

# YEARBOOK 2020

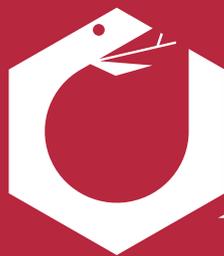
Medicinal Chemistry in Europe



**EFMC-ISMC 2020**  
*Basel, Switzerland*  
*September 6-10, 2020*

**EFMC-YMCS 2020**  
*Basel, Switzerland*  
*September 10-11, 2020*

**EFMC-ASMC'19**  
**EFMC-YMCS 2019**  
*Special reports*



# EFMC

## International Symposium on Medicinal Chemistry

Basel, CH September 6-10, 2020



### SESSIONS AND SESSION COORDINATORS

#### CHEMICAL BIOLOGY

**CARBOHYDRATE RECOGNITION AND DRUG DESIGN**  
Alexander Titz (Helmholtz Institute for Pharmaceutical Sciences, DE)

**CHEMICAL APPROACHES TO STEM CELL DIFFERENTIATION (ICBS Session)**  
Colin Pouton (Monash University, AU)

**CHEMICAL PROBES FOR TARGET DISCOVERY AND VALIDATION**  
Gyorgy Keseru (Hungarian Academy of Sciences, HU)

**MOLECULAR IMAGING TOOLS FOR CHEMICAL BIOLOGY**  
Valle Palomo (CIB, ES)

**PHOTOCHEMISTRY IN DRUG DISCOVERY: PHOTOPHARMACOLOGY, PHOTOTOXICITY AND SYNTHESIS (ACSMEDI Session)**  
Timothy Henderson (Merck, Sharp & Dohme, US)

**SMALL MOLECULES TARGETING RNA FUNCTION AND PROCESSING**  
Maria Duca (University of Côte d'Azur, FR)

**TARGET DECONVOLUTION STRATEGIES IN DRUG DISCOVERY**  
Paul Brennan (University of Oxford, UK)

#### TECHNOLOGIES

**APPLICATION OF ARTIFICIAL INTELLIGENCE IN DRUG DISCOVERY PROJECTS**  
Christopher Swain (Cambridge MedChem Consulting, UK)

**BIOCATALYSIS & LATE STAGE FUNCTIONALISATION**  
Radka Snajdrova (Novartis, CH)

**CRYO-EM AS AN EMERGING TOOL FOR SMALL-MOLECULE DRUG DISCOVERY**  
Jean-Paul Renaud (RiboStruct, FR)

**EXPANDING CHEMICAL SPACE THROUGH AI - LINKING SYNTHESIS PREDICTION AND AUTOMATION**  
Ola Engkvist (AstraZeneca, SE)

**INNOVATIVE SYNTHESIS FOR MEDICINAL CHEMISTRY**  
Cristina Nevado (University of Zurich, CH)

**NOVEL STRATEGIES AND METHODS FOR DRUG DISCOVERY AND DEVELOPMENT (CPA Session)**  
Ke Ding (Jinan University, CN)

**PRODRUG STRATEGIES IN DRUG DESIGN AND DISCOVERY**  
Bernd Clement (University of Kiel, DE)  
& Jarkko Rautio (University of Eastern Finland, FI)

#### THERAPEUTIC AREAS

**ADDRESSING NEGLECTED AND EMERGING VIRAL DISEASES WITH SMALL MOLECULES (AFMC Session)**  
Esin Aki-Yalçin (Ankara University, TR)

**BREATHING LIFE INTO INHALED DRUG DISCOVERY: CHALLENGES AND BREAKTHROUGHS TO THE CLINIC (ACSMEDI Session)**  
Nicole Goodwin (GSK, US)

**CHEMICAL TOOLS AND DRUG DISCOVERY FOR NEUROINFLAMMATION (EUCHEMS Session)**  
Sonsoles Martin-Santamaria (Biological Research Center, ES)

**NEW STRATEGIES AND AGENTS FOR TARGETING GRAM-NEGATIVE PATHOGENS**  
Vicky Steadman (Selcia, UK)

**NEXT GENERATION DRUGS FOR HEART FAILURE**  
Alleyn Plowright (Sanofi, DE)

**RECENT ADVANCES IN ANTICANCER DRUG DISCOVERY**  
Roberto di Santo (Sapienza University of Rome, IT)

**TARGETING FIBROTIC DISEASES WITH SMALL MOLECULES**  
Christian Kuttruff (Boehringer Ingelheim, DE)

**TISSUE AND CELL SPECIFIC DRUG DELIVERY (EUFEPS Session)**  
Sébastien Papot (University of Poitiers, FR)

#### OPEN SESSIONS

##### FIRST TIME DISCLOSURES

##### EMERGING TOPICS

##### LATE BREAKING NEWS

### CONFIRMED PLENARY LECTURES

**Phil BARAN**  
(The Scripps Research Institute, US)  
**Karin BRINER**  
(Novartis, US)  
**Jean-Paul CLOZEL**  
(Idorsia, CH)  
**Stefan KNAPP**  
(Goethe University Frankfurt, DE)

### EFMC AWARD LECTURES

- The Nauta Pharmacochimistry 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 in Industry
- EFMC Prize for a Young Medicinal Chemist in Academia

### INTERNATIONAL ORGANISING COMMITTEE

#### Symposium Chairman

**Karl-Heinz ALTMANN**  
(ETH Zürich, CH)

#### Members

**Marko ANDERLUH**  
(University of Ljubljana, SI)

**Yves P. AUBERSON**  
(Novartis, CH)

**Karl-Heinz BARINGHAUS**  
(Sanofi, DE)

**Wergard CZECHTIZKY**  
(AstraZeneca, SE)

**Beatriz DE PASCUAL-TERESA**  
(CEU San Pablo University, ES)

**Luc VAN HIJFTE**  
(Mercachem-Syncom, NL)

### EFMC-ISMIC SYMPOSIUM SECRETARIAT

**LD ORGANISATION SPRL**  
**Scientific Conference Producers**  
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Mail: secretariat@efmc-ismc.org  
Web: www.efmc-ismc.org

Organised by



Swiss Chemical Society  
Division of Medicinal Chemistry & Chemical Biology

On behalf of



EFMC  
European Federation  
for Medicinal Chemistry



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## Editorial

Dear colleagues,

EFMC is a very active and diverse organisation, with 26 national member societies, multiple international partners, scientific events and initiatives. It recently reviewed its strategy and agreed on future activities at a workshop, in February 2019, reaffirming EFMC's aspirations. I am happy to report that we could implement many of the recommendations and proposals that came out of this workshop by the end of the year. This allowed for an improved focus, better processes, and some creative changes with regard to EFMC's initiatives. Thanks to the involvement of many, we made significant progress in better integrating chemical biology, improving communication, and generating opportunities for young scientists. It is a great pleasure to serve a community so involved and so dynamic.

Before providing an overview of the most important events of 2019 and of the rich range of activities planned by our Federation for 2020, I would like to thank Gabriele Costantino (Italy), Peter Molenveld (The Netherlands) and Franz Von Nussbaum (Germany) for their long-time contribution to the EFMC Council. Their successors are Iwan De Esch (The Netherlands), Anna K.H. Hirsh (Germany) and Gianluca Sbardella (Italy), to whom I extend a warm welcome.

I also thank the Executive Committee (EC) members for constant support and valuable advice. Special thanks go to Rui Moreira, who accepted the position of President-Elect and who will be my successor in 2021. I welcome Franz Von Nussbaum as new EC member, looking forward to a close collaboration. The other EC members are Anders Karlén (Secretary), Antoni Torrens (Treasurer), Matt Tozer and Luc Van Hijfte, with the support of Henk Timmerman as EFMC Advisor.

