

# **EuChemS** Chemistry Congress

# 28 August to 1 September 2022 · LISBON.PT



## Table of Contents

Welcome	
Scientific Committee	9
Organizing Committee	9
Organizers	
Exhibitors	
Venue & Logistics	
Parallel Program	
Chemical Collections and Historical Laboratories	
Chemistry Europe Symposium	
EuChemS Program	
OutReach ACS Chemistry for Life	
ACS/EuChemS Industry Kickstarter Workshop	
EYCN Program	
Scientific Program	43
Plenary Lectures	53
ERC Lectures	55
Theme A - Advances in Synthetic Organic Methodologies	57
Theme B - Metal Containing Compounds and Solids: Properties and Applications	63
Theme C - Chemistry Meets Biology	67
Theme D - Colloids and Materials	73
Theme E - Biomaterials and Medicinal Chemistry	79
Theme F - Catalysis	85
Theme G - Spectroscopic and Analytical Tools / Advanced Physical Chemistry	
Theme 1 - Imaging	
Theme 2 - Energy, Environment and Sustainability	
Theme 3 - Molecules in Motion	100
Section I – Functional Materials	
Section II – Chemistry and Society	

#### Welcome

Dear friends and colleagues,

It gives me an immense pleasure to welcome you on behalf of the Executive Board of the European Chemical Society to the 8th EuChemS Chemistry Congress. We all have been looking forward to this event for a long time and we are really pleased that it will be finally possible again to meet with friends and discuss chemistry with participants from all over Europe and beyond.



I wish to acknowledge Artur Silva and his crew for the tremendous efforts that they have dedicated to organizing this conference essentially twice after it was postponed due to COVID two years ago. Jointly with the Scientific Committee, headed by Luisa de Cola, a wonderful programme has been put together, containing not only high-level chemical science, but also broader elements such as discussions on societally relevant challenges where chemists can contribute to finding solutions. To mention some elements in particular, the conference features two EuChemS Gold Medal awardees, topical parallel sessions covering the full width of the chemical sciences, lectures by young talented researchers aiming for the European Young Chemists' Award, and a programme organized by the European Young Chemists' Network (EYCN).

I also would like to acknowledge the Institute of Chemistry of Ireland (ICI), the host of the 9th EuChemS Chemistry Congress (ECC9), initially scheduled for this year in Dublin along with their centennial, and then postponed to the summer of 2024. Congratulations to ICI with reaching the 100th anniversary!

Finally, I want to thank you, all the participants, for coming to Lisbon and contributing to making this conference a success. We have seen in the past two years that many things can be done online, but certainly not everything. Brainstorming about new scientific ideas, having lively discussions, drawing chemical structures, speculating about mechanisms, none of this is possible through Zoom. Neither is it possible to personally interact with other people, to make new friends, or have a glass of wine over a good dinner. That is why we go to conferences and why the EuChemS Chemistry Congress is organized for.

I wish you a very pleasant stay in Lisbon, but most of all enjoy the conference!

Floris Rutys

President of the European Chemical Society

Dear friends and colleagues,

EuChemS, the Sociedade Portuguesa de Química and the Sociedade Portuguesa de Electroquímica have the pleasure to welcome you to the 8<sup>th</sup> Chemistry Congress (ECC) in Lisbon from 28 August until 1 September 2022. The conference, first scheduled for 2020 and postponed to 2022 because of the pandemic situation, wishes to continue a tradition of excellence in general chemistry meetings in Europe, started in Budapest in 2006.

With the theme "Chemistry the Central Science", the congress aims to emphasize the central role of chemistry at the interfaces with biology, materials science and environmental sciences, both for the sake of science progress and for the solution of important problems that our society is facing. The discussions on different aspects of the chemical science will take place over five days that are filled with plenary lectures, oral and poster communications, and many activities that should stimulate interactions, imagination and promote knowledge in the broadest possible context. During the lunch period, there will be tutorials where chemistry interfaces with art, cinema and astronomy are discussed, broadening our perspectives in a stimulating way.

In this edition three transversal topics were introduced: Molecules in Motion, Energy, Environment and Sustainability, and Imaging that will be tackled from different aspects to highlight the importance of different scientific contributions for the understanding of a complex problem.

In addition, young scientist sessions with oral talks will show the new emerging directions of chemistry.

Awards of the European Chemistry Gold Medals, to recognize the achievement of two scientists working in the field of chemistry in Europe and from the Gesellschaft Deutscher Chemiker (GDCh; German Chemical Society) will be presented.

The presence of more than 25 countries and an excellent gender balance reflect that science has no barriers and speak a single language that everyone can understand and use to communicate, like music.

We hope that all the participants will have the opportunity to enjoy Lisbon, one of the oldest European capitals, a city full of charm with more than 3000 years of history and combining many cultural influences.

Science is a peaceful international endeavour for the benefit of all humanity, and we will have another EuChemS conference based on a science and a friendship with no borders.

We look forward to meeting you in Lisbon at the EuChemS ECC8





Luisa De Cola



Berberan Santos

Dear friends and colleagues,

The Portuguese Chemical Society (SPQ), with the support of the Portuguese Electrochemical Society (SPE), is very proud and happy to be the host organisation for the 8<sup>th</sup> EuChemS Chemistry Congress (ECC8), and, as its President, I welcome you warmly to Lisbon.

Under the general and unifying theme of Chemistry the Central Science, the ECC8 will have an exciting scientific programme led by renowned international experts. It will focus on the central role of chemistry in solving fundamental problems of modern societies at the interface of biology, material and environmental sciences, among others, both for the progress of humankind and for the solution of fundamental problems of modern societies.

After the difficulties and uncertainties felt in 2020 due to COVID 19 that led us to postpone the ECC8 to 2022, the accumulation of scientific congresses competing for the same period of the year and some with overlapping dates, we managed to put together an excellent program. Given the current situation and the fears that some colleagues still have, the number of participants that will exceed 1200 is not what was expected when we proposed to organise ECC8 in 2020. However, it is a good result considering our current situation in August 2022. This face-to-face meeting will be the appropriate environment to share and discuss novel ideas and to showcase the most recent advances in chemical sciences of Europe and around the world, but also for the young scientist to discuss with more experienced ones, which was not possible in the last two years.

The Portuguese Chemical Society (SPQ) serves more than 1000 members internationally with the purpose of promoting, cultivating and developing in Portugal the research, teaching and application of Chemistry and its close connected Sciences. SPQ works diary to create opportunities for chemists to meet through the organisation of national and international meetings.

Lisbon is a historic capital full of charm, where more than three centuries of cultural influences blend with modern trends and lifestyles. It is, therefore, the perfect place to receive you all and engage in a fruitful scientific discussion.

As actively engaged members of EuChemS, we are very honoured to have worked hard with many talented people and various organisations to bring this congress to all of you.

I would like to sincerely thank everyone who contributed to building this excellent scientific event, namely, the chairs of the congress, Luisa De Cola and Mário Berberan Santos, our brilliant scientific and organising committees, session conveners, participants, sponsors and exhibitors, and not forgetting the SPQ secretariat.

I hope these five days of congress will be a great opportunity to share knowledge, make friends and establish scientific collaborations, overcoming the barriers that sometimes appear in our lives and the world we live in. I hope you are happy and have a very successful and productive week in Lisbon.



Artur film

Artur Silva

#### **Scientific Committee**

Luisa De Cola, Italy – Chair – Materials Mário N. Berberan Santos, Portugal – Co-Chair – Spectroscopy/Physical Chemistry Artur M. S. Silva, Portugal – SPQ – Organic Chemistry/Synthesis Alice Solda, Italy - European Young Chemists' Network Katharina M. Fromm, Switzerland – Inorganic Chemistry and Solids Piotr Stepnowski, Poland – Analytical & Environmental Chemistry Maria Lucia Curri, Italy – Nanostructured and Multifunctional Materials Paolo Melchiorre, Spain – Catalysis and Photocatalysis Oren Scherman, United Kingdom – Dynamic Supramolecular Assemblies John Cassidy, Ireland - Analytical Chemistry and Instrumentation Johan Hofkens, Belgium – Spectroscopy and Imaging

#### **Organizing Committee**

Adelino Galvão, SPQ General Secretariat, IST, Universidade de Lisboa Ana Isabel Ricardo, FCT, Universidade Nova de Lisboa Antonio M. Rodríguez García, Spain - European Young Chemists' Network Eckart Ruehl, Freie Universität Berlin, Treasurer and Member of EuChemS Executive Board Fernanda Proença, Universidade do Minho Joaquim L. Faria, SPQ Vice-President, FEUP, Universidade do Porto Luísa Martins, SPE, IST, Universidade de Lisboa Manuel Minas da Piedade, FCUL, Universidade de Lisboa Rui Fausto, FCT, Universidade de Coimbra Tito Trindade, Universidade de Aveiro Vítor Freitas, FCUP, Universidade do Porto Organizers







Com o alto Patrocínio de Sua Excelência Under the High Patronage of the President of the Portuguese Republic



The Organizing Committee gratefully acknowledges the following Institutions for donations









# CHEMISTRY

THE AMERICAN CHEMICAL SOCIETY (ACS), FOUNDED IN 1876, IS THE WORLD'S LARGEST AND MOST INFLUENTIAL SCIENTIFIC SOCIETY. WITH SERVICES AND PROGRAMS SPANNING RESEARCH, PUBLICATIONS, PROFESSIONAL DEVELOPMENT, AND SCIENTIFIC MEETINGS, YOU ARE INVITED TO DISCOVER THE BEST IN CHEMISTRY AT THE 8TH EUCHEMS CHEMISTRY CONGRESS IN LISBON.

With a global community of more than 150,000 in over 140 countries, ACS accomplishes this through 32 technical division, 26 international chapters, and hundreds of ways to engage with professionals across the globe who share your passion for chemistry and the chemical sciences.

CAS, a division of ACS specializing in scientific information solutions, partners with R&D organizations globally to provide actionable insights that help them plan, innovate, protect their innovations, and predict how new markets and opportunities will evolve. Scientific researchers, patent professionals and business leaders around the world across commercial, academic and government sectors rely on our solutions and services to advise discovery and strategy. Leverage our unparalleled content, specialized technology, and unmatched human expertise to customize solutions that will give your organization an information advantage.

ACS Publications, also a division of ACS, publishes more than 75 peer-reviewed journals, including *JACS*, the most-cited journal in chemistry with an Impact Factor of 16.383, and 12 fully open access journals including a suite of nine discipline-specific publications known as ACS Au.

#### To learn more, visit www.acs.org







15



#### Three new RSC journals for a better, more sustainable future

What happens when we place chemistry at the heart of sustainability? Discover more with the Royal Society of Chemistry



Explore our journals



# Changing the practice of medicine

At Novartis, we harness the innovation power of chemical biology and medicinal chemistry to address some of society's most challenging healthcare issues. Our researchers work to push the boundaries of science, broaden our understanding of diseases and develop novel products in areas of great unmet medical need. We are passionate about discovering new ways to extend and improve patients' lives.

# **U** NOVARTIS

### Exhibitors



The European Chemical Society (EuChemS) aims to nurture a platform for scientific discussion and provide a single, unbiased European voice on key policy issues in chemistry and related fields.

Active since 1970, EuChemS represents more than 160,000 chemists from more than 51 member societies and other chemistry related organisations.



The American Chemical Society is the largest scientific society in the world, providing authoritative, comprehensive information and resources to chemistry professionals around the globe. Discover the latest scientific advances and chemistry related information through ACS Publications' 75+ peer-reviewed journals, and reveal unseen connections with CAS scientific information solutions, including CAS SciFinder-n.



European Chemical Societies Publishing

With 16 Chemical societies from 15 European countries behind Chemistry Europe, we are dedicated to publish the highest quality of research across all chemistry disciplines. Within our publications we support researchers at every stage of their careers by providing the ideal platforms for the international dissemination of their results.



The Portuguese Chemical Society (SPQ) is one of the largest, most active and oldest Portuguese scientific societies, having been founded on 28 December 1911. SPQ promotes, cultivates and develops research, teaching and application of Chemistry and Science, with which it is more directly related.



Founded in 2004, Magritek is the global leader in manufacturing cryogen-free benchtop Nuclear Magnetic Resonance (NMR) spectrometers for the analytical instrument market. Magritek's revolutionary 90 MHz, 80 MHz, and 60 MHz Spinsolve family of benchtop NMR models offer the highest sensitivity and resolution available in the market.



Thieme Chemistry publishes highly evaluated information about synthetic and general chemistry for professional chemists and advanced students since 1909. Our portfolio includes the journals SYNFACTS, SYNLETT, SYNTHESIS and SynOpen, the synthetic methodology reference work Science of Synthesis, the German chemical encyclopedia RÖMPP, and monographs in electronic and printed format.

# fluorochem.

Fluorochem is the UK's largest Independent Research Chemical Supplier, offering an extensive range of intermediates, reagents, building blocks and deuterated solvents, spanning over 16500 scaffold groups.

In order to help customers search our sizable catalogue, we launched the Doug Discovery platform. The website uses a novel method to search by functional and structural groups, reducing the time spent finding chemicals and therefore allowing the chemist to spend more time on research.



The Gesellschaft Deutscher Chemiker (GDCh – German Chemical Society) brings together people working in chemistry and the molecular sciences and supports their striving for positive, sustainable scientific advance, for the good of humankind and the environment. The GDCh supports chemistry in education, research and application and promotes the understanding of chemistry in the public.



Dedicated to promoting excellence in science.

Our journals publish a range of content across the chemical sciences.

We offer high quality peer review, open access and open peer review options; promotion by a dedicated press office; and broad dissemination to an international audience. To find out more, come and see us at our booth.



We are an international organisation connecting chemical scientists with each other, with other scientists, and with society as a whole. Founded in 1841, we have an international membership of over 50,000 and exist to give everyone in the chemical sciences the resources, connections and inspiration to shape the future of chemistry and our world.



## DE GRUYTER

The independent academic publisher, De Gruyter, has been on the market for the past 270 years, releases 1300 new books each year, has more than 650 journals and a variety of digital media. The STM team provides content on materials sciences, polymer science, and nanotechnology, among others.

# **SPRINGER NATURE**

Springer Nature advances discovery by publishing robust and insightful research, supporting the development of new areas of knowledge, making ideas and information accessible around the world, and leading the way on open access. Our journals, eBooks, databases and solutions make sure that researchers, students, teachers and professionals have access to important research.



Federal Ministry of Education and Research



"Research in Germany" is an initiative of the Federal Ministry of Education and Research. It presents Germany as a country of research and innovation and creates a forum for international exchange and cooperation. It also provides information on the German research landscape and on career and funding opportunities for researchers.





Reaxys speaks the language of chemistry. Reaxys is a highly-curated, easy-to-use chemical information solution built on validated data. It harnesses the power of machine learning to help researchers, teachers and students to find, connect and utilize chemistry literature, property and reaction data, patents and experimental procedures.



Chemistry Services for Drug Discovery

Activate Scientific is a European catalogue supplier of multifunctional building blocks and complex scaffolds specialising in the field of medicinal chemistry drug discovery. We offer 90,000 molecules including rare heterocyclic synthons, highly functionalised scaffolds, small alkyl rings, spirocycles, fluorinated compounds, PEG linkers and a wide range of natural, unnatural and protected amino acids. In stock for express delivery at competitive prices from our offices in the UK and Germany.



Company Challenge prepared by Amorim - Dynamic Biosensors - Symeres.

#### **Venue & Logistics**

#### **Lisbon Congress Centre**

The Congress centre is located close to the river Tagus and the historical and cultural heritage of Belem, just a few minutes from the city centre.

#### **Registration opening times**

Sunday:	14h00 – 17h00	Contact:
Monday:	09h00 – 17h00	Praça das Indústrias
Tuesday:	09h00 – 17h00	1300-307 Lisboa – Portugal
Wednesday:	09h00 – 17h00	Tel. (+351) 218 921 420
Thursday:	09h00 – 12h00	Fax (+351) 218 921 499
		Email: <u>lisboacc@ccl.fil.pt</u>

GPS: Latitude - 38°41'57.80"N - Longitude - 9°10'57.00"W



Venue & Logistics

### Navigation at LCC | Room Location





#### Details for Pavilion #2 | Ground Floor



#### **PROGRAM – TYPE OF PRESENTATION**

In 8ECC will be presented Plenary Lectures, Invited Lectures, ERC communications, Oral Communications and Poster Communications.

Please find below important information and carefully read the one that applies to your presentation mode.

#### PLENARY LECTURES (PL)

Plenary Speakers will have **40 min** for a complete presentation comprising any discussion time (questions and answers, Q&A) if desired.

#### **INVITED LECTURES (IL)**

Keynote Speakers will have **30 min** for presentation, including 5 min for Q&A.

#### **ORAL COMMUNICATIONS (OC)**

Oral communications will be 15 min, meaning 12 min of presentation and 3 min of Q&A.

#### ERC COMMUNICATIONS (ERC)

ERC communications will be **10 min** for presentation.

#### POSTER COMMUNICATIONS (PC)

Posters should be a maximum size of 0.9 m x 1.2 m (width x height).

The participants are asked to hang their posters from the registration opening on the 28<sup>th</sup> of August (or at least in the morning of 29<sup>th</sup> of August) and leave them in the exhibition through the congress days till the 1<sup>st</sup> of September. During the poster session, each author must stand near the poster so other interested participants, including prize assessors, may find the author and discuss the topics of interest.

All spoken presentations must be uploaded, tested, and submitted to **Master View Room.** Opening and closing hours of the Master View Room – 08h00-18h00. Here, the speakers must deliver the presentation file at least **3 h before the afternoon session** or the **day before the morning sessions** (no later than 18h00).

The conference rooms will be equipped with **MS PowerPoint 2016** laptops.

**Using your own laptop is not allowed**. **Apple platform is not supported**; ensure your files are PC compatible. Before the start of your session, visit the conference room to check your presentation, familiarise yourself with the audio-visual equipment and meet the chairperson. You will easily find your presentation at the pulpit according to the scheduled session, date, hour and speaker. Using the laptop podium, you will be able to control your presentation. There are no individual microphones.

#### **MS PowerPoint Presentations Specifications**

All spoken presentations must be uploaded, tested, and submitted to Master View Room.

1. Videos and pictures must be in the same folder as the MS PowerPoint presentation. Moreover, they must be copied into the folder before being inserted into the presentation. Videos included in the presentation shall have the following extensions: ".avi", ".mpeg", ".mov," or ".wmv"

2. JPG, GIF, and BMP compressed images are the preferred file format for inserted images (other types of extensions will also be accepted, provided that they are recognized by MS PowerPoint 2016).

3. Use Microsoft Windows 10 default system font. Otherwise, please provide a font package for later installation.

4. Please use Microsoft PowerPoint 2016 (\*.ppt) to guarantee your presentation will open successfully on an on-site PC. Save your presentation with the extension ".ppt," or ".pptx".

5. For MAC-Users: Export your Keynote presentation to PowerPoint for Mac or export your keynote presentation to a movie (iMovie, QuickTime video with "Playback Uses" settings) or export it to PDF. Be aware of the need to edit/reformat the presentation - fonts, images and charts – especially when exporting to PowerPoint for Mac. For embedded movies, please use the possibility of "Quicktime" to save the movie in "\*.mpeg 1(2)" or "\*.avi" format. Please try out the proper functionality of your presentation as soon as possible in the Master View Room.

6. Presentations must be designed in 16:9 format

7. Presentations using Prezi must be delivered at least 3 h before the session and should be delivered in a portable format. For more details, please follow the link: <a href="https://support.prezi.com/hc/en-us/articles/360003478454-Presenting-and-viewing-a-downloaded-presentation-portable-presentation">https://support.prezi.com/hc/en-us/articles/360003478454-Presenting-and-viewing-a-downloaded-presentation-portable-presentation</a>

8. Specify file name as "first-name\_last-name\_conference-name", e.g., "Joaquim\_Faria\_8ECC.ppt";

9. HDD and USB-Memory (Stick) are supported data media for downloading presentations.

#### **CONGRESS DINNER**

The Congress Dinner will take place on the evening of **Wednesday 31 August** at the **Pátio da Galé** (<u>casadomarques.pt/patio-da-gale</u>) **at 20h00**. The conference dinner venue is easily reachable from the hotels or the Lisbon Congress Centre. Directions will be provided during the congress, and the staff will be glad to help the participants. To attend the Congress Diner, you must have pre-purchased your attendance.



Pátio da Galé, inaugurated in 2011, **is located in the west wing of Terreiro do Paço**, where, at the time of the earthquake of 1755, the Royal Palace and the House of India were located.

