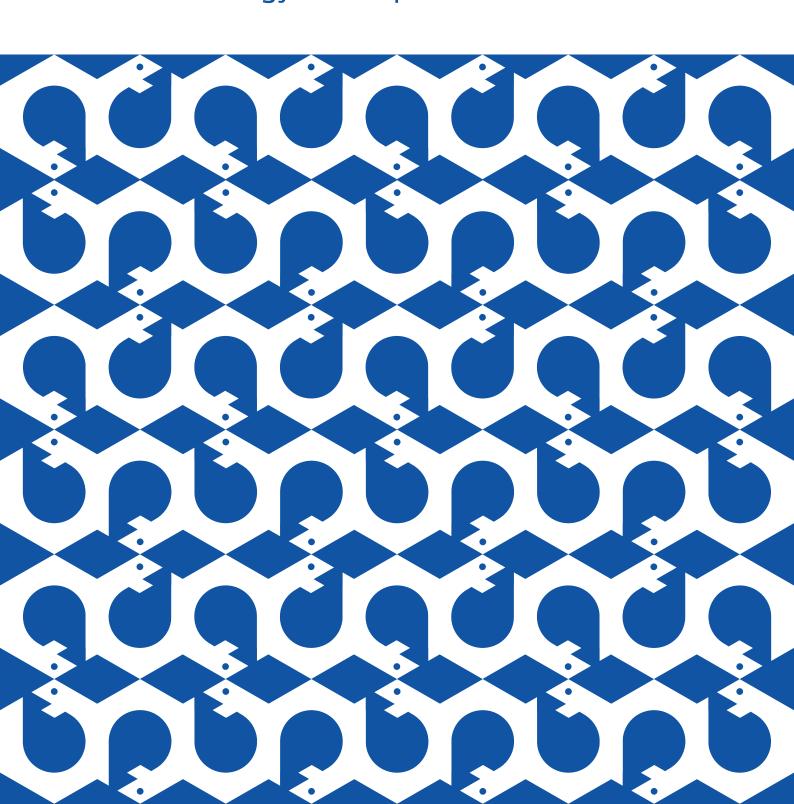


2024 Medicinal Chemistry and Chemical Biology in Europe







SESSIONS AND SESSION COORDINATORS

CHEMICAL BIOLOGY

TACKLING "DIFFICULT-TO-DRUG"-TARGETS WITH CHEMICAL BIOLOGY APPROACHES

Jacob Bush (GlaxoSmithKline, UK)

BIO-ORTHOGONAL SYNTHETIC CHEMISTRY (AFMC SESSION)

Youngjoo Byun (Korea University, KR) Sun-Joon Min (Hanyang University, KR)

SOLUTE CARRIER PROTEIN (SLC) TRANSPORTERS AS TARGETS FOR DRUG DISCOVERY

Andreas Gollner (Solgate, AT)

CHEMICALLY INDUCED PROXIMITY APPROACHES FOR THERAPEUTIC INTERVENTION

Gregory Hollingworth (Novartis, CH)

TARGETING RAS (ICBS SESSION)

Zaneta Nikolovska-Coleska (University of Michigan, US)

TARGETING RNA AND RNA-MODIFYING ENZYMES

Matthew Fyfe (Storm Therapeutics, UK)

SMALL MOLECULE TREATMENTS FOR PROTEIN MISFOLDING DISEASES

Mark Bunnage (Vertex Pharmaceuticals, US)

DRUG DISCOVERY PROJECTS

DRUG DISCOVERY BEYOND THE RULE OF FIVE

Iwan De Esch (VU Amsterdam, NL)

CHEMICAL STRATEGIES TO MODULATE NEUROINFLAMMATION (ACSMEDI SESSION)

Nadia German (Texas Tech University, US)

TRENDS IN PEPTIDE DRUG DISCOVERY

Gilles Guichard (University of Bordeaux, FR)

ADVANCES IN IMMUNO-ONCOLOGY THERAPY WITH SMALL MOLECULE INHIBITORS

Pravin lyer (Zydus Lifesciences, IN)

IMPACT OF CRYO-EM IN DRUG DISCOVERY

Herbert Nar (Boehringer Ingelheim, DE)

EARLY INTEGRATION OF TRANSLATIONAL STRATEGIES INTO DISCOVERY PROJECTS

Antonia F. Stepan (F. Hoffmann-La Roche, CH)

ADDRESSING UNMET NEEDS ON EMERGING AND RE-EMERGING INFECTIOUS DISEASES

Vicenzo Summa (University of Naples, IT)

TECHNOLOGIES

NOVEL METHODOLOGIES IN PHOTO- AND ELECTROCHEMISTRY

Lisa Candish (Bayer, DE)

REALITY CHECK "AI IN DRUG DESIGN" - STATE OF THE ART OR FICTION - AN EFMC² SESSION

Werngard Czechtizky (AstraZeneca, SE) Nadine Schneider (Novartis, CH)

COMPUTATIONAL CHEMISTRY AND COMPUTATIONAL **BIOLOGY IN DRUG DISCOVERY**

Marco De Vivo (Italian Institute of Technology, IT)

NEW TECHNOLOGIES FOR THE DISCOVERY OF PROTEIN DEGRADERS (CPA SESSION)

Ke Ding (Jinan University, CN)

DNA-ENCODED LIBRARIES (ACSMEDI SESSION)

Amanda Garner (University of Michigan, US)

BIOMIMETIC DRUG DELIVERY SYSTEMS (EUCHEMS SESSION)

Francesco Peri (University of Milano Bicocca, IT)

SUSTAINABILITY - GREEN CHEMISTRY

Alvaro Enriquez Garcia (Eli Lilly & Co, ES)

SPECIAL SESSIONS

EARLY CAREER WOMEN IN MEDICINAL CHEMISTRY & CHEMICAL BIOLOGY

Maria-Jesús Blanco (Atavistik Bio, US) Maria Laura Bolognesi (University of Bologna, IT)

OPEN SESSIONS

FIRST TIME DISCLOSURES (I & II)

HIGHLIGHTS IN MEDICINAL CHEMISTRY

LATE BREAKING NEWS / RECENT DEVELOPMENTS

CONFIRMED PLENARY LECTURES

Véronique GOUVERNEUR

(University of Oxford, UK)

David MacMILLAN

(Princeton University, US)

Emma PARMEE

(Janssen Research & Development, US)

EFMC AWARD LECTURES

- The Nauta Pharmacochemistry Award
- The UCB-Ehrlich Award for Excellence in Medicinal Chemistry
- The Prous Institute-Overton and Meyer Award for New Technologies in Drug Discovery

EFMC PARTNER PRIZES

- The IUPAC-Richter Prize in Medicinal Chemistry
- The Klaus Grohe Prize

EFMC PRIZE LECTURES

- EFMC Prize for a Young Medicinal Chemist or Chemical Biologist in Industry
- EFMC Prize for a Young Medicinal Chemist or Chemical Biologist in Academia

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On behalf of







Content

Editorial	2
Reflections on 2021-2023	4
Corporate Members	6
Executive Committee	7
Advisory Board	7
Council	8
Sustainability Initiative	10
Chemical Biology Initiative	11
Best Practices	12
EFMC ²	13
ACSMEDI - EFMC Medicinal Chemistry Frontiers 2023 - Report	14
EFMC Young Scientists Network	16
MedChemBioWatch	18
EFMC Photo Competition 2023	19
EFMC-ASMC 2023 - Report	20
EFMC-ISCB 2023 - Report	21
EFMC Short Course 2023 - Report	22
EFMC Awards 2023 - Ceremony	24
EFMC Prizes 2023	26
EFMC-YMCS 2023 - Report	28
National Adhering Organisations	30





Editorial

Dear colleagues,

It is with great pleasure that I write this first editorial as President of the European Federation for Medicinal chemistry and Chemical biology (EFMC). My immediate thoughts go to Rui Moreira, thanking him for his brilliant presidency and countless efforts in increasing the EFMC visibility towards our members and our partners, and for his constant support in fostering new activities while maintaining the core values of our Federation. I will continue relying on his advice in the coming years.

I also would like to extend my thanks to the whole Executive Committee who will be supporting me in my duties: Gianluca Sbardella (Secretary), Beatriz de Pascual Teresa (Treasurer), Mathilda Bingham, Martin Missbach and Christa Müller. Additionally, I am grateful to Yves Auberson who kindly accepted to take the role of EFMC Advisor and to Chiara Borsari, chair of the EFMC Young Scientists Network.

My thank you also goes to Ayla Balkan (Turkey) and Katarzyna Kieć-Kononowicz (Poland) for their years-long contribution to the EFMC Council and I'm pleased to welcome their successors, Zeynep Ates Alagoz and Dariusz Matosiuk, respectively. I extend a warm welcome to Virginija Dudutiene, representative of the Lithuanian Chemical Society and Oscar Millet, representative of the Spanish Chemical Biology Group of the Royal Spanish Society of Chemistry (RSEQ), who recently joined our Federation as Adhering Organisations.

Let's now have an overview of the most important events of 2023 and the activities planned by our Federation for 2024.