Finally, I am happy to announce our two new Corporate Members: Galchimia & Mercachem-Syncom, which joined the group of companies financially supporting EFMC, its mission to advance the science of medicinal chemistry and chemical biology, as well as activities for young scientists. EFMC greatly appreciates the generosity and commitment of all its [Corporate Members](#).

### A REVIEW OF 2019

EFMC had a busy year in 2019, including two major events. First was the biennial [EFMC|ACSMEDI MedChem Frontiers](#), which took place on June 10-13, 2019 in the beautiful city of Krakow, Poland. This event was co-organized with ACS MEDI, to facilitate interactions between the European and American communities. It was hosted by the Polish Society of Medicinal Chemistry, and attracted over 250 international participants. Then came the [EFMC International Symposium on Advances in Synthetic and Medicinal Chemistry](#) (EFMC-ASMC'19), which is the forum where organic and medicinal chemists meet, and which gathered 600 participants in Athens on September 1-5, 2019. We are delighted that this 8th edition confirmed the success of this series, reaching more and more scientists around the globe. The scientific programme defined by Varinder Aggarwal (University of Bristol, UK) & Spiros Liras (Biogen, USA) was excellent.

The EFMC Young Medicinal Chemist Symposium ([EFMC-YMCS'19](#)) immediately followed the EFMC-ASMC'19 meeting in Athens. It was a pleasure to see the ever-increasing number of young scientists taking part in this lively meeting, with excellent scientific contributions and lots of active networking. I am grateful to Manolis Foustieris (University of Patras, Greece), his committee and the [EFMC Young Scientists Network](#) for having put together an interesting programme, and for creating perfect conditions for a dynamic exchange, which participants clearly appreciated.

Masterfully organised by Iwan De Esch and Henk Timmerman, the 15th EFMC Short Course took place end of April 2019 and focused on Fragment-based Drug Discovery. This series will continue with a Course on [New Opportunities in GPCR Drug Discovery](#), scheduled for May 17-20, 2020 and organised by Gyorgy Keseru and Rob Leurs.

To learn more about the events, I invite you to read the full reports on pages 10 to 13 of this Yearbook.

The EFMC working groups provided valuable contributions on EU policy, communication, chemical biology and best practices. The active contribution of many partici-

pants is gratefully acknowledged. You will find the report of their activities on pages 10 to 13 of the Yearbook.

EFMC also has numerous scientific interactions with partners around the world. It is worth mentioning that Antoni Torrens organised a session on “Exploring New Pathways to Tackle Immune-oncology” at the 2019 Medicinal Chemistry Symposium of the Chinese Pharmaceutical Association ([CMCS 2019](#)). Koen Augustyns held a session on “Medicinal Chemistry Approaches to Overcome Multi-Drug Resistance in Cancer and Infectious Diseases” at [AIMECS 2019](#), the annual meeting of the Asian Federation for Medicinal Chemistry, and I had the pleasure to organise a session on “Cancer and Checkpoint Inhibitors” at the annual meeting of the International Chemical Biology Society ([ICBS 2019](#)). Each event was an opportunity for closer interactions and for reinforcing the collaboration with our partner societies.

## 2020 AND BEYOND

2020 will see the XXVI EFMC International Symposium on Medicinal Chemistry ([EFMC-ISMC 2020](#)) take place in Basel, Switzerland on September 6-10. This is the largest event in medicinal chemistry and chemical biology, taking place in the prime life sciences location in Europe: an event one should not miss. It will be immediately followed by the EFMC Young Medicinal Chemist Symposium ([EFMC-YMCS 2020](#)) on September 10-11, also in Basel. I hope to meet many of you at these events.

2020 is a special year: The foundation of EFMC took place on Dec 19, 1969, and the celebration of its 50th anniversary will span all of 2020. These festivities will culminate at the XXVI EFMC-ISMC, where EFMC will recognise the first EFMC Honorary Fellows - the individuals who contributed most in strengthening the position of medicinal chemistry in Europe.

The new [Klaus Grohe Prize](#), one of the most highly endowed prizes for medicinal chemistry in Europe, will be attributed for the first time at the EFMC-ISMC 2020. In addition, EFMC will once again confer three [EFMC Awards](#) and the [EFMC Prizes for Young Medicinal Chemists in Academia and Industry](#), to acknowledge the scientific accomplishments of established scientists and rising stars. Finally, as EFMC believes that excellence and merits deserve recognition at any stage of research, its Young

Scientists Network has created a [PhD Prize](#), to provide financial support for participation in EFMC-ISMC 2020. The calls for the awards and prizes are open until January 31, and I encourage everyone to submit nominations.

EFMC is fully aware that medicinal chemistry is a constantly evolving discipline, part of a continuum that includes chemical biology. To recognise this fact and balance its scientific offer, I am pleased to announce that EFMC entered into an agreement with the Swiss Chemical Society to co-organise the [International Symposium on Chemical Biology](#) (ISCB), starting in 2023. This event will take place every second year, and alternate with the EFMC-ISMC.

We will continue providing updates on EFMC activities through our monthly newsletter [MedChemWatch](#), via the [EFMC LinkedIn group](#), our [Twitter](#), [Facebook](#) and [Instagram](#) accounts (talk to us as @euromedchem). Our website [www.efmc.info](#) has been redesigned for increased interactivity, and is always updated with the latest information, including a meeting calendar and a job portal.

Let me close by wishing you all the best for a successful and happy 2020, both in your professional and personal life.

With my best personal regards,



**Yves P. Auberson**  
EFMC President



## 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 can be achieved in several ways:

- by becoming a Premier Sponsor of an EFMC International Symposium
- by sponsoring an official EFMC Award
- by paying an annual fee of 2.000€ to the EFMC

Companies interested in becoming a Corporate Member should contact the Administrative Secretariat at [administration@efmc.info](mailto:administration@efmc.info)

### CURRENT EFMC CORPORATE MEMBERS



### AWARD SPONSORS

EFMC is thankful to the below organisations helping in its mission to advance the science of Medicinal Chemistry and Chemical Biology in acknowledging and supporting excellence in the fields.

The EFMC Awards are distributed biennially at the occasion of EFMC's flagship meeting, the EFMC International Symposium on Medicinal Chemistry.



**PROUS INSTITUTE**  
for Biomedical Research



## EFMC 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 members of the EC, except the President and the Past President, are elected via secret ballot by the EFMC Council during a Council meeting. After a term of one year, the President Elect will automatically become President. The members of the EC are not delegates of their respective countries. All details about the election process can be found in the statutes of the EFMC on the EFMC official website:

[www.efmc.info](http://www.efmc.info)

*President*



**Dr Yves P. AUBERSON**

Novartis  
Global Discovery Chemistry, WKL-136.6.82  
Klybeckstrasse 141 – Basel, Switzerland

*President-Elect*



**Prof. Rui MOREIRA**

University of Lisbon – Faculty of Pharmacy  
Av. Prof. Gama Pinto  
1649-019 Lisbon, Portugal

*Secretary*



**Prof. Anders KARLEN**

Uppsala University  
Department of Medicinal Chemistry  
BMC Box 574 – Uppsala, Sweden

*Treasurer*



**Dr Antoni TORRENS**

Esteve Pharmaceuticals – R&D Center  
Parc Científic de Barcelona, Baldiri i Reixach 4  
08028 Barcelona, Spain

*Member*



**Dr Matthew TOZER**

Consultant  
Cambridge, United Kingdom

*Member*



**Dr Luc VAN HIJFTE**

SCT & Mercachem-Syncom  
Kerkenbos 1013 – 6546 BB  
Nijmegen, The Netherlands

*Member*



**Dr Franz VON NUSSBAUM**

Bayer AG  
Research & Development, Pharmaceuticals  
Medicinal Chemistry II – Building S149, 301  
13342 Berlin, Germany



## Council

The Council consists of the members of the EC and one delegate of each National Adhering Organisation.

