



SCS
Swiss Chemical
Society

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SWISS CHEMICAL SOCIETY NEWS

SCS Awards 2021: Call for Nominations



As one of our four strategic pillars, SCS awards excellence in science and chemistry respectively and is proud of its renowned award program that goes back to 1936 with the ceremony of the first Werner Prizes to Dr. T. Posternak, Genève, and Prof. G. Schwarzenbach, Zurich.

The society hereby calls for nominations for the 2021 SCS Awards. Nominations

have to be submitted electronically to info@scg.ch. The deadline for all documents to reach the Swiss Chemical Society is September 30, 2020. For specific award information and a list of required documents please visit our website: scg.ch/awards

Werner Prize

CHF 10'000 and medal in bronze

The Werner Prize is awarded to promising young Swiss scientists or young foreign scientists working in Switzerland for outstanding research in the field of chemistry. Selection of the winners is not restricted to candidates working at a university. On the deadline for submission of nominations, the candidate must be under 40 years old (*i.e.* 40th birthday after the deadline) and may not be a tenured professor or hold a managerial position in industry. The prize is awarded annually.

Grammaticakis-Neumann Prize

CHF 5'000

The Prize is awarded to a promising young scientist for outstanding accomplishments in the field of experimental or theoretical photochemistry. The prize is announced internationally and is not restricted to persons affiliated with academic institutions. On the deadline for submission of nominations, the candidate must be under 40 years old (*i.e.* 40th birthday after the deadline) and may not be a tenured professor or hold a managerial position in industry.

The prize is awarded every two years.

METAS Award

CHF 5'000

METAS honors with this award a promising scientist working in Switzerland for an outstanding contribution to the field of metrology in chemistry and/or biology. The price is announced nationally and is restricted to persons who are, at the time of the submission deadline, affiliated with Swiss academic or research institutions.

The prize is awarded annually.

Balmer Prize

CHF 2'000 for individuals and CHF 2'000 for the school's chemistry department or CHF 3'000 for a group and CHF 1'000 for the school's chemistry department and medal in bronze.

The Balmer Prize is awarded for innovation in chemistry teaching to a teacher working in Switzerland or to a team of teachers working at the same school at the high school level. The innovation must consist of an original didactic approach, experimental method or teaching practice and be readily applicable to everyday teaching at the high school level. The costs for materials must be modest. The prize is awarded annually.

Dr. Max Lüthi Award

CHF 1'000 and medal in bronze

The Dr. Max Lüthi Award is presented for outstanding degree thesis completed in the chemistry department of a Swiss University of Applied Sciences. Nominations must be submitted by the respective chemistry department heads. The prize is awarded annually.

Sandmeyer Award

CHF 10'000 for individuals or CHF 20'000 for groups

The Sandmeyer Award is presented to a team or an individual for outstanding work in the field of industrial or applied chemistry. The work must have been carried out in Switzerland or abroad by a team including Swiss nationals. The award may be presented to an individual – Swiss or foreign national – if the work was carried out in Switzerland. The award may be presented to an individual for work carried out abroad if the person is Swiss. Tenured professors will not be considered for the award as individuals. In the case of foreign teams, the Swiss member must have made a substantial contribution to the work. There is no age restriction. The prize is awarded annually.

SCS Industrial Science Awards

Since 2013 the Swiss Chemical Society runs this award program with financial support from the Swiss chemical and pharmaceutical industry in order to honor R&D researchers in Switzerland. The program targets scientists from companies of any size working in the field of chemistry or chemical related sciences. There are three awards with different criteria in terms of the experience and level of research attained by the candidates. The awards are presented to active researchers working in Switzerland and are given to individuals exclusively.

Industrial Science Award

to honor successful investigators with outstanding achievements. Certificate and cash check of CHF 7'000 The prize is given on an annual basis.

Senior Industrial Science Award

to honor very successful and established investigators with outstanding achievements over many years. Certificate and cash check of CHF 10'000 The prize is given on an annual basis.

Distinguished Industrial Science Award

to honor senior scientists for their lifetime achievements in chemical research. Certificate and cash check of CHF 15'000 Reward on decision by the board.

