



SCS
Swiss Chemical
Society

Community News

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SWISS CHEMICAL SOCIETY NEWS

SCS Fall Meeting 2022: successful event for the first time on-site after the pandemic



The SCS Fall Meeting 2022, one of the largest annual research conferences in Switzerland, took place at Irchel Campus of the University of Zurich on Thu, September 8, 2022. More than 800 participants attended the event, including many young scientists for whom the Fall Meeting was a great platform to present their research for the first time ever at

a major conference. After two years of online events due to the COVID-19 pandemic, we were finally able to hold the event on-site. We received more than 450 contributions for a talk or a poster presentation in one of the 9 parallel sessions.

The following SCS Award lectures were held during the event:

- Sandmeyer Award Lecture 2022
Dr. Theodor Laino, IBM Research, Zurich
«Fueling the digital chemistry revolution with language models»
- Swiss Green & Sustainable Chemistry Award Lecture 2022
Prof. Xile Hu, EPFL Lausanne
«Cooperative molecular, bio-, and electrocatalysis»
- SCS Senior Industrial Chemistry Award Lecture 2022
Prof. Bernd Kuhn, F. Hoffmann-La Roche AG
«Details matter in structure-based drug design»
- Paracelsus Award Lecture 2022
Prof. Antonio Togni, ETH Zurich
«For the sake of making molecules»

The Parallel Sessions included 2x 30min invited lectures and 10x 15 min short talks from PhD students and Postdocs.

The full programs incl. the abstracts and the communication of the Best Oral and Best Presentation Award Winners are still available on the website.

fm22.scg.ch

General Assembly 2022 of the youngSCS



The general assembly of the youngSCS was held at the SCS Fall Meeting on September 8, 2022 at Irchel Campus, University of Zurich. An overview of the last years events was given, future events were presented, and a new board was elected. More than 30 attendees joined the event and motivated the board members to continue the efforts to further est-

ablish the community. The past year has been very productive which can be recognized by the development of the organization on several levels. Being part of the organization of the Inter-

national European Young Chemists Meeting 2022 has been one of the big accomplishments. Furthermore, representatives from almost all Swiss research institutions guarantee broad integration in the community.

The new youngSCS board positions are:

- President: Marie Perrin, ETH Zurich
- Vice-President: Marie-Désirée Scheidt, University of Neuchâtel
- Treasurer: Tara Forrest, University of Geneva
- Communication: Patrick W. Fritz, University of Fribourg
- Representative for IYCN: Stefanie Linker, ETH Zurich
- Representative for EYCN: Chrysanthi Papadimou, University of Neuchâtel

Stay informed about the youngSCS' activities:

scg.ch/youngSCS

Twitter @SwissYoungChem

Review Swiss Chemistry Science Night 2022 – A Celebration of Chemical Research



On September 16, 2022 the second Swiss Chemistry Science Night took place at Casino Bern! More than 110 award winners and invited guests followed the invitation and enjoyed the evening to celebrate excellence in chemistry. Leslie Fendt, F. Hoffmann-La Roche, and Stefan Willitsch, University of Basel, guided through the evening as moderators

and presented the guests and awardees in dialogue with the SCS president, Christian Bochet, in a competent and highly entertaining manner. Matthias Leuenberger, president of scienceindustries, and Günther Dissertori, rector at ETH Zurich, opened the evening with their welcome messages before no less than 22 winners for 10 prizes and 3 honorary members of the Swiss Chemical Society were awarded.

The gala was very much appreciated by the community and provided a networking platform for industry and academic members.

EuChemS General Assembly 2022 in Lisbon



On August 26–27, 2022, the delegates of the EuChemS member societies as well as the EuChemS board members and selected guests met in Lisbon for the 2022 General Assembly. Prof. Floris Rutjes, President, and Nineta Hrastelj, Secretary-General, guided through the assembly and ensured that everything proceeded properly and in accordance

with the statutes.

