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SWISS CHEMICAL SOCIETY NEWS

IChO 2023 Closing Ceremony: more than just winning medals

The 55th International Chemistry Olympiad ended with a closing ceremony on Monday afternoon, 24 July. Out of 348 participants, 217 were awarded gold, silver, or bronze medals. The Swiss team took home an "honourable mention".

It was a celebration of the natural sciences – or more precisely, chemistry – held from July 16–25, 2023 on ETH Zurich's Hönggerberg campus. A total of 348 students from 89 countries met for a peaceful competition. They tested their chemistry knowledge in five-hour-long practical and theoretical examinations. The tasks developed by the scientific committee under the direction of ETH professor, Wendelin Stark were quite challenging. "Five hours of practical chemistry in the lab and 5 hours of theory in a row – at a university level – where even the world's best face a big challenge," explains Stark. "I am, therefore, very impressed by the dedication and expertise that the students have shown over the past week." Wendelin Stark, who represented Switzerland at the Chemistry Olympiad in Italy, Norway, and China in 1993, 1994, and 1995 respectively, discovered his love of chemistry through the competition and made contacts that have lasted to throughout his career. Now he hopes that the participants at the IChO 2023 in Switzerland were also able to gain experience that will accompany them throughout their lives.

Swiss team with a solid result, China won

The participants were awarded for their great performance on Monday during the closing ceremony in the Tonhalle Zurich. A total of 217 gold, silver, and bronze medals were awarded. A further 27 candidates received an "honourable mention," including Vivian Huber from Basel-Stadt. The best participant was Weijie Mao from China, who also achieved the best result in both the theoretical and practical examinations.

The awards were presented by Günther Dissertori, Rector of ETH Zurich and President of IChO 2023, among others. "It was a wonderful experience and a great honour to have these motivated young people from all over the world as our guests at ETH. I think it is great to see their enthusiasm and how much they have learned about chemistry, ETH Zurich and Switzerland!", says Günther Dissertori. "Of course, I hope that we will be able to welcome some of them as students in the future."

Successful event thanks to many volunteers

IChO 2023 was held in Switzerland for the first time and was organized by ETH Zurich's Department of Chemistry and Applied Biosciences, the Science Olympiad Association, the Swiss Chemistry Olympiad Association, and the Swiss Chemical Society. The event also received support from the Department for Education, Research, and Innovation, as well as numerous partners from the business community and charitable foundations. Marco Gerber, head of the organizing committee, was delighted with the event's success: "We spent two years preparing for this week, and now I am happy that everything worked out so well. We owe this not least to the more than 300 volunteers who put their heart and soul into making the IChO possible!"

Getting to know Switzerland and like-minded people in science

In addition to the exams, the participants had the opportunity to get to know Switzerland and its research through an extensive social program. For example, they visited the Paul Scherrer Institute, Lonza – a site for research and development in manufacturing - in Visp. They went on excursions to the picturesque mountain of Rigi and the old town of Bern – their accompanying persons did not miss out either. They gained an insight into the research work of Swiss Federal Laboratories for Materials Science and Technology (Empa) and Swiss Federal Institute of Aquatic Science and Technology (Eawag), visited Methrom AG – producer of precision instruments for chemical analysis – in Herisau, and enjoyed the view from the Swiss alpine peak, Säntis.
Source: *https://chab.ethz.ch*

Call for Nominations: Chemistry Europe Fellowship 2023

Chemistry Europe
FELLOWS

The Chemistry Europe Fellows Program was established in 2015 by the Chemistry Europe Presidents and Representatives to recognize members of the Chemistry Europe societies for their outstanding achievements and contributions to Chemistry Europe and their service to at least one member society.

The Chemistry Europe Fellows Program is established to foster the identity of Chemistry Europe within continental Europe but is not limited to that continent. It is the highest honor given by Chemistry Europe. Fellows receive a certificate and retain the designation as Chemistry Europe Fellow for life.

Nomination Process

The Chemistry Europe Fellows will be announced and honored at the biannual EuChemS conference or during appropriate national meetings in the years in-between.
The new Fellows Class 2022/2023 will be announced in spring 2024.

Deadline for nominations is September 30, 2023.

Please contact Karl Gademann, University of Zurich and SCS delegate in Chemistry Europe, or David Spichiger, SCS Executive Director, if you like to nominate a candidate for this prestigeous distinction.
Source: *https://chemistryviews.org/fellows*

2023 Elections of IUPAC Officers, Executive and Science Board Members

During the 52nd IUPAC General Assembly in The Hague in August 2023, the Council was asked to elect a Vice President, a Secretary General, and members of the newly established Executive Board and Science Board. IUPAC National Adhering Organizations have been invited to submit nominations.