AN EXTENDED EFMC EVENT PORTFOLIO

This year, new events joined returning ones to each time better bridge our various communities.

The EFMC Short Course on Small Molecule Protein Degraders: A New Opportunity for Drug Design and **Development** took place on April 23-26. As per the tradition, the participants gathered at the historical venue of Castle Oud Poelgeest, near Leiden for a 3-day intensive course with renowned experts in the field; but for the first time, the course was recorded and offered as replay access to interested researchers, a decision which proved to be very successful. Absent of the event landscape since 2019, the ACSMEDI-EFMC Medicinal Chemistry Frontiers, joint endeavour between ACS MEDI (American Chemical Society, division

of Medicinal Chemistry) and EFMC, took place in Boston on June 10-13, opening a new area of annual cooperation between both associations. The IX International Symposium on Advances in Synthetic and Medicinal Chemistry (EFMC-ASMC 2023) took place on September 3-7 in Zagreb and finally gave Croatia the stage to showcase their research and culture to the attendees. Additionally, we were especially happy to celebrate the 10th anniversary of the **EFMC Young** Medicinal Chemists' Symposium (EFMC YMCS 2023). What started as a promising concept on paper surpassed all our expectations and established itself as the key event for young researchers in Medicinal Chemistry and Chemical Biology.

Finally, EFMC is particularly proud to have successfully organised the 1st EFMC International Symposium on Chemical Biology (EFMC-ISCB 2023). Taking over the successful series launched by the NCCR Chemical Biology and partnering with the Swiss Chemical Society, we lived up to the challenge to continue the tradition of high scientific quality while ensuring a financially sustainable event, effectively paving the way for a returning series which will next take place on January 29-31, 2025, in Basel, Switzerland.

EFMC is most grateful to Prof. Karl Gademann & Dr Ingo Hartung (EFMC-ASMC 2023 Chairs), Prof. Maja Köhn & Dr Yves P. Auberson (EFMC-ISCB 2023 Chairs), Dr Dan Harki (MedChemFrontiers 2023 Chair), Dr Maja Beus & Dr Hrvoje Rimac (EFMC-YMCS 2023 Chairs), Prof. Alessio Ciulli & Prof. Suzanne O'Connor (Short Course Organisers), Laura Heitman (Short Course Local Organiser) as well as all the other committee members and members of the EFMC-Young Scientists Network for their continuous support.

2023 saw again the success of EFMC-YSN MedChemBio-Online, the now established series of webinars designed to provide students and early-career professionals with the knowledge and skills they need to excel in their fields.

Lastly, a new webinar series was successfully launched last November, the EFMC² Tandem Talks. Jointly organised by the EFMC and the EFMC Computational Chemistry Initiative (EFMC²), they are designed to give real life insights into how medicinal and computational chemists can drive projects together, with a balanced perspective from each side and meaningful case studies showing the essence of successful MedChem-CompChem interactions.



AN ALWAYS BROADER COMMUNITY...

The current situation in Ukraine and in Israel reminded us of the importance of a strong and connected community, and it is moved by this belief that EFMC engaged in several activities aiming at strengthening the links between European researchers, and with the world.

Firstly, I am proud to welcome two new adhering organisations in our Federation: the Lithuanian Chemical Society and the Spanish Chemical Biology Group of the Royal Spanish Society of Chemistry.

The EFMC continued its effort to gather medicinal chemists, chemical biologists, and computational chemists under one roof by encouraging initiatives aiming to showcase each community and their necessary interactions with each other, reinforcing our idea that all these fields are part of a continuum.

Finally, through our collaboration agreement with **Chemistry Europe**, we continuously aimed at increasing the visibility of ChemMedChem and ChemBioChem, establishing them as strong European journals in the field while bringing valuable additional benefits to readers, authors, and early-career researchers.

...CONTINUALLY REFLECTING ON THE CHALLENGES **OF TOMORROW...**

Again, the year which just passed reminded us that our future is full of challenges, and that scientists and investigators need to be appropriately tooled to overcome them; and deliver the bright future we are all aiming forward to.

In its endeavour to play a leading role in fostering new initiatives and activities to sustain global/European leadership in the MC/ CB arena, EFMC hosted another workshop gathering participants from the Executive Committee, Council, Advisory Board but also external researchers from the working groups or recent prize winners. Fruitful discussions and vivid brainstorming led to the creation of the afore mentioned working group around Sustainability in Medicinal Chemistry, while fostering more future activities around **expanding interactions between** industry and academia, improving success rate in drug discovery and development, influencing education and training programmes and going beyond computational chemistry.

Our Federation will continue promoting research at every level and encourage youngsters to embrace the way of science. Inside our community, with **symposia**, **courses** and **webinars**, as well as initiatives such as travel grants, mentoring pro**grammes**, the release of teaching material on **best practices** in medicinal chemistry or the recently created Publishing and **Reviewer Academies**, we are making sure to always have up-to-date researchers and qualified young investigators.

...WHILE REWARDING EXCELLENCE.

EFMC proudly announced the creation of the **EFMC-WuXi** AppTec Award for Excellence in Chemical Biology to recognise outstanding research in the field of chemical biology as defined by EFMC. The first awardee was Prof. Gonçalo Bernardes (University of Cambridge, UK & IMM Lisboa, PT), who received his diploma, 7.500€ and delivered at lecture at the EFMC-ISCB 2023.

Because it is important to continuously recognise excellence, in 2024, the EFMC will again confer three awards: The Nauta Pharmacochemistry Award for Medicinal Chemistry and Chemical Biology, the UCB-Ehrlich Award for Excellence in Medicinal Chemistry and the Prous <u>Institute - Overton and Meyer Award for New Technologies</u> in Drug Discovery.

We were also proud, once again, to welcome our partner prizes, the IUPAC-Richer Prize and the Klaus Grohe Prize, at the occasion of the XXVIII EFMC International Symposium on Medicinal Chemistry (EFMC-ISMC 2024) in Rome.

EFMC will continue conferring the **EFMC Prizes for Young** Medicinal Chemists or Chemical Biologist in Academia and Industry, to acknowledge the scientific accomplishments of established scientists or rising stars. The EFMC-YSN PhD Prize, now sponsored by Selvita, will reward excellence and accomplishment in postgraduate research, together with the returning Symeres PhD Prize for **Excellence in Chemistry in Life Sciences Research** which will offer an additional opportunity for talented young researcher to build a promising career.

We will furthermore continue providing updates on EFMC activities through our monthly newsletter **MedChemBioWatch**, via our social media and on our website.

Let me close by wishing you all the best for a healthy, successful, and happy 2024, both in your professional and personal life.

With my best personal regards,

Luc Van Hijfte

EFMC President





Reflections on 2021-2023

Dear colleagues,

I have had the honour and privilege to serve the European Federation for Medicinal chemistry and Chemical biology as President for the past three years, from 2021 to 2023. It was an honour to serve such a unique organisation that brings together scientists across Europe and beyond, that provides the most impactful platform for researchers, academics, and industry professionals to discuss advancements, challenges, and opportunities in medicinal chemistry and chemical biology. It was a privilege to be part of a fantastic team that actively contributed every day to the fulfilment of EFMC's mission.

On this occasion, I was asked to share with you some personal reflections on this period to highlight how EFMC has evolved to better serve the medicinal chemistry and chemical biology community.

BRINGING THE COMMUNITY TOGETHER

While the impact of the COVID-19 pandemic on scientific meetings was still felt in 2021, EFMC was able to organise the XXVI EFMC International Symposium on Medicinal Chemistry and the EFMC Young Medicinal Chemists' Symposium as virtual events, with minor presence onsite for the Award Ceremonies. The resilience shown by EFMC, with the support from the LDO team, set up the stage for the XXVII EFMC-ISMC in 2022, which took place in Nice. This was an outstanding event, scientifically and as a networking platform, highlighting the global recognition of EFMC-ISMCs as the most important international symposium combining medicinal chemistry and chemical biology. The scientific programme already available for EFMC-ISMC 2024 anticipates that this event in Rome will reach and even exceed the high-level standards we are used

The EFMC event portfolio evolved in our continuous effort to pull closer the various communities: The newly created EFMC International Symposium on Chemical Biology (EFMC-ISCB) was launched this year to further enforce the MedChemBio continuum. In addition, a new format for the joint EFMC-ACSMEDI Medicinal Chemistry Frontiers, now hosted annually in alternance between Europe and the United States.

Virtually, EFMC continued to address the need of our community for short webinars focused on pressing topics. MedChemBioOnline, launced by the EFMC Young Scientists Network (YSN), created a successful format mixing high-end scientific talks with down to earth soft-skill trainings or inspiring career discussions. Various topics were discussed, always at the forefront of current trends, rendered possible by the agility offered by virtual formats.

As mentioned higher up, pulling closer the various communities are cardinal goals of EFMC. Ensuring open, fruitful but also fair collaboration between partner organisations guided me in the many renewals of Memorandum of Understanding, expanding the level of interaction and allowing for an easier and more transparent reading of the dues and duties in the future.