After the presentation and a short discussion, all motions of the standard agenda items were approved and the organs were

granted discharge. The most important business was the election of a new President-elect and a successor to the retiring treasurer. **Prof. Angela Agostiano**, full professor of Physical Chemistry, at the Department of Chemistry, University of Bari-Italy, was unanimously elected as President-elect from January 2023 and thus EuChemS President from January 2024. The nomination from the SCS of **Dr. Hans Peter Lüthi** as Treasurer was also confirmed without dissenting votes and Hans Peter will complete the Executive Board with his competences as of January 2023. With the election of Hans Peter Lüthi and the re-election of Christophe Copéret as executive board member last year, Switzerland is now represented with two delegates in the EuChemS Executive Board.

The 2021 income statement closed with a surplus of EUR 12'841, bringing the total assets of EuChemS and its divisions to around 632 kEUR.

Agenda EuChemS General Assembly 2022

Lisbon, August 26–27, 2022,

Session 1:

1. Welcome by the President and local host
2. Taking attendance and apologies for absence
3. Finalization of the agenda
4. President's business Floris Rutjes (15 min)
5. Secretariat updates Nineta Hrastelj (15 min)
6. EuChemS Divisions/WP: report and outlook Péter Szalay (15 min)
7. EYCN's updates Maximillian Menche (15 min)
8. Presentation of candidates for the Treasurer and for the President-Elect

Session 2: EuChemS Governance and Finances

9. Finances Eckart Rühl (30 min)
 - a) 2021 EuChemS aisbl accounts
 - b) EuChemS 2023 subscriptions and budget
 - c) Auditors of 2022 accounts
10. 2023 plan of EuChemS activities
11. Membership application
12. AOB
13. Closing remarks

David Spichiger, SCS Executive Director, represented SCS and Switzerland and is happy to answer your questions. As the minutes of the assembly is for internal use only we cannot share the full information. Please send your requests to info@scg.ch
More information: euchems.eu

Chemistry Europe Award 2023: Final Call for Nominations



With the Chemistry Europe Award, Chemistry Europe honors every two years scientists who have made outstanding contributions in a field of chemistry for sustainability, energy, materials, and the environment. The topic of the award will be determined by the Chemistry Europe Council. This new prize will be awarded for the first time in 2023.

Nomination Process:

The prize may be awarded not only to members of the Chemistry Europe societies but also to non-members and representatives of any nation. Chemistry Europe representatives are ineligible to receive this award. Nomination Deadline is **November 1, 2022**
More information: chemistryviews.org

Euresearch Focus: Switzerland and Horizon Europe: A Love-Hate Relationship?



2 years after the start of Horizon Europe (HE), there are still so many doubts and myths about the possibility of joining consortia of collaborative projects as a Swiss-based entity. Let's clarify some points – spoiler alert: YES, we can participate in HE!

So much has been said on the current political situation between Switzerland and the European Union. Yet, the number of questions and incorrect statements that Euresearch still regularly receives from researchers and entrepreneurs on the possibility of participating in HE and getting funded is impressive. Our answer is always the same: YES, Swiss entities can submit collaborative project proposals and/or join running projects, as well as receive reimbursement for eligible costs from the State Secretariat for Education, Research and Innovation (SERI).

This is fact! Just pay attention to how you frame your role in the project:

1. Your entity must be included as an Associated Partner. You cannot be a Beneficiary, because the European Commission is not financing your participation.
2. Your budget doesn't get broken down into cost categories, rather you enter your total budget amount under "Financial Contribution".
3. Make sure that all the tasks you will perform in the project are duly described in the proposal. SERI will only fund what was evaluated in the original proposal.
4. You can be the leader of work packages and tasks, but you cannot hold the role of project coordinator. This role is not possible for Associated Partners.

There are currently a few mono-beneficiary HE programmes where Swiss entities cannot participate. However, there are several equivalent Swiss transitional funding opportunities available!