#### **Parallel Program**

#### **Chemical Collections and Historical Laboratories**

#### Sunday, August 28<sup>th</sup>, 2022



- 14h00 **Judite Alves**, deputy director (Museum of Natural History and Science) Welcome
- 14h05 Brigitte Van Tiggelen (Science History Institute) "EuChemS Historical Landmarks: chemists and their past"

#### **Collections of chemical instruments and artefacts**

- 14h15 Slađana Savić (University of Belgrade) *"The chemical collection of the University of Belgrade"*14125 Induction in the factor in the factor.
- 14h25 **Isabel Malaquias** (University of Aveiro) *"Collections of didactic instruments from Portuguese secondary schools"*
- 14h35 **Duccio Tatini** and **Pierandrea Lo Nostro** (University of Florence/Substantia) "Ugo Schiff collection at the University of Florence and an Italian initiative for chemical collections"
- 14h45 Discussion

#### Historical laboratories and sites of chemistry

- 14h55 **Gilberto Pereira** (Science Museum of the University of Coimbra) "The historical laboratory of Coimbra: 250 years of History"
- 15h05 **Yoshiyuki Kikuchi** (Aichi Prefectural University) *"Historical Chemical Theaters and Laboratories in Aichi and Kumamoto Prefectures, Japan"*
- 15h15 **Marisa Monteiro** (Natural History and Science Museum of the University of Porto) *"An historical chemistry laboratory at the University of Porto"*
- 15h25 Discussion

Parallel Programme

#### Visit

15h35 **Maria do Carmo Elvas** (Museum of Natural History and Science) *"Laboratorio e Amphiteatro Chimico – introduction to the visit"* 

15h45 Visit and free time

#### All ECC8 attendees are welcome!

Register by writing to vantiggelen@memosciences.be

#### **Getting there**

Rua da Escola Politécnica 56/58, 1250-102 Lisboa

Bus from/to the Congress Center: 727 stop at Largo do Rato (300 m from Museum), 25/30 min

Other public transportation connections to the Museum:

- Bus 58, 773 stop and tramcar route 24 in front of the Museum
- Bus 92 and 790 stop at Príncipe Real (200 m from the Museum)
- Tube: Rato Station (Yellow Line)

#### During the ECC8 you have free access to the Museum with your conference badge

#### Kindly made possible by



#### **Chemistry Europe Symposium**

#### Monday, August 29<sup>th</sup>, 2022

Chair: Francesca Rita Novara (ChemistryOpen)

- 9h15-9h30 Haymo Ross "Chemistry Europe"
- 9h30-10h00 Anat Milo (Department of Chemistry, Ben-Gurion University of the Negev, Israel) *"Learning from nature the hard way: Secondary-Sphere Modification in Organocatalysis"*
- 10h00-10h30 **Ramón Martinez Mañez** (School of Industrial Engineering, Universitat Politècnica de Valencia, Spain) *"Gated materials for drug delivery and biomedical applications"*

Chair: Jonathan Faiz (ChemPlusChem)

11h00-11h30	<b>Celia Fonseca-Guerra</b> (Department of Theoretical Chemistry, Vrije Universiteit Amsterdam, The Netherlands) <i>"Discovering in silico the uniqueness of hydrogen bonding"</i>
11h30-12h00	<b>Francesco Ricci</b> (Chemistry Department, University of Rome, Italy) "Reorganization of self-assembled DNA-based polymers in higher ordered structures"
12h00-12h30	ChemistryViews - <b>Javier García Martínez</b> (President of IUPAC) "Chemistry Entrepreneurship: Transforming Chemistry Discoveries into Chemistry Solutions"

### **EuChemS Program**

#### Tuesday, August 30<sup>th</sup>, 2022 | 09h15-10h30

#### Chemists' contributions to the global approach for tackling pollution

In this panel discussion, we will discuss how can chemistry contribute to Sustainable Development Goals.

On 2 March 2022, the 5<sup>th</sup> UN Environment Assembly concluded with 14 resolutions to strengthen actions for nature to achieve the Sustainable Development Goals. Most of them require contributions from Chemistry community, especially:

- Resolution L13: End Plastic Pollution by developing a new legally binding instrument
- Resolution L14: Science Policy Panel to support the sound management of chemicals and waste to prevent pollution

This moderated panel discussion, which is one of many activities of EuChemS on topics of global concern to which science shall proactively contribute, focuses on the L14 resolution.

The session will feature prestigious panelists from the international chemistry community, including representatives from the Royal Society of Chemistry (RSC), the American Chemical Society (ASC), the German Chemical Society (GDCh), and last, but not least, the European Chemical Society (EuChemS):

Moderator: Camilla Alexander-White (RSC, Lead Policy Advisor)

#### Panelists:

- Nineta Hrastelj (EuChemS, Secretary-General)
- Floris Rutjes (EuChemS, President)
- Carla Seidel (GDCh, Senior Past-President)
- **Tom Welton** (RSC, President)
- Angela Wilson, (ACS, President)

#### Tuesday, August 30<sup>th</sup>, 2022 | 10h30-12h00

#### **Culture and Policy in Science**

In this session, we invite the scientific community to take a step back, and indulge in a different perspective on natural sciences, and the people who work with them.

Every community has its own habits, language, behaviour, – its own culture – and the scientific community is no exception. But no community exists in a vacuum. The products of the scientific community will spread beyond its borders. Innovation is adopted by the public, science will influence policy, and the human beings from other communities will be informed by and engage with scientists.

Our speakers, coming from anthropology and political sciences backgrounds, will use the tools of social sciences to introduce the unique oddities of the culture of science and its community, and demonstrate how policymaking and the scientific process works together.

While some of the discussed topics may invite you to look at the scientific process with a certain sense of irony, this is not to criticize or diminish the importance of natural science, rather, to help cross-disciplinary understanding, and to build bridges between communities.

Moderator: Nineta Hrastelj (EuChemS, Secretary-General)

#### Panelists:

- Marton Kottmayer (Science Communication and Policy Officer)
- Bruno Vilela (Public Affairs Consultant)

### **OutReach ACS Chemistry for Life**

#### Tuesday, August 30<sup>th</sup>, 2022 | 16h00-17h45

#### Plan Effective Interactive Chemistry Experiences for the Public

Many chemists communicate chemistry's value through science outreach and interactive chemistry events. Research demonstrates that these events and similar experiences can increase positive participant attitudes towards chemistry. Using this research, we present practical guidance in how to format, select content, and facilitate effective interactive chemistry activities. Basic information will be provided about various developmental levels to help you reach participants of different ages, whether within a school or at a standalone event.

This course is designed for both new and experienced outreach event organizers and other engaged volunteers who would like to engage the public in learning and doing chemistry.

#### **ACS/EuChemS Industry Kickstarter Workshop**

The **Industry Kickstarter Workshop** is a three-part interactive career development workshop designed to teach graduate students and postdoctoral scholars about different industry career options that span from working for large to small organizations. This workshop will prepare them for the industry job application process and touch on how to start their own business. During this workshop participants will receive the necessary knowledge and tools that would otherwise require weeks of individual effort to obtain.

The interactive workshop includes:

#### Monday, August 29<sup>th</sup>, 2022 | 14h00-15h30

#### Part 1: How to Develop a Satisfying Career?

A key aspect to finding a satisfying career path is to be intentional and informed during the decision-making process. Attendees will learn how to use the individual development plan framework to examine the intersection of core skills, values and opportunities and use it to make informed career choices.

#### Wednesday, August 31<sup>st</sup>, 2022 | 09h15-10h30

#### Part 2: Is an Industry Career a Good Fit for You?

This section addresses this by providing an overview of different careers in industry and current industry trends, as well as resources for participants to determine if a career in industry would be a satisfying career path.

#### Wednesday, August 31<sup>st</sup>, 2022 | 11h00-12h30

#### Part 3: How to Successfully Transition into a Career in Industry?

Transitioning from academia into industry requires proficiency in a wide range of professional skills. In this section, participants will learn how to leverage connection building, effective communication and leadership in the academic to industry transition. Additionally, a 45-minute panel with chemists who have recently transitioned into different industry roles, will provide first-hand and current experience on the transition to industry positions.

Parallel Programme

#### **EYCN Program**

#### Monday, August 29<sup>th</sup>, 2022

#### Bonding for Impact | Chair: Antonio M. Rodríguez García (EYCN)

- 09h15-09h35 Maximilian Menche (EYCN)
- 09h35-09h55 Nineta Hrastelj (EuChemS)
- 09h55-10h15 Javier Garcia (IUPAC)
- 10h15-10h30 João Borges (IYCN)
- 10h30-10h55 "CR awards" OPEN DISCUSSION

#### Science Policy in Europe: Open Science | Chair: Maximilian Menche (EYCN)

- 11h00-11h15 Floris Rutjes (EuChemS)
- 11h15-11h30 Alina-Maria Tomoiaga (ERC)
- 11h30-11h45 Laura Fisher (RSC)
- 11h45-12h00 Wolfram Koch (GDCh)
- 12h00-12h30 OPEN DISCUSSION

#### Assessing CV: Academia vs Industry | Chair: Alice Soldà (EYCN/DB) / Federico Bella (POLITO)

- 14h00-14h20 **Federico Bella** (POLITO) "Academic CV: what to do (and not do)"
- 14h20-14h30 Alice Soldá (EYCN/DB) *"How to convert an academic CV for industry positions"*
- 14h30-15h00 Company Challenge presentations Amorim, Symeres and Dynamic Biosensors
- 15h00-15h30 Panel Discussion with all the Speakers

#### Tuesday, August 30<sup>th</sup>, 2022

#### **EYCA Competition**

09h15-12h30 EYCA Competition PhD students (6 x 10 min each)

09h15-10h30 EYCA Competition Postdoctoral fellow (6 x 15min each)

**Diversity and Gender balance** | Chair: Claudia Bonfio (EYCN)

- 14h00-14h30 Jan Mehlich (EuChemS), Ale Palermo (RSC), Pilar Goya (EuChemS), Marta Da Pian (SCI), and Marie Perrin (ETH Zürich) Small address from Speakers
- 14h30-15h30 OPEN DISCUSSION

#### Wednesday, August 31<sup>st</sup>, 2022

MSCA Training Workshop | Chair: Liva Dzene (EYCN) 09h15-09h40: David Marçal (MSCA-NCP Portugal) 09h40-10h00: Reviewing MSCA and Fellows (Marco Carlotti, etc...) 10h00-10h30: OPEN DISCUSSION

#### ERC Training Workshop | Chair: Alina Maria TOMOIAGA (ECC)

11h00-11h30 Alina-Maria Tomoiaga + ERC grantees

11h30-12h30 OPEN DISCUSSION

Science Communication | Chair: Fernando Gomollón-Bel (Agata Communications - Cambridge, UK)

- 14h00-14h10 Introduction: Fernando Gomollón-Bel
- 14h10-14h30 Science outreach: Laura Howes (C&Eng Mag)
- 14h30-14h50 Science journalism: Barbara Pinho
- 14h50-15h10 Science divulgation: Carmen Bretón (Vaya Elementos, UR)
- 15h10-15h30 PANEL CLOSURE & DISCUSSION

#### Thursday, September 1<sup>st</sup>, 2022

Company Challenge pitches | Chair: Alice Soldà (EYCN/DB)

9h15-12h30

For the 8<sup>th</sup> edition of the **EuChemS Chemistry Congress**, the main goal of the **European Young Chemists' Network (EYCN)**, the early career division of the European Chemical Society (EuChemS) is to strengthen the collaboration with the chemical Industries, and enhance the interactivity with companies. The EYCN is organizing a **Company challenge for students**, as well as **early-stage researchers** to train them and highlight the importance of teamwork, creativity, innovation, communication, resilience and problem solving, while also sharing ideas and fostering fruitful collaborations and discussions.

For the 'Company challenge', **3 companies** (**Amorim Cork, Symeres and Dynamic Biosensors**) will propose one challenge or problem to be solved by the young attendees. The presentation of the companies and of the challenge will take place during the EYCN CV session on August 29<sup>th</sup> (14h00-15h30). The participants can participate as a team or single person, and they will be supported by one (or more) person (people) from the company that proposed the challenge during the entire congress. Suggested meeting point: every day at the coffee break 15h30-16h00. However, the participants of the challenge are highly encouraged to work during the whole week according to their own schedule, for the development and validation of their ideas through hypothesis and creation, where possible, of a prototype. Once they have found a good solution for the challenge, they have to create a pitch (TEDx format - video, demonstrator, or presentation) that must be presented (5 min max each) in front of a committee on September 1<sup>st</sup> from 9h00 to 12h00. The committee will announce the winner of each challenge and give the Industry prizes.

#### **Companies:**

1. **Amorim Cork** has been the world leading company for 150 years dedicated to the production of cork stoppers for still wines, sparkling wines, and spirits, producing 5.8 billion corks annually. Amorim Cork Research provides R&D services for the Amorim Group towards more natural and sustainable solutions for the wine industry and all applications involving cork composites.

2. **Symeres** is the leading mid-sized European Contract Research Organization for your drug discovery and development needs. With over 600 scientists at six locations, we offer best-in-class solutions for drug discovery and drug development for small molecules and beyond. Our services span from early-stage hit finding all the way to the delivery of your early clinical drug substance API. We blend a deep scientific knowledge base with creativity to deliver the quality results your project needs. We Make Molecules Matter. Together.

3. **Dynamic Biosensors** is a provider of instruments, consumables, and services in the field of analytical systems for the characterization of biomolecules and molecular interactions. The company commercializes switch SENSE<sup>®</sup>, a groundbreaking platform technology for the analysis of biomolecules with applications in R&D and drug development.

### Scientific Program

					Monday, 29 August	gust			
					Auditorium I				
08.30-09.10h			DI - 3. Lut 7 Acto	Chair: Artu rmann Institute for O	<b>Chair:</b> Artur Silva, President of SPQ, University of Aveiro, Portugal 23-1145 Actornant Institute for Organic and Biomolacular Chanistro, Gaora-Aumict-Hoiversity Göttingan Garmany	versity of Aveiro, Portu	gal aivareity Gättingan Ge	, Mac mu	
	Auditorium VII	Boom EAtEB	Auditorium I	Doom 3A 13B		Auditorium I		Boom EC	Brow 3C
	Theme A	Theme B	Theme C	Theme D	Theme E	Theme F	Theme G	EYCN	Other
	Chair: Fabio Juliá, ICIQ, Tarragona, Spain	Chair: Reiner Anwander, Eberhard Karls Universität Tübingen Germany	Chair: Marina Rubini, University College Dublin, Ireland	Chair: Marina Chair: M. Lucia Curri, Rubini, University of Bari "A. University College Moro" and CNR IPCF, Dublin, Ireland Bari, Italy	Chair: Holger Stephan, Helmholtz-Zentrum Dresden-Rossendorf, Germany; and Avi Schröder, Technion Israel Institute of Technology, Israel	Chair: John F. Bower, University of Liverpool, UK	Chair: Roberta D'Agata, University of Catania, Italy	Chair: Antonio M. Rodríguez García (EYCN)	Chair: Francesca Rita Novara, ChemistryOpen
09.15-10.30h	A1-New Synthetic Methodologies in Organic Chemistry II.A1.1; 30 min OC.A1.1-OC.A1.3 15 min x 3	B1-Organometallic chemistry II.B1.1 - 30 min OC.B1.1-OC.B1.3 15 min x 3	C1-Chemical Biology II.C1.1 - 30 min OC.C1.1-OC.C1.3 15 min x 3	D2-Nanomaterials and Nanostructures 11.D2.1 - 30 min OC.D2.1-OC.D2.3 15 min x 3	E1-Drug Design and Discovery II.E1.1 - 30 min OC.E1.1-OE.C1.3 15 min x 3	F1-Organo and Metal Homogeneous Catalysis II.F1.1 - 30 min OC.F1.1-OF.F1.3 15 min x 3	G1-New Developments and Methods II.G1.1 - 30 min OC.G1.1-OG.C1.3 15 min x 3	Bonding for Impact	Chemistry Europe Symposium 15+ 2 x 30 min
10.30-11.00h					Coffee break				
	Chair: Jiwoong Lee, University of Copenhagen, Denmark	Chair: Emma Gallo, University of Milan and ICCOM- CNR, Fiorentino, Italy	Chair: Wiktor Szymanski, University of Groningen, The Netherlands	Chair: M. Lucia Curri, University of Bari "A. Moro" and CNR IPCF, Bari, Italy	Chair: Anne Duhme-Klair, University of York, UK	Chair: Jose L. Vicario, University of the Basque Country, Bilbao, Spain	Chair: Pavel Jelinek, Institute of Physics, CAS, Czech Republic	Chair: Maximilian Menche (EYCN)	Chair: Jonathan Faiz, ChemPlusChem
11.00-12.30h	A1-New Synthetic Methodologies in Organic Chemistry II.A1.2-II.A1.3 2x 30 min OC.A1.5 15 min x 2	B1-Organometallic chemistry II.B1.2-II.b1.3 2 x 30 min OC.B1.4-OC-B1.5 15 min x 2	C1-Chemical Biology II.C1.2-II.C1.3 2 x 30 min OC.C1.4-OC.C1.5 15 min x 2	D2-Nanomaterials and Nanostructures II.D2.2-II.D2.3 2x 30 min OC.D2.4-OC.D2.5 15 min x 2	E1-Drug Design and Discovery II.E1.2-II.E1.3 2 × 30 min E3-Metals in Medicine II.E3.1 - 30 min	F1-Organo and Metal Homogeneous Catalysis II.F1.2-II.F1.3 2x 30 min OC.F1.4-OC.F1.5 15 min x 2	G1-New Developments and Methods II.G1.2-II.G1.3 2 x 30 min OC.G1.4-OC.G1.5 15 min x 2	Science Policy in Europe: Open Science	Chemistry Europe Symposium 3 x 30 min
12.30-14.00h			Mas	Chair: Artu terclass Chemistry in ;	Lunch Auditorium I Chair: Artur Silva, President of SPQ, University of Aveiro, Portugal Masterclass Chemistry in Space: Daniel Glavin, Astrobiology Analytical Laboratory at NASA, USA	versity of Aveiro, Portu ology Analytical Labora	gal tory at NASA, USA		

19.15-21.00h	18.30-19.10h	17.45-18.25h		16.00-17.45h		15.30-16.00h	14.00-15.30h A1-New Synthetic F1-Organo and Metal   Methodologies in Organic Chemistry Metal   OC.A1.6-OC.A1.11 Catalysis   15 min x 6 15 min x 6	Chair: MartinChair: CláudiaKotora, CharlesSilva,University, Praha,FEUP, UniversityCzech Republicof Porto	Theme A Theme B	Auditorium VII Room 5A+5B	
							d C3-Biomolecules: Synthesis and applications ,11 OC.C3.1-OC.C3.6 ,15 min x 6	a Chair: Erica Del Grosso, ity University of Rome Tor Vergata,	Theme C	3 Auditorium II	
		<b>Chair</b> : Ka PL - 4: Cri					D5-Nanoparticles: synthesis and applications OC.D5.1-OC.D5.6 15 min x 6	Chair: Silvia Gross, University of Padova, Italy	Theme D	Room 3A+3B	
Poster Session 1	ERC.1 - ERC.4	<b>Chair</b> : Katharina M. Fromm, University of Fribourg, Switzerland PL - 4: Cristina Nevado, University of Zurich, Zurich, Switzerland	Imaging 2 - 2 x 30 min Il.lmag.1-II.lmag.2 - 2 x 30 min OC.lmag.1-OC.lmag.3 - 15 min x 3	Chair: Johan Hofkens, KU Leuven, Belgium	Auditorium I	Coffee break	E1-Drug Design and Discovery OC.E1.4-OC.E1.8 15 min x 5	Chair: Gilles Gasser, PSL University, CNRS, Paris, France	Theme E	Auditorium VIII	Monday, 29 August
n 1	4	y of Fribourg, Switzerla Zurich, Zurich, Switzerla	2 x 30 min - 15 min x 3	euven, Belgium	-	k	F2-Heterogeneous and Supported Catalysis OC.F2.1-OC.F2.6 15 min x 6	Chair: Joaquim Faria, FEUP, University of Porto	Theme F	Auditorium I	ugust
		and					G1-New Developments and Methods OC.G1.6-OC.G1.11 15 min x 6	Chair: Joaquim Faria, FEUP, University of Porto Germany	Theme G	Auditorium VI	
							Assessing CV: Academia vs Industry	Chair: Alice Soldà (EYCN/DB) / Federico Bella (POLITO)	EYCN	Room 5C	
							EuChemS/ACS Industry Kickstarter workshop Part 1: How to Develop a Satisfying Career?	EuChemS / ACS	Other	Room 3C	
					Tuesday, 30 August	igust					
--------------	--	--	--	--	--	---	---	----------------------------	--		
					Auditorium I						
08.30-09.10h			PL - 5	Ch : Clément Sanchez, Co	Chair: João Rocha, University of Aveiro, Portugal PL - 5: Clément Sanchez, Collège de France and Institute of Advanced Studies of Strasbourg, France	f Aveiro, Portugal of Advanced Studies o	f Strasbourg, France				
	Auditorium VII	Room 5A+5B	Auditorium II	Room 3A+3B	Auditorium VIII	Auditorium I	Auditorium VI	Room 5C	Room 3C		
	Theme A	Theme B	Theme C	Theme D	Theme E	Theme F	Theme G	EYCN	Other		
	Chair: Norbert Krause, Dortmund University of Technology, Germany	Chair: Carlos Salgueiro, FCT-NOVA, New University of Lisbon; Portugal	Chair: Manuel Aureliano, Universidade do Algarve, Faro, Portugal	Chair: Carlos Lodeiro, FTC-NOVA, NOVA University Lisbon, Portugal	Chair: Takashi Hayashita, Sophi a University, Tokyo, Japan	Chair: Bert F Sels, KU Leuven, Belgium	Chair: David Robinson, Nottingham Trent University, UK	Chair: Angela Agostiano	Moderator: Camilla Alexander-White, RSC, Lead Policy Advisor		
09.15-10.30h			C3-Biomolecules:			F2-Heterogeneous			Chemists' contributions to the global approach for tackling pollution		
	A2-Green chemistry II.A2.1- 30 min OC.A2.1-OC.A2.3 15 min x 3	B3-Molecular Magnets II.B3.1 - 30 min OC.B3.1-OC.B3.3 15 min x 3	Synthesis and applications II.C3.1 - 30 min OC.C3.7-OC.C3.9 15 min x 3	D4-Drganic-Inorganic Hybrids II.D4.1 - 30 min OC.D4.1-OC.D4.3 15 min x 3	E6-Molecular Sensors II.E6.1 - 30 min OC.E6.1-OC.E6.3 15 min x 3	and Supported Catalysis II.F.2.1 - 30 min OC.F.2.7-OC.F2.9 15 min x 3	64-Surface Processes and Analysis II.64.1 - 30 min OC.64.3 15 min x 3	EYCA Competition	Nineta Hrastelj, EuchemS, Secretary-General Floris Rutjes, EuchemS, President Carla Sedel, GCD, Senior Past- President		
									Tom Welton, RSC, President Angela Wilson, ACS, President		
10.30-11.00h					Coffee break						
	Chair: Anat Milo, Ben-Gurion University of the Negev, Israel	Chair: Richard Winpenny, The University of Manchester, UK	Chair Boris Vauzeilles, Université Paris- Saday, Gif-sur- Yvette, France	Chair: Carlos Lodeiro, FTC-NOVA, NOVA University Lisbon, Portugal	Chair: Veronica Dodero, Bielefeld University, Germany	Chair: Michael Schnürch, TU Wien, Vienna,Austria	Chair: Bernhard Lendl, TU Wein, Austria	Chair: Angela Agostiano	Chair: Nineta Hrastelj, EuChemS, Secre tary-General		
11.00-12.30h	A3-Reaction mechanisms II.A3.1-II.A3.2 2x 30 min OC.A3.1-OC.A3.2 15 min x 2	B2-Multimetallic systems II.B2.1-II.B2.2 2x 30 min OC.B2.2 15 min x 2	C3-Biomolecules: Synthesis and applications II. C3. 2-II. C3. 3 2x 30 min OC. C3. 10-OC. C3. 11 15 min x 2	D4-Organic-Inorganic Hybrids II.D4.2-II.D4.3 2x 30 min OC.D4.4-OC.D4.5 15 min x 2	E2-Drug Delivery II.E2.1-II.E2.2 2x 30 min OC.E2.1-OC.E2.2 15 min x 2	F4-Photo and Electrocatalysis II.F4.1-II.F4.3 3 × 30 min OC.F4.1 - 15 min	G4-Surface Processes and Analysis II.G4.2-II.G4.3 2x 30 min OC.G4.4-OC.G4.5 15 min x 2	EVCA Competition	Culture and Policy in Science Marton Kottmayer, Science Communication and Policy Officer and Bruno Vilela, Public Affairs Consultant		
					Lunch						
12.30-14.00h		Put Son	me Movie Wow! in	<b>Chair</b> : Luisa De Cola, U <b>Your Chemistry Classr</b> c	Auditorium I Chair: Luisa De Cola, Università degli Studi di Milano, Italy Put Some Movie Wow! in Your Chemistry Classroom, Mark Griep, University of Nebraska–Lincoln, Lincoln, USA	o, Italy of Nebraska–Lincoln, Li	ncoln, USA		keakys worksnop: Predictive Retrosynthesis in the Classroom		

