



SUPRALIFE NEWSLETTER #3, AUGUST 2024

Dear SupraLife Friends and Colleagues,
Welcome to the third SupraLife's Newsletter!

IN THIS NUMBER:

- SupraLife Second School held in Aveiro in March 2024
- International Symposium at the 12th WBC 2024 held in Daegu in May 2024
- Gordon Research Conference held in Les Diablerets in June 2024
- 9th EuChemS Chemistry Congress held in Dublin in July 2024
- Hands-on Workshop at UBx in September 2024
- Second Scientific Retreat to be held in Porto in November 2024
- SupraLife Third School to be held in Aveiro next March 2025
- SupraLife Final International Scientific Conference to be held in Aveiro next September/October 2025
- Themed Collection on *Bioinspired Functional Supramolecular Systems*
- Publications

SUPRALIFE SECOND SCHOOL | UNIVERSITY OF AVEIRO, PORTUGAL | 10-15 MARCH 2024

The [Second School](#) of the SupraLife Project entitled "*Bioinspired Supramolecular Self-Assemblies*" was held at the Auditorium Renato Araújo within the University of Aveiro's Central and Rectorate Building, in Aveiro, Portugal, from 10-15th March 2024.

This event included a strong scientific program, from 10-12th March, featuring plenary/tutorial lectures by world-renowned scientists from ten different European countries. The talks focused on topics including bioinspired polymers; functional supramolecular self-assemblies; adaptive, dynamic, responsive and interactive soft materials and molecular systems; compartmentalized structures; life-like systems; and

SupraLife Newsletter #3
August 2024

their use in nanomedicine, diagnostics, theranostics, biosensing, drug/therapeutics delivery, soft robotics, tissue engineering or regenerative medicine.



In addition, the scientific program included oral and poster presentations by students and early-career scientists, providing them with the opportunity to showcase their scientific research work and engage in scientific dialogue and discussions with the plenary speakers and peers, fostering the exchange of ideas and collaborative efforts. Awards were given to the best oral communication (Vera Sousa, University of Aveiro, Portugal), sponsored by Metatissue, a spin-off company of the University of Aveiro, and to the best three posters (Cathrine Meyer, Aarhus University, Denmark; Margarida Sacramento, University of Aveiro, Portugal; Joana Calvário, ITQB-NOVA, Portugal), sponsored by the *Journal of Materials Chemistry B*, *Materials Advances* and *Biomaterials Science* of the *Royal Society of Chemistry*.