Contact: com@eurosearch.org

Der RÖMPP feiert Jubiläum: 75 Jahre Lexikon, 20 Jahre online und das 150. Update



Von Acetylcholin-Esterase bis Zucker-Säure-Verhältnis: Seit 75 Jahren bietet das renommierte Chemie-Lexikon RÖMPP von Thieme Chemistry gesichertes und umfassendes Wissen zu Stichwörtern aus dem Bereich der Chemie und angrenzenden Naturwissenschaften. Seit 2002 wird der RÖMPP als web-basierte Online-Enzyklopädie

fortgeführt, die aktuell rund 65'000 Einträge umfasst und nun das 150. Update erhält.

1947 setzte sich Dr. rer. nat. Hermann Römpp das Ziel, ein Nachschlagewerk zu schaffen, das kurze, allgemeinverständliche und zuverlässige Antworten auf Fragen aus der Chemie gibt. In dieser Tradition wurde der RÖMPP seitdem stetig aktualisiert und erweitert. Heute umfasst er außer der Chemie auch die Fachgebiete Biotechnologie und Gentechnik, Umwelt- und Verfahrenstechnologie, Lebensmittelchemie, Naturstoffe sowie Materialwissenschaft und Werkstofftechnik. Ein großer Meilenstein stellte im Jahr 2002 die Übertragung des RÖMPP von der Buchform in die digitale Welt dar. Die intuitiv bedienbare Online-Plattform umfasst aktuell rund 65'000 Stichwörter, die durch 290'000 Querverweise logisch miteinander verknüpft

sind, etwa 24'000 Strukturformeln und Grafiken sowie 46'000 Weblinks. «Inhaltliche Qualität und Aktualität sind auch heute noch die Markenzeichen des RÖMPP: Alle Stichwörter werden von zahlreichen Autor*innen aus Wissenschaft und Industrie, unseren Redakteur*innen und am Schluss durch das Herausgeber-Gremium erstellt, überarbeitet und geprüft. Die freigegebenen Inhalte werden dann in regelmäßigen Updates im RÖMPP veröffentlicht. Wir garantieren, dass alle im RÖMPP erschienenen Stichwörter wissenschaftlich gesichert, zitierbar und durch eine intuitive Suchfunktion auch schnell zugänglich sind», betont Dr. Dorothee Gollhofer, Executive Editor bei Thieme Chemistry.

Neue Inhalte, Funktionen und Features

Pünktlich zum Jubiläum in diesem Jahr erhält das Online-Chemielexikon auch das 150. Update. Insgesamt wurden 120 neue Stichwörter zu aktuellen Themen aufgenommen oder überarbeitet. So kam unter anderem das Stichwort Covidin hinzu, eine bioinformatisch vorhergesagte Aminosäure-Sequenz innerhalb des Spike-Proteins von SARS-CoV-2. Ein weiteres Beispiel ist das Stichwort Zinksulfid und dessen Einsatz in der Industrie. Neben vielen hilfreichen Features und Funktionen bietet der RÖMPP seit Kurzem ausserdem per Mouse-over-Effekt eine Vorschau auf alle im Text verlinkten Stichwörter.

Kostenloser Testzugang für SCG-Mitglieder

75 Jahre RÖMPP, 20 Jahre online und das 150. Update: Anlässlich des Jubiläums haben Thieme und die Swiss Chemical Society (SCS) eine Kooperation vereinbart. Mitglieder der Gesellschaft können den RÖMPP im Rahmen der Vereinbarung für drei Monate bis Ende November kostenfrei für ihre Arbeit nutzen und so von den vernetzten interdisziplinären Inhalten und hilfreichen Features der Online-Enzyklopädie profitieren. Mehr Infos dazu finden Sie unter: thieme.de/en/thieme-chemistry/roemp-54669

Call for nominations: EuChemS Awards 2023



Nominations for the EuChemS Gold Medal, the EuChemS Lecture Award, the EuChemS Awards for Service and the EuChemS Historical Landmark Awards are open.