According to the new statutes, 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 more than 899 members: 7 votes.

As for countries with more than one National 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.

### CURRENT COUNCIL MEMBERSHIP

**Dr David ALKER**

*(David Alker Associates, United Kingdom)*

The Biological and Medicinal Chemistry Sector (BMCS) of the Royal Society of Chemistry (RSC)

**Dr Yves AUBERSON**

*(Novartis, Switzerland)*

EFMC Executive Committee

**Prof. Sergey BACHURIN**

*(Institute of Physiologically Active Compounds, Russia)*

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

**Prof. Ayla BALKAN**

*(Hacettepe University, Turkey)*

Turkish Association of Medicinal and Pharmaceutical Chemistry

**Prof. Rasmus P. CLAUSEN**

*(University of Copenhagen, Denmark)*

The Danish Society for Medicinal Chemistry and Chemical Biology

**Prof. Bernd CLEMENT**

*(University of Kiel, Germany)*

German Pharmaceutical Society, Section of Pharmaceutical/Medicinal Chemistry

**Prof. Iwan DE ESCH**

*(VU University Amsterdam, The Netherlands)*

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

**Prof. Beatriz DE PASCUAL-TERESA**

*(CEU San Pablo University, Spain)*

Sociedad Española de Química Terapéutica

**Prof. Martin DOLEZAL**

*(Charles University, Czech Republic)*

Section of Synthetic Drug of the Czech Pharmaceutical Society

**Prof. Gunars DUBURS**

*(Latvian Institute of Organic Synthesis, Latvia)*

Latvian Association for Medicinal Chemistry

**Dr Vesna GABELICA MARKOVIC**

*(Croatian Chemical Society, Croatia)*

Section of Medicinal/Pharmaceutical Chemistry

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*(Helmholtz Institute for Pharmaceutical Research Saarland, Germany)*

Division of Medicinal Chemistry of the German Chemical Society (GDCh)

**Dr Georg JAESCHKE**

*(F. Hoffmann-La Roche Ltd., Switzerland)*

Division for Medicinal Chemistry & Chemical Biology (DMC-CB) of the Swiss Chemical Society (SCS)

**Dr Annika J. JENSEN**

*(Karolinska Institutet, Sweden)*

Swedish Pharmaceutical Society

**Prof. Anders KARLÉN**

*(Uppsala University, Sweden)*

EFMC Executive Committee

**Prof. György Miklós KESERU**

*(Hungarian Academy of Sciences, Hungary)*

Organic and Medicinal Chemistry Division (OMCD) of the Hungarian Chemical Society (HCS)

**Prof. Katarzyna KIEC-KONONOWICZ**

*(Jagiellonian University, Poland)*

Polish Society of Medicinal Chemistry

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*(University of Ljubljana, Slovenia)*

Section for Medicinal Chemistry of the Slovenian Pharmaceutical Society

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*(University of Vienna, Austria)*

Medicinal Chemistry Section of the Austrian Chemical Society

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*(University of Lisbon, Portugal)*

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Hellenic Society of Medicinal Chemistry

**Prof. Rui MOREIRA**

*(University of Lisbon, Portugal)*

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Medicinal Chemistry Division of the Société Royale de Chimie (RSC)

**Prof. Jarkko RAUTIO**

*(University of Eastern Finland, Finland)*

Finnish Pharmaceutical Society

**Prof. Gianluca SBARDELLA**

*(University of Salerno, Italy)*

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

**Dr Antoni TORRENS**

*(Esteve Pharmaceuticals, Spain)*

EFMC Executive Committee

**Dr Matthew TOZER**

*(Consultant, United Kingdom)*

EFMC Executive Committee

**Prof. Serge VAN CALENBERGH**

*(Ghent University, Belgium)*

Medicinal and Bioorganic Chemistry Division of Royal Flemish Chemical Society (KVCV)

**Dr Luc VAN HIJFTE**

*(Mercachem-Syncom, The Netherlands)*

EFMC Executive Committee

**Dr Franz VON NUSSBAUM**

*(Bayer AG, Germany)*

EFMC Executive Committee

**Prof. Eylon YAVIN**

*(The Hebrew University of Jerusalem, Israel)*

The Medicinal Chemistry Section of the Israel Chemical Society



## Advisory Board

The Advisory Board is an EFMC consulting body for the Executive Committee, assisting in assessing the Federation's strategic goals. The tasks of the AB consist of:

- *advising on EFMC policy related matters internally and externally*
- *proposing novel scientific or political initiatives to the Executive Committee*
- *proposing strategies on how to increase awareness of Medicinal Chemistry and support the community in Europe*
- *proposing strategies on how to affect and interact with stakeholders in Europe*

The AB is composed of eminent scientists in life sciences and medicinal chemistry and is chaired by the Past President. The EFMC is thankful to all of them for their dedication and valuable contribution.

### CURRENT BOARD MEMBERSHIP

**Prof. Koen AUGUSTYNS - AB Chair**

*University of Antwerp, Belgium*

**Prof. Maria Laura BOLOGNESI**

*University of Bologna, Italy*

**Dr Karin BRINER**

*Novartis, United States*

**Prof. François DIEDERICH**

*ETH Zürich, Switzerland*

**Dr Anette GRAVEN SAMS**

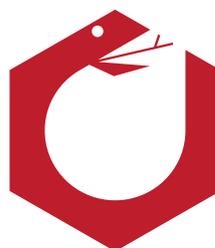
*Lundbeck, Denmark*

**Prof. Herbert WALDMANN**

*Max Planck Institute of Molecular Physiology, Germany*

**Dr Tony WOOD**

*GlaxoSmithKline, United Kingdom*



**EFMC | Advisory  
Board**

To see the previous composition of the Advisory Board, please [click here](#)

## Influencing EU-Policy

The EU-Policy working group aims to highlight the role of Medicinal Chemistry as a key player for addressing global health issues, as well as to position the EFMC as an expert organisation in the discipline.

At the Basel Workshop in February 2019, we sought to pinpoint strategic mechanisms for influencing EU Policy. Two specific goals were identified:

- *To increase visibility, awareness and funding of Medicinal Chemistry*
- *To identify and recommend lobbying strategies at the EU, regional and national levels*

To achieve these goals in the short term a paper/executive summary will be written based upon two previous EU level workshops organized by EFMC together with EuChemS: a STOA initiative on “Solving Antibiotic Resistance” and a workshop on “Cause and Cure for Parkinson’s Disease” were organized in 2015 and 2018, respectively. Using this executive summary, contacts at the EU Parliament, Commission and/or Council will be approached in order to establish robust, strategic relationships between the EFMC and these organisations. In the long term, the group will identify and define emerging topics within the discipline and organize focused meetings in the parliament. We will continue to interact not only with EuChemS but also with other key stakeholders in the Life Science area, e.g., EUFEPS. Consolidating influence over regional policies and national contact points via EFMC Council members will also be a focus. In addition, EU officers will be invited to participate at round table discussions related to research policy at EFMC conferences.

During the year, the EFMC EU Policy group has also worked with EUFEPS, EuChemS and other stakeholders to start a forum for the exchange of ideas and joint future activities at the European level.