Ecurem, Igurm     FCT NVA, University of Badova, Italy     Ecole Polytechnique Federale de Lausanne Padova, Italy     Ecole Polytechniques France     Dublin City Sabatier, Toulouse, France     Dublin City Dublin City Sabatier, Toulouse, Inversity, Ireland     Chair. Claudia Chair. Claudia Bonfio (EYCN)     Chair. Claudia Bonfio GaVao, ST, Bonfio (EYCN)       gano and ganeous applications applications claudsis CCC3.12-OC.G3.12     D5-Nanoparticles: synthesis and applications applications occ.5.10-OC.5.12     F2-Hetrogeneous and Synthesis and applications OC.5.10-OC.5.12     F4-Photo and Synthesis and Synthesi	1.17 0	15 min x 6 15 min x 6 Chair:	15.30-16.00h 16.00-17.45h 17.45-18.25h 18.30-19.10h
eland Bonfio (EYCN) eland Diversity and G5.6 Gender balance	1.17 15 min x 6 15 min x 6 alr: Luis C. Branco, Universidade Nova de Lisbo Energy, Envi ILEES OGO Rocha, University of Aveiro, CICECO-Aveir		15.30-16.00h 16.00-17.45h 17.45-18.25h
in City by, Ireland ed Physical I-OC.G5.6 Cender balance in x 6	1.17 00.03.12 00.03.17 00.03.14 15 min x 6 15 min x 6 altr: Luis C. Branco, Universidade Nova de Lisbo Energy, Envi II.EES OC.EES.	15 min	15.30-16.00h 16.00-17.45h
CNRS/Université Paul     Dublin City Dublin City Sabatier, Toulouse, France     Chair: Claudia       F4-Photo and Electrocatalysis 0C.F4.2-0C.F4.8     G5-Applied Physical Chemistry 0C.G5.1-0C.G5.6     Diversity and Gender balance       15 min x 7     15 min x 6     15 min x 6	15 min x 6		15.30-16.00h
CNRS/Université Paul     Dublin City     Chair: Claudia       Sabatier, Toulouse,     University, Ireland     Bonfio (EYCN)       F1-Photo and     G5-Applied Physical     Electrocatalysis       CC.F4.2-OC.F4.8     OC.G5.1-OC.G5.6     Diversity and       OC.F4.2-OC.F4.8     OC.G5.1-OC.G5.6     Gender balance       15 min x 7     15 min x 6     Is min x 6	15 min x 6		15.30-16.00h
CNRS/Université Paul       Dublin City       Chair: Claudia         Sabatier, Toulouse,       University, Ireland       Bonfio (EYCN)         France       G5-Applied Physical       Electrocatalysis         CC.F4.2-OC.F4.8       OC.G5.1-OC.G5.6       Diversity and         15 min x 7       15 min x 6       Sender balance	15 min x 6		
CNRS/Université Paul Dublin City Sabatier, Toulouse, University, Ireland Bonfio (EYCN) France	C3-Biomolecules: Synthesis and applications	3.8	14.00-15.30h
er, Chair: Sami Lakhdar, Chair: Tia Keves.	Chair: Cristina M. Cordas, FCT NOVA, University of NOVA de Lisboa, Portugal	Chair: Pedro M. P. Chair: Bert F Sels, Gois, Universidade KU Leuven, de Lisboa, Portugal Belgium	
Theme E Theme F Theme G EYCN Other	Theme C Theme D	Theme A Theme B	
Auditorium VIII Auditorium I Auditorium VI Room 5C Room 3C	B Auditorium II Room 3A+3B	Auditorium VII Room 5A+5B	
Tuesday, 30 August			

					Wednesday, 31 August	August			
					Auditorium I				
08.30-09.10h				<b>Chair</b> : Ana Isab PL - 7: Hanadi Sleima	Chair: Ana Isabel Ricardo, NOVA-FCT, NOVA University of Lisbon, Portugal PL - 7: Hanadi Sleiman, Department of Chemistry, McGill University, Montreal, Canada	A University of Lisbon, P McGill University, Mont	ortugal treal, Canada		
	Auditorium VII	Room 5A+5B	Auditorium II	Room 3A+3B	Auditorium VIII	Auditorium I	Auditorium VI	Room 5C	Room 3C
	Theme A	Theme B	Theme C	Theme D	Theme E	Theme F	Theme G	EYCN	Other
	Chair: Carlos Afonso, University of Lisbon, Portugal	Chair: Michael Zaworotko, University of Limerick, Ireland	Chair: Jalila Simaan, CNRS, Aix Marseille Université, France	Chair: Ana Isabel Ricardo, NOVA-FCT, NOVA University of Lisbon, Portugal	Chair: Christoph Hagemeyer, Monash University, Victoria, Australia	Chair: David Écija, Chair: Luca Prodi, IMDEA Nanoscience, Università di Bologna, Madrid, Spain Italy	Chair: Luca Prodi, Università di Bologna, Italy	Chair: Liva Dzene (EYCN)	Eu Chem S / ACS
09.15-10.30h	A2-Green chemistry II.A2.2 - 30 min OC.A2.6 15 min x 3	B5-Porous Materials II.85.1-30 min OC.85.1-OC.85.3 15 min x 3	C4-Bioinorganic Chemistry II.C4.1 - 30 min OC.C4.1-OC.C4.3 15 min x 3	D1-Assemblies, Aggregates and Interfaces II.D1.2-II.D1.3 2.30 min OC.D1.4-OC.D1.5 15 min V 2	E4-Biopolymers, Hydrogels and Processing 11.E4.1 - 30 min OC.E4.1-OC.E4.3 15 min x 3	OTS1.1-Carbon-based Materials II.OTS1.1 - 30min OC.OTS1.1.3 15 min x 3	G3-Electrochemistry II.G3.1 - 30 min OC.G3.1-OC.G3.3 15 min x 3	MSCA Training Workshop	EuChemS/ACS Industry Kickstarter workshop Part 2: Is an Industry Career a Good Fit for You ?
10.30-11.00h					Coffee break				
	Chair: Sophie Beeren, Chair: Christian Technical Serre, University of ESPCI Paris, PSL Denmark, Kongens University, France Lyngby, Denmark	Chair: Christian Serre, ESPCI Paris, PSL University, France	Chair: P. Klahn, Technische Univ Braunschweig, Germany: Univ Gothe nburg, Sweden	Chair: Ana Isabel Ricardo, NOVA-FCT, NOVA University of Lisbon, Portugal	Chair: Dirk-Peter Herten, University of Birmingham, UK	Chair: Diego Peña, CiQUS), Universidade de Santiago de Compostela, Spain	Chair: Ivana Nikšić- Franjić, Ruđer Bošković Inst., Zagreb, Croatia	Chair: Alina Maria TOMOIAGA (ECC)	Eu Chem S / ACS
11.00-12.30h	A4-Supramolecular Chemistry II.A4.1-II.A4.2 2x 30 min OC.A4.1-OCA4.2 15 min x 2	B5-Porous Materials II.B5.2-II.B5.3 2 x 30 min OC.B5.4-OC.B5.5 15 min x 2	C2-Sensors and Diagnostic II.C2.1-II.C2.2 2 × 30 min OC.C2.1-OC.C2.2 15 min × 2	D1-Assemblies, Aggregates and Interfaces II.D1.2-II.C1.3 2 x 30 min OC.D1.4-OC.D1.5 15 min x 2	E4-Biopolymers, Hydrogels and Processing II.E4.2-II.E4.3 2 × 30 min OC.E4.4-OC.E4.5 15 min × 2	OT51.2-Organic Electronics II.OT51.2 - 30 min OC.OT51.2.4 OC.OT51.2.4 15 min x 4	G2-Light and Matters II.G2.1 - 30 min G6-Photochemistry and Photophysics II.G6.1-II.G6.2 30 min x 2	ERC Training Workshop	EuChemS/ACS Industry Kickstarter workshop Part 3: How to Successfully Transition into a Career in Industry?
					Lunch				
12.30-14.00h	Masterclass Chemi: of S	<b>stry in Arts</b> - The peri sciences, University (	fect medieval hand- of Porto, Portugal;A	<b>Chair</b> : Victor writing: hands-on wo. intonio Sgamellotti, U	Auditorium I Chair: Victor Freitas, Faculty of Sciences, University of Porto, Portugal mistry in Arts - The perfect medieval hand-writing: hands-on workshop; Maria João Melo, Marcia Vilarigues and Paula Nabais, NOVA-FCT, Nova University of Lisbon; Natércia of Sciences, University of Porto, Portugal; Antonio Sgamellotti, Università degli Studi di Perugia, Italy; Cristina Barrocas Dias and Ana Manhita, Universidade de Évora, Portugal	University of Porto, Pon cia Vilarigues and Paula a, Italy; Cristina Barrocc	tugal 9 Nabais, NOVA-FCT, No 15 Dias and Ana Manhiti	vva University of Lisb , Universidade de É	Auditorium 1         Chair: Victor Freitas, Faculty of Sciences, University of Porto, Portugal         Masterclass Chemistry in Arts - The perfect medieval hand-writing: hands-on workshop; Maria João Melo, Marcia Vilarigues and Paula Nabais, NOVA-FCT, Nova University of Lisbon; Natércia Teixeira, Faculty of Sciences, University in Arts - University of Porto, Portugal, Antonio Sgamellotti, Università degli Studi di Perugia, Italy; Cristina Barrocas Dias and Ana Manhita, Universitade de Évora, Portugal

Bologna, Italy			2					20.00h
Bologna, Italy		2	ERC.9-ERC.12					18.30-19.10h
	rtugal eactivity (CNR-ISOF),	ersidade de Lisboa, Por ic Synthesis and Photon	<b>Chair</b> : Mário Berberan e Santos, IST, Universidade de Lisboa, Portugal PL- 8: Nicola Armaroli, National Research Council – Institute for Organic Synthesis and Photoreactivity (CNR-ISOF), Bologna, Italy	<b>Chair</b> : Mário oli, National Research	PL - 8: Nicola Armarc			17.45-18.25h
CAS SciFinder-n: A World of Difference		ortugal	Chair: Adelino Galvão, IST, University of Lisbon, Portugal Molecules in Motion II.MM.1-II.MM.2 - 2x 30 min OC.MM.1-OC.MM.3 - 15 min x 3	Chair: Adelino Galvão Me II.MM. OC.MM.				16.00-17.45h
CAS.			Auditorium I					
			Coffee Break					15.30-16.00h
OTS2.2 – New Tools for Learning II.OTS2.2.1-II.OTS2.2.2 Communication OC.OTS2.2.1-OC.OTS2.2.2 15 min x 2	G6-Photochemistry and Photophysics OC.G6.1-OC.G6.6 15 min x 6	F1-Organo and Metal Homogeneous Catalysis OC.F1.18-OC.F1.19 15 min x 2 F3-Bio and Biomimetic Catalysis OC.F3.1-OC.F3.3	E5- Diagnostics and Nanotherapeutics OC.E5.1-OC.E5.6 15 min x 6	D1-Assemblies, Aggregates and Interfaces OC.D1.6-OC.D1.11 15 min x 6	C1-Chemical Biology OC.C1.6-OC.C1.11 15 min x 6	OTS1.3-Polymers and devices II.OTS1.3 - 30 min OC.OTS1.3.1- OC.OTS1.3.4 15 min x 4	A4-Supramolecular Chemistry OC.A4.3-OC.A4.8 15 min x 6	14.00-15.30h
Chair: Fernando Gomollón-Bel V (Agata Communications - Cambridge, UK) Chair: Rachel Mamlok- Naaman, Weizmann Institute of Science, Israel	Chair: Alan Ryder, National University of Ireland, Galway	Chair: Joaquim Faria, FEUP, University of Porto	Chair: Teresa Pellegrino, Istituto Italiano di Tecnologia, Genova, Italy	Chair: Ana Rita C. Duarte, FCT NOVA, NOVA University of Lisbon, Portugal	Chair: Matthew Baker, Maastricht University, Netherlands	Chair: Kasper Moth Poulsen, Chalmers Univ of Technology, Sweden	Chair: Tibor Kudernac, University of Groningen, The Netherlands	
EYCN Other	Theme G	Theme F	Theme E	Theme D	Theme C	Theme B	Theme A	
Room 5C Room 3C	Auditorium VI	Auditorium I	Auditorium VIII	Room 3A+3B	Auditorium II	Room 5A+5B	Auditorium VII	
		August	Wednesday, 31 August					

					Thursday, 1 September	ember			
					Auditorium I				
08.30-09.10h		PL - 9: Naz	tario Martín, Dpto de	<b>Chair</b> : M. Fe e Química Orgánica, Fa	<b>Chair</b> : M. Fernanda Proença, Universidade do Minho, Braga, Portugal PL - 9: Nazario Martín, Dpto de Química Orgánica, Facultad de Química, Universidad Complutense, Madrid, Spain; IMDEA-Nanociencia, Madrid, Spain	le do Minho, Braga, Pori ad Complutense, Madri	tugal d, Spain; IMDEA-Nanoc	ciencia, Madrid, Spain	
	Auditorium VII	Room 5A+5B	Auditorium II	Room 3A+3B	Auditorium VIII	Auditorium I	Auditorium VI	Room 5C	Room 3C
	Theme A	Theme B	Theme C	Theme D	Theme E	Theme F	Theme G	EYCN	Other
	Chair: Jose L. Vicario, University of the Basque Country, Bilbao, Spain	Chair: Maria del Chair: Maria del Bonfio, Carmen Gimenez Institut de Science et CiQUS, University of Santiago de Supramoléculaire: Compostela, Spain (1SIS), Strasbourg, France	Chair: Claudia Bonfio, Institut de Science et d'Ingénierie Supramoléculaires (ISIS), Strasbourg, France	Chair: A.J. Stasyuk, Universitat de Girona, Spain; University of Warsaw, Poland	Chair: Joao Mano, University of Aveiro, Portugal	Chair: Bruno Machado, FEUP, University of Porto	Chair: Nils Metzler- Nolte, Ruhr University Bochum, Bochum, Germany	Challenges Organization	Deutsche Forschungsgemeinschaft (German Research Foundation)
09.15-10.30h				D3-Theory meets			E3-Metals in Medicine II.E3.2 - 30 min		
	A5-Asymmetric Synthesis and natural products II.A5.1 - 30 min OC.A5.3 15 min x 3	B4-Inorganic Interfaces II. B4.1 - 30 min OC. B4.1-OC.B4.3 15 min x 3	C3-Biomolecules: Synthesis and applications OC.C3.18-OC.C3.22 15 min x 5	experiments- predicting properties of materials II.D3.1 - 30 min OC.D3.1-OC.D3.3 15 min x 3	E5-Diagnostics and Nanotherapeutics II.E5.1- 30 min OC.E5.7-OC.E5.8 15 min x 2	F2-Heterogeneous and Supported Catalysis OC.F2.16-OC.F2.20 15 min x 5	B5-Porous Materials OC.B5.6 G3-Electrochemistry OC1.G3.4 G6-Photochemistry and Photophysics OC1.G6.7 15 min x 3	Company Challenge pitches	"Research in Germany" Science Breakfast
10.30-11.00h					Coffee break				
	Chair: Patrícia Rijo, Universidade Lusófona de Humanidades e Tecnologias, Lisboa, Portugal	Chair: Steven De Feyter, KULeuven, Department of Chemistry, Belgium	Chair: Hannes Mikula, TU Wien, Austria	Chair: A.J. Stasyuk, Universitat de Girona, Spain; University of Warsaw, Poland	Chair: Silvia Osuna, IQCC, Univ Girona, Spain	Chair: Arianna Quintavalla, Univ of Bologna, Bologna, Italy	Chair: Federico Bella, Politecnico di Torino, Italy	Challenges Organization	Chair: Silvija Markic, Ludwig- Maximilians-University Munich, Germany
11.00-12.30h	A5-Asymmetric Synthesis and natural products 11.A5.2-11.A5.3 2x 30 min O.C.A5.4-OC.A5.5 15 min x 2	B4-Inorganic Interfaces III.B4.2-II.B4.3 2 x 30 min OC.B4.4-OC.B4.5 15 min x 2	C1-Chemical Biology II.C1.4-II.C1.5 2 x 30 min OC.C1.12-OC.C1.13 15 min x 2	D3-Theory meets experiments- predicting properties of materials II. D3.2-II.D3.3 2 × 30 min OC.D3.4-OC.D3.5	<b>OTS1.1 + OTS1.2 + OTS1.3</b> OC.OTS1.1.4-0C.OTS1.1.5 OC.OTS1.2.5-0C.OTS1.2.6 OC.OTS1.3.5-0C.OTS1.3.6 15 min x 6	F4-Photo and Electrocatalysis OC.F4.9-OC.F4.14 15 min x 6	G5-Applied Physical Chemistry 11.G5.1-11.G5.2 2 x 30 min OC.G5.7-OC.G5.8 15 min x 2	Company Challenge Pitches	OTS2.4-Origin of Life II.OTS2.4-30 min OTS2.6-Equity and Responsibility OC.OTS2.6.1-0C.OTS2.6.3 15 min x 3
12.30-14.00h					Lunch				

Next meeting - Dublin 2024 - Pat Guiry	
EYCA awards + Service Awards (Antonio Lagana, Livia Sarkadi, Keinan Ehud and Jan Mehlich)	16.30h
Chair: Floris Rutjes, EuChemS President; Pilay Goya, EuChemS Past-President and Angela Agostiano, University of Bari, Italy	
PL - 12 and PL - 13: 9 <sup>th</sup> GDCh – Prize August-Wilhelm-von-Hofmann-Denkmünze: Paul Anastas and John C. Warner (60 min)	10.00
Chair: Karsten Danielmeier, GDCh President	15 30-16 30h
PL - 11: EuChemS Lecture Award 2021 - Silvia Osuna (45 min)	
PL - 10: EuChemS Lecture Award 2020 - Victor Mougel (45 min)	14.00-15.30h
Chair: Floris Rutjes, EuChemS President and Hans-Peter Luehti, International Award Committee for the EuChemS Lecture Award	
Auditorium I	
Thursday, 1 September	

# **Plenary Lectures**

## PL1: Michele Parrinello

Istituto Italiano di Tecnologia, Atomistic Simulations, Center for Convergent Technologies, Genova, Italy **EuChemS Gold Medal 2020** 

"Ammonia Decomposition on Lithium Imide Surfaces: a new paradigm in heterogeneous catalysis"

PL2: Carol V. Robinson
Kavli Institute of Nanoscience Discovery, New Biochemistry Building, South Parks Road, UK
EuChemS Gold Medal 2022
"A new phase for structural biology"

## PL3: Lutz Ackermann

Institute for Organic and Biomolecular Chemistry, Georg-August-University Göttingen, Germany "Metallaelectro-Catalyzed Bond Activations"

## PL4: Cristina Nevado

University of Zurich, Zurich, Switzerland "Activating  $\sigma$  and  $\pi$  bonds with transition metals: mechanistic insights and asymmetric variants"

#### PL5: Clément Sanchez

Collège de France and Institute of Advanced Studies of Strasbourg, France "Nature-inspired integrative materials chemistry"

## PL6: João Rocha

University of Aveiro, CICECO-Aveiro Institute of Materials, Department of Chemistry, Aveiro, Portugal "The importance of being porous: silicates and organic-inorganic hybrid materials"

#### PL7: Hanadi Sleiman

Department of Chemistry, McGill University, Montreal, Canada "DNA Nanostructures: design and biological properties"

## PL8: Nicola Armaroli

National Research Council – Institute for Organic Synthesis and Photoreactivity (CNR-ISOF), Bologna, Italy "A complex energy transition. The big picture from a chemical perspective"

## PL9: Nazario Martín

Dpto de Química Orgánica, Facultad de Química, Universidad Complutense, Madrid, Spain; IMDEA-Nanociencia, Madrid, Spain *"Synthetic Chiral Molecular Nanographenes"*  PL10: Victor Mougel Department of Chemistry and Applied Biosciences EuChemS Lecture Award 2020 "Bio-inspired strategies across multiple scales: application to overall CO<sub>2</sub> reduction"

#### PL11: Silvia Osuna

Institut de Química Computacional i Catàlisi, Facultat de Ciències, Universitat de Girona, Girona, Spain

## EuChemS Lecture Award 2021

"Can we rationally design efficient enzymes?"