All the nominations are open until 19 December, 2022, 18:00 CET. More information: euchems.eu

Call for Nominations: 2023 IUPAC Chemistry Awards



The IUPAC-SOLVAY International Award for Young Chemists 2023

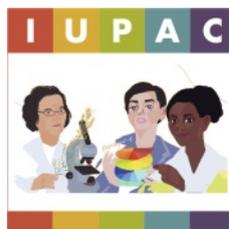
The award is intended to encourage outstanding young research scientists at the beginning of their careers. The awards are given for the most outstanding Ph.D. theses in the general area of the chemical sciences, as described in a 1000-word essay. The award is generously sponsored by Solvay. In 2023 IUPAC will award up to five prizes. Each prize will consist of USD 1,000 cash award and up to USD 1,000 towards travel expenses to attend the 2023 IUPAC Congress in The Hague (18-25 Aug 2023; see iupac2023.org). In keeping with IUPAC's status as a global organization, efforts will be made to ensure fair geographic distribution of prizes. The awards will be presented at the 2023 IUPAC Congress. Each awardee will be invited to present a poster on his/her re-

search and to participate in a plenary award session, and is expected to submit a review article for publication in Pure and Applied Chemistry. Complete applications must be received at the IUPAC Secretariat by 15 February 2023. More information about the application process: iupac.org/2023-iupac-solvay-international-award-for-young-chemists-call-for-applicants

search and to participate in a plenary award session, and is expected to submit a review article for publication in Pure and Applied Chemistry.

Complete applications must be received at the IUPAC Secretariat by 15 February 2023.

More information about the application process: iupac.org/2023-iupac-solvay-international-award-for-young-chemists-call-for-applicants



IUPAC 2023 Distinguished Women in Chemistry or Chemical Engineering Awards

The purpose of the awards program, initiated as part of the 2011 International Year of Chemistry celebrations, is to acknowledge and promote the work of women in chemistry/chemical engineering worldwide. In 2011, 23 women

were honored during a ceremony held at the IUPAC Congress in San Juan, Puerto Rico, on 2 August 2011. At each of the subsequent IUPAC Congresses, 12 women received this recognition; in Istanbul, Turkey in 2013, in Busan, Korea in 2015, in Sao Paulo, Brazil in 2017, in Paris, France in 2019, and virtually (in Montréal) in 2021. A similar award ceremony will take place during the 2023 IUPAC Congress in August 2023 in The Hague, The Netherlands. Awardees will be selected based on excellence in basic or applied research, distinguished accomplishments in teaching or education, or demonstrated leadership or managerial excellence in the chemical sciences. The Awards Committee is particularly interested in nominees with a history of leadership and/or community service during their careers.

Each nomination requires a primary nominator and two secondary nominators who must each write a letter of recommendation in support of the nomination. A CV of the nominee is required. Self-nominations will not be accepted. Nominations should be received by 1 November 2022.

More information about the application process: iupac.org/2023-women-in-chemistry



IUPAC International Award for Advances in Harmonized Approaches to Crop Protection Chemistry

This award recognizes individuals in government, intergovernmental organizations, academia, and industry who have exercised personal leadership for outstanding regulatory, public policy, and/or educational contributions sup-

porting international harmonization of crop protection chemistry. The award is administered by the IUPAC Advisory Committee on Crop Protection Chemistry, a body of the IUPAC Division of Chemistry and the Environment, and is presented on a roughly biennial basis.

The next award will be presented as part of the Agrochemicals Division program for the Fall 2023 American Chemical Society meeting in San Francisco, USA, during August of 2023. Awardees receive an honorarium plus travel and per diem reimbursement to attend the award presentation ceremony. Nominations for the 2023 award are due by December 1, 2022.

More information about the application process: iupac.org/call-for-nominations-iupac-international-award-for-advances-in-harmonized-approaches-to-crop-protection-chemistry

Call for Nominations: Prix Schläfli 2023



The Prix Schläfli, one of the oldest science prizes in Switzerland (since 1866), rewards excellent articles published in the frame of a PhD thesis. Every year, the Swiss Academy of Sciences (SCNAT) awards the prize in the following natural sciences disciplines: Astronomy, Biology, Chemistry and Geosciences

Eligible for nomination are young researchers who did their doctoral thesis at a Swiss University or are of Swiss nationality. The candidates must have defended their thesis between 1 November 2019 and 31 October 2022. Nominations must be submitted by the supervisor of the candidate or by the committee of a SCNAT member society. The deadline to submit the dossiers for the Prix Schläfli 2023 is October 31, 2022.