INCREASING VISIBILITY AND IMPACT

A famous quote says that without archives, many stories would be lost, and with them, vital clues to allow us to reflect and interpret the present. What started with documenting our EFMC History for the past 50 years is now continuously nurtured by editorials and viewpoint articles by our most active working groups, covering not only scientific topics, but also the EFMC views on diversity and inclusiveness. I invite you all to read them, and even encourage you to contribute in the future.

These editionial activities have been implemented in close collaboration with the journals ChemMedChem and ChemBioChem, from Chemistry Europe. These are now the official journals of EFMC, thus offering our National Adhering Organisations and their members an exceptional platform to publish their best works.

RECOGNITION OF EXCELLENCE

Another key element for EFMC is to be able to thank and recognise scientific excellence and outstanding achievements. I am particularly proud to have supported the creation of the EFMC-WuXi AppTec Award for Excellence in Chemical Biology, taking its rightful place next to our already existing awards. I was also particularly happy to see the multiplication and increase in value of prizes aimed at PhD and Post-Doc researchers, allowing them to receive the financing and visibility that is often critically needed at their career stage.



FOSTERING THE TRAINING OF YOUNG SCIENTISTS

Fervent believer that training the next generation is key to success, the creation of a new certification process for schools was dear to my heart. The EFMC Certified Schools, aiming at recognising and supporting the valued European training programmes in medicinal chemistry, chemical biology and/or computational chemisatry while serving the community in finding excellence in training. I look forward for many more schools to join the EFMC certification or sponsorship programme in the future open calls, and I do hope it will also support the creation of new programmes covering geographical areas or research fields currently underrepresented.

SHAPING THE FUTURE

EFMC is a highly dynamic organisation that is continuously innovating the way it serves the community and fulfils its mission. To continue leading the medicinal chemistry and chemical biology arena at a global scale, EFMC needs a constant influx of novel ideas and enhanced creativity. A workshop, the third since 2013, brought together in Lisbon the Executive Committee and Council members, the Advisory Board, scientific leaders, and EFMC YSN representatives, to discuss the rapidly evolving medicinal chemistry and chemical biology landscape. This brainstorming event enabled EFMC not only to start novel initiatives, but also to devise efficient strategies to consolidate existing activities. Two of the major decisions taken were the creation of a working group to address the key issue of sustainability in medicinal chemistry, and the launch of EFMC² Tandem Talks as a new target goal to highlight successful collaborations between medicinal and computational chemists.

Overall, I have full confidence EFMC has a bright future ahead, as a cornerstone for scientific interactivity and excellence in medicinal chemistry and chemical biology. The engagement of the scientific community I witnessed in our events and activities shows that EFMC has a unique role in providing excellent opportunities for networking and scientific exchange, while giving the stage to new rising stars.

Finally, I would like to thank all colleagues and friends that were part of this journey, from the EC and Council members to the brilliant generation of young scientists represented by EFMC YSN. I will always remember the fruitful interactions with Yves Auberson. Luc van Hijfte, Antoni Torrens, Gianluca Sbardella and Anders Kárlen, that helped to better structure the decisiontaking management. I am also most grateful to Brieuc Matagne and the LDO team led by Ly Differding for their outstanding support during these three years. Importantly, our partners and sponsors need to be acknowledged for their involvement and collaboration with EFMC.

Now is time to wish Luc van Hijfte, an incredible team leader, all the best for is mandate as the next EFMC President.

Rui Moreira





Corporate Members

EFMC offers any company the opportunity to become an official Corporate Sponsor. Corporate membership will help the EFMC with its objective of advancing the science of medicinal chemistry and chemical biology and can be achieved by paying an annual fee of 2.250 € to the EFMC.

Companies interested in becoming a Corporate Member should contact the Administrative Secretariat at administration@ efmc.info.

CURRENT EFMC CORPORATE MEMBERS



































AWARDS & PRIZES SPONSORS

EFMC is thankful to the below organisations for helping in its mission to advance the science of medicinal chemistry and chemical biology in acknowledging and supporting excellence in the fields.















Executive Committee

The EFMC Executive Committee (EC) consists of seven members: the President, the President Elect or the Past President, the Secretary, the Treasurer and three additional members. All details about the election process can be found in the statutes of the EFMC on the EFMC official website: www.efmc.info



President **Dr Luc VAN HIJFTE** Symeres Kerkenbos 1013 6546 BB – Nijmegen, The Netherlands



Past President **Prof. Rui MOREIRA** University of Lisbon Av. Prof. Gama Pinto 1649-019 Lisbon, Portugal



Secretary **Prof. Gianluca SBARDELLA** University of Salerno Via Giovanni Paolo II. 132 84084 Fisciano (SA), Italy



Treasurer **Prof. Beatriz DE PASCUAL-TERESA CEU San Pablo University** Urb. Montepríncipe Ctra. Boadilla del Monte Km 5.3 28668 Madrid, Spain



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Prof. Christa MÜLLER University of Bonn Pharmazeutisches Institut An der Immenburg 4 53121 Bonn, Germany

Advisory Board

The Advisory Board is a consulting body for the EFMC Executive Committee (EC) and provides advice on EFMC's policies, strategies, and main initiatives. It is composed of well-recognised scientists in medicinal chemistry and chemical biology and is chaired by the EFMC Past-President.



Chair **Prof. Rui MOREIRA** University of Lisbon

To see the current and previous composition of the Advisory Board, please click here

Advisory Board Members

Maria Laura BOLOGNESI University of Bologna, Italy

Ingo HARTUNG Merck, Germany

Hermen OVERKLEEFT Leiden University, The Netherlands

Herbert WALDMANN

Max Planck Institute of Molecular Physiology, Germany





Council

The Council consists of the members of the EC and one delegate of each National Adhering Organisation. According to the statutes, updated on August 28, 2021, the voting rights are allotted according to the following rules:

- → members of the EC: 1 vote
- → countries with up to 99 members: 2 votes
- → countries with 100-199 members: 3 votes
- → countries with 200-399 members: 4 votes
- → countries with 400-599 members: 5 votes
- → countries with 600-899 members: 6 votes

- → countries with 900-1199 members: 7 votes
- → countries with 1200-1599 members: 8 votes
- → countries with 1600-1999 members: 9 votes
- → countries with 2000-2499 members: 10 votes
- → countries with 2500-2999 members: 11 votes
- → countries with more than 3000 members: 12 votes

As for countries with more than one Adhering Organisation, votes will be proportionally distributed among them, taking into account their respective memberships. The resulting number will be rounded off to the closest digit. In the distribution process, each NAO will receive at least one vote.

CURRENT COUNCIL MEMBERSHIP

Prof. Marko ANDERLUH

University of Ljubljana, Slovenia

Section for Medicinal Chemistry of the Slovenian Pharmaceutical Society

Prof. Zeynep ATES-ALAGOZ

Ankara University, Turkey

Turkish Association of Medicinal and Pharmaceutical Chemistry

Prof. Sergey BACHURIN

Institute of Physiologically Active Compounds, Russia

The D.I. Mendeleev Russian Chemical Society, Medicinal **Chemistry Section**

Dr Jose Manuel BARTOLOME

Johnson & Johnson Pharmaceutical R&D, Spain

Sociedad Española de Química Terapéutica

Dr Tilly BINGHAM

Cumulus Oncology, United Kingdom

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Division of Medicinal Chemistry of the Italian Chemical Society (DCF-SCI)

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University of Manchester, United Kingdom

Society for Medicines Research

Prof. Rasmus Praetorius CLAUSEN

University of Copenhagen, Denmark

The Danish Society for Medicinal Chemistry and Chemical Biology

Prof. Bernd CLEMENT

Universität Kiel. Germanv

German Pharmaceutical Society, Section of Pharmaceutical/ Medicinal Chemistry

Prof. Iwan DE ESCH

VU University Amsterdam, The Netherlands

Division Medicinal Chemistry & Chemical Biology, Royal Netherlands Chemical Society (KNCV-MCCB)

Prof. Beatriz DE PASCUAL-TERESA

Universidad San Pablo CEU, Spain

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Société de Chimie Thérapeutique (SCT)

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Vilnius University, Lithuania

Lithuanian Chemical Society

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Société Royale de Chimie (SRC), Medicinal Chemistry Division



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Croatian Chemical Society, Croatia

Croatian Chemical Society, Section of Medicinal/ Pharmaceutical Chemistry

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UCB Pharma, Belaium

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Organization Pharmaceutical Research Institute

Prof. Thierry LANGER

University of Vienna, Austria

Austrian Chemical Society, Medicinal Chemistry Section

Dr Nir LONDON

The Weizmann Institute of Science, Israel

The Medicinal Chemistry Section of the Israel Chemical Society

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EFMC Executive Committee

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Serbian Chemical Society, Division of Medicinal Chemistry

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University of Eastern Finland, Finland

Finnish Pharmaceutical Society

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Symeres, The Netherlands

EFMC Executive Committee

Dr Boris VAUZEILLES

CNRS, France

Chemical Biology group of the French Chemical Society (SCF-ChemBio)





Sustainability Initiative

There is a growing concern that an important proportion the current drugs / API's either as such, or as their transformation products, are largely abundant in the environment, leading to an impact on human and environmental health. This is leading to quite a number of reflections on how to design greener API's, varying from "benign by design" principles to bluntly banning a number of reagents from the pool of building blocks.