### CURRENT MEMBERSHIP

**Anders KARLÉN (chair)**

*Uppsala University, Sweden*

**Phil JONES**

*European Screening Centre Newhouse,  
University of Dundee, UK*

**Peter SJÖ**

*Drugs for Neglected Diseases initiative (DNDi),  
Switzerland*

**Franz VON NUSSBAUM**

*Bayer AG, Germany*



## EFMC Chemical Biology Initiative

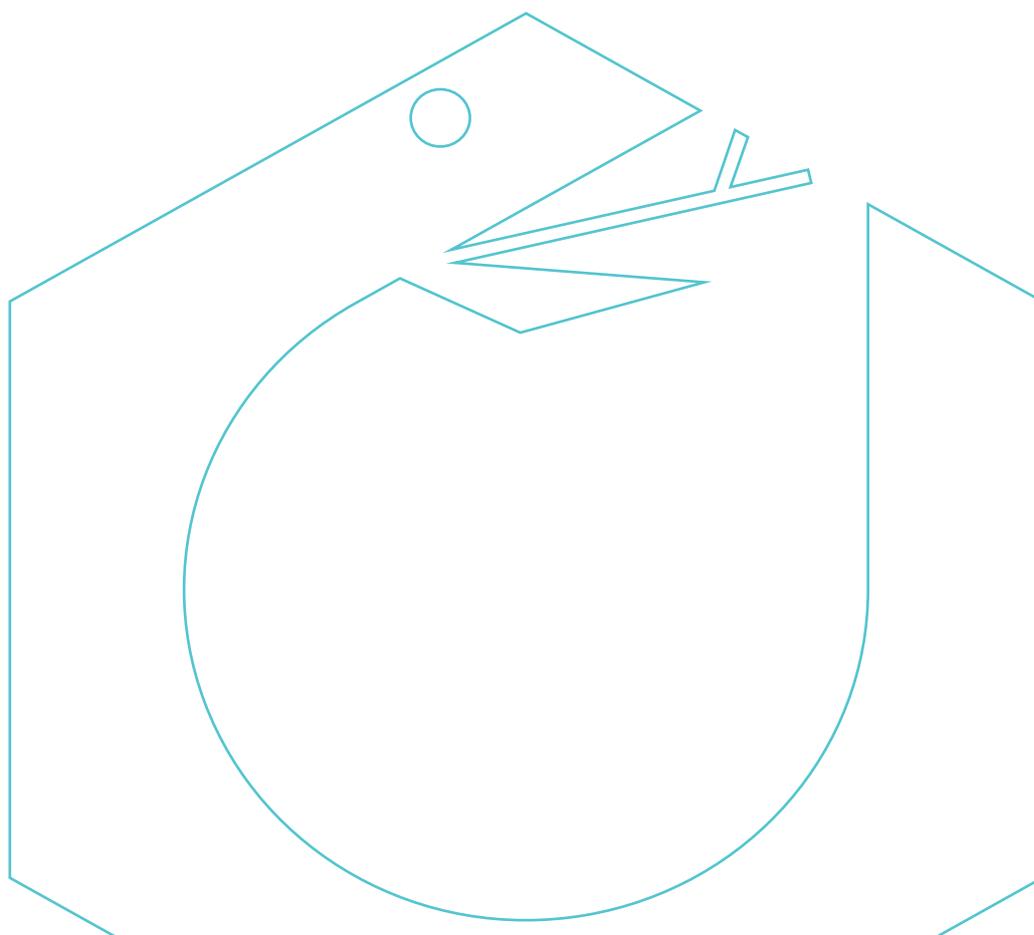
EFMC aims to advance science in the field of medicinal chemistry and chemical biology, while representing all members of this extended scientific community.

To this effect, EFMC has established contacts with several other learned societies. For medicinal chemistry, it has close links with the American Chemical Society and the Asian Federation of Medicinal Chemistry, as well as national organisations across the world. For chemical biology, EFMC has a collaboration agreement with the International Chemical Biology Society (ICBS). As part of this active relationship, ICBS invited EFMC to organise a session on immuno-oncology at its annual 2019 meeting, while ICBS will chair a session at the EFMC-ISMC 2020 in Basel. EFMC has a similar interaction with the Life Science division of EuChemS, including the active participation of EFMC in the European Chemical Biology Symposium.

Events independently organised by EFMC include both medicinal chemistry and chemical biology, for instance as dedicated parallel sessions in the programme of the EFMC International Symposium on Medicinal Chemistry (EFMC-ISMC), which will take place in Basel on September 6-10, 2020.

The signature in 2019 of an agreement with the Swiss Chemical Society was another important milestone in further balancing the weight of medicinal chemistry and chemical biology in EFMC's activities. Starting in 2023, both societies will co-organise the International Symposium in Chemical Biology (ISCB), a high-quality event that until now took place in Geneva, Switzerland. We are happy to confirm that both ICBS and LS-EuChemS have already accepted to participate in the first edition of this enhanced version of ISCB, adding their own weight to an exciting scientific programme. Future ISCBs will take place every second year, alternating with the EFMC-ISMC.

Over the last two years, EFMC developed a long-term vision for its role in medicinal chemistry and chemical biology, and implemented a strong strategy to reinforce the support of the community it represents. This has led to changes in the scope of EFMC activities, now better uniting the chemical biology and medicinal chemistry community, and following the evolution of this scientific discipline.



## Best Practices in Medicinal Chemistry

Have you ever wondered how medicinal chemists work in other companies or in academia? Are there important trends or new technologies that you may have missed?

The group is working on creating educational material on best practices in Medicinal Chemistry to help answer these questions. The main target audiences are students and early career chemists but we hope it will also be valuable for experienced practitioners.

As medicinal chemistry is a rather large field, we decided to first focus on the early phase of drug discovery: **generating high quality chemical starting points for optimization**. This is a critical part of our drug discovery effort since the speed and success of a program highly depends on the quality of the starting points we find and select. Medicinal chemists have a key role to play in this early phase so the more we know about it, the more we can have an impact. In addition to this, we have developed a set of best practices for validating chemi-

cal probes. High quality chemical probes are essential to explore of human biology and diseases. We hope we can contribute to increasing the quality of the published probes by spreading best practices through the EFMC community.

While the initial objective was to produce a set of slides containing these best practices, we have also committed to create webinars that will be posted on the EFMC youtube channel and website. With this, we hope that EFMC members will gain a better insight and experience from the best practices.

This year, we have finalized the first set of slides and webinar on “Best practices to validate chemical probes” which will be released in early 2020. We also aim to deliver materials on at least two additional topics next year: “Integrated hit generation” and “Phenotypic Drug Discovery”.

### CURRENT MEMBERSHIP

**Jean Quancard**  
*Novartis, Switzerland (Chair)*

**Brian Cox**  
*University of Sussex, United Kingdom*

**Hannes Koolman**  
*Boehringer Ingelheim, Germany*

**Stefan Laufer**  
*University of Tübingen, Germany*

**Josef Messinger**  
*Orion Corporation, Finland*

**Gianluca Sbardella**  
*University of Salerno, Italy*

**Dirk Finsinger**  
*Merck, Germany*

**Stephanie Gueret**  
*AstraZeneca, Sweden*





## EFMC Communication Team / Young Scientists Network

The EFMC Communication Team is composed of young and motivated scientists willing to develop the brand awareness and recognition of EFMC, using social media and diverse public activities. If you are interested to join, simply reach out to [communication@efmc.info](mailto:communication@efmc.info).

2019 has been another busy year for the Team, continuing their efficient work on populating the various social media of the EFMC: LinkedIn, Twitter (@EuroMedChem), Facebook and Instagram. If you are interested to learn everything about the activities and news relevant to the community, this is the place to head to!

The Team launched the 2nd edition of the Annual Photo Competition, which gathered 64 submissions around the theme: "Elements of Life", whose purpose was to celebrate the International Year of the Periodic Table (IYPT). Contestants were invited to snap their best picture of the elements that make our science possible and to publish them on the website for a first voting round. The 20 selected contestants had the opportunity to have their masterwork exposed during the EFMC-ASMC19 in Athens, where the final voting took place to select the winner and 2 runners-up, whose work you will see in this Yearbook. In 2020, another competition will be opened to celebrate the 50<sup>th</sup> Anniversary of the EFMC, bearing the title: "MedChem through the Ages & Years!".