More information about the prize, former laureates and dossier submissions: scnat/prixschlaefli

A Warm Welcome to Our New Members!



Period: 23.08.–26.09.2022

Ghewa Alsabeh, Lausanne – Phil Becker, Zurich – Sara Behjati, Lausanne – Linus Benedikt Boll, Zurich – Alan Bridge, Penthaz – Tobias Brüttsch, Dietikon – Lorena Casasola, Zurich – Gianni De Lucia, Ecublens VD – Moritz Fink, Zurich – Angelo Frei, Bern – Nina Frei, Zurich – Matteo Frigerio, Marly – Lionel Gautier, Zurich – Jonas Genz, Zurich – Jeff Guo, Lausanne – Micha Hofer, Zurich – Illia Hutskalov, Basel – Sven Jänner, Zurich – Serpil Kiokekli, Thalwil – Kilian Koch, Luzern – Dorothea Kossmann, Zurich – Ravi Kumar, Bern – Yanis Lazib, Bern – Oleksandr Liashuk, Lausanne – Elena Loeher, Mettmensstetten – Alexander Major, Kaisten – Indradip Mandal, Fribourg – Kantin Mauger, Zurich – Guanghui Niu, Zurich – André Nyberg Borrforss, Zurich – Basak Olcay, Bern – Mücahid Örgen, Zurich – Andreas Ostertag, Basel – Çağrı Özsan, Bern – Giacomo Persiani, Basel – Pauline Pfister, Zurich – Stanislav Prytuliak, Zurich – Sergio Ramos, Zurich – Renzo A. Raso, Muttenz – Nicolas Francisco Rosa De Sousa, Fribourg – Jacques Saarbach, New Haven (US) – Farooq Saquib, Fribourg – Mirco Scaccaglia, Bern – David Schlander, Zurich – Meredith C Schuman, Zurich – Navnit Kaur Singh, Aesch – Olga Siscan, Grenchen – Jana Gabriella Stein, Dübendorf – Maša Stopinšek, Zurich – Veronika Villiger, Zurich – Johannes Wieser, Zurich – Edward Will, St-Sulpice – Tianqi Zhang, Lausanne.

HONORS, AWARDS, APPOINTMENTS

40 young Scientists awarded with one of the Best Presentation Awards at the SCS Fall Meeting 2022



In collaboration with Metrohm and DSM Nutritional Products, the SCS offered again a very attractive and prestigious Fall Meeting Best Presentation Award program. We are very proud and happy to cooperate with our sponsoring partners, Metrohm and DSM, for many years.

The 40 winners received travel vouchers to attend international conferences (total value CHF 16,500), cash (total value CHF 12,700) and invitations to publish an article in the laureates issue of CHIMIA 4/2023 (total value CHF 9,600).

Best Oral Presentation Awards 2022

Markus Steinke, representative of Metrohm, awarded a total of 17 winners at the end of the SCS Fall Meeting on September 8, 2022 at Irchel Campus, University of Zurich.

Polymers, Colloids & Interfaces

Winner: Jansie Smart, University of Fribourg
 Runner-up: Jasper Clarysse, ETH Zurich

Physical Chemistry

Winner: Constantin Krüger, EPFL Lausanne
 Runner-up: Jutta Toscano, University of Basel

Organic Chemistry

Winner: Juan Rojas, London
 Runner-up: Valeriia Hutskalova, University of Basel

Medicinal Chemistry

Winner: Tagwa Mohammed, University of Zurich

Inorganic Chemistry

Winner: Nadir Jori, EPFL Lausanne
 Runner-up: Alessandra Logallo, University of Bern

