

# BIOREMIA Summer School

## Nanomaterials and Nanotechnologies for the prevention of bacterial biofilms

29 August – 2 September 2022, Ioannina, Greece

### Program



#### VENUE

**29.08-2.09.2022**, Hotel Du Lac, Leoforos Karolou Papoulia, Ioannina, Greece  
**2.09.2022**, Department of Materials Science & Engineering (DMSE), Computer Lab, University of Ioannina, Greece

#### ORGANISERS

BIOREMIA ETN project  
<https://www.bioremia.eu/>  
Event organisers: Assoc. Prof. Christina Lekka, Prof. Georgos Evangelakis, University of Ioannina, Greece

#### FUNDING

This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska - Curie Grant Agreement No. 861046.



# 28 August

Sunday

20:00 (EEST) Dinner (Restaurant - [Hotel Du Lac](#))

# 29 August

Monday

Venue: [Hotel Du Lac](#)

09:15 (EEST) Registration & Welcome

**09:30 – 17:30 Beyond the Bench: Career Development for Scientists (Part 1)**

Coffee breaks: 11:00 & 15.30

Lunch break: 13:00

Trainers: Tobias Maier, Lisa Saemisch  
(ThePaperMill, Spain)

**Goal:** The goal of this workshop on career development for scientists is to give participants a competitive edge in the job market both by developing an intellectual framework for making informed career choices, and by providing practical help with the application and selection process, be it within or outside the academic environment.

## Content

- Skills, interests and values: why are you doing science and what for?
- Identifying opportunities: mapping the job market for academics
- Developing your competence profile: finding out and expressing what you are good at
- Decision making theory: how to make the right choices for the right reasons
- Creating a competitive CV: how to get on the shortlist
- The job interview: a clear framework to finding the right match
- Taking action: tools and tips to kick off your career

20:00 Dinner (Restaurant - [Hotel Du Lac](#))

# 30 August

Tuesday

Venue: [Hotel Du Lac](#)

**09:30 – 17:30 Beyond the Bench: Career Development for Scientists (Part 2)**

Coffee breaks: 11:00 & 15.30

Lunch break: 13:00

Trainers: Tobias Maier, Lisa Saemisch  
(ThePaperMill, Spain)

20:00 Get-together Dinner (*Spuntino Restaurant*)

# 31 August

Wednesday

Venue: [Hotel Du Lac](#)

09:00 Registration

**09:15 Welcome & Introduction**

*Christina Lekka (University of Ioannina, Greece)*

**Nanomaterials & Nanocharacterization**

*Moderator: Lindsay Greer (UCAM, UK)*

**09:30 Invited talk 1 : Nanomechanical measurements of metallic alloys**

*Udo Schwarz (YALE, US)*

**10:15 Invited talk 2 : SPD-mediated lattice defect engineering for optimization of the mechanical and corrosion properties of (non-) biodegradable crystalline materials**

*Michael Zehetbauer (UniVie, Austria )*

11:00 Coffee break

**Nanotechnologies**

*Moderator: Jürgen Eckert (MUL, Austria)*

**11:15 Invited talk 3 : Dealloying strategies for the generation of nanoporous metals with advanced antibacterial properties. How nanotechnology can help bioimplant design**

*Paola Rizzi (UNITO, Italy)*

**11:45 Invited talk 4 : Electrodeposition of nanostructured materials**

*Eva Pellicer (UAB, Spain)*

**12:15 Invited talk 5 : Role of Surface Properties on the Biocompatibility and Toxicity of Xenobiotics**

*Francesco Turci (UNITO, Italy)*

13:00 Lunch break & Group photo

**14:30 Networking & Excursion (Parga village)**

# 1 September

Thursday

Venue: [Hotel Du Lac](#)

**09:30 Progress of ESRs projects**

(20 min/ESR)

ESR 1 - Yannick Fortouna (UOI, Greece)  
ESR 2 - Ludovico Alberta (IFW, Germany)  
ESR 3 – Aleksandra Bartkowska (UAB, Spain)  
ESR 4 – Fei-Fan Cai (MUL, Austria)  
ESR 5 – Miguel Brito Costa (UCAM, United Kingdom)