## PL12 and PL13: John C. Warner<sup>1</sup> and Paul Anastas<sup>2</sup>

<sup>1</sup>Zymergen Research, Cambridge, MA, USA; <sup>2</sup>Center for Green Chemistry and Green Engineering, Yale University, New Heaven, CT, USA **August Wilhelm von Hofmann Denkmünze 2022** *"Green Chemistry: The Molecular Mechanisms of Sustainability"* 

# **ERC Lectures**

## **ERC1: Sophie Beeren**

Department of Chemistry, Technical University of Denmark, Kongens Lyngby, Denmark "Enzyme-mediated dynamic combinatorial chemistry with cyclodextrins"

## **ERC2:** Ardemis Boghossian

Ecole Polytechnique Fédérale de Lausanne, Switzerland "Synthetic Biology-inspired Approaches for Engineering Optical Nanosensors"

## ERC3: Larisa Florea

Trinity College Dublin, Ireland "Bioinspired 3D Micro-Structures and Micro-vehicles – Design, Fabrication and Function"

#### **ERC4: Hennie Valkenier**

Université libre de Bruxelles, Engineering of Molecular NanoSystems, Bruxelles, Belgium "Dynamic Covalent Chemistry with Azines"

## **ERC5: Frank Biedermann**

Karlsruhe Institute of Technology: Karlsruhe, Germany "Towards Supramolecular Systems for Small-Molecule Diagnostics in Biofluids."

## ERC6: Luca Dell'Amico

Department of Chemical Sciences, University of Padova, Padova, Italy "Mechanistic investigations in light-driven synthetic chemistry - Making predictable the unpredictable"

#### ERC7: Roxanne Kieltyka

Department of Supramolecular and Biomaterials Chemistry, Leiden Institute of Chemistry, Leiden University, The Netherlands *"Squaramide-based supramolecular biomaterials"* 

#### ERC8: José J. Baldoví

Instituto de Ciencia Molecular (ICMol), University of Valencia, Paterna, Spain "Tailoring spin waves in single-layer CrSBr by strain engineering"

#### **ERC9: Giulio Ragazzon**

Institut de Science et d'Ingénierie Supramoléculaires, Université de Strasbourg, CNRS, Strasbourg, France *"From molecular machines to chemical engines"* 

#### ERC10: Tomáš Slanina

Institute of Organic Chemistry and Biochemistry, AS CR, Prague, Czech Republic "From Reversible Photoinduced Electron Transfer to Energy Storage"

## ERC11: Valentina Cauda

Department of Applied Science and Technology, Politecnico di Torino, Italy "A TrojaNanoHorse to fight cancer with stimuli-responsive, biomimetic and theranostic nanoparticles"

## ERC12: Luís Mafra

Department of Chemistry, University of Aveiro, Portugal "Understanding CO<sub>2</sub> capture mechanisms in porous adsorbents via solid state NMR spetroscsopy" Si

# Theme A - Advances in Synthetic Organic Methodologies

## Subtheme A1 - Synthetic Methodology

#### IL.A1.1: Marcos G. Suero

Institute of Chemical Research of Catalonia ICIQ Barcelona Institute of Science and Technology; Tarragona, Spain

"Catalytic Carbyne Transfer in Organic Synthesis"

#### IL.A1.2: Keinan Ehud

The Schulich Faculty of Chemistry, Technion-Israel Institute of Technology, Haifa, Israel "Bio-inspired synthesis of spherical containers and bambusuril anion transporters"

#### IL.A1.3: Carlos Afonso

Faculty of Pharmacy, University of Lisbon, Portugal "Synthetic transformations under flow conditions"

#### **OC.A1.1:** Dorian Didier

Ludwig-Maximilians Universität, München "Divergent functionalization of four-membered heterocycles"

#### OC.A1.2: Samuel Suárez-Pantiga

Universidad de Burgos, Pza. Misael Bañuelos s/n, Burgos, Spain

"Dioxomolybdenum catalyzed C-N bond-forming reactions in reductive amination reactions with nitrocompounds"

#### OC.A1.3: Gianluigi Albano

Dipartimento di Chimica, Università degli Studi di Bari "Aldo Moro", Via E. Orabona 4, 70126 Bari, Italy "Infrared irradiation-assisted Pd-catalyzed dehydrogenative coupling of fluoroarenes with heteroarenes: a new frontier in double C–H activation"

#### OC.A1.4: Filipa Siopa

Sorbonne Université, Faculté des Sciences et Ingénierie, CNRS, Institut Parisien de Chimie Moléculaire, IPCM, 4 place Jussieu, 75005 Paris, France; Research Institute for Medicines (iMed.ULisboa), Faculty of Pharmacy, Universidade de Lisboa, Av. Prof. Gama Pinto, 1649-003 Lisboa, Portugal

"Combining photoflow of pyridinium salts with Pd-catalysis to access new aminocyclopentene"

#### OC.A1.5: Andrea Olmos

Organic Chemistry Department, University of Valencia, Av. Vicente Andrés Estellés S/N Burjassot, Spain "New polypyrazolylborates complexes with increased electrophilicity and small catalytic pocket"

#### OC.A1.6: Joshua D Tibbetts

Department of Chemistry, University of Bath, Claverton Down, Bath, BA2 7AY "Photocatalytic  $\alpha$ -C–H Heteroarylation of Unprotected Primary Alkylamines"

#### OC.A1.7: G. Pupo

Chemistry Research Laboratory, University of Oxford, UK "Asymmetric Nucleophilic Fluorination under Hydrogen Bonding Phase-Transfer Catalysis and beyond"

## OC.A1.8: A. Sofia Santos

LAQV@REQUIMTE, Department of Chemistry, NOVA School of Science and Technology, Universidade Nova de Lisboa, Caparica, Portugal

"Exploring the facile synthesis of bis(3-indolyl)methanes derivatives"

## OC.A1.9: João Macara

LAQV@REQUIMTE, Departamento de Química, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Campus de Caparica, 2829-516 Caparica, Portugal

"Synthesis of sulfonyl hydrazides mediated by hypervalent iodine reagents"

## OC.A1.10: Vani Verma

Department of Chemistry, University of British Columbia, Vancouver, British Columbia V6T 1Z4, Canada "Toward the synthesis of Julandine and Cryptopleurine. One-pot sequential hydroamination to selectively access tri, tetra-, and penta-substituted pyridines"

## OC.A1.11: Volochnyuk D.M.

Enamine Ltd, 78 Chervonotkatska str., Kyiv, 02094, Ukraine; Institute of Organic Chemistry, National Academy of Sciences of Ukraine, 5 Murmanska str., Kyiv, Ukraine; National Taras Shevchenko University of Kyiv, 60 Volodymyrska str., Kyiv, Ukraine

"Amino acids derived diazoketones - shelf stable reagents for organic synthesis"

## Subtheme A2 - Green Chemistry

## IL.A2.1: Berit Olofsson

Department of Organic Chemistry, Stockholm University, Sweden "Atom-efficient diarylations through metal-free cascade reactions"

## IL.A2.2: Jiwoong Lee

Department of Chemistry, University of Copenhagen, Denmark "CO<sub>2</sub>-Mediated Processes"

## OC.A2.1: Juliana G. Pereira

Research Institute for Medicines (iMed.ULisboa), Faculty of Pharmacy, Universidade de Lisboa, Av. Prof. Gama Pinto, 1649-003, Lisboa, Portugal

"Preparation of aminals (and thioaminals) under mild conditions and their remarkable applications"

## OC.A2.2: Lucía Álvarez-Miguel

Department of Organic and Inorganic Chemistry and Research Institute in Chemistry "Andrés M. del Río" (IQAR), Universidad de Alcalá, 28871 Alcalá de Henares, Madrid, Spain

*"Upcycling of Abundant Fatty Acids to Form Cyclic Carbonates and their Use as Monomers in NIPU Synthesis"* 

## OC.A2.3: Gianfranco Decandia

Dipartimento di Chimica, Università degli Studi di Bari "Aldo Moro", Via E. Orabona 4, 70126 Bari, Italy; Istituto per i Processi Chimico-Fisici CNR-IPCF, Dipartimento di Chimica, Via E. Orabona 4, 70126 Bari, Italy *"Palladium-Catalyzed Direct (Hetero)Arylation in solvent free condition assisted by Infrared Irradiation"* 

#### OC.A2.4: Alessio Dessì

Institute of Chemistry of Organometallic Compounds (CNR-ICCOM), Via Madonna del Piano 10, Sesto Fiorentino, 50019, Italy

"Deep-Eutectic Solvents as sustainable media for the Pd-catalyzed direct arylation of thienylderivatives with (hetero)aromatic bromides under air"

#### OC.A2.5: M. Manuel B. Marques

LAQV-REQUIMTE, Department of Chemistry, School of Science and Technology, New University of Lisbon, Quinta da Torre, 2829-516 Caparica, Portugal

"On the Green road towards the synthesis of challenging N-heterocycles"

#### OC.A2.6: Yung-Sing WONG

Univ. Grenoble Alpes, CNRS UMR 5063, DPM, 38000, Grenoble, France "Greener Pharmaceuticals: Short and Modular Enantioselective Organocatalyzed Synthesis of new BET Bromodomain Inhibitors with Anti-inflammatory Action"

#### Subtheme A3 - Reaction Mechanisms

#### IL.A3.1: Svetlana B. Tsogoeva

Organic Chemistry Chair I and Interdisciplinary Center for Molecular Materials (ICMM), Friedrich-Alexander-University of Erlangen-Nürnberg, Germany

"Multi-Step Domino Reactions: Access to Versatile Compounds for Material and Life Sciences"

#### IL.A3.2: Joost Reek

Homogeneous and Supramolecular Catalysis, Van t Hoff Institute for Molecular Sciences, Amsterdam "Rational approaches to design selective transition metal catalysts using supramolecular chemistry"

#### OC.A3.1: Polyssena Renzia

University of Turin, Via P. Giuria 7, Torino, Italy

"Turning on Blue Light on Carbopalladation: a Practical Access to Saturated Heterocycles at Room Temperature"

#### OC.A3.2: Marta Marin-Luna

Departamento de Química Orgánica, Facultad de Química, Regional Campus of International Excellence "Campus Mare Nostrum", Universidad de Murcia, E-30100 Murcia, Spain

"Homodimerization of isocyanides towards the elusive 1,4-diazabutatrienes"

#### OC.A3.3: Emanuele Azzi

University of Turin – Chemistry Department, Turin, Italy

"Visible Light Triggered Cascade Processes for the Synthesis of Saturated N-heterocycles"

#### OC.A3.4: Juan V. Alegre-Requena

Department of Chemistry, Colorado State University, Fort Collins, Colorado 80523, United States "Phosphorus(V)-promoted Py-Py and CF3-Py ligand couplings and Hal-Py SNAr from phosphonium salts: emerging metal-free functionalization of nitrogen heterocycles"

## OC.A3.5: Thomas Hansen

Department of Theoretical Chemistry, Vrije Universiteit Amsterdam, De Boelelaan 1083, 1081 HV Amsterdam, The Netherlands

"Origin of the  $\alpha$ -Effect in SN<sub>2</sub> Reactions"

## OC.A3.6: Bo Chen

Donostia International Physics Center, Paseo Manuel de Lardizabal, 4, 20018 Donostia-San Sebastián, Spain; IKERBASQUE, Basque Foundation for Science, Plaza Euskadi 5, 48009 Bilbao, Spain

"High-pressure reaction profiles and activation volumes of 1,3-cyclohexadiene dimerizations computed by the extreme pressure-polarizable continuum model (XP-PCM)"

## OC.A3.7: Pablo CHOURREU

Chimie ParisTech, PSL University, CNRS, Institute of Chemistry for Life and Health Sciences, 75005 Paris, France; M2i Development, Bâtiment ChemStart'Up, 64170 Lacq, France.

"New eco-friendly pathways for the synthesis of insect pheromones by iron-catalyzed crosscoupling: development, industrial applications, and mechanistic aspects"

## OC.A3.8: Christian Silvio Pomelli

Università di Pisa, Dipartimento di Farmacia, via Bonanno 33, 56126 Pisa, Italy "Reactive Deep Eutectic Solvents (ReDESs): an underexploited option for organic chemistry"

## Subtheme A4 - Supramolecular Chemistry

#### IL.A4.1: Werner Nau

Jacobs University Bremen, Germany "The Chaotropic Effect as an Assembly Motif in Supramolecular Chemistry"

#### IL.A4.2: Christopher A. Hunter

Department of Chemistry, University of Cambridge, UK "Synthetic Information Molecules"

#### **OC.A4.1: Federico Begato**

Dipartimento di Scienze Chimiche, Università degli Studi di Padova, via Marzolo 1, Padova, Italy "Straight from the bottle! Wine and juice dicarboxylic acids as templates for supramolecular cage self-assembly"

## OC.A4.2: Tanja Huber

Institut für Anorganische Chemie, Universität Regensburg, Universitätsstraße 31, 93053 Regensburg, Germany

"Hydrogen-bonding patterns of amidophosphine sulfides in solution and in the solid-state"

## OC.A4.3: Vítor A. S. Almodôvar

LAQV-REQUIMTE, Department of Chemistry, University of Aveiro, 3810-193 Aveiro, Portugal

"Synthesis and characterization of new cationic diketopyrrolopyrroles with biological activity"

#### OC.A4.4: Martin Kotora

Department of Organic Chemistry, Faculty of Science, Charles University, Hlavova 8, 128 43 Praha 2, Czech Republic

"[7]Helical Indenofluorenes: Their Enantioselective Synthesis and Applications"

## OC.A4.5: A. Martínez-Cuezva

Dpto Química Orgánica, Facultad de Química, Universidad de Murcia, 30100, Murcia, Spain *"Modulating the catalytic performance of prolinamide-based organocatalysts with the mechanical bond"* 

## OC.A4.6: Giorgio Rizzo

Dipartimento di Chimica, Università degli Studi di Bari Aldo Moro, Via E. Orabona 4, 70126, Bari "Synthesis, characterization and polymerization of fluorinated dopamine: evaluation of structural features in bioinspired polydopamine"

## OC.A4.7: Valentina Iannace

Institut de Química Computacional i Catàlisi, Facultat de Ciències, Universitat de Girona, C/M. Aurèlia Capmany, 69, 17003, Girona, Spain

"Regioselective bis-functionalization of fullerene C70 via supramolecular masks"

## OC.A4.8: Wolter F. Jager

Department of Chemical Engineering ChemE Delft University of Technology, van der Maasweg 9, 2629 HZ Delft, the Netherlands

*"Flexible synthesis of functional perylene 3,4,9,10-tetracarboxylic acid derivatives using ester functionalities as solubilizing, protective and functional groups"* 

## Subtheme A5 - Asymmetric Synthesis and Natural Products

## IL.A5.1: Olivier Baudoin

University of Basel, Department of Chemistry, Basel, Switzerland "Ring Construction via Palladium(0)-Catalyzed C–H Activation"

#### IL.A5.2: José Alemán

Organic Chemistry Department & Institute for Advanced Research in Chemical Sciences, Universidad Autónoma de Madrid, Spain

"Development of New Photocatalytic Reactions"

#### IL.A5.3: Janine COSSY

Molecular Chemistry and Catalysis, ESPCI Paris, CNRS, PSL University, France "Power of Transition Metals Functionalization and Construction Heterocycles"

## OC.A5.1: Bojana Srećo Zelenović

Faculty of Sciences, Trg Dositeja Obradovića 3, Novi Sad, Serbia "Synthesis, cytotoxicity and SAR analysis of novel dephenylated (—)-goniofufurone analogues"

## OC.A5.2: Kristína Plevová

University Côte d'Azur, Institut de Chimie de Nice, UMR 7272 CNRS, Valrose Park, Faculty of Sciences, 06108 Nice Cedex 2, France

"Unusual enantioselectivity in silver-catalyzed intramolecular [4+2] cycloaddition reaction of amide-1,6-enynes"

## OC.A5.3: George Kwesiga

University of Potsdam, Institut für Chemie, Karl-Liebknecht-Str. 24-25, D-14476 Potsdam, Germany "Scope and Applications of 2,3-Oxidative Aryl Rearrangements for the Synthesis of Isoflavone Natural Products"

## OC.A5.4: Sándor B. Ötvös

Institute of Chemistry, University of Graz, Heinrichstrasse 28, A-8010 Graz, Austria; Center for Continuous Flow Synthesis and Processing (CC FLOW), Research Center Pharmaceutical Engineering GmbH (RCPE), Inffeldgasse 13, A-8010 Graz, Austria

*"Multistep enantioselective flow synthesis of chiral active pharmaceutical ingredients: A journey towards scalability and sustainability"* 

## OC.A5.5: Pep Rojo

Institute for Research in Biomedicine (IRB Barcelona), The Barcelona Institute of Science and Technology, Baldiri Reixac 10, Barcelona E-08028, Spain

"P-stereogenic ligands in the iridium-catalyzed asymmetric hydrogenation of 2,3-diaryl allyl amines. Preparation of tetrahydroquinoline and tetrahydroisoquinoline scaffolds"

# Au Theme B - Metal Containing Compounds and Solids: Properties and Applications

## Subtheme B1 - Organometallic Chemistry

## IL.B1.1: Emma Gallo

University of Milan, Italy and Istituto di Chimica dei Composti OrganoMetallici, ICCOM-CNR, Fiorentino, Italy "Synthesis of heterocyclic compounds promoted by porphyrin-based catalytic systems"

## IL.B1.2: Reiner Anwander

Institut für Anorganische Chemie, Eberhard Karls Universität Tübingen, Germany "New Horizons in Metal-Methyl Chemistry"

## IL.B1.3: Alexander M. Kirillov

Centro de Química Estrutural, Institute of Molecular Sciences, Instituto Superior Técnico, Universidade de Lisboa, Portugal

"Bioactive Metal-Organic Networks for Antimicrobial Applications"

## OC.B1.1: Savvas N. Georgiades

Dept. of Chemistry, University of Cyprus, Nicosia, Cyprus

"Pd-Catalyzed Photoactivated Late-Stage C-H Functionalization of Biginelli/Suzuki-Derived Substrates for Generating Medicinally-Relevant Compound Libraries"

## OC.B1.2: Tanja Hirschhausen

Paderborn University, Warburger Straße 100, 33098 Paderborn, Germany "Capability of cyclometaled iron(III)-complexes for photocatalytic water splitting"

## OC.B1.3: V. Wowk

Chimie ParisTech, PSL University, CNRS, Institute of Chemistry for Life and Health Sciences, CSB2D, 75005 Paris France

"Importance of two-electron processes in Fe-catalyzed aryl-(hetero)aryl cross-couplings"

## OC.B1.4: Jessica Rodriguez

Laboratoire Hétérochimie Fondamentale et Appliquée, Université Paul Sabatier/CNRS UMR 5069, 118 Route de Narbonne, 31062 Toulouse Cedex 09, France

"Au(III) Complexes: From Structure Analysis to Reactivity Studies"

## OC.B1.5: Alessandro Aliprandi

Università di Padova, via Marzolo 1, Padova, Italia "Understanding self-assembly of luminescent Pt(II) complexes: synthesis and properties"

## Subtheme B2 - Multimetallic systems

## IL.B2.1: Carlos Salgueiro

FCT-NOVA, New University of Lisbon

"Modulation of the iron properties in multiheme cytochromes for sustainable green-energy alternatives" Theme B - Metal Containing Compounds and Solids: Properties and Applications

#### IL.B2.2: Thomas Fässler

Department of Chemistry, Technical University of Munich, Germany "Search Strategy for Novel Superionic Solid-State Lithium-Ion Conductors – Lithium-Phosphido Trielates and Tetrelates"

## OC.B2.1: Jacopo Tessarolo

Dept. of Chemistry, TU Dortmund University, Otto-Hahn-Str. 6, 44227 Dortmund, Germany "Self-Assembly of Multifunctional Coordination Cages"

## OC.B2.2: Simon Tricard

Laboratoire de Physique et Chimie des Nano-Objets, INSA, CNRS, Université de Toulouse, Toulouse, France "Spin crossover in Fe(triazole)-Pt nanoparticle self-assembly structured at the sub-5 nm scale"

## Subtheme B3 - Molecular Magnets

## IL.B3.1: Richard Winpenny

Department of Chemistry, The University of Manchester, Oxford Road, United Kingdom "From Rings to Nanostructures"