Chemistry and the Environment

Winner: Aline Schaub, EPFL Lausanne
 Runner-up: Kevin Kleemann, ETH Zurich

Computational Chemistry

Winner: Alan Scheidegger, EPFL Lausanne
 Runner-up: Paul Türtscher, ETH Zurich

Catalysis Sciences & Engineering

Winner: Seraphine Zhang, ETH Zurich
 Runner-up: Hannes Frey, ETH Zurich

Analytical Sciences

Winner: Bruno Simões de Almeida, EPFL Lausanne
 Runner-up: Adam Pruška, ETH Zurich

Best Poster Presentation Award 2022

Dr. Werner Bonrath, Senior Scientist at DSM and representative of DSM Nutritional Products Ltd. awarded a total of 24 winners at the end of the SCS Fall Meeting on September 8, 2022 at Irchel Campus, University of Zurich.

Polymers, Colloids & Interfaces

Winner: Hyun Suk Wang, ETH Zurich
 Runner-up: Yoshiki Soda, University of Geneva

Physical Chemistry

Winner: Fernanda B V Martins, ETH Zurich
 Runner-up: Estefanía Sucre-Rosales, University of Geneva

Organic Chemistry

Winner: Andreu Tortajada, University of Bern
 Runners-up: Diana Cavalli, EPFL Lausanne
 Juraj Malinčík, University of Basel

Medicinal Chemistry

Winner: Erik Jung, University of Zurich
 Runner-up: Yuji Kamei, EPFL Lausanne

Chemical Biology

Winner: Esra Ahunbay University of Zurich
 Runner-up: Matthias Bütikofer, ETH Zurich

Inorganic Chemistry

Winner: Andryj Borys, University of Bern
 Runners-up: Georg Tiebel, ETHZ/PSI
 Anastasia Gitlina, EPFL Lausanne

Chemistry and the Environment

Winner: Joanna Houska, Eawag
 Runner-up: KyungSeob Song, University of Fribourg

Computational Chemistry

Winner: Parvathi Santhoshkumar, India
 Runners-up: Manuel Cordova, EPFL Lausanne
 Meghna Manaa, ETH Zurich

Catalysis Sciences & Engineering

Winner: Jan Bühler, University of Zurich
 Runners-up: Amrita Singh-Morgan, ETH Zurich
 Farzaneh Talebkeikhah, EPFL Lausanne

Analytical Sciences

Winner: Karoline Rehm, University of Zurich
 Runner-up: Nikolai Huwa, Eawag

Website of the SCS Fall Meeting 2022: fm22.scg.ch

SCS Helvetica Prize 2022 awarded for the best published papers by PhD students



At the SCS Fall Meeting 2022 in Zurich on September 8, 2022, Helvetica and the Swiss Chemical Society awarded the Helvetica Prize for the best published papers of PhD/Postdocs 2021/22 in Helvetica Chimica Acta. The prize is endowed with CHF 1,000 for the winner and CHF 500 for the runner up.

The 1st prize was awarded to **Jordan De Jesus Silva**, ETH Zurich, for his paper on «Development and Molecular Understanding of a Pd-Catalyzed Cyanation of Aryl Boronic Acids Enabled by High-Throughput Experimentation and Data Analysis».

The runner-up prize was given to **Weilong Liu** and **Emma E. Watson**, University of Geneva, for their article with the title «Photocatalysis in Chemical Biology: Extending the Scope of Optochemical Control and Towards New Frontiers in Semisynthetic Bioconjugates and Biocatalysis».

The prize was implemented in 2019 to honor outstanding publications of young researchers in Switzerland.

ISBP 2022 Life Time Achievement Award for Prof. Dieter Seebach, ETH Zurich



Prof. Dieter Seebach received the ISBP2022 Life Time Achievement Award at the 18th International Symposium on Biopolymers in Sion, CH, September 13, 2022 for his extraordinary achievements in the research field of oligomeric short-chain-length polyhydroxyalkanoates (PHAs).