Green & Sustainable Chemistry Award

CHF 10'000

This new prize that will be awarded the first time in 2021 is implemented in collaboration with Syngenta as founding partner and SusChem Switzerland as hosting institution. It targets young professors that are working in the field of Green and Sustainable Chemistry and recognizes outstanding scientific discoveries that lay the foundation for environmentally-friendly approaches and products. The award is given annually.

Clariant CleanTech Awards Switzerland

CHF 5'000 for the winner and CHF 10'000 in total including the runners-up

This award program honors outstanding scientific achievements of Master students, PhD students, and Postdocs in Switzerland in the field of Sustainable Chemistry, in areas such as resource efficiency, renewable energy, renewable raw materials or green technologies and environmental protection.

The prizes are awarded every two years.

Please note that the deadline for this award series is May 2021 and candidates will have to submit their dossiers *via* the website of the 2nd Swiss SusChem Days 2021.

More information on all the award programs is available on our website: scg.ch/awards

Schweizerin glänzt mit Bronzemedaille an der internationalen Chemie-Olympiade



Vom 23. bis 30. Juli hiess die Türkei 235 Jugendliche aus 60 Ländern willkommen – allerdings nicht in Istanbul, sondern im Internet. Die Internationale Chemie-Olympiade, kurz IChO, fand wegen der Pandemie virtuell statt. Vier Chemie-Talente aus der Schweiz hatten sich am nationalen Wettbewerb im April für diese internationale Herausforderung

qualifiziert:

- Albert Shang, Ecole Internationale de Genève (GE)
- Daniel Isler, Kantonsschule Baden (AG)
- Jasmin Frei, Kantonsschule Wettingen (AG)
- Lennart Horn, Kantonsschule Solothurn (SO)

Jasmin Frei wurde an der IChO 2020 mit einer Bronzemedaille ausgezeichnet. Ausserdem erhielt Lennart Horn eine Ehrenmeldung.

Source: science.olympiad.ch

A Warm Welcome to Our New Members!



Period: 15.07.–18.08.2020

Jan Alfke, Zurich – Peter Alpert, Bruff
Emmanuelle Allouche, Chéserey – Tomo Bilic, Goldach – Caroline Frommelt, Goldach – Qiuguo Fu, Dübendorf – Manuel Gallardo Villagran, Neuchâtel – Margaux Héritier, Yverdon-les-Bains – Qiang Liu, Zurich – Djenana Ljoki, Goldach – Nicola Lüdi, Burgdorf –

Charlotte Müller, Zurich – Claudio Nietzel, Goldach – Dominik Nossek, Goldach – Leonardo Palaferri, Zurich – Michael Paul, Goldach – El Phil Radhia, Geneva 4 – Radka Snajdrova, Witterswil – Imelda Stamp, Basel – Petr Tatarskiy, Zurich – Eric Winter, Untersiggenthal – Manfred Zinn, Bramois.

HONORS, AWARDS, APPOINTMENTS

ACS honors five Swiss scientists with one of the 2021 ACS Awards

The ACS announced the 2021 winners of 60 different awards. Among them are three scientists working at EPFL Lausanne and two at ETH Zurich. Considering that only ten ACS awards went to scientists outside the USA, EPFL and ETHZ winning a total of five is pretty impressive.

The American Chemical Society (ACS) is one of the largest scientific societies in the world, numbering nearly 157'000 members. Each year, the ACS gives various awards and honors to researchers to recognize their contributions across various fields of chemistry.



Prof. Marinella Mazzanti receives the F. Albert Cotton Award in Synthetic Inorganic Chemistry, which recognizes “distinguished work in synthetic inorganic chemistry”. Professor Mazzanti is also the first recipient of the award working outside the USA.

Prof. Majed Chergui receives the Ahmed Zewail Award in Ultrafast Science & Technology, which recognizes “outstanding and creative contributions to fundamental discoveries in ultrafast science & technology.”

Prof. Yimon Aye receives an Arthur C. Cope Scholars Award, which recognizes and encourages “excellence in organic chemistry.”

In addition, **Prof. Wendy Queen** has been included among the 2020 Talented 12 of the ACS magazine “Chemical & Engineering News”, which every year highlights “a dozen young rising stars who are using chemical know-how to change the world.”



Prof. Helma Wennemers, the current Chair of the Laboratory of Organic Chemistry at ETH Zurich, receives the Arthur C. Cope Scholar Award for her overall research accomplishments, especially in the field of bioinspired asymmetric catalysts and the use of functionalized molecular scaffolds in supramolecular chemistry and chemical biology.

