registration process comprises a first step requiring the creation of an account, followed by the actual registration.

First MOSBRI course on Circular Dichroism held at Aarhus University, Denmark in November 2021

Ten participants from 6 countries - Belgium, Czech Republic, France, Hungary, Portugal and Slovenia - attended the first MOSBRI End User Short Course (ESC1) on Circular Dichroism (CD) spectroscopy at Aarhus University, Denmark. The course was hosted by Søren Vrønning Hoffmann and Nykola C. Jones, spanned three days and covered topics such as the basics of CD, CD instrumentation, secondary structure determination, how to do CD measurements correctly, non-protein CD, and CD on difficult samples. The course included several hands-on sessions on the CD beam line at the synchrotron radiation source ASTRID2 located at Aarhus University.

All lecture presentations are available for download on the course page on the MOSBRI website:

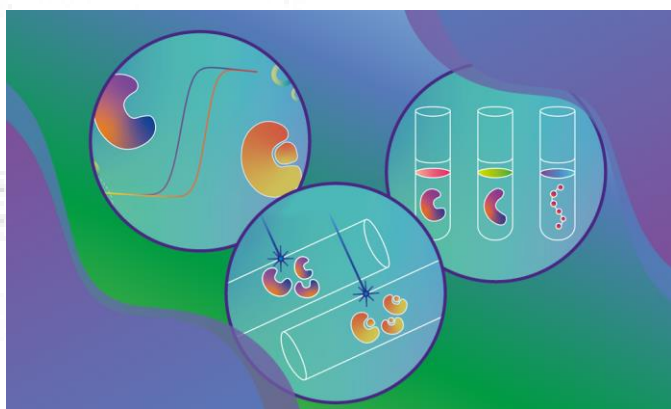
<https://www.mosbri.eu/training/end-user-short-courses/esc1/>



Left to right: Ketty Tamburrini, Charly Robert, Josef Houser, Sébastien Brûlé, Zeyad Nafae, Nelly Silva, Nika Žibrat, Mirijam Kozorog, Mikhail Makarov, Volha Dzmitruk, Søren V. Hoffmann, Nykola C. Jones.

A new e-tool for the analysis of molecular biophysics data from several experimental techniques.

The team of Maria Garcia Alai at MOSBRI partner EMBL-SPC, launched eSPC in September 2021. This free online platform enables users to upload and analyse raw data from three experimental techniques: steady-state fluorescence spectroscopy, microscale thermophoresis, and differential scanning fluorimetry. It consists of three modules: *FoldAffinity*, to quantify to what extent an interaction between two molecules mutually stabilises them, *MoltenProt*



@Silvia Burastero and Creative Team/EMBL

which estimates how thermostable a protein is in different buffer conditions, and *ThermoAffinity* that determines the affinity between two molecules, e.g. a protein and a drug.

The platform implements different theoretical models with tutorials that guide non-experts in the assessment of the quality of their collected data, the analysis of their results, and the production of publication-quality figures, within a comprehensive and easy to understand environment.

This tool allows scientists to analyse biophysical research data remotely, thus solving the problems faced during the 2020-2021 Covid lockdowns when researchers could not

access physically the computers connected to the facility equipment. This platform will progressively expand to allow the analysis of a broader range of biophysical research data from different techniques available at the different MOSBRI partners.

One of MOSBRI's goals is to create standards for data archiving & exploitation, by harmonizing data formats, data processing procedures and databases for biophysical data archiving and reuse. In this context, eSPC could constitute an initial tool to enable data processing protocols for selected methods to be made accessible to a broad audience. The server will be improved with the input of the MOSBRI experts, and is a first step towards the MOSBRI integrative vision.

- View the publication about eSPC: <https://doi.org/10.1107/S2059798321008998>
- Access the eSPC platform: <https://spc.embl-hamburg.de/>
- See the promotional video of eSPC: <https://youtu.be/I7RIYVWp5hc>



First MOSBRI TNA visit to DSB-UROM!

The first TNA visit to the MOSBRI partner DSB-UROM facility in Rome (Italy) took place in October 2021, with a visit of Dr Anna Sobiepanek from the Warsaw University of Technology (Poland) to the laboratory of Prof. Francesca Cutruzzolà.



Left to right, Anna Sobiepanek (Warsaw University of Technology), Valerio Perticaroli, Alessio Paone, Francesca Romana Liberati and Amani Bouzidi (DSB-UROM). Credit: Chiara Di Lucente".

Anna arrived in Rome on October 17th and stayed there for two weeks. With all of the support from the DSB-UROM staff of experts, Anna was able to focus on experiments investigating the energetic modulation of melanoma cells treated with drug combinations. They were selected based on the bioinformatic analysis performed in the Biotechmed-1 project, of which the principal investigator is Prof. Tomasz Kobiela, who joined the group for the last days of Anna's visit and presented a seminar. These experiments were possible thanks to the Hyp-ACB Sapienza infrastructure at DSB-UROM, which allows a real-time evaluation of energy metabolism in live prokaryotic and eukaryotic cells by fluorescence biosensing, even under hypoxic conditions to better mimic the pathological environment. "The TNA visit is a great opportunity to learn novel technologies and methods, as well as to integrate with scientists from other countries. This is very important especially for us - young scientists, who have just started their adventure with advanced science. I am grateful for this opportunity." Dr Anna Sobiepanek, Warsaw University of Technology (Poland).

First General Assembly of MOSBRI – September 2021

The 1st general assembly (GA) took place on the 16th of September 2021, with 54 representatives from the 15 MOSBRI partners gathered online or at the Institut Pasteur in Paris.



Left. Virtual attendees to the GA through Teams. Right. In person attendees at the Institut Pasteur in Paris, from left to right: Bertrand Raynal, Liliana Avila Ospina, Vincent Raussens, Patrick England and Søren Vrønning Hoffmann. Pictures taken by Maelenn Chevreuil & Bertrand Raynal

Advances within the project and the first set of deliverables submitted to the EC, including the MOSBRI website, the project management handbook and the online submission platform for the TNA proposals were presented. This was also an opportunity to meet the new members of the team working in Italy and France, the six members of the Scientific Advisory Board (SAB) and the new project officer appointed by the EC for the monitoring of MOSBRI.

Subjects such as TNA procedures and dissemination strategies, project administrative and financial issues, approaches to potential industrial partners and TNA data management were discussed during the meeting. The next general assembly of MOSBRI will take place in September 2022, hopefully face to face.

In other news...

The first MOSBRI basic-level school (BLS1) "Quality control of protein samples", will be held from the 4th to 8th of April 2022, at Institut Pasteur, Paris, France (Pasteur-PFBMI). Registration will be open soon.

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The MOSBRI website will also provide you with more information about the network partners, services offered, training and many other activities of the MOSBRI programme.



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