Building on their success, the Team expanded the series of interviews of Medicinal Chemists and Chemical Biologists, including more and more related fields into their scope. These portraits aim to show all the various faces behind our fields and can be seen at [www.efmc.info/iamamedicinalchemist](http://www.efmc.info/iamamedicinalchemist).

For the year to come, the Team will focus on the 50<sup>th</sup> Anniversary festivities, with plenty of activities to celebrate with the whole scientific community – so stay tuned at the website [www.efmc.info/activities](http://www.efmc.info/activities)!

### EFMC YOUNG SCIENTISTS NETWORK

The Young Scientist Network of the EFMC (EFMC-YSN) has been launched to fill the need for an efficient network for young and early career researchers in the field of Medicinal Chemistry and Chemical Biology, offering

them a platform to exchange ideas, develop skills, connect with each other and get support. It is also looking to gather all the existing national young networks and provide them a larger stage to share their activities at a pan-European level.

The Network is currently managed by the same young and motivated scientists hiding behind the Communication Team, and they have been busy at work building this one-of-a-kind network out of a brainstorming session.

Among the many activities launched this year, the most successful were the soft-skill training workshops organised at the occasion of the EFMC Young Medicinal Chemist Symposium, held in Athens on September 5-6, 2019. Because not only science matters in a career, attendees could learn more about the right way to boost their oral presentation skills and create a good slideshow, get the job they deserve and receive tips from an editor on how to get published.

Another very appreciated activity was the series of "Meet & Greet" events organised at various EFMC-organised or sponsored events. Designed to allow students attending conferences alone to gather together on the first day and meet alike people, get them to know each other and plan their evening activities together as a group. Those helped greatly in creating a positive atmosphere from the very beginning of the conference and was saluted by all.

The EFMC-YSN was also busy helping its greater community, not only those attending conferences. By publishing regularly PhD positions and job offers aimed at early career scientists, the Network hopes to become a "one-stop-shop" portal and to offer more and more opportunities for both offers and seekers.

Last but not least, with the kind support of the EFMC, the Network launched its very own Prize: The EFMC-YSN Prize for a PhD, aiming at rewarding excellence from the very early stage.

The prize will consist of a diploma, a free registration and a 500€ travel grant to attend EFMC-ISMC 2020 in Basel. More information can be found here: [www.efmc.info/ysn](http://www.efmc.info/ysn)

## MEET THE TEAM



**Kristina GONCHARENKO** *Spirochem, Switzerland (Chair)*



**Chiara BORSARI** *University of Basel, Switzerland*



**Piia KOKKONEN** *University of Eastern Finland, Finland*



**Caroline LANTHIER** *University of Caen Normandy, France*



**Leire Iralde LORENTE** *University of Siena, Italy*



**Michele MARI** *University of Urbino Carlo Bo, Italy*



**Brieuc MATAGNE** *EFMC, Belgium*



**Paula MORALES** *CSIC, Spain*



**Matic PROJ** *University of Ljubljana, Slovenia*



**Matt TOZER** *Consultant, UK (EFMC EC Sponsor)*



**Mary WHELDON** *University College London, UK*



**Pauline ZIPFEL** *University of Caen Normandy, France*



**Clemens ZWERGEL** *Sapienza University of Rome, Italy*

## FOLLOW THE EFMC ON SOCIAL MEDIA



## FOLLOW THE EFMC YOUNG SCIENTISTS NETWORK ON SOCIAL MEDIA





## EFMC-ASMC'19 – Report

More than 600 scientists from all over the globe gathered in Athens for yet another successful edition of the EFMC



International Symposium on Advances in Synthetic and Medicinal Chemistry ([EFMC-ASMC'19](#)).

This 8<sup>th</sup> edition was organised by the European Federation for Medicinal Chemistry (EFMC), the Hellenic Society of

Medicinal Chemistry and ChemBridge Corporation.

The scientific programme covered the most recent advances in new synthetic methodologies, total synthesis, fluorination approaches, bioisosteres and building blocks, chemical biology, medicinal chemistry, drug discovery and development leading to new or improved methods for the synthesis of pharmaceuticals. The Symposium was chaired by Prof. V.K. Aggarwal (University of Bristol, UK) and Dr S. Liras (Biogen, US).

The opening lecture, given by Prof. K.C. Nicolaou (Rice University, US) on “The Art and Science of Total Synthesis and its Impact on Biology and Medicine: From the Fundamentals to the Translational”, was the launch of a five-day symposium with many scientific highlights, 26 invited speakers, 10 oral communications and more than 325 poster presenters.

In the following days, the participants attended a high-quality programme of talks equally selected from industry and academia. The two EFMC Prizes for a Young Medicinal Chemists in Academia/Industry were conferred at the occasion of the meeting to Prof.



Andreas Koeberle (University of Jena, DE), who gave a talk on: “From the Elucidation of the Mechanism of Vitamin E to the Design of Innovative Drugs that Limit Inflammation and Enhance Resolution” and to Dr. Radka Snajdrova (Novartis, CH) whose lecture was entitled: “Cipargamin-Biocatalysis in the Discovery and Development of an

Antimalarial Drug”. Among the posters presented, 5 were awarded an EFMC Best Poster Prize. 5 young scientists were also awarded a travel grant offered by the EFMC.

The scientific programme was complemented by an entertaining social programme. The participants had the opportunity to explore Athens and its millennial culture by attending the proposed excursion – or to simply wander around under the shining sun which blessed the whole symposium duration. The gala dinner concluded the event in style, with a dinner in the garden on the Ble Pavilion, with a charming sight on the seashore and perfectly on time to share the view of the sunset with friends and colleagues.

During the conference, not only science was highlighted – but also art! With the 2nd edition of the EFMC Photo Competition, bearing the theme: “Elements of Life”, the participants could admire the 20 best pictures of the contest and designate the winner. With a record participation of 200 onsite votes, Mr Souvak Sarkar won the contest with his picture entitled: “Inverted Nature through a Chemist’s Eye”.



The EFMC Young Scientists Network ([EFMC-YSN](#)) also took the opportunity of the event to organise its 3rd “Meet & Greet”, gathering students attending the meeting alone during the welcome reception and settling for an evening in a local pub, chatting about science and future plans in Athens.

The next edition of this biennial symposium will take place in 2021 in Zagreb, Croatia and will be jointly organised by the European Federation for Medicinal Chemistry (EFMC), the section of Medicinal/Pharmaceutical Chemistry of the Croatian Chemical Society and ChemBridge Corporation.

## EFMC-ACSMEDI MedChem Frontiers 2019 – Report



The 7<sup>th</sup> edition of the “Medicinal Chemistry Frontiers” was held in Krakow, Poland, on June 10-13, 2019. Around 250 scientists gathered to listen to the interesting programme composed by members of the European Federation for Medicinal Chemistry (EFMC), the MEDI Division of the American Chemical Society and the Polish Society of Medicinal Chemistry.

The programme covered the fields of computer assisted drug design, biology, DMPK, pharmacology, early toxicology, as well as chemical and pharmaceutical development.

Three plenary lecturers were present: Dr Jadwiga Handzlik (Jagiellonian University, Poland), Prof. Krzysztof Palczewski (Case Western Reserve University, United States) and Dr Nurulain Zaveri (Astrae Therapeutics, United States). The programme further included 19 keynote speakers, 6 oral communications and more than 100 poster presenters. In addition, the symposium was the stage for a first-time disclosure lecture by Dr Yves P. Auberson (Novartis, Switzerland) on “The Discovery of LML134, a Histamine H3 Receptor Inverse Agonist for the Clinical Treatment of Excessive Sleep Disorder”.