The EFMC wants to keep abreast of the developments in the field, and seek to influence the decisions in this area, ensuring critical drugs still make it to the market in a timely fashion. We do believe the EFMC can be instrumental in bringing together pharmaceutical companies, authorities, and academia to establish appropriate "benign by design" principles based on optimal environmental parameters.

The working group is currently being constituted. Once established we will refine the objectives and scope of the initiative, with a number of well-defined actions.



Chemical Biology Initiative

Chemical Biology is an essential part of EFMC's activities and events, as attested not only by the fact that this interdisciplinary field is present since many years in all EFMC events, but also by the recent organisation of the EFMC International Symposium of Chemical Biology (EFMC-ISCB2023) which took place in Basel in November (efmc-iscb.org). The Chemical Biology Initiative, created at the end of 2020, is a working group currently composed of 14 members from both industry and academia across Europe and supports the chemical biology activities within EFMC.

This goal is achieved through different actions such as:

- → Increasing the **cooperation** with chemical biology groups not yet member of EFMC
- → Increasing **communication** in the field of chemical biology
- → Supporting the collaboration between EFMC and **Chemistry Europe**
- → Improving the cooperation between the **industrial** and **academic** sectors

During 2023, our working group discussed with representatives of chemical biology groups across Europe to better understand their interests and initiate new cooperations. The main aim is to improve inclusion and representativity of EFMC for the entire chemical biology community. Communication was also increased through participation to MedChemBioWatch publication and the organisation of online seminars. Amongst others, in 2023 the working group participated in the organisation of joint virtual symposium with ChemBioChem. We also supported EFMC in the organisation of EFMC-ISCB 2023 and in the creation of the new **EFMC-WuXi AppTech Award for Excellence in** Chemical Biology. In 2024, we plan to pursue these activities and initiate new ones. Specific contributions will be published in the MedChemBioWatch newsletter. In the context of the collaboration between EFMC and Chemistry Europe, ChemBioChem and ChemMedChem became the official journals of EFMC. The working group is contributing to this collaboration with the preparation of two special collections, one about mutually rewarding academia-industry collaborations in chemical biology and one about advances in chemical probing concepts for chemical biology applications.

Throughout all these activities and thanks to the broad composition of the working group (https://www.efmc.info/ chemical-biology-initiative), the needs and major chal-

lenges of industrial chemical biology and new possibilities of collaboration with academia are continuously discussed. This contributes to finding a common language that should help the scientific community to better communicate and further cooperate. Altogether, these activities also help to identify which are the scientific locks that the community needs to overcome to move the field forward and enable new major discoveries such as the one rewarded by the 2022 Chemistry Nobel Prize for the development of click chemistry and biorthogonal chemistry, which are among the pillars of current chemical biology. We indeed hope that promotion of chemical biology, communication, good representation, and support of the scientific community will help future developments and progresses.

CURRENT MEMBERSHIP

Uwe GRETHER (chair)

Roche, Switzerland

Yves AUBERSON

Novartis. Switzerland

Paola ARIMONDO

Institut Pasteur, France

Maria DUCA

University of Côte d'Azur, France

Sebastian ESSIG

Bayer, Germany

Dennis GILLINGHAM

University of Basel, Switzerland

Sean MCKENNA

Trinity College Dublin, Ireland

Christian Adam OLSEN

University of Copenhagen, Denmark

Arne RUFER

Roche, Switzerland

Gianluca SBARDELLA

University of Salerno, Italy

Ulrich SCHOPFER

Novartis, Switzerland

Mario VAN DER STELT

University of Leiden, The Netherlands

Boris VAUZEILLES

Institut de Chimie des Substances Naturelles (ICSN),

France

Olalla VAZQUEZ

Marburg University, Germany

Andrew ZHANG

AstraZeneca, United States





Best Practices

Are you looking for courses on drug discovery? Are you looking to create teaching material in Medicinal Chemistry? Are there important trends or new technologies you may have missed?

Our group is creating open access educational content on Best Practices in Medicinal Chemistry to help answer these questions. We use the literature as well as collective knowledge and experience. The main target audience are students and early career practitioners, but we hope it will also be valuable for experienced scientists.

Our first 3 sets of Best Practices focused on the early phase of drug discovery: Validating Chemical Probes, Hit Generation and Phenotypic Drug Discovery.

The material is available in several formats: webinars on the EFMC YouTube channel, educational slide decks and case studies: Best Practices in Medicinal Chemistry (EFMC Working Group). These are freely accessible for personal use or to create further training or teaching material.

We are now continuing with **Hit to Lead Optimization** as the next phase in drug discovery. We also decided to create a set on Proteolysis-targeting Chimera (PROTAC) as this topic is of rising interest in the community. **Rob Young** (Blue Burgundy, former GSK) and Kurt Ritter (University of Tübingen, former Sanofi) have joined the group and are leading the creation of these topics. If you're also interested in contributing with your experience and expertise in a specific area, please reach out to us.

We also would love to hear your feedback on the already existing content and on how you use the material: administration@efmc.info

CURRENT MEMBERSHIP

Jean QUANCARD (Chair)

Novartis, Switzerland

Anders BACH

University of Copenhagen, Denmark

Chiara BORSARI

University of Milan, Italy

Russell CRAFT

Symeres, The Netherlands

Brian COX

University of Sussex, United Kingdom

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Stéphanie GUÉRET

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Janssen, Belgium

Josef MESSINGER

Orion Pharma, Finland

Ross MCLENNAN

University of Dundee, United Kingdom

Kurt RITTER

University of Tübingen, Germany

Gianluca SBARDELLA

University of Salerno, Italy

Andrea UNZUE LOPEZ

Merck, Germany

Rob YOUNG

Blue Burgundy, United Kingdom



EFMC²

The EFMC² - Computational Chemistry Initiative aims to strengthen the EFMC modelling/digital/informatics community, advocate on digital techniques across Europe and connect Industry & Academia.

Within medicinal chemistry and chemical biology, EFMC² works towards better defining the scope of computational chemistry, better uniting the various communities, and facilitating the evolution of this scientific discipline.

With our series of **EFMC² Tandem Talks**, we will share real life insights into how medicinal and computational chemists can drive projects together, with case studies and round table discussions on what makes the essence of successful MedChem-CompChem interactions. The ample opportunity to engage and discuss with our speakers sets these webinars apart. Register and learn not only about great science but also which ways of collaborating were key to success.

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AstraZeneca, Sweden





ACSMEDI - EFMC Medicinal Chemistry Frontiers 2023 - Report

The ACSMEDI - EFMC Medicinal Chemistry Frontiers 2023 Symposium was held in Boston, MA, from June 10-13, 2023 and included 9 different sessions covering a selection of vital topics in medicinal chemistry.

The subjects discussed ranged from approaches in organic synthesis for drug discovery, chemical modulation of RNA and GPCR signalling to the development of probes for chemical biology research and approaches for hit identification. The conference also covered the advances in proximity-inducing modalities and targeted protein degradation and overall highlighted the leaps made in drug discovery and their importance in developing the next generation of therapeutics.

Over 375 participants, 36% of which being from Europe, gathered at Boston University for a truly exciting event, which featured several distinguished scientists who delivered inspiring talks, encouraged fruitful discussions, and highlighted the importance of interdisciplinary collaboration.

The scientific programme provided the attendees with a broader perspective on the challenges faced by medicinal chemists, which will undoubtedly contribute to their own research projects. Among the highlight for the conference were the plenary lectures by **Prof. Craig Crews** (Yale University, US) on RIPTACs: A New 'Hold and Kill'-based Therapeutic Modality; Prof. Laura Kiessling (MIT, US) on Carbohydrates in Health and Disease and Dr Klaus Urbahns (EMD Serono, US) on Medicinal Chemistry of the Future: Trends, Targets and Technologies.

In addition, a poster session of 105 posters allowed fruitful exchanges between the participants, who could present their research to peers in a relaxed and informal atmosphere.

The EFMC Young Scientists Network and ACSMEDI Young Medicinal Chemists Committee organised a series of networking activities to facilitate the exchanges between students and early career researchers, especially those for whom attending a conference abroad was a first experience. The programme was completed by a round table discussion on the tips to "Getting a Job in Industry", with panellists from US and Europe sharing their experience to an eager audience.

Finally, the conference was also the occasion to meet more informally during the social programme, whether it was during the welcome reception, at the conference dinner in the beautiful restaurant Rochambeau, or during a Boston Red Sox baseball game!

We invite you all to the next edition of the meeting, scheduled to take place in Utrecht, The Netherlands on April 8-14, 2023.