## OC.B3.1: Piotr Świder

Department of Analytical Chemistry, Faculty of Chemistry, University of Gdansk, Gdansk, Poland "Amino – functionalized Supermagnetic  $Fe_3O_4$  Nanoparticles. Synthesis and interaction with the silver ion"

## OC.B3.2: Ilyes Mahti

CEA, DES, ISEC, DMRC, Univ Montpellier, Marcoule, France "Effect of metal complexation on the DOTA radiolysis"

#### OC.B3.3: Roberta Puglisi

Institute for Polymers Composites and Biomaterials - National Research Council (IPCB-CNR), via P. Gaifami 18, 95126, Catania, Italy

*"Hybrid magnetic nanoparticles coated with Molecularly Imprinted Polymers for hazardous pollutants sequestration from water"* 

## Subtheme B4 - Inorganic Interfaces

#### IL.B4.1: Steven De Feyter

KU Leuven, Department of Chemistry, Belgium "Controlling self-assembly and reactivity on surfaces"

#### IL.B4.2: Henrik Birkedal

Department of Chemistry and iNANO, Aarhus University, Denmark;

"Bone biomineralization studies by X-ray diffraction based 2D and 3D imaging"

#### IL.B4.3: Maria del Carmen Gimenez Lopez

Center for Research in Biological Chemistry and Molecular Materials (CiQUS), University of Santiago de Compostela, Spain

"Advanced Energy Materials for Sustainable Future"

#### OC.B4.1: J.C. García-Mesa

Department of Analytical Chemistry, Faculty of Sciences, University of Málaga, 29071, Málaga, Spain "New methodologies to characterize ZnO nanoparticles in cosmetic samples"

#### OC.B4.2: Tobias Götz

Institut für Anorganische Chemie, Universität Regensburg, Universitätsstraße 31, 93053 Regensburg, Germany

"Tailor-Made Modification of Siloxanes and Investigation of the Reactivity of Cyclic Five-Membered Diaminosilanes"

#### OC.B4.3: Ivan Kodrin

Department of Chemistry, Faculty of Science, University of Zagreb, Horvatovac 102a, 10000 Zagreb, Croatia "Rational design of porous organic materials based on azo, azoxy and azodioxy linkages for the selective adsorption of  $CO_2$  over  $N_2$ "

#### OC.B4.4: Bilal Javed

School of Food Science and Environmental Health, College of Sciences and Health, Technological University Dublin, Dublin, Ireland; Nanolab, FOCAS Research Institute, Technological University Dublin, Dublin, Ireland "Size and Shape Controllable Synthesis of Seedless Gold Nanoparticles for the Development of Immunochromatographic Assay"

#### **OC.B4.5: Eric Pasquinet**

CEA-DAM Le Ripault, BP 16, F-37260 Monts, France

"Detection of hydrogen peroxide vapours with a fluorescent dioxazaborocane: molecular insight into the mechanism"

#### Subtheme B5 - Porous Materials

#### IL.B5.1: Christian Serre

Institut des Matériaux Poreux de Paris (IMAP), ESPCI Paris, Ecole Normale Supérieure de Paris, CNRS, PSL University, France

"Towards green synthesis and applications of robust MOFs"

#### IL.B5.2: Katharina M. Fromm

University of Fribourg, Department of Chemistry, Fribourg, Switzerland

"Coordination polymers as toolbox for a panoply of applications: from antimicrobial properties via clay-like behavior to detection, sensing and separation"

#### IL.B5.3: Michael Zaworotko

Depart. of Chemical Sciences and Bernal Institute, University of Limerick, Limerick, Ireland "The "Chemistree" of porous solids"

Theme B - Metal Containing Compounds and Solids: Properties and Applications

## OC.B5.1: Moisés L. Pinto

CERENA, Dep. Engenharia Química, Instituto Superior Técnico, Universidade de Lisboa, 1049-001 Lisboa, Portugal

"Tuning Cellular Biological Functions Through the Controlled Release of NO from new MOF structures"

## OC.B5.2: Franck Oswalda

University of Fribourg, Department of Chemistry, Fromm group, chemin des musée 9 1700, Fribourg, Switzerland

"The development of new luminescent MOFs for molecular detection"

## OC.B5.3: Fatemeh Keshavarz

Department of Physics, School of Engineering Science, LUT University, Yliopistonkatu 34, FI-53850 Lappeenranta, Finland

"Metal-organic framework formation from [Fe4S4] clusters and its prospects for gas adsorption"

## **OC.B5.4: Alexander Elliott**

WestCHEM, School of Chemistry, The University of Glasgow, Glasgow G12 8QQ, UK

"Engineering porosity in molecular nanocontainers: From molecular sieving to catalysis"

## OC.B5.5: Abeer Al Mohtara

Instituto Superior Técnico, Departamento de Engenharia Química, CERENA, Universidade de Lisboa, 1049-001 Lisboa, Portugal

"Robust MOFs for the Selective VOCs Capture Under Ambient Conditions"

## OC.B5.6: Maksym Karamash

Department of Chemistry, University of Fribourg, Switzerlandl

"Rates of Extracellular Electron Transfer in Geobacter sulfurreducens Wild Type and Mutants.

Experiments in the Resting and the Growth Phase"

Ν

# **Theme C - Chemistry Meets Biology**

#### Subtheme C1 - Chemical Biology

#### IL.C1.1: Oliver Seitz

Department of Chemistry, Humboldt-Universität zu Berlin, Germany

"Live cell labelling of proteins and carbohydrates by templated chemistry"

#### IL.C1.2: Christian A. Olsen

Center for Biopharmaceuticals and Department for Drug Design and Pharmacology, Faculty of Health and Medical Sciences, University of Copenhagen, Denmark

"Chemical Tools for Investigating Histone Deacetylase (HDAC) Enzymes"

#### IL.C1.3: Edward W. Tate

Imperial College London, Depart. of Chemistry, Molecular Sciences Research Hub, London, UK "Chemical Probes enabling Drug Discovery"

#### IL.C1.4: Matthew Baker

CTR, MERLN, Fac. Health, Medicine and Life Sciences, Maastricht University, Netherlands "Macromolecular design for 3D hydrogel biomaterials"

#### IL.C1.5: Marina Rubini

O' Brien Centre for Science, Belfield, University College Dublin, Ireland "The use of proline analogues in protein engineering and design"

#### OC.C1.1: Justine V. Schwarte

Department of Chemistry, University of Fribourg, Chemin du musée 9, Fribourg, Switzerland "Blue, photo-stable and non-cytotoxic dies, with antimicrobial properties"

#### OC.C1.2: P. Moser

Univ. Grenoble Alpes, CNRS, DPM, UMR 5063, 38000 Grenoble, France

"A disulfide-based self-immolative linker as prodrug approach for the release of carboxylic acids in cells"

#### OC.C1.3: P. Klahn

Technische Universität Braunschweig, Institute of Organic Chemistry, Hagenring 30, 38106 Braunschweig, Germany; University of Gothenburg, Department of Chemistry and Molecular Biology, Kemigåden 4, 412 96 Göteborg, Sweden

"Inspired by nature's design: Biomimetic enterobactin analogues for antimicrobial drug conjugates"

#### OC.C1.4: Hannes Mikula

Institute of Applied Synthetic Chemistry, TU Wien, Getreidemarkt 9, 1060 Vienna, Austria "'Exit the Cube': Next-Level Chemical Tools for Ultrafast Bioorthogonal Bond-Cleavage"

#### OC.C1.5: Gustavo P. Maia

Centro de Química Estrutural – Institute of Molecular Sciences, Universidade de Lisboa, Lisbon, Portugal "Why nucleosides in meteorites? An approach based on mechanochemical studies"

## OC.C1.6: Thacilla I. Menezes

Research Center in Chemistry (CIQ-UP), Faculty of Sciences of the University of Porto, Rua do Campo Alegre s/n, 4169-007 Porto, Portugal

"Dithiocarbazate-Loaded Nanostructured Lipid Carriers: Preparation, physicochemical

characterization and environmental safety assessments"

## OC.C1.7: Claudia Bonfio

Institut de Science et d'Ingénierie Supramoléculaires (ISIS), 8 All. Gaspard Monge, Strasbourg, France *"Towards the emergence of modern cells"* 

## OC.C1.8: Alejandro Gutiérrez-González

Centro Singular de Investigación en Química Biológica y Materiales Moleculares (CiQUS), Santiago de Compostela, Spain

"Unconventional bioorthogonal strategies based on transition metal catalysis"

#### OC.C1.9: Edit Brodszkij

Aarhus University, Interdisciplinary Nanoscience Center (iNANO), Aarhus University, Aarhus Denmark "Polymer – lipid hybrid vesicles made of poly(cholesteryl methacrylate) containing amphiphilic block copolymers"

## OC.C1.10: Jens Frackenpohl

Research & Development, Weed Control - Bayer AG, Crop Science Division, Industriepark Höchst, D-65926 Frankfurt am Main

"A quantum of solace for crops - New lead structures against drought stress interacting with ABA receptor proteins via bioisosterism concepts"

#### OC.C1.11: Irene Boya del Teso

Organic Chemistry Department, University of Salamanca, Plaza de los Caídos, s/n, 37008, Salamanca, Spain "Hypoxia-activated cancer pro-drugs: a new molecular trigger"

#### OC.C1.12: Sonsoles Martín-Santamaría

Center for Biological Research "Margarita Salas", CSIC, Madrid, Spain

"Exploring immunity and bacterial resistance from the computational side"

#### OC.C1.13: Wiktor Szymanski

Medical Imaging Center, UMCG, University of Groningen, The Netherlands "Photopharmacology: toolsapplicationsand structures"

## Subtheme C2 - Sensors and Diagnostic

#### IL.C2.1: Donal O'Shea

Royal College of Surgeons in Ireland (RCSI), University of Medicine and Health Sciences, Chemistry Department, Dublin 2, Ireland

"Real-time Near Infrared Fluorescence Imaging: Research tools with the potential for clinical use"

#### IL.C2.2: Pedro M. P. Gois

Research Institute for Medicines (iMed.ULisboa) Pharmacy Faculty, Universidade de Lisboa, Portugal "New Chemistries for Stimuli-Responsive Targeting Drug Conjugates"

## OC.C2.1: Laura Buccoli

School of Chemical Engineering, University of Birmingham, Birmingham, B15 2TT, UK

"Surface-confined pyrene-based fluorescence sensors for highly sensitive saccharide detection"

## OC.C2.2: A. M. G. Silva

LAQV/REQUIMTE, Departamento de Química e Bioquímica, Faculdade de Ciências da Universidade do Porto, 4169-007 Porto

"Rosamine dyes: from synthesis to the preparation of functional materials for optical sensing applications"

## Subtheme C3 - Biomolecules: Synthesis and Applications

## IL.C3.1: Jalila Simaan

BiosCiences, iSm2, CNRS, Aix Marseille Université, Marseille, France

"Copper-containing monooxygenases: from enzymatic systems to bioinspired models"

## IL.C3.2: Christelle Hureau

CNRS Toulouse, Université Toulouse III – Paul Sabatier, France

"Polyanions to counteract the detrimental interaction between Cu(II)/Zn(II) and the Alzheimer's-

related amyloid-6 peptide"

## IL.C3.3: Manuel Aureliano

FCT and CCMAR Universidade do Algarve, Faro, Portugal "Polyoxovanadates with biological and biomedical activities"

## OC.C3.1: Á. L. Fuentes de Arriba

Organic Chemistry Department, University of Salamanca, Spain "New biomimetic receptors for biomolecules"

## OC.C3.2: Alexandra Borges

LAQV – REQUIMTE, Departamento de Química e Bioquímica, Faculdade de Ciências, Universidade do Porto, Rua do Campo Alegre, 687, 4169-007 Porto, Portugal

*"Improvement of the physicochemical properties of flavylium dyes using cyclodextrins for Photodynamic Therapy"* 

## OC.C3.3: Cristina M. Cordas

LAQV, REQUIMTE, Department of Chemistry, NOVA School of Science and Technology, FCT NOVA, Universidade NOVA de Lisboa, 2829-516 Caparica, Portugal

"A newly discovered Dyp-type peroxidase from a marine actinobacterium immobilization and electrochemical characterization"

## OC.C3.4: Gianluca Maria Farinola

Dipartimento di Chimica, Università degli Studi di Bari "Aldo Moro", Via E. Orabona 4, 70126 Bari, Italy "Functional biohybrid nanomaterials from diatoms microalgae"

## OC.C3.5: Celine Nieuwland

Department of Theoretical Chemistry, Vrije Universiteit Amsterdam, The Netherlands "B-DNA Structure and Stability: Insights from Quantum Chemical Analyses"

## OC.C3.6: Sainas S.

Department of Science and Drug Technology, University of Torino, Italy "MEDS433 a Novel and Potent human Dihydroorotate Dehydrogenase (hDHODH) Inhibitor,

# Induces Differentiation and apoptosis of Acute Myeloid Leukemia."

## OC.C3.7: Takehiro Kato

University of Geneva, Quai Ernst-Ansermet 30, Geneva, Switzerland

"Cyclic Thiosulfonates for Thiol-Mediated Uptake: Cascade Exchangers, Transporters, Inhibitors"

## OC.C3.8: Boris Vauzeilles

Université Paris-Saclay, CNRS, Institut de Chimie des Substances Naturelles, UPR 2301, *Gif-sur-Yvette, France "New borinic probes for fast detection and imaging of hydrogen peroxide"* 

## OC.C3.9: A.M. Oliveira-Brett

University of Coimbra, CEMMPRE, Department of Chemistry, 3004-535 Coimbra, Portugal "Amyloid—§ peptides interaction with curcumin: AFM and voltammetric characterization"

## OC.C3.10: Erica Del Grosso

University of Rome Tor Vergata, Via della Ricerca Scientifica, Rome, Italy

"Dissipative control of DNA-based nanodevices and nanostructures through strand-displacement reaction"

## OC.C3.11: R. C. Curley

Dublin City University, School of Chemical Science, Dublin, Ireland

"Phototoxicity of Membrane Permeable Ru(II) Polypyridyl Peptide Conjugates in Cancer and non-Cancer cell lines"

## OC.C3.12: Estela Sánchez-Santos

Faculty of Chemical Sciences, University of Salamanca, Plaza de los Caídos s/n 37008, Salamanca, Spain "Targeting tryptophan in undruggable proteins"

## OC.C3.13: András Perczel

MTA-ELTE Protein Modeling Research Group & Laboratory of Structural Chemistry and Biology, Eötvös Loránd University, Hungary

"Understanding Oncogenic kRas Cycle through Structure and Multiple Time-scale Dynamics"

## OC.C3.14: Bruno Henriques

LAQV-REQUIMTE, Department of Chemistry, University of Aveiro, 3810-193 Aveiro, Portugal

"Accumulation (and impacts) of rare earths in marine macroalgae: An alternative source of critical raw materials?"

## OC.C3.15: Georgios Alachouzos

Centre for Systems Chemistry, Stratingh Institute for Chemistry, Faculty for Science and Engineering, University of Groningen, Nijenborgh 4, 9747 AG Groningen, The Netherlands

"Computational Design, Synthesis and Photochemistry of Cy7-PPG, an Efficient NIR-activated Photolabile Protecting Group for Therapeutic Applications"

## OC.C3.16: Simona Ranalloa

Department of Chemical Science and Technologies, University of Rome Tor Vergata, 00133, Rome, Italy; Department of Chemistry and Biochemistry, University of California

"Protein-Protein communication mediated by an antibody-responsive DNA nanodevice"

## OC.C3.17: Michele Stasi

Technical University of Munich, Department of Chemistry "Regulating the dynamic folding of a DNA-hairpin at the expense of a small, molecular fuel"

#### OC.C3.18: Sanjiv Prashar

COMET-NANO Group. Department of Biology and Geology, Physics and Inorganic Chemistry, ESCET, Universidad Rey Juan Carlos, Calle Tulipán s/n, E-28933 Móstoles (Madrid), Spain

"Synthesis of a theranostic platform based on fibrous silica nanoparticles for the enhanced

treatment of triple-negative breast cancer promoted by a combination of chemotherapeutic agents"

#### OC.C3.19: Susana Soares

REQUIMTE/LAQV, Departamento de Química e Bioquímica, Faculdade de Ciências da Universidade do Porto, Rua do Campo Alegre, 689, Porto, Portugal

"Interactions of phenolic compounds within oral cavity: deepening the structure-activity to understand astringency mouthfeels"

#### OC.C3.20: Vercruysse W.

Analytical and Circular Chemistry, CMK, IMO, Hasselt University, Agoralaan Building D, Diepenbeek, Belgium "Bridging the gap between biochar's physicochemical characteristics and plant growth"

#### OC.C3.21: Ana Marta de Matos

Centro de Química Estrutural, Institute of Molecular Sciences, Faculdade de Ciências, Universidade de Lisboa, Portugal

"Innovation in the Development of Polyphenol C-Glucosides with Disease-Modifying Effects against Alzheimer's Disease"

#### OC.C3.22: Jing Yi

ISIS, University of Strasbourg, France

"A Nonenzymatic Analog of Pyrimidine Nucleobase Biosynthesis"

#### Subtheme C4 - Bioinorganic Chemistry

#### IL.C4.1: Serena DeBeer

Max Planck Institute for Chemical Energy Conversion, Mülheim an der Ruhr, Germany "Making and breaking bonds: Spectroscopic studies of energy converting enzymes"

#### OC.C4.1: Alex H. Miller

Department of Chemistry - University of York, Heslington, York, United Kingdom "Immobilisation of redox-reversible artificial metalloenzymes"

#### OC.C4.2: Sofia R. Pauleta

Microbial Stress Lab, UCIBIO, DQ, NOVA School of Science and Technology, NOVA University Lisbon, Portugal. Associate Laboratory i4HB -Institute for Health and Bioeconomy, NOVA School of Science and Technology, NOVA University Lisbon, Portugal

"Bactericidal activity of new NHC carbenes and their Cu(I) and Ag(I) complexes against pathogenic bacteria"

## OC.C4.3: Alexander Hoffmann

RWTH Aachen University, Institute of inorganic Chemistry, Landoltweg 1a, 52074 Aachen, Germany "Obtaining a Molecular Movie via in Operando Raman spectroscopy: Catecholate Formation after Phenolate Attack at a Tyrosinase Model"

**Theme D - Colloids and Materials** Pd

#### Subtheme D1 - Assemblies, Aggregates and Interfaces

#### IL.D1.1: Mihir Dass

Fakultät für Physik and Center for NanoScience, Ludwig-Maximilians-Universität München, Germany "DNA-assembled functional materials"

## IL.D1.2: Tibor Kudernac

Faculty of Science and Engineering, Molecular Inorganic Chemistry, Groningen, Netherlands "Supramolecular Polymers with Life-Like Mechanical Functions"

## IL.D1.3: M. Lucia Curri

Department of Chemistry University of Bari and Italian National Research Council CNR IPCF, Bari, Italy "Tailoring surface chemistry of colloidal nanomaterials for life science applications"

## OC.D1.1: Iryna Danylo

University of Chemistry and Technology in Prague, Prague, Czech Republic "Controlled nanofabrication of 2D material supported catalysts using electron microscope"

## OC.D1.2: Carlos Lodeiro

BIOSCOPE Group, LAQV@REQUIMTE, Chemistry Department, NOVA School for Science and Technology, NOVA University Lisbon, Caparica Campus, Caparica 2829-516, Portugal; PROTEOMASS Scientific Society, Rua dos Inventores, Madan Parque, Caparica Campus, Caparica 2829-516, Portugal

"Preparation Multifunctional 3D-Gold and Pt nanostructures using the Green and Supramolecular Chemistry principles"

## OC.D1.3: Clémence Chinaud-Chaix

Laboratoire de Physique et Chimie des Nano-Objets, 135 Av. de Rangueil, 31077 Toulouse, France; Laboratoire d'informatique de Paris Nord, 99 Av. Jean Baptiste Clément, 93430 Villetaneuse, France *"Binary supercrystal assembly controlled by ligand effects"* 

#### OC.D1.4: Jakob Reichstein

Friedrich-Alexander-Universität Erlangen-Nürnberg, Professorship for Inorganic Chemistry, Egerlandstrasse 1, 91058 Erlangen, Germany

"Communicating supraparticles: smart additives to foster materials' intelligence"

## OC.D1.5: Angelo Nicosia

Department of Chemical Sciences, University of Catania, Viale A.Doria 6, Catania, Italy "Supramolecular porphyrin-based flags in a thermal gradients wind"

## OC.D1.6: Rita Gelli

Department of Chemistry "Ugo Schiff" and CSGI, University of Florence, via della Lastruccia 3-13, 50019 Sesto Fiorentino (FI), Italy

"Shedding light on biologically relevant colloidal hybrid calciprotein particles: effect of proteins and stabilizing agents"

## OC.D1.7: Gaëlle Morandi

Normandie Univ, INSA Rouen, Univ Rouen, CNRS, PBS, 76000 Rouen, France "Hybridization of poly(oxazoline) and PEO-based amphiphilic copolymers into thermo-sensitive mixed micelles of tunable cloud point"

## OC.D1.8: Ermelinda Maçôas

Centro de Química Estrutural and Institute of Molecular Science, Instituto Superior Técnico, Universidade de Lisboa, Portugal

"Two-photon absorption in OD carbon nanomaterials from nanographenes to graphene quantum dots and carbon nanodots"

## OC.D1.9: Rzonsowska Monika

Faculty of Chemistry and Centre for Advanced Technologies, Adam Mickiewicz University in Poznań, Uniwersytetu Poznańskiego 8 and 10, Poznań, Poland

"Synthesis and assembly properties of selected T8 and DDSQ silsesquioxanes ligands"