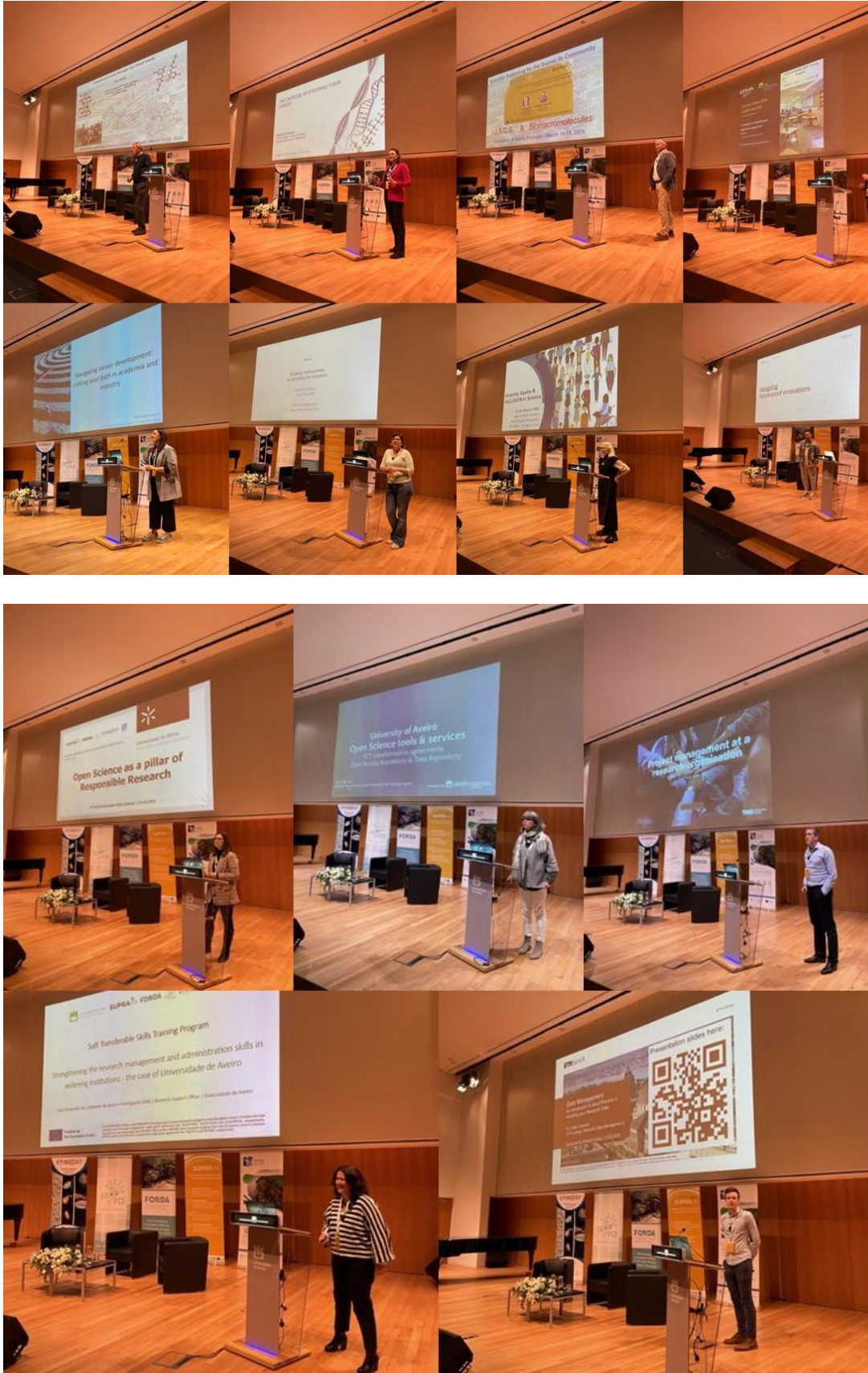
The scientific program also included an activity entitled 'Meet the Mentor' in which the plenary speakers were invited to share their career path and research experiences, as well as to interact with the young scientists and answer their curiosities in an informal environment over the lunch time.



Furthermore, the Second School included a soft transferable skills' training program, from 13-15th March, which aimed at advancing the professional development and broadening the career perspectives of students and early-career scientists, regardless of their academic background and research domain. The program featured invited speakers, experts and highly skilled professionals covering a wide range of topics, including diverse career routes, career development, science publishing and ethics, mental health and imposter phenomenon, diversity, equity and inclusion in science, open science, project management, data management, community building for scientists, and science innovation.

The soft transferable skills' training program was organized in collaboration with three other EU-funded Twinning projects EpiViral (Grant Agreement nr. 952373), EPIBOOST (Grant Agreement nr. 101078991) and FONDA (Grant Agreement nr. 101079134), as well as with the ERA Chair project BESIDE (Grant Agreement nt. 951389), all coordinated by the University of Aveiro.

SupraLife Newsletter #3
August 2024

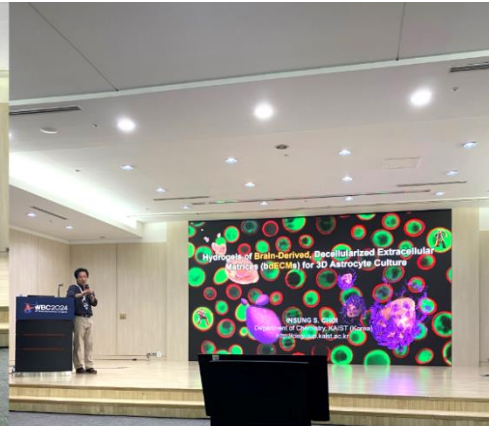


This event was the second school of the EU-funded Twinning project SupraLife which started on January 1st, 2023. The project is coordinated by the University of Aveiro (UAVR, Portugal) and counts on the Eindhoven University of Technology (TU/e, The Netherlands), the University of Bordeaux (UBx, France) and its affiliated entities Polytechnic Institute of Bordeaux (Bordeaux INP, France) and French National Centre for Scientific Research (CNRS, France) as consortium partners.