PLENARY LECTURES



Dr Hayley BINCH F. Hoffmann-La Roche, Switzerland



Prof. Stephen W. FESIK *Vanderbilt University, United States*



Dr Mark MURCKODewpoint Therapeutics, United States

DEADLINES

ORAL COMMUNICATIONS, FREE POSTERS & EARLY-BIRD REGISTRATION JANUARY 25, 2024

POSTER SUBMISSIONS (FEE OF EUR 50,00) JANUARY 25 - FEBRUARY 22, 2024

SESSIONS AND SESSION COORDINATORS

NEW CHEMISTRIES FOR THE PREPARATION OF DNA-ENCODED LIBRARIES Prof. Daniel HARKI (University of Minnesota, US)

ADVANCES IN LINKEROLOGY

Dr Carolyn DZIERBA (Bristol-Myers Squibb, US)

RECENT ADVANCES IN NEURODEGENERATIVE DISEASES

Dr Luc VAN HIJFTE (Symeres, NL)

FRAGMENT BASED DRUG DISCOVERY

Dr Gregg SIEGAL (ZoBio BV, NL)

PROTEIN-PROTEIN INTERACTIONS

Prof. Terry MOORE (University of Illinois, US)

EMERGING SYNTHETIC METHODOLOGIES

Prof. Iwan DE ESCH (Vrije Universiteit Amsterdam, NL)

TARGETING IMMUNE CHECKPOINTS WITH SMALL MOLECULES

Prof. Eddy SOTELO PÉREZ (Universidade de Santiago de Compostela, ES)

FROM RNA TARGETING TO DEGRADERS AND BEYOND: IMPACT OF NOVEL MODALITIES ON CLINICAL PIPELINES

Dr Antonia F. STEPAN (F. Hoffmann-La Roche Ltd, CH)

A FOCUS ON EARLY CAREER INVESTIGATORS

Dr Rita PETRACCA (Utrecht University, NL)

Among the above session topics, 18 Oral Communications will be selected.

EFMC | ACSMEDI Medicinal Chemistry Frontiers 2024 Secretariat

LD ORGANISATION SRL

Scientific Conference Producers

Rue Michel de Ghelderode 33/2 1348 Louvain-la-Neuve, Belgium Tel: +32 10 45 47 77 Fax: +32 10 45 97 19

Mail: secretariat@ldorganisation.com Web: www.medchemfrontiers.org







EFMC Young Scientists Network

This year again, the **EFMC Young Scientist Network** (EFMC-YSN) worked hard to promote the development of early career medicinal chemists and chemical biologists in Europe.

One of its major activities was the organisation of four new editions of the MedChemBioOnline webinars, offering the opportunity to everyone to listen to outstanding scientists and expand their knowledge while connecting with a global community of young scientists who share the same interests and goals. The themes were again diverse and gathered each time hundreds of attendees. The webinars will come back in 2024 and we invite you to regularly browse www.efmc.info/efmc-ysn-medchembioonline for updated information.

The EFMC-YSN collaborated with Chemistry Europe to tackle other needs of young researchers: the **EFMC-YSN** Publishing Academy covered topics on writing, publishing, and general communication that will be helpful for early-career researchers while the EFMC-YSN Reviewer **Academy** aimed to teach best practices in peer review, especially for early-career researchers. Both programmes will resume in 2024.

Prizes and funding opportunities were also showcased over the year. First, the fourth edition of the **EFMC-YSN** PhD Prize recognised excellence and accomplishment in postgraduate research while the The Symeres PhD prize for Excellence in Chemistry in Life Sciences **Research** added another opportunity for researchers to get recognised.

The call for the 2024 edition of the EFMC-YSN PhD Prize, sponsored by Selvita, is already open and more information can be found here: www.efmc.info/ysn-phd-prize.

Several Grants were also attributed to facilitate the attendance of one researcher at the 17th Short Course on Medicinal Chemistry, three at ACSMEDI-EFMC Medicinal Chemistry Frontiers 2023, nine at EFMC International Symposium on Advances in Synthetic and Medicinal Chemistry (EFMC-ASMC 2023) & EFMC Young Medicinal Chemists' Symposium (EFMC-YMCS 2023) and four at EFMC International Symposium on Chemical Biology (EFMC-ISCB 2023). Additionally, the EFMC-YSN partnered with the Young Medicinal Chemists Committee of ACS MEDI to finance two 1500€ grants to support the participation of young researchers to attend transatlantic conferences and offer them the opportunity to broaden their network outside the national-regional scope.

The successful **mentoring programme** returned for a third edition, connecting 30 motivated students (up to 18 months before the end PhD) and Post-docs with high-profile mentors to support their transition into the job market by providing return of experience, soft-skill training, and overall guidance.

Finally, one of the biggest challenges of the year was establishing connections with existing young MedChem groups to pave the way to a Young Scientists Network Council. A thorough search found twelves groups who very approached and everyone recently gathered for an introductory e-meeting to discuss future interactions.

Interested in learning more about the EFMC-YSN activities? Visit www.efmc.info/ysn.

EFMC COMMUNICATION TEAM

Managed by the same young and motivated scientists hiding behind the EFMC Young Scientists Network, the EFMC Communication Team aims at developing the brand awareness and recognition of EFMC, using social media and diverse public activities. If you are interested to join, simply reach out to <u>communication@efmc.info</u>.

The team focused its efforts in sharing important news as well as lighter messages on the various social media of the EFMC: LinkedIn, X (@EuroMedChem), Facebook and Instagram. We invite all of those who are not yet following us to do so quickly, this is the place to be!

The team also continued the series of **interviews** - now rebranded into MedChemBioConversations - of Medicinal Chemists, Chemical Biologists, and recently added Computational Chemists, to share their stories and views on the future of their research field. These portraits aim to show all the various faces behind our community and can be seen on www.efmc.info/interviews-efmc.

Finally, we want to thank Matic Proj for his valuable contribution within the EFMC-YSN and Communication Team. We wish him all the best in his future career!



MEET THE TEAM



Nadia AHMAD Charles River, United Kingdom



Piia BARTOS University of Eastern Finland, Finland



Mathilda BINGHAM Cumulus Oncology, United Kingdom (EC Sponsor)



Chiara BORSARI University of Milan, Italy



Laia JOSA-CULLERE Institute for Advanced Chemistry of Catalonia (IQAC-CSIC), Spain



Etienne J. DONCKELE Monte Rosa Therapeutics, Switzerland



Kristina GONCHARENKO Zifo RnD Solutions, Switzerland



Caroline LANTHIER University of Antwerp, Belgium



Michele MARI University of Urbino Carlo Bo, Italy



Brieuc MATAGNE EFMC & LD Organisation, Belgium



Sean MCKENNA Trinity College Dublin, Ireland



Filipa RAMILO GOMES F. Hoffmann-La Roche, Portugal



Clemens ZWERGEL Sapienza University of Rome, Italy





MedChemBioWatch

MedChemBioWatch is the official monthly e-newsletter of the EFMC, providing readers with updates on the activities of the EFMC, its committees and working groups, literature spotlights, news from the National Adhering Organisations and partners; with information on EFMC meetings and supported events and with job opportunities published on the EFMC Job Portal.

Eager to provide enrichened content, the Editorial Committee always welcomes suggestions and ideas from the community and invites all readers to send feedback to <u>administration@efmc.info</u>.

EDITORIAL COMMITTEE

Nadia AHMAD **Brieuc MATAGNE** Charles River, United Kingdom EFMC, Belgium

Website

The EFMC website (www.efmc.info) is the one-stop-shop to learn about all the activities of the European Federation for Medicinal chemistry and Chemical biology, and of its National Adhering Organisations.

Whether you want to read the latest news or learn about the recent activities, learn more about the EFMC and its committees, consult the job portal, apply for a grant or submit a nomination for an award or a prize, the EFMC website will allow you to easily find the required information.

The website also lists all the EFMC organised, sponsored and certified events, as well as the meetings from National Adhering Organisations and other partners. The regularly updated meeting calendar is thus the perfect tool to rapidly find the most important meetings related to Medicinal Chemistry and Chemical Biology.

Finally, the website provides a platform where recruiting companies and institutions can post their job offer or available PhD/ Post-Doc positions.

ChemMedChem & ChemBioChem

THE OFFICIAL JOURNALS OF THE EFMC

ChemMedChem publishes high-impact articles on medicinal chemistry and drug discovery, from small molecules to new modalities. ChemBioChem showcases vital ground-breaking science combining chemistry and biology across the world. Submit your next Research Article or propose Reviews and Perspectives.

<u>www.chemmedchem.org</u> – <u>chemmedchem@chemistry-europe.org</u> www.chembiochem.org - chembiochem@chemistry-europe.org

Social Media

FOLLOW THE EFMC ON SOCIAL MEDIA









FOLLOW THE EFMC YOUNG SCIENTISTS NETWORK ON SOCIAL MEDIA





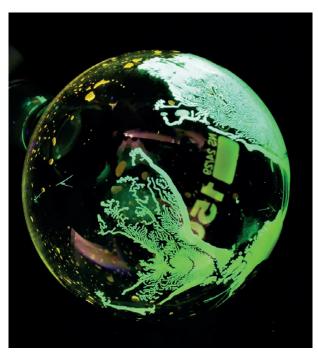




The theme for this 2023 edition was "Illuminating Reality", inviting researchers of all levels and affiliations to illustrate how their daily work or research projects shed light on different aspects of reality within the fields of Medicinal Chemistry, Chemical Biology or Computational Chemistry.