## OC.D1.10: Ghibom Bhak

Department of Chemical Engineering, University of Salamanca, 37008 Salamanca, Spain "Adhesive Peptide Derived from  $\alpha$ -Synuclein that Directs the Nanocomposite Assembly of Polydopamine-Core Gold Nanoparticles-Satellite Applicable for Cancer Therapy"

## OC.D1.11: Ilaria Clemente

Department of Biotechnology, Chemistry and Pharmacy, University of Siena, via A. Moro 2, Siena 53100, Italy & Center of Colloids and Surface Science (CSGI)

"Compartmentalized algal-based nanocarriers as vectors for antioxidants: structural and functional characterization"

## Subtheme D2 - Nanomaterials and Nanostructures

## IL.D2.1: Wojciech Bury

Faculty of Chemistry, University of Wrocław, Poland

"Searching for porous materials for sorption, separation, and catalysis - from non-covalent systems to porous organic polymers"

## IL.D2.2: David Portehault

Sorbonne Université, CNRS, Laboratoire de Chimie de la Matière Condensée de Paris (LCMCP), Paris, France "Molten salts to address the solid-state chemistry of nano-objects"

## IL.D2.3: Jorge Perez Juste

CINBIO and Department of Physical Chemistry, University of Vigo, Spain "Hybrid Plasmonic thin-films for SERS-based sensing in solution and in gas phase"

## OC.D2.1: Joana Vaz-Ramos

Institut de Physique et Chimie des Matériaux de Strasbourg (IPCMS), UMR-7504 CNRS-Université de Strasbourg, France

"Water depollution of toxic organic compounds using magnetic graphene composite adsorbents"

#### OC.D2.2: Leonardo Curti

Sorbonne Université, CNRS, Institut Parisien de Chimie Moléculaire (IPCM), 75005, Paris, France "Molecule-driven control of magnetic anisotropy in superparamagnetic iron oxide nanoparticles"

#### OC.D2.3: Biagio Todaro

National Enterprise for NanoScience and NanoTechnology (NEST) Laboratory, Scuola Normale Superiore, Piazza San Silvestro 12, I-56127 Pisa, Italy

"Pioglitazone nanoparticles: synthesis optimization and FLIM characterization"

#### OC.D2.4: Andrea Brunelli

DAIS - Department of Environmental Sciences, Informatics and Statistics, Ca' Foscari University of Venice, Via Torino 155, 30170 Venice Mestre, Italy

*"Influence of dispersion protocols on multicomponent nanomaterials properties and toxicity in the context of safe by design approach"* 

#### OC.D2.5: Liva Dzene

Institut de Science des Matériaux de Mulhouse, CNRS, UMR 7361, Université de Haute-Alsace, Université de Strasbourg, 3b rue Alfred Werner, 68093 Mulhouse, Cedex, France

"Functionalization of synthetic saponite: addition of anion exchange property"

#### Subtheme D3 - Theory meets experiments- predicting properties of materials

#### IL.D3.1: Giovanni M. Pavan

Department of Applied Science and Technology, Politecnico di Torino, Italy and Department of Innovative Technologies, University of Applied Sciences and Arts of Southern Switzerland, Polo Universitario Lugano, Switzerland

"Computational approaches towards bioinspired dynamic materials"

#### IL.D3.2: Aran Garcia-Lekue

Donostia International Physics Center, San Sebastian, Spain

"Tailoring magnetic and topological fingerprints in graphene nanoribbons"

#### IL.D3.3: Matthieu Verstraete

University of Liege, Belgium

"Spectroscopy and transport in defected 2D materials"

#### OC.D3.1: Jordi Poater

Departament de Química Inorgànica i Orgànica & IQTCUB, Universitat de Barcelona, Barcelona, Spain; ICREA, Barcelona, Spain

"Cage----Cage-- interaction: Boron cluster-based noncovalent bond and its applications in solidstate materials"

#### OC.D3.2: C. Lionello

Department of Applied Science and Technology, Politecnico di Torino, 10129 Torino, Italy "Toward Chemotactic Supramolecular Nanoparticles: From Autonomous Surface Motion Following Specific Chemical Gradients to Multivalency-Controlled Disassembly"

## OC.D3.3: Jacopo Cardellini

Department of Chemistry "Ugo Schiff", CSGI, University of Florence, via della Lastruccia 13, 50019, Florence, Italy

"Membrane Phase Drives the Assembly of Gold Nanoparticles on Biomimetic Lipid Bilayers"

## OC.D3.4: Annalisa Cardellini

Politecnico di Torino, Corso Duca degli Abruzzi 24, Torino, Italy

"Unsupervised machine learning of intrinsic structural dynamics in simple-to-complex micelles"

## OC.D3.5: Kai S. Exner

University Duisburg-Essen, Germany

"Theoretical Description of the Oxygen Evolution Reaction: Quo Vadis?"

#### Subtheme D4 - Organic-Inorganic Hybrids

## IL.D4.1: Miriam Unterlass

University of Konstanz, Department of Chemistry, Germany

"Direct Access to Organic-Inorganic Hybrid Materials through Hydrothermal Synthesis"

## IL.D4.2: Felipe Gándara

Materials Science Institute of Madrid - CSIC, Madrid, Spain

"Exploiting the role of metal atoms in MOFs with main group elements and arrangements of multiple cations"

## IL.D4.3: Marinella Striccoli

CNR-IPCF SS Bari, Via Orabona 4 Bari, Italy "Nanocrystal Coupled Dimers and Hybrid Nanostructures"

## OC.D4.1: Marlène Saulais

Univ. Grenoble Alpes, CNRS, Grenoble-INP, LGP2, F-38000 Grenoble, France *"Biobased and UV- sensitive nanoparticles"* 

## OC.D4.2: Franziska Miller

Department of Chemistry and Pharmacy, Inorganic Chemistry, Friedrich-Alexander-University Erlangen-Nürnberg (FAU), Egerlandstraße 1, D-91058 Erlangen, Germany, Erlangen, Germany

"Hybrid inorganic organic luminescent supraparticle taggants with switchable dual level ID"

## OC.D4.3: Beata Dudziec

Faculty of Chemistry and Centre for Advanced Technologies, Adam Mickiewicz University in Poznan, Uniwersytetu Poznanskiego 8 and 10, Poznan, Poland

"Are Silsesquioxanes Susceptible to be Part of Hybrid Ligands?"

## OC.D4.4: Carlos Baleizão

Centro de Química Estrutural, Institute of Molecular Sciences, Department of Chemical Engineering, Instituto Superior Técnico, Universidade de Lisboa, Portugal

"Smart hybrid silica nanocarriers with finely tuned structure for control release"

## OC.D4.5: Helena I. S. Nogueira

CICECO and Department of Chemistry, University of Aveiro, 3810-193 Aveiro, Portugal "Polyoxometalate hybrid materials: effects on the photoluminescent properties of lanthanopolyoxometalates"

#### Subtheme D5 - Nanoparticles: synthesis and applications

#### OC.D5.1: Leonardo Scarabelli

Institute of Materials Science of Barcelona (ICMAB-CSIC), Barcelona, Spain

"Surface lattice plasmon resonances by direct surface growth of gold nanoparticles in ordered arrays"

#### OC.D5.2: Gerard McGlacken

University College Cork, Cork, Ireland

"Designer Pd nanoparticles for reductive amination using hydrogen: Now one of the best methodology for Reductive Amination?"

#### OC.D5.3: Monica Tonelli

Department of Chemistry "Ugo Schiff" and CSGI, University of Florence, Via della Lastruccia 3, 50019 Sesto Fiorentino, Florence, Italy

"Halloysite nanotubes as nanocontainers in binder materials"

#### OC.D5.4: Igor Zhitomirsky

Department of Materials Science and Engineering, McMaster University, 1280 Main St.West, Hamilton, Ontario, Canada

"Colloidal methods for the fabrication of advanced electrodes for supercapacitors"

#### OC.D5.5: Natércia C.T. Martins

CICECO-Aveiro Institute of Materials, Department of Chemistry, University of Aveiro, 3810-193 Aveiro, Portugal "Development of hydrophobic paper-based substrates by inkjet printing for SERS detection of pesticides"

#### OC.D5.6: Demetra Giuri

Dipartimento di Chimica Giacomo Ciamician, Alma Mater Studiorum, Università di Bologna, Via Selmi, 2, 40126, Bologna, Italy

"Peptide-based low-molecular-weight gels as versatile and functional materials"

#### OC.D5.7: Francesca Ridi

Department of Chemistry "Ugo Schiff" and CSGI, University of Florence, 50019 Sesto Fiorentino, Italy "Magnesium phosphate-based bone cements: physico-chemical study and colloidal approaches to tailor their properties towards orthopedic applications"

#### OC.D5.8: Teresa Guaragnone

Department of Chemistry "Ugo Schiff" and CSGI, via della Lastruccia 3-13, 50019, Sesto Fiorentino (FI), Italy "pH responsive pHEMA/PAA hydrogel for the capture of Copper Ions and Corrosion Removal: implication in Cultural Heritage Fields"

#### OC.D5.9: Massimo Bonini

Department of Chemistry "Ugo Schiff" and CSGI, University of Florence, Via della Lastruccia 3, 50019 Sesto Fiorentino, Florence, Italy

"3D printing of magnesium-based cements: towards the preparation of bioceramics"

#### OC.D5.10: Badetti Elena

DAIS - Department of Environmental Sciences, Informatics and Statistics, University Ca' Foscari of Venice, Via Torino 155, 30170 Venice Mestre, Italy

"Influence of Amino Acids on the Antibacterial Activity of Copper Oxide Nanoparticles"

#### OC.D5.11: Ana C. Estrada

CICECO-Aveiro Institute of Materials, Department of Chemistry, University of Aveiro, 3810-193 Aveiro, Portugal "Visible-light driven BiVO<sub>4</sub> photocatalysts for the degradation of contaminants of emerging concern"



# **Theme E - Biomaterials and Medicinal Chemistry**

## Subtheme E1 - Drug Design and Discovery

#### IL.E1.1: Ana Rita C. Duarte

LAQV/REQUIMTE, Department of Chemistry, NOVA School of Science and Technology, FCT NOVA, Caparica, Portugal

"Formulation of therapeutic deep eutectic systems targeting current challenges in pharmaceutical sciences"

## IL.E1.2: Elisabetta Groaz

Medicinal Chemistry, Rega Institute for Medical Research, KY Leuven, Belgium

"Nucleoside phosphonate prodrugs as prominent source of hepatitis B virus (HBV) inhibitors"

## IL.E1.3: Gilles Gasser

Chimie ParisTech, PSL University, CNRS, Institute of Chemistry for Life and Health Sciences, Paris, France "Towards Selective Delivery of Novel Metal-Based Photosensitizers for Anticancer Photodynamic Therapy"

## OC.E1.1: Silva KHODJOYAN

Institut de Chimie des Substances Naturelles, CNRS, Université Paris Saclay, 1 Avenue de la Terrasse, Gif-sur-Yvette, France

"Targeting respiratory syncytial virus replication by antiviral molecules"

#### OC.E1.2: Kesić Jelena

University of Novi Sad, Faculty of Sciences, Department of Chemistry, Biochemistry and Environmental protection, Trg Dositeja Obradovića 3, Novi Sad, Serbia

"Synthesis and SAR study of novel cytotoxic butanolide"

#### OC.E1.3: Bengt Erik Haug

University of Bergen, Department of Chemistry, Allégaten 41, 5020 Bergen, Norway "Design and synthesis of novel ligands for the flavin mononucleotide riboswitch"

## OC.E1.4: Joana Oliveira

Laboratório Associado para a Química Verde – REQUIMTE, Departamento de Química e Bioquímica, Faculdade de Ciências, Universidade do Porto, Rua do Campo Alegre, 687, 4169-007 Porto, Portugal "Photoactivated cell-killing amino-based flavylium compounds"

#### OC.E1.5: Ana Rita Franco

Department of Biotechnology and Biosciences, University of Milano-Bicocca, Piazza della Scienza, 2, 20126 Milano, Italy

"Development of New Toll-Like Receptor 4-directed adjuvants and Clarification of their Mechanism of Action"

## OC.E1.6: Tran Dieu Hang

Vrije Universiteit Brussel (VUB), Department of Analytical Chemistry, Applied Chemometrics and Molecular Modelling - FABI, Laarbeeklaan 103, 1090 Brussels, Belgium

"Structural investigation of human cystine/glutamate antiporter Sxc- using homology modeling with multiple templates and molecular dynamics simulations"

#### Theme F - Catalysis

#### OC.E1.7: Elizabeth A. Lopes

Research Institute for Medicines (iMed.ULisboa), Faculty of Pharmacy, Universidade de Lisboa, Lisbon, Portugal

"Spirooxadiazoline oxindole: a new antiplasmodial chemotype with dual-stage activity"

## OC.E1.8: Á. L. Fuentes de Arriba

Organic Chemistry Department, University of Salamanca, Salamanca, Spain "Synthesis Of Antineoplastic Pro-Drugs Activated Under Hypoxia Conditions"

## Subtheme E2 - Drug Delivery

#### IL.E2.1: Christoph E Hagemeyer

Nanobiotechnology Laboratory, Australian Centre for Blood Diseases, Central Clinical School, Monash University, Victoria, Australia

"Development of novel diagnostics and antibody-drug-conjugates using a combination of click chemistry and enzymatic ligation"

#### IL.E2.2: Elena Aznar

School of Industrial Engineering, Universitat Politècnica de Valencia, Spain "Gated materials for drug delivery and biomedical applications"

## OC.E2.1: A.P. Capêto

Universidade Católica Portuguesa, CBQF - Centro de Biotecnologia e Química Fina – Laboratório Associado, Escola Superior de Biotecnologia, Rua Diogo de Botelho 1327, 4169-005 Porto, Portugal

"Synthesis of bio-based polyester from microbial lipidic residue for biomedical application"  $% \mathcal{A}^{(n)}$ 

#### OC.E2.2: Giulia Mugnaini

CSGI & Department of Chemistry "Ugo Schiff", University of Florence, Via della Lastruccia 3, 50019, Sesto Fiorentino, Florence, Italy

"Photocross-linked gelatin methacryloyl microparticles prepared by double emulsion method for drug delivery"

#### Subtheme E3 - Metals in Medicine

#### IL.E3.1: Nils Metzler-Nolte

Ruhr University Bochum, Bochum, Germany

"A Bioorganometallic Journey from Peptide Bioconjugates to Novel Metal-based Antibiotics"

#### IL.E3.2: Anne-Kathrin Duhme-Klair

Department of Chemistry, University of York, UK

"Siderophores and their potential applications in the development of antimicrobials"

#### Subtheme E4 - Biopolymers, Hydrogels and Processing

#### IL.E4.1: Veronica I. Dodero

Bielefeld University, Germany

"Supramolecular Medicine: From basic research to gluten-related disorders"

#### IL.E4.2: J. F. Mano

Department of Chemistry, CICECO — Aveiro Institute of Materials, University of Aveiro, 3810-193 Aveiro, Portugal

"Macromolecular design in natural-origin hydrogels for tissue engineering applications"

#### IL.E4.3: Takashi Hayashita

Department of Material and Life Sciences, Sophia University, Tokyo, Japan "Design and Function of Nanostructure Probes for Bacteria Discrimination"

## OC.E4.1: Wiebke Schnettger

TU Dortmund, Dortmund, Germany

"Tailor-Made, Self-Healing Hydrogels For Biomedical Applications"

#### OC.E4.2: Lucie Mašková

University of Chemistry and Technology – Department of Chemical Engineering, Technická 3, Prague, Czech Republic

"Nature-based 3D bioprinted films for controlled in-situ synthesis of bactericides"

## OC.E4.3: João M. M. Rodrigues

CICECO – Aveiro Institute of Materials, Department of Chemistry, University of Aveiro "Bioinspired Tunable Laminarin Biomaterials for Biomedical Applications"

## OC.E4.4: Cláudia G. Silva

LSRE-LCM – Laboratory of Separation and Reaction Engineering - Laboratory of Catalysis and Materials, Faculty of Engineering, University of Porto, Rua Dr. Roberto Frias, 4200-465 Porto, Portugal; ALiCE – Associate Laboratory in Chemical Engineering, Faculty of Engineering, University of Porto, Rua Dr. Roberto Frias, 4200-465 Porto, Portugal

"Carbon xerogels as a purification platform for L-asparaginase purification"

## OC.E4.5: Pascal Lienig

Institute of organic chemistry, Leibniz University Hannover, Germany "Dextrans, pullulan and lentinan, new scaffold materials for use as hydrogels in tissue engineering"

#### Subtheme E5 - Diagnostics and Nanotherapeutics

#### IL.E5.1: Teresa Pellegrino

Istituto Italiano di Tecnologia (IIT), Genova, Italy

"Engineering Magnetic Nano-platforms to Combine Magnetic Hyperthermia with other Therapeutic Treatments for Tackling Cancer"

## OC.E5.1: Patrícia Rijo

Research Center for Biosciences & Health Technologies (CBIOS), Universidade Lusófona de Humanidades e Tecnologias, 1749-024 Lisboa, Portugal; Instituto de Investigação do Medicamento (iMed.ULisboa), Faculdade de Farmácia, Universidade de Lisboa, 1649-003 Lisboa, Portugal

"Natural royleanones as building blocks for a Drug Delivery Platform based on Self-assembled Nanoparticles"

## OC.E5.2: M. C. Sportelli

Chemistry Department, University of Bari "Aldo Moro", V. Orabona, 4, 70126, Bari, Italy "ZnO nanoparticles as effective antivirals against SARS-CoV-2"

## OC.E5.3: Gruzman Arie

Bar-Ilan University, Webb street 1, Ramat-Gan, Israel

"A leukocyte transmigration inhibitor: a novel drug candidate for the treatment of auto-immune diseases"

## OC.E5.4: María Sancho-Albero

Department of Molecular Biochemistry and Pharmacology, Istituto di Ricerche Farmacologiche Mario Negri IRCCS, 20156, Milano, Italy

"Extracellular vesicle-coated organosilica nanoparticles as targeted delivery nanocarriers"

## OC.E5.5: Ma Xin

Institut des Matériaux Poreux de Paris, Ecole Normale Supérieure, ESPCI, Paris, France "Understanding and controlling the toxicity and stability of MIL-100(Fe) toward effective druggene dual delivery carrier for anticancer therapy"

## OC.E5.6: Alessandro Ajó

Università degli Studi di Milano, via Festa del Perdono, 20122 Milano, Italy

"Nanovectors for proteins release and barrier crossing"

#### OC.E5.7: João Borges

CICECO – Aveiro Institute of Materials, Department of Chemistry, University of Aveiro, Campus Universitário de Santiago, 3810-193 Aveiro, Portugal

*"Supramolecular design of hybrid biopolymer/peptide soft multicomponent biomaterials for regenerative medicine"* 

## OC.E5.8: María de los Ángeles Ramírez

Université de Strasbourg, CNRS, Institut de Physique et Chimie des Matériaux de Strasbourg, UMR 7504, F-67000 Strasbourg, France

"Theragnostic agents for breast cancer treatment: design of Iron Oxide Nanoparticles for multimodal therapies strategies"

## Subtheme E6 - Molecular Sensors

#### IL.E6.1: Dirk-Peter Herten

Institute of Cardiovascular Sciences & School of Chemistry, College of Medical and Dental Sciences, Medical School, UK and Northern Ireland

"Make them blink! - A chemistry approach to advanced fluorescence microscopy"

#### OC.E6.1: Maria Antonietta Casulli

Department of Materials and Life Science, Sophia University, Yotsuya Campus, 7-1 Kioi-Cho, Chiyoda-Ku, Tokyo, Japan

"Cyclodextrin Supramolecular Complexes Based on Specific Bonding Groups for the Selective Detection of Human Metabolites"

## OC.E6.2: Rute A. Pereira

Departamento de Física and CICECO – Aveiro Institute of Materials, University of Aveiro, Aveiro, Portugal "Nanomagnetic logic gates for cellular hyperthermia"

## **OC.E6.3:** Matthias Portius

Universität Leipzig, Institute of Biochemistry, Johannisallee 21-23, 04103 Leipzig, Germany "Synthesis of sulfamethoxazole derivates for coupling to hydrogel microparticles in biosensing applications"



# **Theme F - Catalysis**

#### Subtheme F1 - Organo and Metal Homogenous Catalysis

#### IL.F1.1: Jose L. Vicario

Department of Organic and Inorganic Chemistry, University of the Basque Country, Bilbao, Spain "Exploring new reactivity patterns through the organocatalytic activation of small– and medium– sized carbocycles"

#### IL.F1.2: Manuel Orlandi

University of Padova, via Marzolo, 1, 35131, Padova, Italy

"Enantioselective  $\alpha$ -Arylation of Ketones via a Novel Cu(I) Bis(phosphine) Dioxide Catalytic System"

#### IL.F1.3: John F. Bower

Department of Chemistry, University of Liverpool, United Kingdom "New Electrophilic Amination Strategies for N-Heterocycle Synthesis"

#### OC.F1.1: Sofia M. Bruno

CICECO-Aveiro Institute of Materials, Department of Chemistry, University of Aveiro, 3810-193, Aveiro, Portugal

"Selective isomerization of  $\alpha$ -pinene oxide to campholenic aldehyde by ionic liquid-supported indenyl-molybdenum(II)-bipyridine complexes"

## OC.F1.2: Norbert Krause

Dortmund University of Technology, Organic Chemistry, Dortmund, Germany "Sustainable Gold Catalysis in Water Using Cyclodextrin- or PQS-tagged NHC-Gold(I) Complexes"

#### OC.F1.3: Antonio Monopoli

Università degli Studi di Bari Aldo Moro, Via Orabona, 4, Bari, Italy; b) CNR ICCOM- Sede di Bari, Via Orabona, 4, Bari, Italy

"Direct synthesis of 3-aryl substituted isocoumarins through Palladium mediated C(sp2)-H Activation in Ionic Liquids"

#### OC.F1.4: Ádám Márk Pálvölgyi

Institute of Applied Synthetic Chemistry, TU Wien, Getreidemarkt 9/163, Vienna, Austria "Sterically demanding, flexible phosphoric acids for constructing multi-purpose asymmetric organocatalysts"

#### OC.F1.5: Christopher J. Whiteoak

Dpto. de Química Orgánica y Química Inorgánica, Edificio de Farmacia, Universidad de Alcalá, Campus Universitario, 28805 Alcalá de Henares, Madrid, Spain

"Development of Powerful Ga-based Catalysts for Cyclic Carbonate Synthesis and Application in the Synthesis of Value-added Bio-derived Compounds"

#### OC.F1.6: Pascal Vermeeren

Theoretical Chemistry, Vrije Universiteit Amsterdam, The Netherlands.