INTERNATIONAL SYMPOSIA AT THE 12TH WORLD BIOMATERIALS CONGRESS (WBC 2024) | DAEGU, REPUBLIC OF KOREA | 26-31 MAY 2024

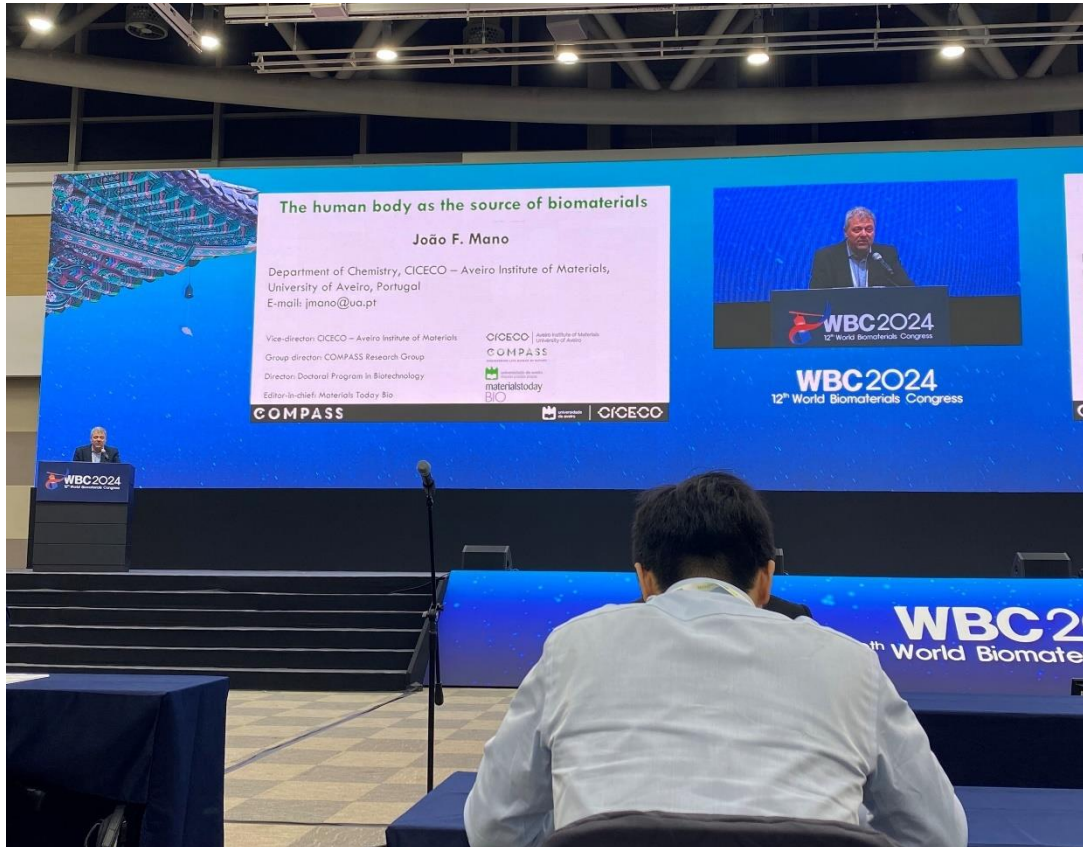
The SupraLife consortium organized an international symposium at the 12th World Biomaterials Congress ([WBC 2024](#)), the premier international conference in the field of biomaterials science, held in Daegu, Republic of Korea, from 26th to 31st May 2024. Our symposium entitled 'Self-assembling polymeric biomaterials for healthcare' was chaired by João F. Mano (University of Aveiro, Portugal) and Jeroen Leijten (University of Twente, The Netherlands) and began with a keynote lecture by João Borges from the University of Aveiro, Portugal, who provided insightful perspectives on the molecular design and development of biofunctional supramolecular polymeric biomaterials and their interactions with living systems, pursued in the framework of SupraLife, and advertised the project aims and activities. The symposium also featured invited talks by Martina Stenzel (University of New South Wales, Australia) on glycopolymers for drug delivery, Insung Choi (KAIST, Republic of Korea) on hydrogels for 3D astrocyte culture, and Elisa Migliorini (University of Grenoble Alpes / CEA, France) on biomimetic materials to studying bone morphogenetic protein bioactivity. In addition, the symposium also included oral communications by Babatunde Okesola (University of Nottingham, UK) on self-assembling hydrogels for instructing tumor cell phenotypes and therapy resistance in pancreatic cancer models, and Herdeline Ann Ardoña (University of California, Irvine, USA) on surface-assembled optoelectronic assemblies for directing tissue anisotropy. The symposium ignited stimulating discussions and attracted plenty of attention by the scientific community.