Less than a dozen Europe-based scientists have been recognized with this award in its long history (350 awardees). Helma Wennemers is the first female scientist who has pursued her entire independent academic career in Europe to win this award.

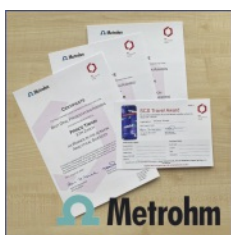
Prof. Peter Chen, ETH Zurich, receives the James Flack Norris Award in Physical Organic Chemistry. In his research he combines detailed physical measurements with the planning and synthesis of molecules, making it possible to design and test intuitive models of the energetics and reactivity of reactive intermediates in organic and organometallic chemistry. According to Professor Chen, the behavior of these intermediate products provides the key to the understanding and the control of the chemical process.

Source: actu.epfl.ch/news and chab.ethz.ch

42 young scientists awarded with one of the Best Presentation Awards at the SCS Fall Meeting 2020

In collaboration with Metrohm and DSM Nutritional Products, SCS offered again the very attractive and prestigious Fall Meeting Best Presentation Award program that is probably the most highly remunerated award program in the field. We are very proud and happy to cooperate with our sponsoring partners, Metrohm and DSM, for many years now and we wish to express our sincere gratitude for their generous support.

The 42 winners received travel vouchers to attend international conferences (total value CHF 16'500), cash contributions (total value CHF 12'700) and invitations to publish an article in the laureates issue of CHIMIA 4/2021 (total value CHF 9'600).



Best Oral Presentation Awards 2020

Markus Steinke, EVP Marketing, Metrohm International Headquarters and representative of Metrohm, awarded a total of 17 winners at the end of the SCS Fall Meeting online on August 25, 2020.

Analytical Sciences

Winner Prince Tiwari, ETH Zurich
 Runner-up Pascal Becker, ETH Zurich

Catalysis Sciences & Engineering

Winner Maxim Zabitskiy, PSI Villigen
 Runner-up Jaicy Vallapurackal, University of Basel

Computational Chemistry

Winner Tomislav Begušić, EPFL Lausanne
 Runner-up Stephanie M. Linker, ETH Zurich

Chemistry and the Environment

Winner Jordan Meyet, ETH Zurich
 Runner-up Michael Zumstein, Eawag, Dübendorf

Inorganic & Coordination Chemistry

Winner Pinelopi Moutzouri, EPFL Lausanne
 Runner-up Dorota I. Walicka, University of Zurich

Medicinal Chemistry & Chemical Biology

Winner Lluc Farrera Soler, University of Geneva

Organic Chemistry

Winner Hsin-Hua Huang, University of Basel
 Runner-up Josep Mas-Roselló, EPFL Lausanne

Physical Chemistry

Winner Mudit Sinhal, University of Basel
 Runner-up Alexander Aster, University of Geneva

Polymers, Colloids & Interfaces

Winner Claire Meyer, University of Basel
 Runner-up Derek Kiebal, University of Fribourg, Adolphe Merkle Institute

Prizes for Winners

- certificate and cash contribution of CHF 500
- travel voucher of CHF 1'000 to attend an international conference.
- invitation to present the research in the laureates issue of CHIMIA. Value CHF 540

Prizes for Runners' up

- certificate and cash contribution of CHF 400



Best Virtual Poster Awards 2020

Dr. Roman Imhof, Global Research Center Head Chemistry at DSM and representative of DSM Nutritional Products Ltd. awarded a total of 25 winners at the end of the SCS Fall Meeting online on August 25, 2020.