On 1 January 2024, Ehud Keinan (Israel), Vice President and President-Elect of IUPAC, will become President. Javier García-Martínez (Spain), current President, will become Past President and remain an officer and a member of the Executive Board for a period of two years, while Christopher Brett (Portugal), current Past President, will retire. Secretary General Richard Hartshorn (New Zealand) was elected by the Council in July 2019 for a second four-year term and will also retire at the end of 2023. He will be followed by Zoltan Mester (Canada) as new Secretary General starting 2024. Meanwhile Treasurer Wolfram Koch (Germany) was elected by Council in August 2021 for a four-year term and will continue.
Website: *https://iupac.org*

A Warm Welcome to Our New Members!

Period: 11.07.2023–17.08.2023

Boopathi Appakutti Achuthan, Fribourg - Konstantina Kalliopi Armadorou, Crissier - Roman Ashauer, Adligenswil - Andrea Baldi, Cavriglia (IT) - Eva Baur, Lausanne - Debora Belmonte, Zurich - Luc Bondaz, Sion - Duncan Brownsey, St-Sulpice - Junwu Chen, Lausanne - Tamis Darbre, Ittigen - Christophe Didier, Zurich - Sascha Feldmann, Cambridge (US) - Jasmin Frei, Klingnau - Rocio Maria Garcia Montero, Renens - Liliana Gonçalves, Wurenlingen - Andrei Iosub, Basel - Semra Koçak , Bern - Sarina Kopf, Lausanne - Jens Ferdinand Krzyzanowski, Urnäsch - Ruben Laplaza, Lausanne - Gregor Meier, Basel - Corina Meyer, Zurich - Alexander Müller, Buonas - Rebecca Neeser, Prilly - Khurnia Krisna Puji Pamungkas, Geneva - Ojaswita Pant, Lausanne - Sophie-Christine Porak, Rüschlikon - Abdul Rahman Sadiq, Zurich - Hanna Schäfer, Zurich - Takuya Segawa , Ehrendingen - Carl Sünderhauf, Zurich - Pierre Thesmar, Basel - Marc-Eduard Usteri, Zurich - Morgan Vallieres, Zurich - Geemi Wellawatte, Froideville - Céline Weller, Zurich - Young Ye, Lausanne.

Obituary Albert Eschenmoser (1926–2023)

Dear members of the Swiss Chemical Society,

It is with deep mourning that we have to communicate that Albert Eschenmoser passed away on July 14, 2023 at the age of 97.

Albert Eschenmoser was born in Erstfeld, Uri, on August 5, 1925. From 1944 to 1949 he studied Chemistry at the ETH Zurich, and obtained his doctorate in 1951 under Nobel Prize winner Prof. Leopold Ružička in the working group of Hans Schinz on acid-catalyzed cyclizations in mono- and sesquiterpene compounds. Eschenmoser became a Privatdozent in organic chemistry in 1956, was promoted to associate professor in 1960, and received a full professorship in 1967. After his retirement in 1992, Eschenmoser continued his research with postdoctoral fellows - because curiosity and thinking never stop: until 2000 he continued at ETH Zurich, from 1993 to 1996 at the Biozentrum of the University of Frankfurt am Main, and from 1996 to 2009 at the Scripps Research Institute in La Jolla, California.

Albert Eschenmoser shaped organic chemistry as did few others. A brilliant mind gave rise to masterpieces of total synthesis – Vitamin B12 as a particular landmark in the history of chemistry – hand in hand with the development of synthetic methods, the unraveling of fundamental mechanistic problems in biosynthesis and organic chemistry, and forays into prebiotic chemistry. Beautiful investigations into why Nature chose pentoses rather than hexoses for the backbone of its genetic polymers have illuminated fundamentally important aspects of the origins of life itself.

Today, many of Eschenmoser's contributions are taught in chemistry textbooks. By means of imagination, intelligence, insight, and will, the science of Albert Eschenmoser and his more than 250 coworkers made an indelible mark on chemistry in academia as well as the chemical and pharmaceutical industries, most especially in his home country. Always deeply rooted in Switzerland, even when abroad, Albert was esteemed by innumerable international colleagues and friends for his sharp mind, curiosity, vitality, and irrefutable ethics. His knowledge and interests extended outward from chemistry and the natural sciences to literature, music, and the arts.