An interesting social programme was also proposed to the participants, who had the opportunity to explore sunny Krakow and learn more about its rich culture by attending the proposed city-tour, discover the history of salt mining in the Wieliczka's mine, or visit the Auschwitz-Birkenau memorial. The symposium banquet concluded the event in style, with a dinner in the old

Zajezdnia tram depot.

The EFMC Young Scientists Network (EFMC-YSN) took the opportunity of the event to organise its very first “Meet and Greet”, inviting the students attending the meeting alone to gather during the welcome reception and plan their evening together for a bite and a few beers. 15 participants joined this first event, comforting the EFMC-YSN in multiplying such activities. 5 young scientists were also awarded a travel grant offered by the EFMC, and 4 poster presenters received one of the EFMC Best Poster Prize.



Following the concept of the meeting, the next edition of this biennial symposium will take place in 2021 in Boston, United States and will be jointly organised by the MEDI Division of the American Chemical Society and the European Federation for Medicinal Chemistry (EFMC).



**EFMC**  
European Federation  
for Medicinal Chemistry

## EFMC Photo Contest 2019



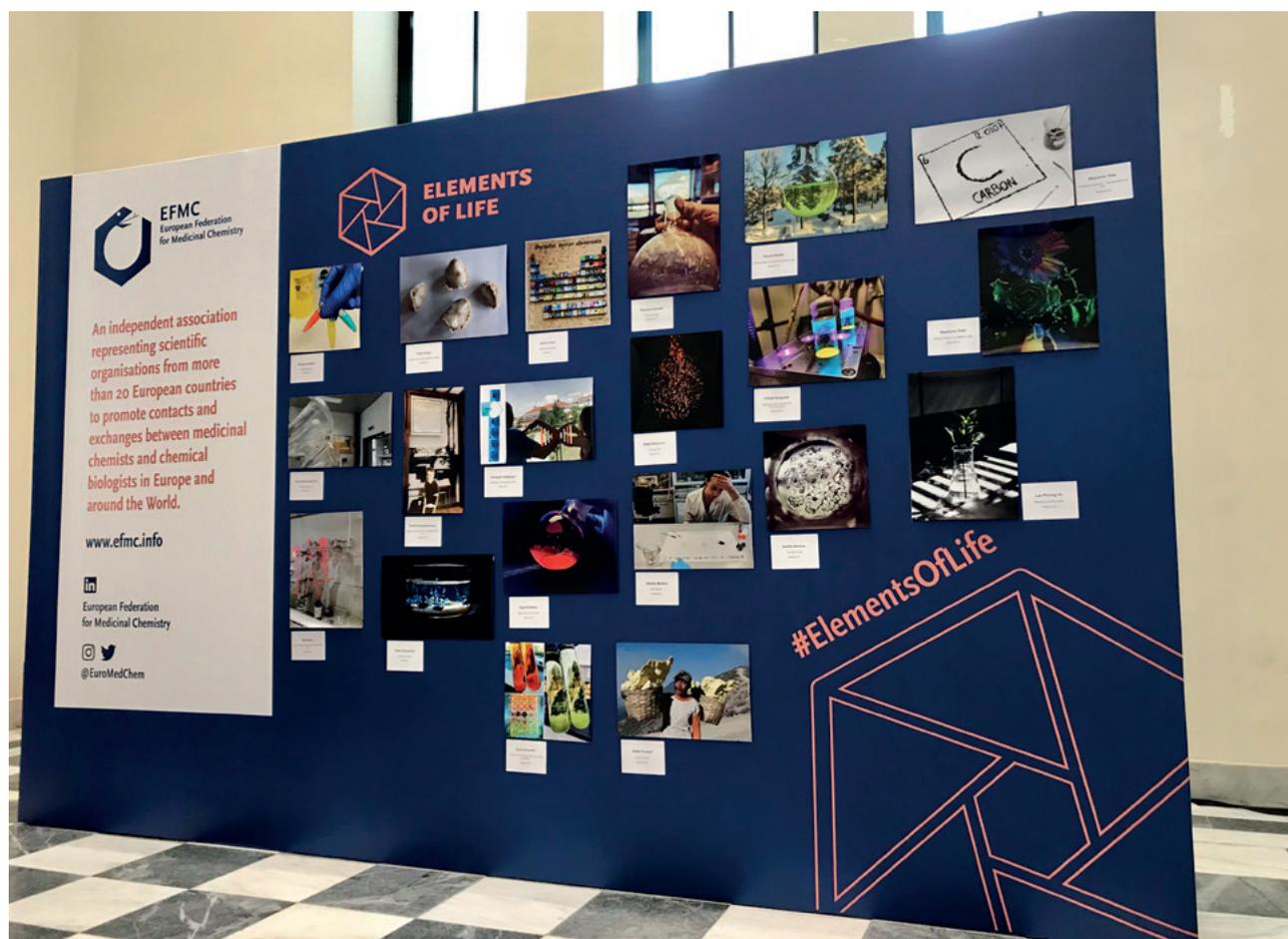
**ELEMENTS  
OF LIFE**

Enthusiastic after the success of the 1st edition, the Communication Team of the EFMC decided to repeat this activity. 2019 being the International Year of the Periodic Table, the theme was obvious: “Elements of Life”.

The contestants were asked to celebrate what is the core of our sciences: the elements! Coming in all shape and state, this promised to be an endless source of inspiration. 64 applications were received – which can still be admired on the [EFMC website](#). The 3 winning pictures are also published in this Yearbook.

The pictures were judged by a two-round public voting: first online and afterwards during the EFMC-ASMC'19 in Athens, where the 20 best shots have been displayed for participants to vote live!

**What about 2020?** The contest will be back with the theme “MedChem through the Ages & Years”, as part of the 50<sup>th</sup> anniversary celebration of the EFMC!





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## WINNING PICTURES

- 1 *Inverted Nature through a Chemist's eye* - Mr Souvik Sarkar (Winner)
- 2 *Science loves arts* - Mrs Ivica Dilovic (Runner-up)
- 3 *Wherein Life Flourishes* - Mr Lan Phuong Vu (Runner-up)



## EFMC 2020 AWARDS

*Call for nominations*

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DEADLINE: JANUARY 31, 2020

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



**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 organisational structures in Medicinal Chemistry and Chemical Biology.

The Award is established by the Dutch Foundation "Stichting Prof. Dr. W. Th. Nauta Fonds"



**THE UCB-EHRLICH AWARD  
FOR EXCELLENCE IN MEDICINAL CHEMISTRY**

To acknowledge and recognise 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.

*The awards will be conferred on the occasion of the XXVI EFMC International Symposium on Medicinal Chemistry (EFMC-ISMC 2020) to be held in Basel, Switzerland, on September 6-10, 2020*



EUROPEAN FEDERATION  
FOR MEDICINAL CHEMISTRY



## EFMC Prizes

The « EFMC Prize for a Young Medicinal Chemist in Academia » and the « EFMC Prize for a Young Medicinal Chemist in Industry » have been established by the European Federation for Medicinal Chemistry (EFMC) to acknowledge and recognise an outstanding young medicinal chemist 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 2019 Prizes have been conferred on occasion of the EFMC International Symposium on Advances in Synthetic and Medicinal Chemistry (EFMC-ASMC'19), held on September 1-5, 2019 in Athens, Greece

Winner of the Industry Prize was **Radka Snajdrova (Novartis Pharma, Switzerland)** and she gave a talk on the

“Cipargamin-Biocatalysis in the Discovery and Development of an Antimalarial Drug”. The most meritorious runners-up were **Jo Alen (Grünenthal, Germany)** & **Jacob Bush (GSK, United Kingdom)**.