Analytical Sciences

Winner Stefan Kradolfer, ETH Zurich
 Runner-up Tara Forrest, University of Geneva

Catalysis Sciences & Engineering

Winner Simon Büchele, ETH Zurich
 Runner-up Andrea Blankenship, ETH Zurich
 Zachariah Berkson, ETH Zurich
 Yongpeng Liu, EPFL Lausanne

Computational Chemistry

Winner Stephanie Grimmel, ETH Zurich
 Runner-up Christian Schellhaas, ETH Zurich

Chemistry and the Environment

Winner Anna Morales-Melgares, EPFL Lausanne
 Runner-up Nora Bartolomé, Agroscope
 Charlotte Driesen, Empa

Inorganic Chemistry

Winner Aurélien R. Willauer, EPFL Lausanne
 Runner-up Leonie J. Bole, University of Bern

Medicinal Chemistry

Winner Remi Patouret, University of Geneva
 Runner-up Susanna Zamolo, University of Bern

Chemical Biology

Winner Thomas Edwardson, ETH Zurich
 Runner-up Michelle Frei, EPFL Lausanne

Organic Chemistry

Winner Alexandre Leclair, EPFL Lausanne
 Runner-up Elena Braconi, EPFL Lausanne
 Antonin Clemenceau, University of Basel
 Tomáš Pastierik, University of Zurich

Physical Chemistry

Winner Snaedis Biörgvinsdottir, EPFL Lausanne
 Runner-up Tereza Schonfeldova, EPFL Lausanne
 Vladimir Gorbachev, ETH Zurich

Polymers, Colloids & Interfaces

Winner Jovana Jevric, University of Bern

Prizes for Winners

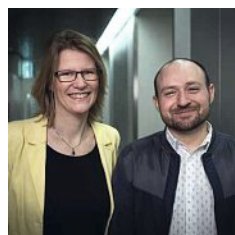
- certificate and cash contribution of CHF 200
- travel voucher of CHF 750 to attend an international conference.
- invitation to present the research in the laureates issue of CHIMIA. Value CHF 540

Prizes for Runners' up

- certificate and cash contribution of CHF 200

Source: scg.ch and scg.ch/fallmeeting/2020

ETH Spark Award winners 2020 illuminate tumours



Prof. Helma Wennemers and **Dr. Matthew Aronoff** receive the Spark Award 2020 from the ETH Zurich.

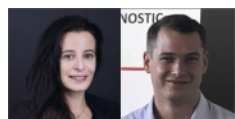
Making tumours visible so that surgeons can cut only as much as necessary: this is the goal of an invention by chemical biologists Helma Wennemers and Matthew Aronoff. For their achievement they have received the Spark Award,

with which ETH recognises the most innovative invention with the most commercial potential of the past year.

Photograph: ETH Zurich / Martin Rüttsche

Source: ethz.ch

Winners of the Helvetica Prize of the Swiss Chemical Society 2020



Helvetica and the Swiss Chemical Society are proud to announce the 2020 winners of the new Helvetica Prize of the Swiss Chemical Society for the best published papers of PhD/Postdocs 2019/20 in Helvetica Chimica Acta. The prize is endowed with 2x CHF 750.

The 2020 prizes go to:

Jérémy Vuilleumier, (EPFL Lausanne, Group of Prof. Sandrine Gerber)

Title of the publication: “Photocontrolled Release of the Anticancer Drug Chlorambucil with Caged Harmonic Nanoparticles”

Valentina Galli (University of Geneva, Group of Prof. Nicolas Winssinger)

Title of the publication: “Caprin-1 Promotes Cellular Uptake of Nucleic Acids with Backbone and Sequence Discrimination”

Helvetica and SCS congratulate Jérémy and Valentina for their excellent publications.

Source: scg.ch

JOURNAL NEWS

Helvetica, Volume 103, Issue 8, August 2020



Communications

Synthesis of Benzo[α]carbazoles through Visible Light-Induced Cycloaromatization

Bo Yao, Qian Wang, Jieping Zhu

Full Papers

Meso-Substituted Tetrabenzotriazaporphyrins for Dye-Sensitized Solar Cells

Lara Tejerina, Satoshi Yamamoto, Ismael López-Duarte, M. Victoria Martínez-Díaz, Mutsumi Kimura, Tomás Torres