The members of ETH Zurich, his former staff and sutdents, as well as his colleagues and the whole Swiss chemistry community will honour his memory.
Source: https://*chab.ethz.ch*

HONORS, AWARDS, APPOINTMENTS

Helvetica Prize of the Swiss Chemical Society 2023

On the occasion of the SCS Fall Meeting 2023, Helvetica, represented by its editors in chief, Prof. Eva Hevia and Prof. Jérôme Waser, as well als Helvetica Executive Editor Dr. Richard Smith, will award the Helvetica Prize of the Swiss Chemical Society for the best published papers of PhD/Postdocs 2022/23 in Helvetica Chimica Acta. The prize is endowed with CHF 1'000 for the winner and CHF 500 for the runner-up. Dr. Richard Smith, Executive Editor of Helvetica, handed over the certificates to the winners on on the second day of the SCS Fall Meeting 2023. The winners presented their research in an flash talk of 3min each.
Congratulations to:
1st prize: Marius D.R. Lutz, ETH Zurich, CHF 1'000
«Synthesis and Reversible H_2 Activation by Coordinatively Unsaturated Rhodium NHC Complexes»
https://doi.org/10.1002/hlca.202200199
Group of: Bill Morandi and
2nd prize: Xingxing Wu, University of Basel, CHF 500
«X-Ray Crystallographic Studies of Quasi-Racemates for Absolute Configuration Determinations»
https://doi.org/10.1002/hlca.202200117
Group of: Christof Sparr
Website: *https://scg.ch*

EuChemS Historical Landmarks 2022 in Altafulla, Mülheim and Milan

The 2022 EuChemS Historical Landmarks Award was received by the "Hospital of Pilgrims" on the regional level, and by the legacy of of Karl Ziegler and Giulio Natta on the European Level. The Hospital of Pilgrims is a Renaissance style building, located in Altafulla, a town near Tarragona, on the southern coast of Catalonia, Spain. The "Zeigler-Natta legacy" encompasses two places: the historical laboratory of the Max-Planck-Institut (MPI) für Kohlenforschung in Mülheim, Germany and the "Giulio Natta" Department of Chemistry, Materials and Chemical Engineering at the Politecnico in Milano, Italy. These locations are now proudly signified on the interactive map of the European Chemistry Landmarks.

As always, these locations have vast histories behind them, as the EuChemS Historical Landmark Awards are given to locations of significance, to recognise the role of science and chemistry in the history and heritage of the continent. The Hospital of Pilgrims exemplifies this by hosting the laboratory of chemist and naturalist Antoni de Martí i Franquès in the 18th century. In this laboratory, significant strides were made in atmospheric chemistry research. Martí's eudiometrical tests established the composition of the air, and left a significant scientific aftermath, as they were used for many years to come. The Legacy of Karl Ziegler and Giulio Natta leads us to the more recent past, however, the historical significance of the duo's interconnected research on the field of synthetic polymers cannot be understated. Their cooperative and competitive research and development activites – which Zeigler done in Max-Planck-Institut (MPI) in Mülheim, while Natta in Politecnico di Milano – resulted in discovering a way to catalyse the production of polyethylene much simpler than before. Their discovery was made in 1953, for which they received a joint noble prize in 1963 – and this year, 60 years later, their respective places of work will jointly receive the EuChemS Historical Landmark Awards to commemorate their discoveries made there.
Source: *https://euchems.eu*

2022 EuChemS Lecture Award awarded to Athina Anastasaki, ETH Zurich

Prof. Athina Anastasaki, ETH Zurich received the 2022 EuChemS Lecture Award in recognition of her major achievements, and her outsanding research profile in the field of polymer chemistry. This award is given to honor the major achievements of one junior scientist working in chemistry in a country with a EuChemS Member Organisation. Athina is an Assistant Professor at ETH Zurich leading the Laboratory of Polymeric Materials. Her area of research is fundamental polymer synthesis, self-assembly and chemical recycling predominantly in the area of controlled radical polymerization. In addition, she is an Associate Editor in the RSC Journal Polymer Chemistry as well as a Golden Owl Award recipient for her outstanding faculty teaching.
Source: *https:// euchems.eu*
Picture: *https://mat.ethz.ch*

JOURNAL NEWS

Helvetica, Volume 106, Issue 8, August 2023

Research Articles

Room-Temperature Alkyl-Diphenylpyrene Liquefication by Molecular Desymmetrization
Fengniu Lu, Akira Shinohara, Izuru Kawamura, Akinori Saeki, Tomohisa Takaya, Koichi Iwata, Takashi Nakanishi

Cloud-Enabled Handheld NIR Spectroscopy: A Transformative Approach for Real-Time Forensic Analysis of Cannabis Specimens
Florentin Coppey, Cédric Schelling, Jean-Luc Veuthey, Pierre Esseiva

Thermotropic Colloidal Liquid-Crystalline Hydroxyapatite Nanorod Hybrids Containing a Forklike Mesogen
Junya Uchida, Ryuta Kiguchi, Riki Kato, Takashi Kato