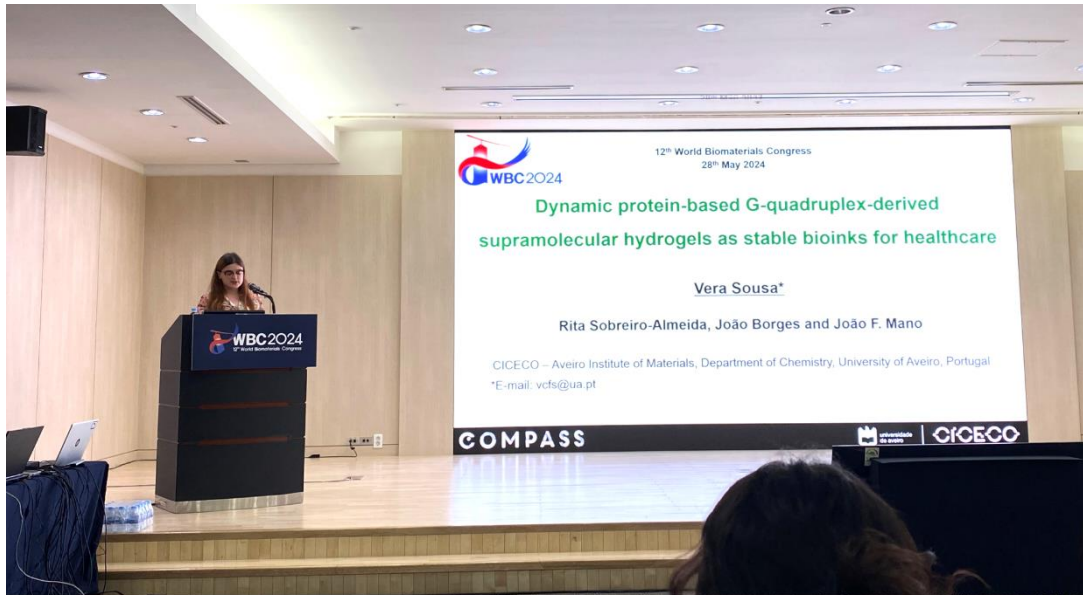
SupraLife Newsletter #3
August 2024



*SupraLife Newsletter #3
August 2024*

In addition, João F. Mano (University of Aveiro, Portugal) delivered an inspiring plenary lecture, and João Rodrigues (Junior Researcher at the University of Aveiro, Portugal), Rita Sobreiro Almeida (Junior Researcher at the University of Aveiro, Portugal), and Vera Sousa (PhD student at the University of Aveiro, Portugal) shared their research work with the attendees through oral communications. The Aveiro's team was very well represented and truly appreciated the congress.







Also, it was an opportunity to meet, learn from and exchange further with Patricia Dankers from TU/e, The Netherlands, as well as with the SupraLife's Scientific Advisory Board members Catherine Picart (University of Grenoble Alpes / CEA, France), Alvaro Mata (University of Nottingham, UK) and Insung Choi (KAIST, Republic of Korea), who delivered inspiring lectures at the congress.

Attending the WBC 2024 was a unique opportunity to learn from, interact closely and exchange ideas with world renowned scientists in the biomaterial's science field, as well as introduce the SupraLife's goals and its training and networking activities and events.

GORDON RESEARCH CONFERENCE ON BIOINSPIRED MATERIALS | LES DIABLERETS, SWITZERLAND | 16-21 JUNE 2024

SupraLife's researchers João Borges and Rita Sobreiro Almeida, and the PhD student Vera Sousa, all from the University of Aveiro, attended the [Gordon Research Conference on Bioinspired Materials](#), held in Les Diablerets, Switzerland, from 16th to 21st June 2024. The conference was filled with fantastic talks by world renowned scientists in the field, including by Patricia Dankers from TU/e, The Netherlands, and plenty of scientific discussions and networking opportunities. The University of Aveiro's researchers and PhD student presented their research work and took the chance to engage in fruitful conversations with young and experience scientists in such a fantastic landscape. It was also an opportunity to meet in-person distinguished individuals and to promote and exchange on SupraLife's goals and training activities.