Chiral α -Amino Acid-Based NMR Solvating Agents

Anikó Nemes, Tamás Csóka, Szabolcs Béni, Zsófia Garádi, Dénes Szabó, József Rábai

onlinelibrary.wiley.com/journal/15222675/

INDUSTRIAL NEWS

Source: www.chemanager-online.com

EU Fines Clariant for Ethylene Price Fixing

July 15, 2020: The European Commission has fined Swiss specialty chemicals producer Clariant €155.8 million for its role in an ethylene purchasing scheme that also implicated other chemical producers, including US-based Celanese. Clariant said it had made a provision for the investigation and the potential fee in its balance sheet in 2019. The Muttenz-based company, now owned to 31.5% by Saudi Arabian petrochemicals producer SABIC, stressed that a single former employee was implicated in the extensive investigation dating back to May 2017. At that time, EU inspectors, accompanied by the relevant national competition authorities, raided corporate offices in several countries on concerns that the ethylene buyers may have violated EU antitrust rules that prohibit cartels and restrictive business practices (Article 101 of the Treaty on the Functioning of the European Union), which would mean agreeing fixed prices. In a statement this week, Clariant said it “deeply regrets” the violation and is “disappointed that its strong culture of compliance, based on a clear Code of Conduct and an antitrust compliance program including a multitude of tailored antitrust trainings, was not upheld.” The chemical producer noted that it had assisted authorities throughout the investigation and fully cooperated with the Commission, which had led to a reduced fine. Clariant said it will “continue to promote the highest ethical standards and ensure compliance in the future.”

Clariant Inks Fourth Sunliquid License

July 30, 2020: Clariant has signed a licensing deal for its sunliquid cellulosic ethanol technology with Bulgaria’s Eta Bio. The Swiss specialty chemicals group said the agreement, the fourth for sunliquid, represents another significant step toward the technology’s commercialization and also gives it a foothold in the agricultural sector. Established by the Pavlovi family, which manages one of Bulgaria’s largest agricultural businesses, Eta Bio will construct, own and operate a full-scale commercial plant on a greenfield site in General Toshevo, in the country’s northeast. The facility will process about 250,000 t/y of wheat straw – an abundant resource in the region – and produce 50,000 t/y of cellulosic ethanol. Clariant did not give a date for the plant to go on stream. “The realization of the first Bulgarian cellulosic ethanol production project will help to solve one of the main challenges agricultural producers face in the region – the removal of the straw from the fields. This project will give us the chance to have an additional revenue stream from agricultural leftovers,” said Eta Bio’s managing director Kiril Pavlov. The plant’s output will be used as a gasoline additive to fulfil Bulgaria’s blending mandate for advanced biofuels, as set out in the Renewable Energy Directive (RED) II.

Catalyst activities gather momentum

Clariant has won a second contract with China’s Dongguan Grand Resource Technology (DGR) for its Catofin catalysts. The award follows DGR’s successful start-up of a 600,000 t/h Catofin propane dehydrogenation (PDH) unit last October. The second 600,000 t/y PDH unit is scheduled to be commissioned in 2022. Also in China, Clariant said its joint off-gas treatment with Jiangsu Jinneng has been successfully operating since November 2019 at Shandong Qilu Plasticizers’ phthalic anhydride (PA) plant in Zibo, Shandong.

The treatment, which employs Clariant’s EnviCat VOC catalyst, purifies production off-gas, which contains volatile organic compounds and carbon monoxide. The 70,000 t/y PA plant already uses Clariant’s OxyMax PA 690 catalyst.

Lonza Expanding Microbial Facility at Visp

August 5, 2020: Swiss CDMO Lonza is expanding its microbial manufacturing facility in Visp, Switzerland, to add mid-scale (3,000 l) commercial manufacturing for multiple customers and in particular to supply a long-term partner, France's Laboratoires Servier, with active pharmaceutical ingredients (APIs) for acute lymphoblastic leukemia (ALL) therapies. Servier and Lonza recently signed a long-term extension to their manufacturing agreement for L-asparaginase, produced at Lonza's Alpine location since 2009. Servier intends to expand access to asparaginase-based multi-agent chemotherapeutic regimens, as ALL continues to be the most common type of cancer among children diagnosed with leukemia. The new facility, due to go on stream in 2022 with 100 new employees, will be one of six operating in Lonza's new biopark currently under construction at Visp. It will tap into the company's existing central utilities and labs and complement the site's existing small-scale (1,000 l) and large-scale (15,000 l) assets. Traditionally used for producing hormones, enzymes and some vaccines, microbial fermentation is becoming increasingly attractive for new molecular formats that do not need human glycosylation, given the higher yields and shorter production timelines, Lonza said. Many antibody fragments, as well as plasmid DNA, can be produced this way. Jean-Christoph Hyvert, chief commercial office at Lonza, said the company sees "a clear role for microbial technology as new medicines evolve and we are investing in key enablers including expression technology and manufacturing assets." The Basel-based company said it is continuously developing the required knowhow, including XS Technologies – an extensive microbial expression toolbox with more than 3,000 individual microbial strains expressed – together with a range of manufacturing assets designed to support customers from clinical supply to commercial production. Lonza is expanding its microbial manufacturing facility in Visp, Switzerland, to add mid-scale (3,000l) commercial manufacturing, in particular to supply long-term partner Servier with active pharmaceutical ingredients (APIs) for acute lymphoblastic leukemia (ALL) therapies.