"How Lewis Acids Catalyze Diels-Alder Reactions"
# OC.F1.7: Fabio Juliá

Department of Chemistry, University of Manchester, Manchester M13 9PL, UK "Can simple amines mimic organotin?: Aminoalkyl radicals as halogen-atom transfer (XAT) agents for redox chemistry"

# OC.F1.8: Maximilian Menche

BASF Quantum Chemistry, Carl-Bosch-Strasse 38, 67056 Ludwigshafen am Rhein, Germany; Catalysis Research Laboratory (CaRLa), Im Neuenheimer Feld 584, 69120 Heidelberg, Germany

"Substrate-dependent Mechanistic Differences in Ni-catalyzed Carbonylations to Carboxylic Acids"

# OC.F1.9:. Cyprien Muller

Institut de Science et d'Ingénierie Supramoléculaires (ISIS), CNRS UMR 7006, Université de Strasbourg, 67000 Strasbourg, France

"Synthesis of Densely Functionalized Isochromans through a Cascade Reaction Mediated by HFIP"

# OC.F1.10: Giulio Bresciani

Università di Pisa, Dipartimento di Chimica e Chimica Industriale, Via Moruzzi 13, I-56124 Pisa, Italy "New CO<sub>2</sub> fixation Routes to Access Cyclic Carbamates and Carbonates Under Ambient Conditions"

# OC.F1.11: Najoua Choukairi Afailal

Institut de Química Computacional i Catàlisi (IQCC) i Departament de Química, Universitat de Girona,

Campus Montilivi, Girona E-17071, Catalunya, Espanya

"Dearomatizative Syn-Dihydroxylation of Arenes"

# OC.F1.12: Eveline H. Tiekink

Vrije Universiteit Amsterdam, HV Amsterdam, The Netherlands

"How Lewis Acids Catalyze Ene Reactions"

# OC.F1.13: Pol De La Cruz-Sánchez

Departament de Química Física i Inorgànica, Universitat Rovira i Virgili, C. Marcel·lí Domingo, 1, 43007 Tarragona, Spain

"New generation of improved catalysts for the construction of chiral C-C and C-X bonds. Enhancing Pd-catalyzed asymmetric allylic substitution reactions"

# OC.F1.14: Jaime Ponce de León

I. U. CINQUIMA/Química Inorgánica, Universidad de Valladolid, 47011 Valladolid, Spain

"Strategies for an increased selectivity in the catalytic synthesis of highly fluorinated biaryls"

# OC.F1.15: Sergey Tin

Leibniz-Institut für Katalyse e.V., Albert-Einstein-Strasse 29a, Rostock, Germany; b) Henkel AG & Co. KGaA, Henkel-Straße 67, Düsseldorf

*"Use of Iridium-Catalyzed Transfer Vinylation as an Efficient Synthetic Route towards Bio-Based (bis)-Vinyl Ethers"* 

#### **OC.F1.16:** Pauline Schiltz

Laboratoire de Chimie Moléculaire, CNRS UMR 9168, École Polytechnique, Institut Polytechnique de Paris, 91120 Palaiseau, France

"Cobalt Complexes supported by Phosphinoquinoline Ligands for the Catalyzed Hydrosilylation of Carbonyl Compounds"

# OC.F1.17: Lars Borchardt

Ruhr-University Bochum, Universitaetsstrasse 150, 44801 Bochum, Germany "Direct Mechanocatalysis – The Milling Ball is the Catalyst"

#### OC.F1.18: Laia Vicens

Institut de Química Computacional i Catàlisi (IQCC), Departament de Química, Universitat de Girona. Campus Montilivi, 17071 Girona, Catalonia, Spain

"Remote Amino Acid Recognition Enables Effective Hydrogen Peroxide at a Manganese Oxidation Catalyst"

#### OC.F1.19: Nikola Topolovčan

Ruđer Bošković Institute, Bijenička cesta 54, 10000 Zagreb, Croatia "Four faces of one compound: Transformations of isoindolinone-derived N(acyl) ketimines"

#### Subtheme F2 - Heterogeneous and Supported Catalysis

#### IL.F2.1: Jeremy Luterbacher

Institute of Chemical Sciences and Engineering, École Polytechnique Fédérale de Lausanne (EPFL), Switzerland

"Developing new bio-based chemicals by direct functionalization of biomass with acetals"

## OC.F2.1: G. Grillo

Department of Drug Science and Technology, University of Turin, Via P. Giuria 9, Turin "Tailoring Furfural Reactivity On Au/CeO<sub>2</sub> Catalysts: Base-Free Oxidative Esterification Enhanced By Protecting Agent And Microwave Irradiation"

#### OC.F2.2: J. García-Martínez

Laboratorio de Nanotecnología, Molecular, Departamento de Química Inorgánica,

Universidad de Alicante, 03690 Alicante, Spain

"Zeolites Made out of Other Zeolites"

#### OC.F2.3: Linda Klag

Institute for Chemical Technology and Polymer Chemistry (ITCP), Karlsruhe Institute of Technology, 76131 Karlsruhe, Germany

"Spatially-resolved insights into activity and structure of mixed metal oxide catalysts during selective propylene and isobutene oxidation"

#### OC.F2.4: E. Pachatouridou

Chemical Process and Energy Resources Institute (CPERI), Centre for Research and Technology Hellas (CERTH), Thessaloniki, Greece

"Upgrading the Heavy Pyrolytic Oil from End-of-Life Tyres to High-Quality Carbon Black Feedstock via Hydrodesulphurization and Aromatization"

#### OC.F2.5: J. J. Garrido-González

Organic Chemistry Department, Faculty of Chemical Sciences, University of Salamanca. Plaza de los Caídos s/n 37008 Salamanca, Spain

"Methanolysis of Non-activated Esters Catalysed by Novel Artificial Enzymes"

#### OC.F2.6: Aleix Comas-Vives

Institute of Materials Chemistry, TU Wien, 1060 Vienna, Austria; Department of Chemistry, Universitat Autònoma de Barcelona, 08193 Cerdanyola del Vallès, Catalonia, Spain

"Rethinking the Active Site Concept in Computational Heterogeneous Catalysis"

# OC.F2.7: Noemi Linares

Laboratorio de Nanotecnología Molecular, Dpto. Química Inorgánica, Universidad de Alicante, Ap. 99, E-03690 Alicante, Spain

"Unleashing the Potential of Zeolites for the Transformation of Bulky Molecules"

# OC.F2.8: Manfredi Caruso

Department of Chemistry, Materials, and Chemical Engineering "G. Natta", Politecnico di Milano, Piazza Leonardo da Vinci 32, I-20133, Milano, Italy

"N-Hydroxyphthalimide role in Aerobic Oxidations: Homogeneous versus Heterogeneous Catalysis"

#### OC.F2.9: Nataliia Marchenko

Laboratoire de Physique et Chimie des Nano-Objets INSA, 135 Avenue de Rangueil, 31077 Toulouse, France "Selective hydrogenation and hydrodeoxygenation of aromatic ketones using bimetallic FexPt100x nanoparticles immobilized on supported ionic liquid phases"

#### OC.F2.10: Anna M. Trzeciak

University of Wrocław, Faculty of Chemistry, 14 F. Joliot-Curie St., 50-383 Wrocław, Poland *"Hydrodechlorination of chlorobenzene derivatives catalyzed by Pd/GO in water. A new route to cyclohexanone"* 

# OC.F2.11: Nawras Abidi

Univ Lyon, Ens de Lyon, CNRS UMR 5182, Université Claude Bernard Lyon 1, Laboratoire de Chimie, F69342 Lyon, France

*"Is doping an efficient strategy to activate the basal plane of 2H-MoS2 for the hydrogen evolution reaction?"* 

# OC.F2.12: Sebastian Weber

Institute of Catalysis Research and Technology, Karlsruhe Institute of Technology (KIT), Hermann-von-Helmholtz-Platz 1, 76344, Eggenstein-Leopoldshafen, Germany

"3D spatially-resolved catalyst characterization by X-ray tomography"

#### **OC.F2.13: Sebastian Ponce**

Universidad San Francisco de Quito, Diego de Robles s/n y Av. Interoceánica, Quito, EC 170157, Ecuador *"Highly active magnesium-based catalyst for low-energy PET depolymerization"* 

#### OC.F2.14: Judit Oliver-Meseguer

Instituto de Tecnología Química (UPV-CSIC), Universitat Politècnica de València-Consejo Superior de Investigaciones Científicas, Avda. Tarongers s/n, 46022 València, Spain

*"Few atoms metal clusters with high catalytic and cytotoxic activity characterized by X-Ray Absorption Spectroscopy"* 

#### OC.F2.15: Iván Sorribes

Instituto de Tecnología Química-Universitat Politècnica de València-Consejo Superior de Investigaciones Científicas, Avenida de los Naranjos, s/n, 46022 Valencia, Spain

*"Innovative activation strategies of molybdenum sulfide-based catalysts for sustainable chemical transformations in fine chemistry"* 

#### OC.F2.16: Emilia Paone

Dipartimento DICEAM, Università degli Studi Mediterranea di Reggio Calabria, Loc. Feo di Vito, I-89122 Reggio Calabria, Italy; Consorzio Interuniversitario per la Scienza e la Tecnologia dei Materiali (INSTM), 50121 Firenze, Italy

"Spent Lithium-Ion Batteries: from Waste to an Efficient Heterogeneous Catalyst for the Reductive Upgrading of Biomass-Derived Furfural"

#### OC.F2.17: Mihaela Florea

National Institute of Materials Physics, 405A Atomistilor Street, 077125 Magurele, Romania; University of Bucharest, M. Kogalniceanu 36-46, Bucuresti, Romania

"Unprecedented chemoselective behaviour of MAX phase in functionalized nitroarene hvdrogenation"

#### OC.F2.18: Marta Mon

Sustainable Organic Synthesis and Catalysis Group. Instituto de Tecnología Química. The Valencia Polythecnic University– Spanish Research Council (ITQ, UPV–CSIC).

*"Sub–nanometric metal species in solution and supported in zeolites or MOFs for organic synthesis"* 

#### OC.F2.19: Margarida M. Antunes

CICECO-Aveiro Institute of Materials, Chemistry Department, University of Aveiro, 3810-193 Aveiro, Portugal

"Multifunctional catalysts for targeting different biobased products from furfural"

#### OC.F2.20: Rosa Adam

Instituto de Tecnología Química, Universitat Politècnica de València – Consejo Superior de Investigaciones Científicas (UPV – CSIC), Avda de los Naranjos s/n, 46022, València, Spain; Departamento de Química Orgánica, Facultad de Farmacia, Universidad de Valencia, Valencia, España

*"Heterogeneous Pd-catalyzed efficient synthesis of imidazolones via dehydrogenative condensation between ureas and 1,2-diols"* 

#### Subtheme F3 - Bio and Biomimetic Catalysis

#### OC.F3.1: Inês A. S. Matias

Centro de Química Estrutural, Institute of Molecular Sciences, Instituto Superior Técnico, Universidade de Lisboa, Av. Rovisco Pais 1049-001, Lisboa, Portugal

"Unprecedented CO<sub>2</sub> fixation into polycarbonates catalysed by C-scorpionate complexes"

#### OC.F3.2: Luisa Maia

LAQV, REQUIMTE, NOVA School of Science and Technology | FCT NOVA, Campus de Caparica, Portugal "Enzymatic  $CO_2$  reduction to formate: towards a biocatalyst for the use of the abundant atmospheric  $CO_2$ "

#### OC.F3.3: Marie A. Perrin

Department of Chemistry and Applied Biosciences (D-CHAB), ETH Zürich, Vladimir-PrelogWeg 1-5/10, 8093 Zürich, Switzerland

"Bioinspired Polymetallic Sulfido Clusters for Nitrate Reduction"

# Subtheme F4 - Photo and Electrocatalysis

#### IL.F4.1: Marcella Bonchio

University of Padova and ITM-CNR, Department of Chemical Sciences, Italy

"Supramolecular Quantasomes for Artificial Photosynthesis"

# IL.F4.2: Sami Lakhdar

CNRS/Université Paul Sabatier, Laboratoire Hétérochimie Fondamentale et Appliquée (LHFA, UMR5069), Toulouse, France

"Making and Breaking Chemical Bonds with Visible Light: Challenges and Opportunities"

# IL.F4.3: I.A.C. Pereira

NOVA University of Lisbon - ITQB NOVA - Instituto de Tecnologia Química e Biológica António Xavier, Portugal

"Metal-based biocatalysts for sustainable production of  $H_2$  and reduction of  $CO_2$ "

# OC.F4.1: Verónica Torregrosa-Rivero

Molecular Nanotechnology Lab, Department of Inorganic Chemistry, University of Alicante, Ctra. San Vincent-Alicante s/n, Alicante E-03690, Spain

*"Hybrid L-Tyrosine-titania rutile nanorods and anatase nanoparticles with improved optical properties for photocatalytic applications"* 

# OC.F4.2: Michael Schnürch

TU Wien, Institute of Applied Synthetic Chemistry, Getreidemarkt 9/163, 1060 Vienna, Austria "Photocatalytic deaminative benzylation and alkylation of tetrahydroisoquinolines with Nalkylpyrydinium salts"

#### OC.F4.3: Carola Tortora

Department of Chemistry and Technologies of Drugs, Faculty of Medicine and Pharmacy. "Sapienza" University of Rome. P.le Aldo Moro 5, 00185 Roma, Italy

"Photoracemization-based Viedma Ripening of a Binol Derivative"

# OC.F4.4: Uwe Pischel

CIQSO – Centre for Research in Sustainable Chemistry, University of Huelva, Campus de El Carmen, E-21071 Huelva, Spain

"Organocatalysis using Ru(II) complexes with pyridine-derived ligands: Implications of photo- and metal-mediated mechanisms"

#### OC.F4.5: Laura F. Mazzei

CIC biomaGUNE, Paseo de Miramón 182, 20009, Donostia, Spain

"Design of Hybrid Structure for Bioorthogonal Drug Photoactivation and Photocatalysis"

# OC.F4.6: Julie Broggi

Aix Marseille Univ, CNRS, Institut de Chimie Radicalaire (ICR), Faculté de Pharmacie, 13005 Marseille, France *"Reductive reactions photocatalyzed by super organic electron donors"* 

#### OC.F4.7: Arianna Quintavalla

Department of Chemistry "G. Ciamician", University of Bologna, Via Selmi 2, I-40126 Bologna, Italy "Expanding the Reactivity of Allenamides towards Sustainability"

#### OC.F4.8: Radek Cibulka

University of Chemistry and Technology, Prague, Technická 5, 166 28 Prague 6, Czech Republic "Towards Highly Chemoselective Catalytic Photooxidations"

## OC.F4.9: Beatriz Royo

ITQB NOVA, Instituto de Tecnologia Química e Biológica António Xavier, Avenida da República, 2780-157 Oeiras, Portugal

"Visible-Light Mediated Hydrosilylation of Carbonyls Using Mn(I) N-Heterocyclic Carbene Complexes"

#### OC.F4.10: Diego Mateo

King Abdullah University of Science and Technology (KAUST), KAUST Catalysis Center (KCC), Advanced Catalytic Materials, Thuwal, 23955, Saudi Arabia

"An efficient metal-organic framework-derived nickel catalyst for the light-driven methanation of  $CO_2$ "

# OC.F4.11: Luka Đorđević

Department of Chemistry, Northwestern University; Evanston, IL, USA; Center for Bio-Inspired Energy Science, Northwestern University; Chicago, IL, USA; Simpson Querrey Institute for BioNanotechnology, Northwestern University; Chicago, IL, USA

"Selective Catalytic Conversion of Acetylene to Ethylene Powered by Water and Visible Light"

#### OC.F4.12: Andrea Fermi

Dipartimento di Chimica "G. Ciamician", Università di Bologna, via Selmi 2, 40126 Bologna, Italy "Organic dyes in metallaphotoredox catalysis: strategies and perspectives for C-C bond formation enabled by visible light"

#### OC.F4.13: Pau Besalú-Sala

Institut de Química Computacional i Catàlisi and Departament de Química, Universitat de Girona, 17003, Girona, Spain

"Straightforward modelling of reactivity induced by electric fields"

#### OC.F4.14: Vincenzo Ruta

Politecnico di Milano, Piazza Leonardo da Vinci 32, 20133 Milano, Italy

"Engineering Continuous-Flow Photochemical Microreactors Integrating Single-Atom Catalysts for Clean Water Applications"



# Theme G - Spectroscopic and Analytical Tools / Advanced Physical Chemistry

# Subtheme G1 - New Developments and Methods

# IL.G1.1: Pavel Jelinek

Institute of Physics, Czech Academy of Sciences, Czech Republic

"High-resolution imaging of molecules by means of scanning probe microscopy"

# IL.G1.2: Jiří Homola

Institute of Photonics and Electronics of the Czech Academy of Sciences, Prague, Czech Republic "Optical biosensors based on surface plasmons: advances and applications"

# IL.G1.3: Boris Mizaikoff

Institute of Analytical and Bioanalytical Chemistry, Ulm University, Germany and Hahn-Schickard, Institute for Microanalysis Systems, Ulm, Germany

"Quo Vadis, Mid-Infrared Spectroscopy? From Exhaled Breath Analysis to In-Vivo Biodiagnostics"

# OC.G1.1: Cosima D. Calvano

Dipartimento di Chimica, Centro interdipartimentale SMART, Università degli Studi di Bari Aldo Moro, via Orabona 4, 70126, Bari, Italy

"Uncovering of spirulina marker peptides for allergen detection in processed foodstuffs by bottomup approaches"

# OC.G1.2: Marta Da Pian

Universitá degli Studi di Padova - DISC, via Marzolo 1, 35131, Padova, Italy "Combined use of forensic science in sexual assault: a case report"

# OC.G1.3: Shane Grant

Nanoscale Biophotonics Laboratory, National University of Ireland Galway, University Road, Galway, H91CF50, Ireland

"Developing a Robust Elemental Screening Method for Cell Culture Media used in

Biopharmaceutical Manufacturing based on Microwave Plasma Atomic Emission Spectroscopy"

# OC.G1.4: Rudolf J. Schneider

BAM Federal Institute for Materials Research and Testing, Richard-Willstaetter-Str. 11, 12489 Berlin, Germany

"Anthropogenic markers quantified by rapid immunochemical methods – what can their occurrence in wastewater, surface water, and drinking water tell us?"