Synthesis, Characterisation, and *in vitro* Cytotoxic Activity of Dithiocarbamato Glycoconjugate Half-Sandwich Ruthenium and Osmium Complexes
Joan J. Soldevila-Barreda, Andrea Pettenuzzo, Maria Azmanova, Laia Rafols, Amr A. A. Attia, Alexandru Lupan, Luca Ronconi, Nicolas P. E. Barry, Anaïs Pitto-Barry

Fit-for-Purpose Synthesis of CDK2 Inhibitor GNE-140
Andrea Ambrosi, Katarzyna A. Piechowicz, Tyler A. Tuck, Di Xu, Haiming Zhang, Francis Gosselin

Eutectic Molten Salt Synthesis of Highly Microporous Macrocyclic Porous Organic Polymers for CO_2 Capture
Timur Ashirov, Thamon Puangsamlee, Alexandra Robles, Patrick W. Fritz, Krzysztof Piech, Ognjen Š. Miljanić, Ali Coskun

Towards Platinum(II) Complexes for *in cellulo* Applications: Synthesis, Characterization, Biological and Catalytic Evaluation
Lisa Gourdon-Grünewaldt, Marija Bakija, Lara Wild, Berislav Perić, Gilles Gasser, Srećko I. Kirin, Kevin Cariou

Website: *https://onlinelibrary.wiley.com/journal/15222675*

INDUSTRIAL NEWS

Source: *www.chemanager-online.com*

Zeta Acquires 20% Stake in CB Consultancy
July 21, 2023: Zeta, an Austrian engineering specialist for biopharmaceutical process plants, acquired a 20% share in Swiss company CB Consultancy. The transaction was completed by Jul. 14, 2023. CB Consultancy provides services in planning, construction management, and operation of industrial facilities in various sectors, including pharmaceuticals, biotechnology, chemicals, analytical and scientific service providers, and the med-tech industry. Its customers include Takeda, Novartis, Johnson & Johnson and Sinopharm. "The cooperation between CB Consultancy and Zeta has proven its worth since 2013," commented Andreas Marchler, CEO of Lieboch, Austria-based

Zeta. "Building on this strong foundation of trust and successful collaboration, CB Consultancy and Zeta have decided to further deepen their cooperation through this share acquisition," he added. Combining their strengths, Zeta and CB Consultancy continue their partnership and work closely together in project initiation and execution, focusing on conceptual optimization within the project lifecycle. Zeta said the journey of newly developed compounds from the laboratory through preclinical phase and early GxP clinical production, followed by scaling up the manufacturing process to industrial scale, and finally to market in a safe routine manufacturing facility is a complex, challenging process for the pharmaceutical and biotech industries. Therefore, risk and complexity management in manufacturing biopharmaceutical products are key challenges confronting companies in this industry.

Roche Teams up with Alnylam for Antihypertensive Drug

July 26, 2023: Swiss pharmaceutical company Roche will collaborate with Cambridge, Massachusetts-based US biotech Alnylam Pharmaceuticals to further develop its drug zilebesiran for the treatment of hypertension. The therapeutic, which is in Phase 2 clinical trials, uses the cellular mechanism RNA interference (RNAi) for targeted gene silencing. According to a Roche press release, high blood pressure affects more than 1.2 billion adults worldwide, and about 80% of them are unable to control their blood pressure effectively. Under the terms of the agreement, Alnylam will receive an upfront cash payment of $310 million and is eligible to receive additional substantial near-term payments, including development milestone payments over the next few years, as well as regulatory and sales milestones, for a potential deal value of up to $2.8 billion. Roche is to cover 60% and Alnylam 40% of the development costs. If zilebesiran clears the hurdle of marketing approval, the companies intend to market it jointly in the US and share expenses and profits. Outside the US market, Roche will receive exclusive commercialization rights, with Alnylam sharing an unspecified portion of sales. In addition to this, Roche may lead development for additional indications in the future. "We are excited to work together with Alnylam and leverage our strong R&D capabilities, our leadership in cardiovascular diagnostics and our global commercial footprint to further develop and provide this promising therapy with best-in-disease potential to patients," said Teresa Graham, Roche Pharma's CEO. "Together with a strong partner like Alnylam, we are looking forward to making a significant impact for patients living with hypertension at high cardiovascular risk and potentially other cardiovascular indications." "We are thrilled to announce this collaboration, as it combines Alnylam's proven track record in RNAi therapeutics with Roche's global commercial reach, commitment to innovation and desire to transform the landscape for patients with severe cardiovascular diseases," said Yvonne Greenstreet, CEO of Alnylam. "With this collaboration, we now can develop zilebesiran in a more robust way, allowing us to have cardiovascular outcomes data in hand at launch to ensure results relevant not only for health authorities but also for access and clinical practice in order to ultimately reach as many patients as possible."