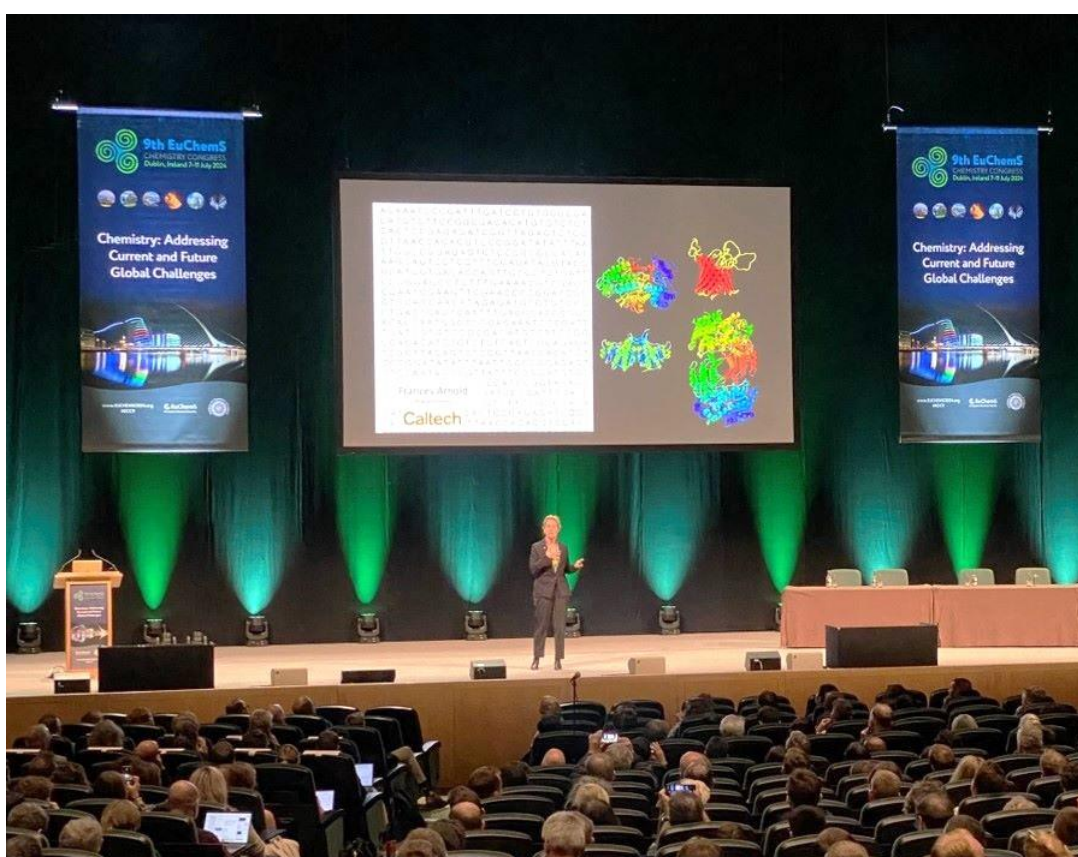


9TH EUCHEMS CHEMISTRY CONGRESS | DUBLIN, IRELAND | 7-11 JULY 2024

SupraLife's researcher and project coordinator João Borges attended the [9th EuChemS Chemistry Congress](#), held in Dublin, Ireland, from 7th to 11th July 2024. He presented the work developed in the framework of SupraLife, which was very well received and ignited stimulating discussions, and took the chance to advertise the project and the SupraLife Third School, which will be held in Aveiro, Portugal, from 9th to 14th March 2025. The scientific program counted on world-leading scientists, including Nobel Laureates in chemistry, who delivered truly inspiring lectures across the chemical sciences.



SupraLife Newsletter #3
August 2024



UPCOMING SUPRALIFE CAPACITY BUILDING AND TRAINING ACTIVITIES

HANDS-ON WORKSHOP | UNIVERSITY OF BORDEAUX, FRANCE | 23-25 SEPTEMBER 2024

We are pleased to announce the second SupraLife hands-on thematic workshop, scheduled to take place in Bordeaux, France, from September 23rd to 25th, 2024. This workshop will feature a series of high-quality scientific lectures and practical hands-on training sessions designed to foster the exchange of knowledge and expertise and stimulate collaborative efforts among the consortium participants. The event will provide valuable networking opportunities while also enabling participants to get acquainted with the culture and experience the historic and vibrant city of Bordeaux!