Over fifteen candidates accepted the challenge, presenting their pictures for public voting. The submissions follow a two-tier selection process: an initial online voting phase followed by an exhibition at the IX EFMC International Symposium on Advances in Synthetic and Medicinal Chemistry (EFMC-ASMC 2023). Attendees of the conference were invited to visit the EFMC Lounge and had the opportunity to vote for their favourite entry.

CONGRATULATIONS TO THE WINNER WHO RECEIVED THE MOST VOTES:



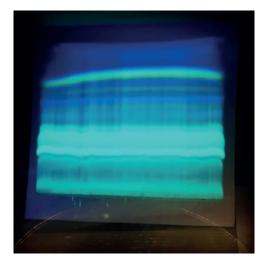
Chemical Symphony: A Vivid Glimpse into the Microcosmos

Exequiel Porta (Durham University, United Kingdom)

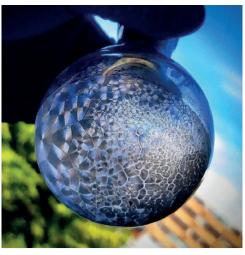
Congratulations to them and to all participants who contributed to our annual competition. To find all the entries, please visit our gallery.

Looking ahead to 2024? Stay tuned by visiting www. efmc.info/photocompetition for the latest updates and announcements.

ACKNOWLEDGMENT ALSO GOES TO THE TWO RUNNERS-UP:



Fifty Shades of Fluorescence Luce Mattio (Istituto Italiano di Tecnologia, Italy)



Land and Sky **Luke Damerum** (University of Nottingham, United Kingdom)





EFMC-ASMC 2023 - Report

The IX EFMC International Symposium on Advances in Synthetic and Medicinal Chemistry (EFMC-ASMC 2023) took place on September 3-7, 2023 in Zagreb, Croatia.

Over 550 international scientists gathered to listen to the cutting-edge science presented by the 30 invited speakers, 11 oral communications and 369 poster presenters over the five days of the conference.

Split into seven sessions, the programme of the event covered the most recent advances in new synthetic methodologies, total synthesis, chemical biology, process and medicinal chemistry, as well as automation & Al approaches in synthesis and drug discovery.

The opening ceremony was led by the symposium chairs, **Prof. Karl Gademann** (University of Zürich, Switzerland) and Dr Ingo Hartung (Merck, Germany), the EFMC President, Prof. Rui Moreira (University of Lisbon, Portugal) and the Representative of the Medicinal & Pharmaceutical Chemistry Section of the Croatian Chemical Society, Dr Vesna Gabelica Markovic. The ceremony was followed by an inspiring lecture by Prof. Jeffrey Bode (ETH Zurich, Switzerland) on "Synthetic and Medicinal Chemistry for Biologics" and a welcome reception gathering all participants in an informal atmosphere.

Over the course of the event, participants attended a busy programme of talks equally selected from industry and academia, one first-time disclosure, the lectures of the EFMC Prize for a Young Medicinal Chemist or Chemical Biologist in Academia and in Industry, as well as three poster sessions. Among the posters presented, one grant prize was awarded by the EFMC, and four runners-up were awarded an EFMC Best Poster Prize, sponsored by Chemistry Europe. Five young scientists were also awarded a free subscription to the event by the EFMC.

Amongst many highlights of the programme were the prize lectures by Prof. Georg Winter (Research Center for Molecular Medicine of the Austrian Academy of Sciences, Austria) and Dr Teresa De Haro Garcia (UCB, Belgium), the Chemistry Europe Lecture of **Prof. Nuno Maulide** (University of Vienna, Austria), the RSC Medicinal Chemistry Lectureship given by Prof. Christoph Nitsche (Australian National University, Australia) and Boehringer Ingelheim's first-time disclosure about the "Discovery of the clinical candidate BI 1810631 (Zongertinib), a Selective HER2 Inhibitor for the Treatment of HER2 Exon 20 Insertion Driven Tumors". The closing lecture was delivered by Prof. Ryan Shenvi (Scripps Research, United States).

Several networking opportunities were offered, and 22 exhibitors, to whom we are thankful for their support. To conclude the event in style, a conference dinner was hosted at "Heart by Lido", a magnificent glass hall with view of Lake Jarun and surrounded by greenery.

We would like to thank again all our committee members, speakers, sponsors, exhibitors, and of course participants for their support – and we look forward to warmly meeting you all in **Porto, Portugal** for the X EFMC International Symposium on Advances in Synthetic and Medicinal Chemistry (EFMC-ASMC 2025), which will take place on August 31-September 4, 2025.





EFMC-ISCB 2023 - Report

The first edition of the EFMC International Symposium on Chemical Biology (EFMC-ISCB 2023), which took place in Basel, Switzerland on November 16-18, 2023, met its goal of taking over the series launched by the NCCR Chemical Biology and continuing a successful international event thanks to the joint efforts of the Swiss Chemical Society, Division for Medicinal Chemistry & Chemical Biology (DMCCB) and a dedicated International Organising Committee.



Over 285 international scientists, representing 33 nationalities, gathered to listen to the cutting-edge science presented by the 26 invited speakers, 8 oral communications, and 100+ poster presenters over the three days of the conference.

The opening ceremony was led by the symposium chairs **Prof. Maja Köhn** (University of Freiburg, Germany) and **Dr Yves** P. Auberson (Novartis, Switzerland). The ceremony was followed by an inspiring lecture by Dr John Tallarico (Novartis, United States) on "Moving Undruggable Discoveries into the Drug Discovery Pipeline with Chemical Biology".

Over the course of the event, participants attended a busy programme of nine sessions, among those two sessions by the EFMC Partners: the International Chemical Biology Society (ICBS) and the Division of Chemistry in Life Sciences (LS-EuChemS), as well as the EFMC-WuXi AppTec Award for Excellence in Chemical Biology session. Poster presenters shared their research during two dedicated poster sessions. Among the posters presented, two were awarded an EFMC-ICBS Best Poster Prize and four received a poster prize funded by Chemistry Europe. Four young scientists were also awarded a free registration to the event through the EFMC Grant programme.

Amongst many highlights of the programme were keynote lectures by Prof. Claudia Höbartner (University of Würzburg, Germany) and Prof. Thomas Carell (Ludwig-Maximilians-University, Germany). The closing lecture was delivered by Prof. Gonçalo Bernardes (University of Cambridge, UK & IMM Lisboa, PT), winner of the EFMC-WuXi AppTec Award for Excellence in Chemical Biology.

Several networking opportunities were offered: a welcome reception gathering all participants in an informal atmosphere and a conference dinner, hosted at the "Schützenhaus", one of the region's most tradition-rich restaurants where Basel hospitality and gastronomy were served to the guests.

We would like to thank all our committee members, speakers, sponsors, exhibitors, and of course participants for their support, and we look forward to warmly meeting you all again in **Basel, Switzerland** for the II EFMC International Symposium on Chemical Biology (EFMC-ISCB 2025), which will take place on January 29-31, 2025.







EFMC Short Course 2023 - Report

The 17th edition of the EFMC Short Course, themed around "Small Molecule Protein Degraders: A New **Opportunity for Drug Design and Development**", took place in the picturesque setting of Castle Oud-Poelgeest, in the Netherlands on April 23-26, 2023. Thirty-four enthusiastic participants engaged in this intensive course.

With Prof. Alessio Ciulli (University of Dundee, United Kingdom) and Dr Suzanne O'Connor (University of Dundee, United Kingdom) as organisers, the course gathered four eminent speakers. Over two and a half days, Dr Chun-wa Chung (GlaxoSmithKline, United Kingdom), Dr Ingo Hartung (Merck Healthcare, Germany), Dr Andrea Testa (Amphista Therapeutics, United Kingdom) and Dr Danette Daniels (Foghorn Therapeutics, United States) followed one another to present their research on Small Molecule Protein Degraders.

Participants feedback echoed a great appreciation, highlighting the presentations for their engaging style with a significant part for questions and interactions between the speaker and the audience. The course garnered an average rating of 4,47/5. Beyond the academic depth, the

event's ambiance was enriched by the captivating venue. Attendees shared appreciation of their stay at the castle nestled in the city of Leiden. To foster networking, a social programme included a dinner on Sunday, April 23 and a vivifying walking tour through Leiden on Monday, April 24. Evenings were animated by convivial gatherings at the Castle Bar where participants were invited to exchange and share moments together.

Would you like to attend the next edition? The 18th EFMC Short Course will be organised by Prof. Mike Waring (Newcastle University, United Kingdom) and Dr Hannah Stewart (Newcastle University, United Kingdom), supported by the Local Organiser, Prof. Laura Heitman (University of Leiden, the Netherlands). The course will focus on "Transformative Approaches in Medicinal Chemistry, with Applications in Cancer Research" and will be held in Oegstgeest, the Netherlands, on April 21-24, 2024.