# OC.G1.5: O. C. Gonçalves

Centro de Química Estrutural, Institute of Molecular Sciences, Departamento de Química e Bioquímica, Faculdade de Ciências, Universidade de Lisboa, Campo Grande, 1749-016 Lisboa, Portugal "Development of Sorption-based Microextraction Techniques for Monitoring VOCs Released from the Four Main Portuguese Tree Species - Influence on wildfire propagation"

# OC.G1.6: Tianyu Cen

Paul Scherrer Institute (PSI), Forschungsstrasse 111, CH-5232 Villigen-PSI, Switzerland; École Polytechnique Fédérale de Lausanne (EPFL), CH-1015 Lausanne, Switzerland

"Online Detection of Metal Containing Nanoparticles in Aerosol via a Single Particle ICP-MS based Technique"

# OC.G1.7: Pedro F. Brandão

CESAM – Centre for Environmental and Marine Studies, Department of Chemistry, University of Aveiro, 3810-193 Aveiro, Portugal

"A new approach for water-soluble organic carbon extraction from atmospheric particulate matter under optimised analytical conditions"

# OC.G1.8: Gulce Ogruc Ildiz

Department of Physics, Faculty of Sciences and Letters, Istanbul Kultur University, Turkey; CQC, Department of Chemistry, University of Coimbra, Portugal

"Multivariate Statistical Model Based on IR and Raman Spectroscopic Data of Blood Serum for Auxiliary Diagnosis of Mental Disorders"

# OC.G1.9: Roberta D'Agata

Department of Chemical Sciences, University of Catania, Viale Andrea Doria, 6, 95125, Catania, Italy; INBB, Istituto Nazionale di Biostrutture e Biosistemi, Viale Delle Medaglie D'Oro, 305, 00136, Roma, Italy *"Plasmonic-based imaging sensor for ultrasensitive molecular diagnostics"* 

# OC.G1.10: Christiane Kaus

Institute for occupational safety and health of the german social accident insurance, Alte Heerstrasse 111, 53757 Sankt Augustin, Germany

"Quantitative monitoring of test gas atmospheres in real time and verification of a new dosing system for test gas generation by SIFT-MS"

#### OC.G1.11: Aura Tintaru

Aix-Marseille Université, CNRS – Centre Interdisciplinaire de Nanoscience de Marseille UMR 7325, 163 Av Luminy, Marseille, France

"Combined ion mobility-mass spectrometry/quantum chemistry approach for direct identification of enantiomers in a natural mixture"

# Subtheme G2 - Light and Matter

#### IL.G2.1: Luca Prodi

Dipartimento di Chimica "Giacomo Ciamician" – Università di Bologna – Bologna – Italy; "Dye Doped Silica Nanoparticles as Photoactive Organized Systems for Nanomedicine"

# Subtheme G3 - Electrochemistry

#### IL.G3.1: Christopher M.A. Brett

Department of Chemistry, CEMMPRE, University of Coimbra, Portugal

"Tailoring electrochemical sensor materials for novel sensor platform architectures"

# OC.G3.1: John F Cassidy

Applied Electrochemistry Group; School of Chemical and Pharmaceutical Sciences "Formation of an Electroactive Coating Resulting From the Oxidation of Diclofenac on Screen Printed Carbon Electrodes"

# OC.G3.2: Giovanni Valenti

Department of Chemistry "G. Ciamician", University of Bologna and INSTM, via Selmi 2, 40126 Bologna, Italy "New insights into the mechanism of coreactant electrogenerated chemiluminescence facilitating enhanced bioanalytical performance"

# OC.G3.3: Marcus Fehse

CICenergiGUNE, Vitoria-Gasteiz, Spain

"Synchrotron radiation for investigating electrochemical energy storage systems"

# OC.G3.4: Federico Bella

Department of Applied Science and Technology, Politecnico di Torino, Italy "Chemical strategies to merge conversion, storage and integration of energy for a sustainable society"

# Subtheme G4 - Surface Processes and Analysis

# IL.G4.1: Bernhard Lendl

Univ.Prof. für Analytische Chemie, TU Wien

"Mid-IR Laser-Based Photothermal Spectroscopy: New Opportunities for Sensing and Imaging"

# IL.G4.2: Barbara Kasprzyk-Hordern

Department of Chemistry, University of Bath, UK and Northern Ireland

"Mass Spectrometry in urban water profiling for environmental and public health assessment"

# IL.G4.3: Tia E. Keyes

School of Chemical Sciences, National Centre for Sensor Research, Dublin City University, Ireland "Microcavity Supported Lipid Bilayers: Versatile Microfluidic Models for Biophysical Studies of Membrane Proteins and Lipids"

# OC.G4.1: Valerio Loianno

Dept. of Chemical, Materials and Production Engineering, University of Naples, Federico II, Piazzale Tecchio 80, Naples, 80125, Italy

"Combining FTIR spectroscopy and pressure-decay techniques to analyze sorption isotherms and sorption kinetics of pure gases and their mixtures in polymers"

# OC.G4.2: O.S. Ablyasova

Abteilung für Hochempfindliche Röntgenspektroskopie, Helmholtz-Zentrum Berlin für Materialien und Energie, Albert-Einstein-Straße 15, 12489 Berlin, Germany; Physikalisches Institut, Universität Freiburg, Hermann-Herder-Straße 3, 79104 Freiburg, Germany

"Disproportionation in gas-phase di-manganese oxide cluster revealed by X-ray absorption spectroscopy"

# OC.G4.3: Mayara da S. Santos

Abteilung für Hochempfindliche Röntgenspektroskopie, Helmholtz-Zentrum Berlin für Materialien und Energie, Albert-Einstein-Straße 15, 12489 Berlin, Germany; Physikalisches Institut, Universität Freiburg, Hermann-Herder-Straße 3, 79104 Freiburg, Germany

"Identification of reactive metal-oxygen species via X-ray absorption spectroscopy"

## OC.G4.4: Maria Ricciardi

Department of Medicine and Surgery, University of Salerno, via S. Allende, 84081 Baronissi, SA, Italy "An innovative analytical method based on Stable Isotope Ratios of Carbon, Sulfur and Oxygen to identify sources of pollutants in black crust samples"

# OC.G4.5: A. Catarina V. D. dos Santos

Institute of Chemical Technologies and Analytics, TU Wien, Getreidemarkt 9, 1060 Vienna, Austria "Nanoscale Chemical Characterization and Imaging of a Recycled Post-Consumer Waste Polyolefin Blend using AFM-IR"

# Subtheme G5 - Applied Physical Chemistry

#### IL.G5.1: Luis M. N. B. F. Santos

CIQUP-IMS Institute of Molecular Sciences, Departamento de Química e Bioquímica, Faculdade de Ciências da Universidade do Porto, Portugal

"Nanostructuration, the key for the understanding of ionic fluids properties"

#### IL.G5.2: M.F. Montemor

Centro de Química Estrutural, Institute of Molecular Sciences, Departamento de Engenharia Química, Instituto Superior Técnico, Universidade de Lisboa, Portugal

"Fit for the purpose supercapacitors: A new path to enable electrochemical energy storage"

# OC.G5.1: Daniela Rodrigues Silva

Vrije Universiteit Amsterdam, Department of Theoretical Chemistry, Amsterdam Institute for Molecular and Life Sciences, Amsterdam Center for Multiscale Modeling, De Boelelaan 1083, 1081 HV, Amsterdam, The Netherlands

"Nature and Strength of Lewis Acid–Base Pairs"

# OC.G5.2: Cristian Pezzato

Institut des Sciences et Ingénierie Chimiques, École Polytechnique Fédérale de Lausanne, 1015 Lausanne, Switzerland

"Light-switchable buffers"

#### OC.G5.3: Luís P. Viegas

Coimbra Chemistry Center-Institute of Molecular Sciences (CQC-IMS), Department of Chemistry, University of Coimbra, 3004-535 Coimbra, Portugal

"Transition State Theory at the service of Green Chemistry"

# OC.G5.4: David Robinson

Department of Chemistry and Forensics, School of Science and Technology, Nottingham Trent University, Nottingham, NG11 8NS, United Kingdom

"Multiscale Simulations of a Phase Sensitive Probe of Lipid Membrane Structure"

# OC.G5.5: Lucas de Azevedo Santos

Vrije Universiteit Amsterdam, Department of Theoretical Chemistry, Amsterdam Institute for Molecular and Life Sciences, Amsterdam Center for Multiscale Modeling, De Boelelaan1083, 1081 HV, Amsterdam, The Netherlands

"Intermolecular covalent interactions"

# OC.G5.6: Gonçalo V. S. M. Carrera

NOVA, School of Science and Technology, LAQV-REQUIMTE, 2829-516 Caparica, Portugal

"Phase Behavior Profile of a Generical Three-Compound Mixture: A Chemoinformatic Approach"

# OC.G5.7: Vito Gallo

Politecnico di Bari, via Orabona 4 – CAMPUS, I-70125, Bari, Italy; Innovative Solutions S.r.l., Zona H 150/B, I-70015, Noci (BA), Italy

"Community-built analytical systems: from calibration lines to non-targeted analysis by using NMR spectroscopy"

# OC.G5.8: Brian Sachini

CLAN-Center for Light Activated Nanostructures, Istituto ISOF-CNR, Via Gobetti 101, 40129 Bologna, Italy; Dipartimento di Chimica Industriale "Toso Montanari", Università di Bologna, Viale del Risorgimento 4, 40136 Bologna, Italy

"Improving Light-Driven Molecular Pumps: Dissecting Thermodynamic and Kinetic Entaglement in a Photoswitchable Molecular Axle"

# Subtheme G6 - Photochemistry and Photophysics

# IL.G6.1: Fernando Martín

IMDEA Nanoscience and Universidad Autónoma de Madrid, Spain

"Attochemistry: imaging and controlling electron dynamics in molecules with attosecond light pulses"

# IL.G6.2: Alan G. Ryder

School of Chemistry, National University of Ireland, Galway, Ireland

"The application of multi-dimensional fluorescence spectroscopy, anisotropy, and chemometrics as a process-wide, analytical technology platform for Biopharmaceuticals"

# OC.G6.1: Luís F.B. Fontes

LAQV-Requimte, Department of Chemistry, University of Aveiro, 3010-193 Aveiro, Portugal; CICECO – Aveiro Institute of Materials, Department of Chemistry, University of Aveiro, 3010-193 Aveiro, Portugal *"In situ illumination NMR: photoisomerization of naphtopyran derivatives"* 

# OC.G6.2: R. Fausto

CQC-IMS, Department of Chemistry, University of Coimbra, Portugal *"IR-induced and tunneling reactions in cryogenic matrices: the (incomplete) story of a successful endeavor"* 

# OC.G6.3: Paula Araújo

Laboratório Associado para a Química Verde – REQUIMTE, Departamento de Química e Bioquímica, Faculdade de Ciências, Universidade do Porto, Rua do Campo Alegre, 687, 4169-007 Porto, Portugal "Multistate of chemical reactions of 4'-dimethyl-7-diethylaminoflavylium. Thermodynamics, kinetics and Photochemistry modulated by water: ethanol, SDS and CTAB micelles"

# OC.G6.4: Ivana Nikšić-Franjić

Ruđer Bošković Institute, Bijenička cesta 54 10000, Zagreb, Croatia

*"Impact of positive charge and ring-size on interactions of calixarenes with DNA, RNA and nucleotides"* 

# OC.G6.5: El Mountassir El Mouchtari

Aix Marseille Univ, CNRS, LCE, Marseille, France

"Highly sensitive fluorescence sensors based on rhodamine for detection of Cd (II) and Hg (II) in aqueous media"

# OC.G6.6: Cecilia Bruschi

Institute of Organic Chemistry, Karlsruhe Institute of Technology, Fritz-Haber Weg 6, Karlsruhe, Germany "New heteroleptic copper(I) complexes: towards more sustainable photosensitizers"

# OC.G6.7: Marc Montilla

Institute of Computational Chemistry and Catalysis, Chemistry Department, University of Girona, 17003 Girona, Spain

"Origin-Independent Energy-Based decomposition of the first and second hyperpolarizabilities"



# Theme 1 - Imaging

#### IL.Imag.1: Sara Bals

Department of Physics, University of Antwerp, Belgium "3D Structure of Nanomaterials under Realistic Conditions"

#### IL.Imag.2: Susana Rocha

KU Leuven, Leuven, Belgium "Imaging the forces driving cellular behaviour: from material characterisation to 3D cell models"

#### OC.Imag.1: Roberta Tabone

Karlsruhe Institute of Technology (KIT), Fritz Haber Weg 6, 76131, Germany "Intriguing Zn (II) emitters in the "biological window" with large Pseudo-Stokes shift for bioimaging"

# OC.Imag.2: Morgane Baudoin

Univ. Grenoble Alpes, CNRS, DPM, 38000 Grenoble, France "High-resolution two-color imaging of peptidoglycan and teichoic acids in S.pneumoniae by dSTORM"

#### OC.Imag.3: E. Rühl

Physical Chemistry, Freie Universität Berlin, Arnimallee 22, 14195 Berlin, Germany "Hyperspectral Imaging of Drug Penetration Processes in Human Skin"

# H Theme 2 - Energy, Environment and Sustainability

#### IL.EES.1: Juan Morante

University of Barcelona, Spain "CO<sub>2</sub> electroreduction to valuable products with high productivities" **IL.EES.2: Elena Selli** Dipartimento di Chimica, Unviversità degli Studi di Milano. Milano, Italy "Ternary Metal Oxide-based Photoanodes for Solar Energy Conversion"

#### OC.EES.1: Luis C. Branco

LAQV-REQUIMTE, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Campus de Caparica, 2829-516 Caparica, Portugal *"Sustainable Ionic and Porous Systems for CO<sub>2</sub> Conversion to Fuels"* 

# OC.EES.2: Elena Serrano

Laboratorio de Nanotecnología Molecular, Departamento de Química Inorgánica, Universidad de Alicante, Spain.

*"Functional Photoactive Materials with Tuneable Crystalline Structure and Morphology for Photocatalytic and Solar cell applications"* 

# OC.EES.3: Mark C Gray

WestCHEM, School of Chemistry, The University of Glasgow Glasgow G12 8QQ, UK "Catalysis in confined spaces: monitoring catalytic activity by modulating the catalytic environment"



# Theme 3 - Molecules in Motion

#### IL.MM.1: Alberto Credi

CLAN-Center for Light Activated Nanostructures, Università di Bologna, Italy "Playing with Molecular Rings and Strings: New Directions for Nanoscale Machines and Motors"

# IL.MM.2: Nicolas Giuseppone

University of Strasbourg, Institut Charles Sadron - CNRS, Strasbourg, France "Artificial molecular machines that work on all scales"

# OC.MM.1: Miguel A. Ramos-Docampo

Interdisciplinary Nanoscience Center (iNANO), Aarhus University, Gustav Wieds Vej 14, 8000 Aarhus, Denmark

"Stimuli-responsive polymers to induce locomotion in nanomotors"

# OC.MM.2: Chiara Taticchi

CLAN-Center for Light Activated Nanostructures, Istituto ISOF-CNR, Bologna and Dipartimento di Chimica Industriale "Toso Montanari", Università di Bologna, Italy;

"Towards an Autonomous Photochemically Driven Rotary Motor Based on a Catenane"

# OC.MM.3: Qi Zhang

Stratingh Institute for Chemistry, University of Groningen, Nijenborgh 4, 9747 AG Groningen, The Netherlands

"The road to intrinsically dynamic materials: disulfide chemistry as a solution"



# Section I – Functional Materials

#### Subtheme OTS1.1 – Carbon-based Materials

#### IL.OTS1.1: Diego Peña

Centro Singular de Investigación en Química Biolóxica en Materiais Moleculares (CiQUS), Departamento de Química Orgánica, Universidade de Santiago de Compostela, Spain *"Building nanographenes by combining organic synthesis and surface science"* 

#### OC.OTS1.1.1: Victor Blanco

Departamento de Química Orgánica, Facultad de Ciencias, Universidad de Granada, Avenida Fuente Nueva s/n, 18071, Granada, Spain

"Macrocycle Receptors Incorporating Heptagon-containing Hexa-peri-haxebenzororonene Analogues"

#### OC.OTS1.1.2: Cecilia Wetzl

CIC BiomaGUNE, Parque Tecnológico de San Sebastián, Paseo Miramón, 182, 20014 San Sebastián,Guipúzcoa, Spain *"Graphene field effect transistors for neurotransmitter monitoring"* 

#### OC.OTS1.1.3: A.J. Stasyuk

Institut de Química Computacional and Departament de Química, Universitat de Girona, C/ Maria Aurèlia Capmany 69, 17003, Girona, Catalonia, Spain; Faculty of Chemistry, University of Warsaw, Pasteura 1, 02-093 Warsaw, Poland

"Molecular bowls as electron donors in photoinduced electron transfer reactions"

#### OC.OTS1.1.4: G. Minervini

Polytechnic of Bari, and University of Bari "Aldo Moro", Italy *"Synthesis of Carbon Dots with Green Photostable Emission in Open Reactor: Study of Fluorescence Origin and Mechanisms"* 

#### OC.OTS1.1.5: Sven Grätz

Ruhr-Universität Bochum, Bochum/Deutschland "What Maketh a Pore? The Formation of Porosity in the Solid-State"

#### Subtheme OTS1.2 – Organic Electronics

#### IL.OTS1.2: Kasper Moth-Poulsen

Chalmers University of Technology, Sweden "Molecular Solar Thermal Energy Systems"

# OC.OTS1.2.1: Ľubomír Švorc

Institute of Analytical Chemistry, Faculty of Chemical and Food Technology, Slovak University of Technology in Bratislava, Radlinského 9, 812 37 Bratislava, Slovakia *"Modern electrochemical sensors in drug and food analysis"* 

# OC.OTS1.2.2: Michal Valášek

Institute of Nanotechnology, Karlsruhe Institute of Technology (KIT), P. O. Box 3640, D-76021 Karlsruhe, Germany

"Tripodal Chromophores for Luminescence Studies on Gold: Towards Organic Optoelectronic Devices"

# OC.OTS1.2.3: Mathias O. Senge

School of Chemistry, Trinity Biomedical Sciences Institute, 152-160 Pearse Street, Trinity College Dublin, The University of Dublin, Dublin 2, Ireland

"Cubane and Bicyclo(1.1.1)pentane – Rigid Hydrocarbon Linkers for Flexible Uses"

# OC.OTS1.2.4: Marco Carlotti

Center for Materials Interfaces, Istituto Italiano di Tecnologia, Pontedera, Italy "Multi-Potent Precursor Approach for the In-Situ Generation of Conjugated Polymers with Complementary Electronic Properties"

# OC.OTS1.2.5: Luca M. Cavinato

Chair of Biogenic Functional Materials, Technical University of Munich, Schulgasse 22, 94315 Straubing, Germany

"Multivariate tool identifying [Cu(N^N)(P^P)]+ design and device architecture enables first-class blue and white light-emitting electrochemical cells"

# OC.OTS1.2.6: Manuel Souto

Department of Chemistry, CICECO – Aveiro Institute of Materials, University of Aveiro, Aveiro, Portugal "Redox-active organic building blocks for the chemical design of electroactive porous frameworks"

# Subtheme OTS1.3 – Polymers and devices

# IL.OTS1.3: David Écija

Institute for Advanced Studies in Nanoscience (IMDEA Nanoscience), Faraday 9, 28049, Madrid, Spain "On-surface synthesis of pi-conjugated polymers"

# OC.OTS1.3.1: Matthias Schneider

University of Potsdam, Institute of Chemistry, Potsdam, Germany. "3D printed PLA scaffolds as versatile Platform for Multipurpose Applications in Chemistry, Biology, and Physics"

# OC.OTS1.3.2: Alessandro Pedrini

Department of Chemistry, Life Sciences and Environmental Sustainability, University of Parma, Parco Area delle Scienze 17/A, 43124 Parma, Italy

"Cavitand-based hierarchical porous organic polymers for gas adsorption/separation and water treatment"

# OC.OTS1.3.3: Rocío Domínguez

Instituto de Nanociencia, Nanotecnología y Materiales Moleculares (INAMOL), Universidad de Castilla-La Mancha, Avda. Carlos III s/n, Toledo, Spain "Cyclopentadithiophenevinylene oligomers: a new versatile conjugated material"

# OC.OTS1.3.4: Jeremy E. Wulff

University of Victoria, Victoria, BC, Canada "Universal Crosslinkers for On-Demand Upgrading of Polymer Properties"

## OC.OTS1.3.5: Ana Charas

Instituto de Telecomunicações, Instituto Superior Técnico, Av. Rovisco Pais, Lisboa P-1049-001, Portugal *"Improving the electrical conductivity and structural properties of poly(3,4-*

ethylenedioxythiophene):polystyrenesulfonate (PEDOT:PSS) for thin film and flexible electronics"

# OC.OTS1.3.6: Xuelian LIU

Normandie Univ, INSA Rouen, UNIROUEN, CNRS, PBS, 76000 Rouen, France

"A mechanical robust and thermal resistant polyvinyl resin crosslinked by quadruple hydrogen bonding with self-healing and shape memory properties"

# **B** Section II – Chemistry and Society

#### Subtheme OTS2.2 – New Tools for Learning

#### IL.OTS2.2.1: Ron Blonder

Department of Science Teaching, Weizmann Institute of Science, Israel "Chemistry Teachers' Personalized Professional Development Framework"

#### IL.OTS2.2.2: Silvija Markic

Ludwig-Maximilians-University Munich, Germany "Importance of learning of scientistic language at the university level"

#### OC.OTS2.2.1: Tânia Coelho

FCT NOVA, Campus de Caparica, Monte de Caparica, Portugal "The teacher's professional knowledge and the interdisciplinarity in a context of technology integration"

# OC.OTS2.2.2: Amy S. Cannon

Beyond Benign, Wilmington, MA, USA "Green chemistry in higher education: An upstream approach to addressing sustainable development goals"

#### Subtheme OTS2.3 - Chemistry and Heritage: preserving and sharing

#### IL.OTS2.3.1: Brigitte Van Tiggelen

Science History Institute

"EuChemS Historical Landmarks: chemists, their past and the sharing of chemical heritage"

#### IL.OTS2.3.2: Isabel Malaquias

University of Aveiro, Research Centre on Didactics and Technology in the Education of Trainers, Physics Department, Campus de Santiago, Aveiro, Portugal

"Didactic physics and chemistry instruments from Portuguese high schools - trash for the bin or a heritage to preserve?"

#### OC.OTS2.3.1: Marta C. Lourenço

University of Lisbon, National Museum of Natural History and Science, Portugal "Time capsules of innovation: The historical spaces of chemistry in Portugal"

# OC.OTS2.3.2: Natércia Teixeira

LAQV-REQUIMTE, Department of Chemistry and Biochemistry, Faculty of Sciences, Universidade do Porto, Portugal

"Unveiling the iron-polyphenol complexes behind medieval iron gall inks through a multi-analytical methodology"

# Subtheme OTS2.4 – Origin of Life

#### IL.OTS2.4: Olivier Trapp

Department of Chemistry, Ludwig Maximilian University Munich, Germany "Initial Steps towards an Evolutionary System leading to the Emergence of Life"

# Subtheme OTS2.6 – Equity and Responsibility

#### OC.OTS2.4.1: Guillermo Restrepo

Max Planck Institute for Mathematics in the Sciences, Leipzig, Germany "The chemical space and some ethical consequences of its uneven growth" OC.OTS2.4.2: Jan Mehlich

Center for Life Ethics, Rheinische Wilhelmsuniversität Bonn, Germany

"Teaching Responsible Chemistry: A Challenge-Based Learning Framework for the Implementation

of RRI Courses in Chemistry Education"

# OC.OTS2.4.3: Rachel Mamlok-Naaman

Weizmann Institute of Science, Israel

"Women in chemistry – in Scientific Careers (SciCar) Horizon Project"