**Andreas Koeberle (Friedrich-Schiller-University Jena, Germany)** won the 2019 EFMC Prize for a Young Medicinal Chemist in Academia. At the EFMC-ASMC'19 Symposium,

he gave a talk entitled “From the Elucidation of the Mechanism of Vitamin E to the Design of Innovative Drugs that Limit Inflammation and Enhance Resolution”.

**Anna Katharina Herta Hirsch (HIPS, Germany)** & **Kamil Musilek (University of Hradec Kralove, Czech Republic)** have been identified and acknowledged as runners-up.



THE  
EFMC  
PRIZE

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# THE EFMC PRIZE

## FOR A YOUNG MEDICINAL CHEMIST IN ACADEMIA

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**To acknowledge and recognize an outstanding young medicinal chemist working in Academia within Europe.**

The **Prize** is given annually to a young medicinal chemist ( $\leq 12$  years after PhD), and consists of a diploma, €1.000 and an invitation to give a short presentation at the XXVI EFMC International Symposium on Medicinal Chemistry (EFMC-ISMC 2020), September 6-10, 2020, Basel, Switzerland.  
Two additional nominees will also be identified and acknowledged.

**Applications should be done via the application form on [www.efmc.info](http://www.efmc.info) and should consist of:**

- a one-page letter by the candidate including a short rationale for their application
- one page with his/her 5 most important publications
- a brief cv of the candidate
- abstract of potential oral presentation

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# THE EFMC PRIZE

## FOR A YOUNG MEDICINAL CHEMIST IN INDUSTRY

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**To acknowledge and recognize an outstanding young medicinal chemist working in industry within Europe.**

The **Prize** is given annually to a young medicinal chemist ( $\leq 12$  years after PhD), and consists of a diploma, €1.000 and an invitation to give a short presentation at the XXVI EFMC International Symposium on Medicinal Chemistry (EFMC-ISMC 2020), September 6-10, 2020, Basel, Switzerland.  
Two additional nominees will also be identified and acknowledged.

**Nominations should be submitted by the candidate's supervisor via the submission form on [www.efmc.info/prizes](http://www.efmc.info/prizes) and should consist of:**

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

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**Deadline for Nominations is January 31, 2020**

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**EFMC**  
European Federation  
for Medicinal Chemistry

See [www.efmc.info/efmc-prizes](http://www.efmc.info/efmc-prizes) for full details.



## EFMC-YMCS 2019 – Report

Following the EFMC-ASMC'19, the 6<sup>th</sup> edition of the EFMC Young Medicinal Chemist Symposium ([EFMC-YMCS 2019](#)) took place on September 5-6, 2019.

Around 170 young scientists registered to take part in the 1,5-day event, to share their work, network and listen to the inspiring leaders in the field. Exceptionally, three keynote lecturers were present: **K.C. Nicolaou (Rice University, US)**, who opened the conference with a talk on *“The Emergence of Antibody-Drug Conjugates (ADCs) as Targeted Cancer Therapies: From Ehrlich’s “Magic Bullet” Concept to Calicheamicin  $\gamma$ 11 and Mylotarg”*, **Cornelia Zumbrunn (Idorisa Pharmaceuticals, CH)** who lectured on *“Medicinal Chemistry Between Serendipity and (Artificial) Intelligence”* and **Stuart Conway (University of Oxford, UK)** who closed the meeting with his talk on *“Chemical Tools to Target and Image Tumours”*.

The rest of the busy programme was split between 20 oral communications by invited prize winners from National Young Medicinal Chemists meetings in Europe, 20 flash poster presentations and more than 100 posters!

Based on the success of the previous edition, the EFMC Young Scientists Network had prepared an intensive and well attended parallel programme, with three soft-skills training session on: *“How to Boost Your Oral Presentation Skill, and Create a Good Slideshow”*, *“Getting the Job You Deserve!”* & *“Why Was My Paper Rejected? Tips from an Editor on How to Get Published”*. The evening networking reception on Thursday was the opportunity for attendees to meet senior scientists from Academia, Industry and Biotech, all while enjoying a few bites and beers.

The lunch, coffee breaks and poster sessions offered the participants the opportunity to discuss the posters and the lectures, and to share their science with peers – in a young and dynamic way. Many of them acknowledged the high quality of the meeting, built by and for young Medicinal Chemists with the help of a motivated Committee, and the kind support of the EFMC and Industrial Sponsors, to which we are thankful.

At the end of the event, the traditional Award ceremony was held, and several prizes were conferred to promising young scientists. **Michal Shoshan (ETH Zürich, CH)** received the EFMC-YMCS Presentation Prize sponsored by the EFMC and Idorsia for her presentation on the *“Directed Evolution of Short Peptides for Selective Detoxification of Lead”*. **Alwin Hartman (University of Groningen, NL)** won the EFMC-YMCS Poster Prize sponsored by RSC & Wiley, while **Marta Falcicchio (University of Leicester, UK)** and **Riccardo Provenzani (University of Helsinki, FI)** were recognized as most meritorious runner-up. Finally, grabbing the majority in the public voting, **Maja Beus (University of Zagreb, HR)** was awarded the EFMC-YMCS Public’s Choice Prize sponsored by Roche for her presentation on *“Antiplasmodial Activity of Sahaquines, Novel SAHA - Primaquine Hybrids”*.

The 7<sup>th</sup> edition of the EFMC-YMCS will take place in Basel, Switzerland on September 10-11, 2019 – following the XXVI EFMC International Symposium on Medicinal Chemistry (EFMC-ISMC 2020). More information available on the regularly updated website [www.efmc-ymcs.org](http://www.efmc-ymcs.org)





# EFMC-YMCS

7<sup>th</sup> EFMC Young Medicinal Chemist Symposium

September 10-11, 2020 | Basel, Switzerland



The **EFMC Young Medicinal Chemist Symposium** is an initiative of the European Federation for Medicinal Chemistry (EFMC). This Symposium, organised in connection with EFMC-ISMC 2020, has the aim of:

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

## PROGRAMME

The Programme of the 7<sup>th</sup> EFMC Young Medicinal Chemist Symposium will include:

- opening and closing lectures by inspiring leaders in the field
- oral communications by invited prize winners from national young medicinal chemist meetings in Europe
- flash poster presentations selected from submitted abstracts
- a poster session open to any young researcher submitting an abstract
- prizes

An optional programme of soft-skills training sessions will be given by the EFMC-YSN (Young Scientists Network).

More information  
and on-line registration is available  
on [www.efmc-ymcs.org](http://www.efmc-ymcs.org)

The 7<sup>th</sup> EFMC Young Medicinal Chemist Symposium is open to any scientist interested by the topics related to Medicinal Chemistry.

## EFMC-YMCS ORGANISING COMMITTEE

**Symposium Chairs**

- ◆ **Dennis Gillingham** (University of Basel, Switzerland)
- ◆ **Kristina Goncharenko** (SpiroChem AG, Switzerland)

**Members**

- ◆ **Dave Alker** (David Alker Associates, United Kingdom)
- ◆ **Maja Beus** (University of Zagreb, Croatia)
- ◆ **Christina Lamers** (University of Basel, Switzerland)
- ◆ **Laetitia Martin** (Roche, Switzerland)
- ◆ **Brieuc Matagne** (LD Organisation, Belgium)
- ◆ **Michal Shoshan** (ETH Zürich, Switzerland)



**EFMC**  
European Federation  
for Medicinal Chemistry

**May 12, 2020:**  
DEADLINE FOR ORAL COMMUNICATION SUBMISSIONS & EARLY BIRD REGISTRATION

**June 15, 2020:**  
DEADLINE FOR POSTER SUBMISSIONS



[WWW.EFMC-YMCS.ORG](http://WWW.EFMC-YMCS.ORG)  
#EFMC\_YMCS



## EFMC Short Course 2019 - Report

15<sup>th</sup> EFMC Short Course on Medicinal Chemistry - Small Becomes Big in Medicinal Chemistry: Fragment-Based Drug Discovery.