SECOND SCIENTIFIC RETREAT | PORTO, PORTUGAL | 15-18 NOVEMBER 2024

We are thrilled to announce that the second scientific retreat of the EU-funded SupraLife project will take place in Porto, Portugal, from November 15th to 18th, 2024. Following the success of the first retreat in the Douro region, this year's event promises to build on the collaborative spirit and will put the focus of the challenges, perspectives and opportunities for the translation of supramolecular biomaterials. The retreat will, once again, bring together students and researchers from the University of Aveiro (UAVR, Portugal), Eindhoven University of Technology (TU/e, The Netherlands), University of Bordeaux (UBx, France), along with its affiliated entities Polytechnic Institute of Bordeaux (Bordeaux INP) and the French National Centre for Scientific

Research (CNRS). We look forward to another inspiring and productive gathering in the picturesque city of Porto!



SUPRALIFE THIRD SCHOOL | AVEIRO, PORTUGAL | 9-14 MARCH 2025

REGISTRATION IS NOW

OPEN: <https://www.supralife.eu/thirdschool/#registersection>

ABSTRACT SUBMISSION FOR ORAL & POSTER

PRESENTATION: <https://www.supralife.eu/thirdschool/#abstractsection>



We are excited to announce that the upcoming [SupraLife Third School](#), themed "Supramolecular Multifunctional Biomaterials", will be held at the University of Aveiro, Portugal, from 9th to 14th March, 2025.

This event will represent a unique opportunity for students and early-career scientists to present their work in the form of oral and poster presentations, interact with world distinguished scientists in the field and peers, share ideas, and enjoy a relaxed and collaborative environment.

The Third School will offer an outstanding [scientific program](#), from 9th to 11th March 2025, featuring plenary lectures by world-leading experts in the supramolecular and biomaterials' chemistry fields (see below). The school will focus on topics including dynamic, adaptive, self-healing and injectable polymeric hydrogels, (multi)stimuli-responsive soft biomaterials, 3D and 4D (bio)printed multifunctional (bio)materials, multiscale/hierarchical biomaterials, bioinstructive surfaces and structures, biomimetic and bioinspired supramolecular structures and molecular systems, and their use in nanomedicine, drug/therapeutics delivery, biosensing, tissue engineering or regenerative medicine.

In addition, the Third School will feature a [soft transferable skills' training program](#), from 12th to 14th March 2025, which aims to advance the professional development and broaden career perspectives of students and early-career scientists. The topics to be covered in the soft skills program will be announced soon at the Third School website, but we promise to cover topics and host diverse and experienced invited speakers and panelists that will be of great interest to all those willing to outperform in their professional duties and career paths.

Stay tuned for the upcoming announcement of the full agenda!

Don't miss this unique opportunity to interact closely, exchange ideas and learn from internationally leading speakers, and network with peers in a relaxed atmosphere.

We look forward to welcoming you to the charming city of Aveiro, Portugal, in March 2025!

SupraLife Newsletter #3
August 2024



Mark Tibbitt
ETH Zürich, CH



Matthew Baker
Maastricht University,
NL



José C. R. Cabello
University of Valladolid, ES



Elisabeth Garanger
University of Bordeaux, FR



Ilja Voets
Eindhoven University of
Technology, NL



Anna Rising
Karolinska Institutet, SE



**Sandra Camarero-
Espinosa**
POLYMAT, ES



Sander Wezenberg
University of Leiden, NL



Eva Blasco
University of Heidelberg, DE



Laura De Laporte
RWTH Aachen University,
DE



Cristina Barrias
University of Porto, PT

FINAL INTERNACIONAL SCIENTIFIC CONFERENCE | AVEIRO, PORTUGAL | 29
SEPTEMBER - 3 OCTOBER 2025

SUPRAlife

SupraLife Final International Conference 2025

Supramolecular Multifunctional Biomaterials & Systems for
Biomedical and Healthcare Applications

SAVE THE DATE!

University of Aveiro
29 September - 3 October
2025



We are excited to announce that the Final International Scientific Conference of the SupraLife project will be held in Aveiro, Portugal, from 29th September to the 3rd October, 2025.

The conference motto will be focusing on advancing the frontiers of supramolecular multifunctional biomaterials and systems for biomedical applications and healthcare. We will count on a great line-up of speakers that will be announced in the upcoming months. Keep an eye on our project website and social media channels for updates.