More info on

www.efmcshortcourses.org



18th EFMC Short Course on Medicinal Chemistry

TRANSFORMATIVE APPROACHES IN MEDICINAL CHEMISTRY, WITH APPLICATIONS IN CANCER RESEARCH

April 21-24, 2024 Oegstgeest, The Netherlands

Scope

This intensive course is intended for scientists working in the field, and the presentations will be given by senior scientists from industry and academia. The number of participants is limited to 35, to allow in depth discussion.

Course Outline

Technologies for drug discovery are constantly evolving. Significant developments within the last 20 years range from the development of DNA-encoded libraries for hit finding and even hit-to-lead optimisation to the reinvigoration of irreversible inhibitors resulting in innovative oncology drugs such as osimertinib and sotorasib.

This course will cover advanced methods, new technologies and tools available for medicinal chemists, with a focus on oncology drug discovery, including fragment based-drug discovery, DNA-encoded library technologies, covalent drug discovery and small molecules that target RNA. The course will finish with a series of oncology case studies successfully utilising these drug discovery technologies for the development of clinical candidates and marketed drugs.

Confirmed Speakers

Dr Frederic BERST (Novartis, CH)

Dr Gerjan DE BRUIN (Acerta Pharma, NL)

Dr Maria DUCA (University of Côte d'Azur, FR)

Dr Christoph DUMELIN (Novartis, CH)

Dr Christopher JOHNSON (Astex Pharmaceuticals, UK)

Dr Hannah STEWART (Newcastle University UK)

Prof. Mike WARING
(Newcastle University UK

Course Organisers

Dr Hannah STEWART

Prof. Mike WARING (Newcastle University, UK,

Local Organiser

Prof. Laura HEITMAN (University of Leiden, NL)







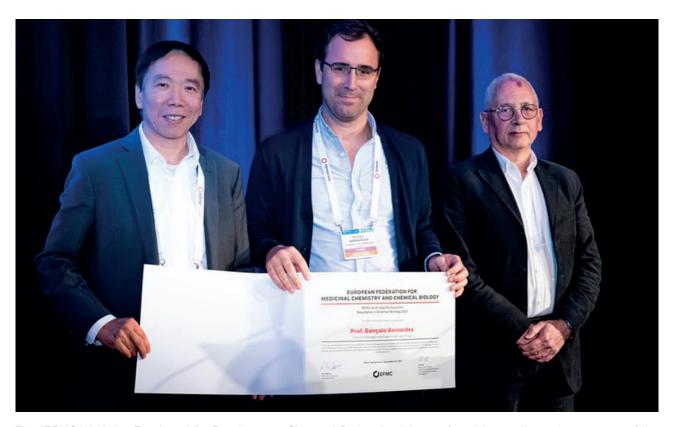
EFMC Awards 2023 - Ceremony

The first edition of the "EFMC-WuXi AppTec Award for Excellence in Chemical Biology" took place in 2023, to recognise outstanding research in the field of chemical biology as defined by EFMC in The Chemical Biology-Medicinal Chemistry Continuum: EFMC's Vision, ChemBioChem 2021, 22, 2823–2825.

The award has been conferred at the occasion of the EFMC International Chemical Biology Symposium (EFMC-ISCB 2023), which took place in Basel, Switzerland on November 16-18, 2023.

Prof. Gonçalo Bernardes (University of Cambridge, United Kingdom & IMM Lisboa, Portugal) was recognised for for his ground-breaking contributions to the field of chemical biology and cancer biology with meCLICK-Seq, a substrate-hijacking and RNA degradation strategy for the study of RNA methylation, and small molecules that are efficacious in vivo using platinum activators. His innovative research pursues key questions in chemistry and molecular medicine by using innovative strategies that bridge disciplines and inspire the programmes of other researchers.

He received his award from Prof. Rui Moreira (EFMC President) and Dr Tao Guo (WuXi AppTec), before delivering a lecture entitled Translational Chemical Biology.



The "EFMC-WuXi AppTec Award for Excellence in Chemical Biology" will be conferred biennially on the occasion of the **EFMC International Symposium on Chemical Biology** (EFMC-ISCB).

More information about the call for nominations can be found on www.efmc.info/awards.



Call for Nominations Deadline: January 31, 2024

The awards will be conferred on the occasion of the XXVIII EFMC International Symposium on Medicinal Chemistry (EFMC-ISMC 2024) to be held in Rome, Italy on September 1-5, 2024.

THE NAUTA PHARMACOCHEMISTRY AWARD FOR MEDICINAL CHEMISTRY AND CHEMICAL BIOLOGY

For outstanding achievements in scientific research, together with a contribution to the development of international organizational structures in Medicinal Chemistry and Chemical Biology.

THE UCB-EHRLICH AWARD FOR EXCELLENCE IN MEDICINAL CHEMISTRY

To acknowledge and recognize outstanding research in the field of Medicinal Chemistry in its broadest sense by a young scientist. This Award has been established with the support of UCB Pharma.

THE PROUS INSTITUTE-OVERTON AND MEYER AWARD FOR NEW TECHNOLOGIES IN DRUG DISCOVERY

To encourage innovation and investigation in technological development related to drug discovery, this Award established with the support of Prous Institute will be given for the discovery, evaluation or use of new technologies.

Nominations for these Awards consist of a nomination letter, a brief CV, including a list of selected publications and two supporting letters. Self-nomination are also accepted. The nominations should be submitted to Dr Luc Van Hijfte, President of the EFMC, via the EFMC website (www.efmc.info/awards).







EFMC Prizes 2023

EFMC PRIZES FOR A YOUNG MEDICINAL CHEMIST OR CHEMICAL BIOLOGIST IN ACADEMIA/INDUSTRY

The EFMC Prize for a Young Medicinal Chemist or Chemical Biologist in Academia and the EFMC Prize for a Young Medicinal Chemist or Chemical Biologist in Industry have been established by the European Federation for Medicinal chemistry and Chemical biology to acknowledge and recognise an outstanding young medicinal chemist or chemical biologist working in academia or in industry within Europe. The prizes are given annually and consist of a diploma, €1.000 and an invitation for a short presentation at an EFMC Symposium. Two nominees are also identified and acknowledged.



The selection committee designated Dr Georg Winter (Research Center for Molecular Medicine of the Austrian Academy of Sciences, Austria) as the winner of the 2023 EFMC Prize for a Young Medicinal Chemist or Chemical Biologist in Academia.

Dr Marco Di Antonio (Imperial College London, United Kingdom) and Dr Valle Palomo (IMDEA Nanociencia, Spain) have been recognised as the most meritorious runners-up.



Dr Teresa De Haro Garcia (UCB, Belgium) won the 2023 EFMC Prize for a Young Medicinal Chemist or Chemical Biologist in Industry

Dr Jean Baptise Langlois (Novartis, Switzerland) and Dr Afjal Miah (GlaxoSmithKline, United Kingdom) have been recognised as the most meritorious runners-up.

The 2023 Prize ceremony has been hosted at the occasion of the IX EFMC International Symposium on Advances in Synthetic and Medicinal Chemistry (EFMC-ASMC 2023), which took place in Zagreb, Croatia on September 3-7, 2023.

More information about the call for 2024 Prizes

is available on www.efmc.info/prizes.

EFMC-YSN PHD PRIZE

The EFMC-YSN PhD Prize, created in 2020 as an initiative of the EFMC Young Scientists Network to recognise excellence and merits at the early stage, was again awarded in 2023.



The selection committee designated Zuzanna Kozicka (Friedrich Miescher Institute for Biomedical Research (University of Basel), Switzerland) as the winner of the 2023 EFMC-YSN PhD Prize.

Margarida Espadinha (University of Antwerp, Belgium) has been designated as the most meritorious runner-up.

The Prize ceremony was hosted during the EFMC Young Medicinal Chemists' Symposium (EFMC-YMCS 2023), which took place in Zagreb, Croatia on September 7-8, 2023.

More information about the 2024 EFMC-YSN PhD Prize, sponsored by Selvita is available on www.efmc.info/ysn-phd-prize.



FOR A YOUNG MEDICINAL CHEMIST OR CHEMICAL BIOLOGIST IN ACADEMIA

To acknowledge and recognize an outstanding young medicinal chemist or chemical biologist working in Academia within Europe.

The **Prize** is given annually to a young medicinal or chemical biologist (≤ 12 years after PhD), and consists of a diploma, €1.000 and an invitation to give a short presentation at the XXVIII EFMC International Symposium on Medicinal Chemistry (EFMC-ISMC 2024) | September 1-5, 2024.

Two additional nominees will also be identified and acknowledged.

Applications should be done via the application form on www.efmc.info/prizes and should consist of:

- a one-page letter by the candidate including a short rationale for their application
- one page with his/her most important publications
- a brief CV of the candidate
- abstract of potential oral presentation

FOR A YOUNG MEDICINAL CHEMIST OR CHEMICAL BIOLOGIST IN INDUSTRY

To acknowledge and recognize an outstanding young medicinal chemist or chemical biologist working in Industry within Europe.

The **Prize** is given annually to a young medicinal or chemical biologist (≤ 12 years after PhD), and consists of a diploma, €1.000 and an invitation to give a short presentation at the XXVIII EFMC International Symposium on Medicinal Chemistry (EFMC-ISMC 2024) | September 1-5, 2024.