**April 28 - May 1, 2019**

*Oegstgeest, The Netherlands*

### Course Organiser

**Iwan DE ESCH**

*(VU University Amsterdam, The Netherlands)*

### Local Organiser

**Henk TIMMERMAN**

*(VU University Amsterdam, The Netherlands)*

The 15<sup>th</sup> edition of the EFMC Short Course on Medicinal Chemistry took place in the beautiful green estate of Oud-Poelgeest castle in Oegstgeest, Netherlands. The course attracted twenty-two participants from academia and industry, not only from Europe but also from the United States, Japan and South Korea.

The course leader, Prof. Iwan de Esch (VU University Amsterdam, The Netherlands), had composed an attractive programme with lecturers from the FRAGNET European training network that is focused on Fragment-Based Drug Discovery. The speakers, Rod Hubbard, Gyorgy Keseru, Paul England, Ben Davis, Mike Hann, Xavier Barril and Gregg Siegal, all world-renowned experts, covered very thoroughly all the aspects of FBDD – including fragment libraries, fragment screening technologies and relevant computer-aided drug design approaches.

Over 85 percent of the participants rated the course as

very good; the remaining participants scored the course as good. The participants also scored the different teachers, for both the content of their presentation and their presentation skills. Using a score from 0 to 5, five being the highest, the lowest figure was 4.6.

Part of the success of the course is due to the pleasant venue, in the midst of a beautiful park in the outskirts of Leiden, a city known for its rich history in arts (e.g., Rembrandt) and sciences. The course included a city tour around charming Leiden and a social dinner in a local restaurant.

For sure participants left this course enriched with new knowledge and connections.

The EFMC plans the next Short Course on “New Opportunities in GPCR Drug Discovery” for May 17-20, 2020. The course will be organised by Professors Gyorgy Keseru (Hungarian Academy of Sciences, Hungary) and Rob Leurs (VU University Amsterdam, The Netherlands).

More info on [www.efmcshortcourses.org](http://www.efmcshortcourses.org)





## 16th EFMC Short Course on Medicinal Chemistry

### NEW OPPORTUNITIES IN GPCR DRUG DISCOVERY

#### Course Organisers

György Miklós Keserü

*Hungarian Academy of Sciences, Hungary*

Rob Leurs

*VU University Amsterdam, The Netherlands*

#### Local Organiser

Henk Timmerman

*VU University Amsterdam, The Netherlands*

Laura Heitman

*University of Leiden, The Netherlands*

#### Registration deadline

March 5, 2020

#### Venue

Castle "Oud Poelgeest", Oegstgeest

(near Leiden), The Netherlands

Airport: Schiphol, Amsterdam

#### Fee

The fee of 1985€ includes 3 nights accommodation at the venue, breakfast, coffee-breaks, lunches and dinners during the days of the course.

#### Contact

EFMC Administrative Secretariat

LD Organisation sprl

Scientific Conference Producers

Rue Michel de Ghelderode 33/2

1348 Louvain-la-Neuve, Belgium

TEL: +32 10 45 47 74

FAX: +32 10 45 97 19

MAIL: [administration@efmc.info](mailto:administration@efmc.info)

WEB: [www.efmcshortcourses.org](http://www.efmcshortcourses.org)

**May 17-20, 2020**

**Oegstgeest (near Leiden), The Netherlands**

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. Should the number of applications exceed the maximum, preference will be given to applicants from EFMC adhering countries and employees of EFMC corporate members. Upon special request to the organisers, only based on financial conditions and supported by an argued recommendation of the head of the department of the applicant, up to 3 applicants from academia may be admitted at a reduced fee.

#### Course Outline

G-protein coupled receptors represent the largest class of drug targets. Although they serve as targets for about 30% of the known drugs, many of them is still orphan. In the last 15 years, however, we witnessed dramatic developments in the structural biology and pharmacology of GPCRs. High resolution X-ray and cryo-EM structures made the design of the GPCR ligands more rational. The widening knowledge on their signalling resulted in new concepts such as allosteric modulation, GPCR residence time and biased signalling currently tested in clinical trials. This course will provide an introduction for medicinal chemists to this important target class including concepts and methods applied in the structural biology, modelling, systems biology, pharmacology and medicinal chemistry of GPCRs. The course will finish with a series of medicinal chemistry case studies, including the discovery of molecular probes, tool compounds, clinical candidates and marketed drugs.



EUROPEAN FEDERATION  
FOR MEDICINAL CHEMISTRY



## National Adhering Organisations

Below you can find the list of the 26 National Adhering Organisations composing the European Federation for Medicinal Chemistry (EFMC)

More information can be found on the EFMC website:

[www.efmc.info/adhering-organisations-european-medicinal-chemistry](http://www.efmc.info/adhering-organisations-european-medicinal-chemistry)

<b>Austria</b>	Medicinal Chemistry Section of the Austrian Chemical Society
<b>Belgium</b>	Medicinal and Bioorganic Chemistry Division of the Royal Flemish Chemical Society (KVCV) Medicinal Chemistry Section of the Société Royale de Chimie (SRC)
<b>Croatia</b>	Section of Medicinal/Pharmaceutical Chemistry of the Croatian Chemical Society
<b>Czech Republic</b>	Section of Synthetic Drug of the Czech Pharmaceutical Society
<b>Denmark</b>	The Danish Society for Medicinal Chemistry and Chemical Biology
<b>Finland</b>	Finnish Pharmaceutical Society
<b>France</b>	Société de Chimie Thérapeutique (SCT)
<b>Germany</b>	Division of Medicinal Chemistry of the German Chemical Society (GDCh) Section of Pharmaceutical/Medicinal Chemistry of the German Pharmaceutical Society (DPHG)
<b>Greece</b>	Hellenic Society of Medicinal Chemistry
<b>Hungary</b>	Organic and Medicinal Chemistry Division (OMCD) of the Hungarian Chemical Society (HCS)
<b>Israel</b>	The Medicinal Chemistry Section of the Israel Chemical Society
<b>Italy</b>	Division of Medicinal Chemistry of the Italian Chemical Society (Società Chimica Italiana)
<b>Latvia</b>	Latvian Association for Medicinal Chemistry
<b>Netherlands</b>	Division Medicinal Chemistry & Chemical Biology, Royal Netherlands Chemical Society (KNCV-MCCB)
<b>Poland</b>	Polish Society of Medicinal Chemistry
<b>Portugal</b>	Division of Medicinal Chemistry of the Portuguese Chemical Society
<b>Russia</b>	Medicinal Chemistry Section of The D.I
<b>Serbia</b>	Division of Medicinal Chemistry of the Serbian Chemical Society
<b>Slovenia</b>	Section for Medicinal Chemistry of the Slovenian Pharmaceutical Society
<b>Spain</b>	Sociedad Española de Química Terapéutica
<b>Sweden</b>	The Swedish Academy of Pharmaceutical Sciences
<b>Switzerland</b>	Division of Medicinal Chemistry & Chemical Biology (DMCCB) of the Swiss Chemical Society
<b>Turkey</b>	Turkish Association of Medicinal and Pharmaceutical Chemistry
<b>United Kingdom</b>	The Biological and Medicinal Chemistry Sector (BMCS) of the Royal Society of Chemistry (RSC)

## EFMC Meeting Calendar

Interested to quickly find the information about the events of the EFMC and its National Adhering Organisations, browse the frequently updated [online calendar](#).