THEMED COLLECTION ON BIOINSPIRED FUNCTIONAL SUPRAMOLECULAR SYSTEMS | JOURNAL OF MATERIALS CHEMISTRY B | ROYAL SOCIETY OF CHEMISTRY

DEADLINE EXTENDED TO 31ST JULY 2024!

ROYAL SOCIETY OF CHEMISTRY | **Journal of Materials Chemistry B** | **Themed Collection**

Bioinspired Functional Supramolecular Systems

Guest Edited by

Dr. João Borges | **Prof. Patricia Y. W. Dankers** | **Prof. João F. Mano** | **Prof. Sébastien Lecommandoux**

Open for submissions until 31 July 2024 | **Scan for more info**

We are pleased to present a themed collection in the *Journal of Materials Chemistry B*, showcasing the latest advancements on bioinspired functional supramolecular systems. Guest edited by João Borges (University of Aveiro, Portugal), Patricia Y. W. Dankers (Eindhoven University of Technology, The Netherlands), João F. Mano (University of Aveiro, Portugal), and Sébastien Lecommandoux (University of Bordeaux, France), this collection aims to provide an up-to-date platform for sharing the latest developments in the field of bioinspired functional supramolecular systems. We strongly welcome and encourage the submission of original research articles in the form of full papers or communications spanning from the supramolecular design and synthesis to the application of the bioinspired supramolecular (bio)materials in drug/gene/protein/therapeutics/cell delivery, biosensing, diagnostics, theranostics, tissue engineering, regenerative medicine, among others. Find out more about this collection and how to submit your paper here: <https://blogs.rsc.org/jm/2023/12/14/submit-to-our-latest-journal-of-materials->

chemistry-b-collection-on-bioinspired-functional-supramolecular-systems/?doing_wp_cron=1719911639.2608029842376708984375

We look forward to receiving your latest work by 31st July 2024!



Journal of
Materials Chemistry B



ROYAL SOCIETY
OF CHEMISTRY

PUBLICATIONS

- Clémence Schvartzman, Emmanuel Ibarboure, Anouk Martin, Elisabeth Garanger, Angela Mutschler, Sébastien Lecommandoux*, [Protocells Featuring Membrane-Bound and Dynamic Membraneless Organelles](#), *Biomacromolecules* **2024**, 25, 4087–4094. DOI: 10.1021/acs.biomac.4c00200.
- Cátia F. Monteiro, Maria C. Gomes, Pankaj Bharmoria, Mara G. Freire, João A. P. Coutinho, Catarina A. Custódio*, João F. Mano*, [Human Platelet Lysate-Derived Nanofibrils as Building Blocks to Produce Free-Standing Membranes for Cell Self-Aggregation](#), *ACS Nano* **2024**, 18, 15815-15830. DOI: 10.1021/acsnano.4c02790 (Open Access).
- Mariana Cunha, Victor de Freitas, João Borges, João F. Mano, João M. M. Rodrigues*, Luís Cruz*, [Acidochromic Free-Standing Multilayered Chitosan-Pyranoflavylum/Alginate Membranes toward Food Smart Packaging Applications](#), *ACS Applied Polymer Materials* **2024**, 6, 6820-6830. DOI: 10.1021/acsapm.4c01085 (Open Access).
- Margarida M. A. Sacramento, Mariana B. Oliveira, José R.B. Gomes, João Borges, Benjamin R. Freedman, David J. Mooney, João M. M. Rodrigues*, João F. Mano*, [Natural Polymer-Polyphenol Bioadhesive Coacervate with Stable Wet Adhesion, Antibacterial Activity, and On-Demand Detachment](#), *Advanced Healthcare Materials* **2024**, 13, 2304587. DOI: 10.1002/adhm.202304587 (Open Access).
- Moniek G. J. Schmitz, Jasper G. M. Aarts, Laurence Burroughs, Phanikrishna Sudarsanam, Tim J. M. Kuijpers, Martijn Riool, Leonie de Boer, Xuan Xue, Dragan Bosnacki, Sebastian A. J. Zaat, Jan de Boer, Morgan R. Alexander, Patricia Y. W. Dankers*, [Merging Modular Molecular Design with High Throughput Screening of Cell Adhesion on Antimicrobial Supramolecular Biomaterials](#), *Macromolecular Rapid Communications* **2024**, 2300638. DOI: 10.1002/marc.202300638 (Open Access).
- Annika F. Vrethen, Johnick F. van Sprang, Maaïke J.G. Schotman, Patricia Y. W. Dankers*, [Collagen type I mimicking peptide additives to functionalize](#)

[synthetic supramolecular hydrogels](#), *Materials Today Bio* **2024**, 26, 101021. DOI: 10.1016/j.mtbio.2024.101021 (Open Access).