Lonza to produce Kodiak's Wet AMD candidate

Also at Visp, Lonza plans to produce the KSI-301 anti-VEGF biopolymer conjugate being developed by Kodiak Sciences for various ophthalmic retinal diseases. The candidate is in Phase 2/3 studies for wet age-related macular degeneration (wet AMD) and diabetic macular edema (DME). The CDMO will provide a facility dedicated to the bioconjugation of the potential therapy, using its Ixos Dedicate offering, a series of prebuilt shells at the Visp biopark. Visp will also serve as a production site for the biopolymer element of the candidate, along with Lonza's site in Nansha, China. Its facility in Portsmouth, New Hampshire, USA will produce the antibody.

Austria Invests in Novartis' Antibiotics Plant

August 11, 2020: The Austrian government is sharing a third of the cost of a €150 million upgrade Novartis' generics unit Sandoz is stemming at its Kundl, Austria, facility. The Swiss drugmaker claims this is the last remaining integrated production chain for antibiotics in the Western world. In view of the ongoing pandemic and possible disruptions in supply chains, Austria wants to make sure that essential antibiotics will be available in that country and other European nations. The money will go toward developing state-of-the-art manufacturing technology for active pharmaceutical ingredients (APIs), in particular for penicillin, along with finished drugs. As part of the agreement, Sandoz is committing to produce APIs in Europe for the next 10 years, despite the fact that countries such as China can make them cheaper. Kundl, it said, can make enough penicillin products to potentially meet all current Europe-wide demand

Many European and American drugmakers have stopped investing in new antibiotics, despite rising drug resistance, as China's dominance has become so overwhelming. Novartis shut down antibacterial and antiviral research at its Novartis Institutes for Biomedical Research campus in California, USA, in 2018 and put its projects there up for sale. Novartis and the Austrian state are investing €150 million and €50 million respectively to improve production at Novartis generics arm Sandoz' antibiotics plant at Kundl, Austria. Novartis says this is the last integrated production chain for antibiotics in the Western world.

In the meantime, the pandemic has driven home the danger of outsourcing most of the world's API production to Asia. In July, a consortium of 20 "big pharma" companies, including Novartis, established the new \$1 billion AMR Action Fund with the intent of bringing two to four new antibiotics to market by 2030. In the US, the Trump administration is pushing the re-establishment of national API output in particular as the president was angered when India, another major API supplier, moved the freeze at the height of the pandemic. China, however, is now regarded as the leading global supplier of antibiotics, accounting for around 90% of the US market's supplies. Earlier this year, the US government signed a \$354 million four-year contract with a scarcely known company called Phlow to manufacture ingredients and finished generic drugs for COVID-19, including certain antibiotics. Putting national emergency supply in the hands of a company with no track record of turning out finished drug has raised the ire of the traditional US pharma industry, as well as the more recent government decision to tap photography group Eastman Kodak to produce APIs.

Keine halben Sachen.



Die Welt ist voll von Halbwissen. Besonders im sensiblen Umfeld der Chemie ist dies jedoch fehl am Platz. Deshalb arbeiten wir seit 1947 mit Leidenschaft und Liebe zum Detail daran, dass evaluierte Daten und Fakten rund um das Themenfeld Chemie zur Verfügung stehen. Immer. Und ohne Ausnahme. So wurde „Der RÖMPP“ Synonym für inzwischen über 65 000 Stichwörter und über 240 000 Querverweise, auf die man sich verlassen kann. Das sollten Sie sich am besten selbst anschauen.

Sonderkonditionen für SCG-Mitglieder.

Nur 100% sind 100%.
www.roempp.com

 **Thieme**