Two additional nominees will also be identified and acknowledged.

Nominations should be submitted by the candidate's supervisor via the submission tool on www.efmc.info/prizes and should consist of:

- a letter by the supervisor
- a brief CV of the candidate
- abstract of potential oral presentation

Deadline for Nominations is January 31, 2024







EFMC-YMCS 2023 - Report

For its 10-year Anniversary Edition, the EFMC Young Medicinal Chemists' Symposium took place amidst the heights of Zagreb, Croatia, immediately following the IX EFMC International Symposium on Advances in Synthetic and Medicinal Chemistry (EFMC-ASMC 2023). Over the course of two busy days, the University of Zagreb hosted the 130 attendees, fostering vivifying discussions and scientific insights. The symposium's programme for this year featured 3 distinguished keynote lectures, 18 oral presentations by invited prize winners from national young medicinal chemist meetings across Europe, 2 prize lectures and 18 flash poster presentations.

The symposium began on Thursday, September 7, with a warm welcome from the chairs, Dr Maja Beus (Duke University, United States) and Dr Hrvoje Rimac (Selvita, Croatia). Dr Sanja Kostrun (Selvita, Croatia) provided the audience with her opening lecture, "Druggability Beyond the Rule of Five", before leaving the stage to the competition between the oral communications, and the first set of flash poster presentations. Closing the first day, the EFMC Young Scientists Network (EFMC-YSN) offered an optional programme that included a workshop by Reaxys, led by Dr Giulia Moncelsi.

The second day commenced with a stimulating Career Panel Discussion, organised by the EFMC-YSN, featuring early-career talents from both industry and academia. Prof. Thomas Poulsen (Aarhus University, Denmark) launched the scientific programme with his talk, "Leveraging Natural Products to Develop New Therapeutic Leads Targeting Resistant Tumors." The best oral communication contest resumed over the course of the day, as well as the second set of flash poster presentations.

The conference was also the stage for **two prize lectures**: The 2023 EFMC-YSN PhD Prize, awarded to Mrs Zuzanna Kozicka (Friedrich Miescher Institute for Biomedical Research, Switzerland) and the 2023 Symeres PhD Prize for Excellence in Chemistry in Life Sciences Research, received by Dr Jan G. Felber (Universität München, Germany). The symposium closed with an interesting lecture by Dr Yves P. Auberson (Novartis, Switzerland) on "Trends in Medicinal Chemistry and Chemical Biology."

Throughout the event, networking was at the heart with a welcome reception and networking event offered by the EFMC-YSN and two poster sessions showcasing nearly 70 posters.

CELEBRATING EXCELLENCE: AWARDS AND RECOGNITION

The award ceremony recognised the following champions:

■ Ms Nina Compagne

(University of Lille, France) received the EFMC-YMCS Presentation Prize, sponsored by the EFMC and Idorsia, for her presentation on "Optimization of a Pyridylpiperazine Series as a Novel Class of Efflux Pump Inhibitors in E. Coli to Combat Antimicrobial Resistance."

Ms Lauren Voets

(KU Leuven Research and Development, Belgium) was rewarded with the EFMC-YMCS Best Flash Poster Prize, sponsored by Selvita, for her presentation on "Design, Development, and Evaluation of Novel Anticancer Drugs Targeting Protein Kinase D2 (Pkd2)."

■ Dr Li Gao

(Roche, Germany)

was awarded with the EFMC-YMCS Public's Choice Prize, sponsored by Roche, for his presentation on "Styrylbenzothiazole Photoswitches for Spatiotemporal Control over Microtubule-Dependent Biology."

Additionally, three deserving participants received the EFMC-YMCS Best Poster Prizes, sponsored by Chemistry Europe:

■ Poster 024: Alex Hallatt

(Newcastle University, United Kingdom)

■ Poster 055: Rebecca Stevens

(GSK/University of Strathclyde, United Kingdom)

■ Poster 062: Wenxin Felix Zhu

(Goethe Universität Frankfurt, Germany)

We extend our sincerest gratitude to all the committee members, speakers, sponsors, exhibitors, and, most importantly, the participants for their invaluable support. We look forward to meeting all of you in Rome, Italy, for the 11th EFMC Young Medicinal Chemists' Symposium (EFMC-YMCS 2024), set to take place on September 5-6, 2024.





11th EFMC Young Medicinal Chemists' Symposium

The EFMC Young Medicinal Chemists' Symposium is an initiative of the European Federation for Medicinal Chemistry and Chemical Biology (EFMC). This Symposium, organised in connection with EFMC-ISMC 2024, has the aim of:

- —— Creating a network of young European investigators
- Stimulating young European investigators to share their scientific work with peers and inspiring leaders in the field
- Creating competition and excellence within Europe by selecting the European Champion in Medicinal Chemistry and Chemical Biology

ogramme

The Programme of the 11th EFMC Young Medicinal Chemists' Symposium will include:

keynote lectures given by inspiring leaders in the field

oral communications by invited prize winners from national young medicinal chemist's and chemical biologists' meetings in Europe

flash poster presentations selected from submitted abstracts

a poster session open to any young researcher submitting an abstract

prizes

a series of optional soft-skill training activities provided by the EFMC Young Scientists Network (EFMC-YSN)

Committee

Symposium Chairs

Dr Michele MARI (University of Urbino, IT)

Dr Isabella ROMEO (Magna Græcia University, IT)

Local Committee

Prof. Roberto DI SANTO (Sapienza University of Rome, IT)

Dr Clemens ZWERGEL (Sapienza University of Rome, IT)

Organising Committee

Dr Tilly BINGHAM

(Cumulus Oncology, UK)

Dr Chiara BORSARI (University of Milan, IT)

Ms Nina COMPAGNE

(Inserm U1177 Drugs and Molecules for living systems, FR)

Dr Caroline LANTHIER

(University of Antwerp, BE)

Mr Brieuc MATAGNE (LD Organisation, BE)

Dr Diana RESENDE

(CIIMAR - Interdisciplinary Centre of Marine and Environmental Research, PT)

eadlines

May 6, 2024 FLASH POSTER SUBMISSIONS & EARLY-BIRD REGISTRATION

July 10, 2024 POSTER SUBMISSION More information and on-line registration available on www.efmc-ymcs.org

Spread the word on social media using **#EFMC_YMCS**







National Adhering Organisations

Below you can find the list of the 31 National Adhering Organisations composing the European Federation for Medicinal chemistry and Chemical biology (EFMC). More information can be found on the EFMC website: http://www.efmc.info/adhering-organisations-european-medicinal-chemistry

Austria	Austrian Chemical Society, Medicinal Chemistry Section
Belgium	Société Royale de Chimie (SRC), Medicinal Chemistry Division Medicinal and Bioorganic Chemistry Division of Royal Flemish Chemical Society (KVCV)
Bosnia-Herzegovina	Organization Pharmaceutical Research Institute
Croatia	Croatian Chemical Society, Section of Medicinal/Pharmaceutical Chemistry
Czech Republic	Section of Synthetic Drug of the Czech Pharmaceutical Society
Denmark	The Danish Society for Medicinal Chemistry and Chemical Biology
Finland	Finnish Pharmaceutical Society
France	Chemical Biology group of the French Chemical Society (SCF-ChemBio) Société de Chimie Thérapeutique (SCT)
Germany	German Pharmaceutical Society, Section of Pharmaceutical/Medicinal Chemistry Division of Medicinal Chemistry of the German Chemical Society (GDCh)
Greece	Hellenic Society of Medicinal Chemistry
Hungary	Organic and Medicinal Chemistry Division (OMCD) of the Hungarian Chemical Society (HCS)
Ireland	Medicinal and Biological Chemistry Division of the Institute of Chemistry of Ireland
Israel	The Medicinal Chemistry Section of the Israel Chemical Society
Italy	Division of Medicinal Chemistry of the Italian Chemical Society (Divisione di Chimica Farmaceutica - Società Chimica Italiana, DCF-SCI)
Lithuania	Lithuanian Chemical Society
Poland	Polish Society of Medicinal Chemistry
Portugal	Division of Medicinal Chemistry of the Portuguese Chemical Society
Russia	The D.I. Mendeleev Russian Chemical Society, Medicinal Chemistry Section
Serbia	Serbian Chemical Society, Division of Medicinal Chemistry
Slovenia	Section for Medicinal Chemistry of the Slovenian Pharmaceutical Society
Spain	Spanish Chemical Biology Group of the Royal Spanish Society of Chemistry (RSEQ) Sociedad Española de Química Terapéutica
Sweden	Swedish Pharmaceutical Society
Switzerland	Division for Medicinal Chemistry & Chemical Biology (DMCCB)
The Netherlands	Division Medicinal Chemistry & Chemical Biology, Royal Netherlands Chemical Society (KNCV-MCCB)
Turkey	Turkish Association of Medicinal and Pharmaceutical Chemistry
United Kingdom	Society for Medicines Research The Biological and Medicinal Chemistry Sector (BMCS) of the Royal Society of Chemistry (RSC)



Notes

www.efmc.info