- João Borges, Xi Qiu Liu, Hao Chang, Jinfeng Zeng, Claire Monge, Charlotte Garot, Ke-feng Ren, Nihal Engin Vrana, Philippe Lavallo, Takami Akagi, Michiya Matsusaki*, Mitsuru Akashi*, João F. Mano*, Jian Ji*, Varvara Gribova*, Catherine Picart*, [Recent Developments in Layer-by-Layer Assembly for Drug Delivery and Tissue Engineering Applications](#), *Advanced Healthcare Materials* **2024**, 13, 2302713. DOI: 10.1002/adhm.202302713 (Open Access).
 - José Almeida-Pinto, Matilde R. Lagarto, Pedro Lavrador, João F. Mano*, Vítor M. Gaspar*, [Cell Surface Engineering Tools for Programming Living Assemblies](#), *Advanced Science* **2023**, 10, 2304040. DOI: 10.1002/advs.202304040 (Open Access).
 - Maria C. Gomes*, Ana Rita Pinho, Catarina Custódio, João F. Mano*, [Self-Assembly of Platelet Lysates Proteins into Microparticles by Unnatural Disulfide Bonds for Bottom-up Tissue Engineering](#), *Advanced Materials* **2023**, 35, 2304659. DOI: 10.1002/adma.202304659.
 - Cristiana F. V. Sousa, Luís P. G. Monteiro, João M. M. Rodrigues, João Borges*, João F. Mano*, [Marine-origin polysaccharides-based free-standing multilayered membranes as sustainable nanoreservoirs for controlled drug delivery](#), *Journal of Materials Chemistry B* **2023**, 11, 6671–6684. DOI: 10.1039/D3TB00796K (Open Access).
 - Vera Sousa, Adérito J. R. Amaral, Edgar J. Castanheira, Igor Marques, João M. M. Rodrigues, Vítor Félix, João Borges*, João F. Mano*, [Self-Supporting Hyaluronic Acid-Functionalized G-Quadruplex-Based Perfusable Multicomponent Hydrogels Embedded in Photo-Cross-Linkable Matrices for Bioapplications](#), *Biomacromolecules* **2023**, 24, 3380–3396. DOI: 10.1021/acs.biomac.3c00433 (Open Access).
 - Maria Lopes, Marília Torrado, Daryl Barth, Sofia D. Santos, Melike Sever-Bahcekapili, Ayse B. Tekinay, Mustafa O. Guler, Franck Cleymand, Ana P. Pêgo, João Borges*, João F. Mano*, [Supramolecular presentation of bioinstructive peptides on soft multilayered nanobiomaterials stimulates neurite outgrowth](#), *Biomaterials Science* **2023**, 11, 5012–5024. DOI: 10.1039/D3BM00438D (Open Access).
 - Pedro M. S. Ouro, Dora C. S. Costa*, Adérito J. R. Amaral, João F. Mano*, [A Supramolecular Injectable Methacryloyl Chitosan-Tricine-Based Hydrogel with 3D Printing Potential for Tissue Engineering Applications](#), *Macromolecular Bioscience* **2024**, 24, 2300058. DOI: 10.1002/mabi.202300058.
-



**Funded by
the European Union**

The SUPRALIFE project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No. 101079482.
DISCLAIMER: The content of this newsletter reflects the views and opinions of the authors only and does not necessarily reflect those of the European Union or the European Research Executive Agency. Neither the European Union nor the European Research Executive Agency can be held responsible for them or for any use which may be made of the information contained therein.

CONNECT WITH US!



Copyright © 2024 SupraLife, All rights reserved.

You are receiving this email because you have registered for the SupraLife First School or/and the SupraLife Second School.

Our mailing address is:

SupraLife

CICECO - Aveiro Institute of Materials, Department of Chemistry

University of Aveiro, Campus Universitário de Santiago

Aveiro 3810-193

SupraLife Newsletter #3
August 2024

Portugal

Want to change how you receive these emails?

You can [unsubscribe from this list](#).