11:10 Coffee break

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| <i>Moderator: Serena Best (UCAM, UK)</i>  |  |
| <b>11:30 Progress of ESRs projects</b><br>(20 min/ESR)  | ESR 6 – Tim Kreuz (UCAM, United Kingdom)<br>ESR 7 – Kirti Tiwari (UNITO, Italy)<br>ESR 8 – Michael Escobar Hernandez (UAB, Spain)<br>ESR 9 – Adnan Akman (IFW, Germany)<br>ESR 10 – David Zermeno (Ashland, Ireland)                   |
| 13:10 Lunch break   |  |
| <i>Moderator: Margarita Trobos (UGOT, Sweden)</i>   |  |
| <b>14:00 Progress of ESRs projects</b><br>(20 min/ESR)  | ESR 11 – Adam Turner (UGOT, Sweden)<br>ESR 12 – Paula Milena Giraldo (UGOT, Sweden)<br>ESR 13 – Juan José Londoño Rueda (PXS, Switzerland)<br>ESR 14 – Yohan Douest (Anthogyr, France)<br>ESR 15 – Sebastião Barros (Stryker, Germany) |
| 15:40 Coffee break  |  |
| <i>Moderator: Giorgos Evangelakis (Uoi, Greece)</i>   |  |
| <b>Computational Materials Science, Part 1</b>  |  |
| <b>16:00 Invited Talk 6 : “The road to room temperature superconductivity: Hydrides under high pressure”</b>                                    | <i>Dimitrios Papaconstantopoulos (GMU, US) / online</i>  |
| <b>16:30 Invited Talk 7 : “Atomistic computer simulations of interfacial properties”</b>  | <i>Daniel Sopy (MUL, Austria)</i>  |
| <b>17:15 - 17:45 Consortium management meeting</b>  | <i>Mariana Calin, Anne Hönemann (IFW, Germany)</i>   |
| 20:00 Networking Dinner ( <i>Restaurant <a href="#">FRONTZU POLITIA</a></i> )   |  |
| <b>2 September</b>  |  |
| Friday  |  |
| <i>Venue: Hotel Du Lac (morning session) and DMSE Computer Lab, Uoi (afternoon session)</i>   |  |
| <i>Moderator: Mariana Calin (IFW, Germany)</i>  |  |
| <b>10:00 Discussion on practical aspects of ESR scientific projects (by groups, in specific areas relevant for secondments &amp; PhD topic)</b> |  |
| 11:00 Coffee break  |  |
| <i>Moderator: Florian Spieckermann (MUL, Austria)</i>   |  |
| <b>Computational Materials Science, Part 2</b>  |  |
| <b>11:15 Invited Talk 8 “Molecular dynamics simulation of passive diffusion in eukaryotic and bacterial membranes”</b>                          | <i>Nikolaos Kourkoumelis (Uoi, Greece)</i>   |
| <b>12:15 Computational Materials Science Laboratory - Introduction</b>  | <i>Christina E. Lekka (Uoi, Greece)</i>  |
| 12:30 Lunch break   |  |

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| <b>Computational Materials Science, Part 3</b>  | <i>Moderators: Christina Lekka and Yannick Fortouna (Uoi, Greece)</i> |
| <b>14:00 Computational Materials Science Laboratory – Hands on at the Department of Materials Science and Engineering, University of Ioannina</b> |   |
| 18:00 End of Workshop   |   |

**\* Addresses:**

- Hotel Du Lac → Leoforos Karolou Papoulia, Ioannina, Greece  
<https://www.hoteldulac.gr/en/>
- Department of Materials Science and Engineering → University of Ioannina (Uoi) Campus, <http://www.materials.uoi.gr/>
- Restaurant Spuntino-Alta Gastronomia Italiana → Dionisiou Filosofou 6, Ioannina 452 21
- Restaurant FRONTZU POLITIA → <https://www.frontzupolitia.gr/en/>