The International Symposium on Biopolymers (ISBP) is a successful series of symposia that is taking place usually every two years since the very first meeting in Toronto 1988. This 18th edition was scheduled for September 13–16, 2022 and took place in presence mode in the oldest city of Switzerland, Sion, and organized by the University of Applied Sciences and Arts Western Switzerland (HES-SO) and the University of Stuttgart.

Source: isbp2022.com

Ernst Schering Prize 2022 for Gisbert Schneider, ETH Zurich



The Ernst Schering Foundation honors **Gisbert Schneider**, full professor of Computer-Assisted Drug Design at ETH Zurich, with the Ernst Schering Prize 2022 for his pioneering work in the field of AI-assisted drug discovery. Through his visionary research, Gisbert Schneider enabled the transfer of this new approach to industrial application.

As a result, potential active substances are now identified more quickly worldwide and examined for potential side effects.

The integration of artificial intelligence (AI) into medicinal chemistry has changed pharmaceutical drug discovery forever. Gisbert Schneider – Professor of Computer-Assisted Drug Design at the Institute of Pharmaceutical Sciences (IPW) in the Department of Chemistry and Applied Biosciences (D-CHAB) of ETH Zurich and Director of the Singapore-ETH Centre – and his team pursue an approach that combines machine learning with the synthesis of pharmacologically relevant molecules. His method builds on the knowledge about known bioactive substances, natural products, and their effects, and uses AI to generate new drug candidates with desired properties to facilitate the drug discovery process. This process represents a complex multidimensional problem, where different properties of active agents – including their chemical synthesizability and pharmacological activity – need to be optimized in parallel in order to design new drug candidates. It uses, for example, automated chemical synthesis, biochemical tests, and especially AI methods to continuously improve the design hypothesis through a feedback loop. This way, it is possible to increasingly automate many aspects of this multidimensional process on the way towards potential drugs.

Source: chab.ethz.ch

JOURNAL NEWS

Helvetica, Volume 105, Issue 8, August 2022



Reviews

Recent Developments in the Applications of Biomass-Derived Sulfonated Carbonaceous Solid Acid Catalysts
Swapnali P. Kirdant, Asma T. Biradar Tamboli, Dr. Vrushali H. Jadhav

Research Articles

G-Quartets, 4-Way Junctions and Triple Helices but Not DNA Duplexes: Planarization of Twisted Push-Pull Flipper Probes by Surface Recognition Rather Than Physical Compression

Naomi Sakai, Lea Assies, Stefan Matile

Gram-Scale Synthesis, Isolation and Characterisation of Sodium Organometallics: *n*BuNa and NaTMP

Andreu Tortajada, David E. Anderson, Eva Hevia

Crystallography without Crystals: A Structural Study of Fakein
Angelo Gavezzotti

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Research Articles

Crystallographic Characterisation of Organolithium and Organomagnesium Intermediates in Reactions of Aldehydes and Ketones
Jennifer R. Lynch, Alan R. Kennedy, Jim Barker, Jacqueline Reid, Robert E. Mulvey

Website: onlinelibrary.wiley.com/journal/15222675

INDUSTRIAL NEWS

Source: www.chemanager-online.com

WuXi STA Breaks Ground on US Pharma Campus

August 24, 2022: Chinese contract research, development and manufacturing organization WuXi STA, a subsidiary of WuXi AppTec, has broken ground on a new pharmaceutical campus in Middletown, Delaware, USA. First announced in June 2021, the site will be WuXi STA's second facility in the US, providing expanded capacity and greater flexibility to meet the needs of customers both in the US and worldwide. The facility is expected to start operating in 2025 and will create roughly 500 full-time jobs by 2026. The first phase will provide formulation development, clinical and commercial drug product manufacturing services for a variety of oral and injectable dosage forms, as well as packaging, labeling, storage and distribution services for clinical trial materials and commercial drug products. WuXi STA has 12 sites across the US, Europe and Asia that offer a range of services, as well as three other drug product manufacturing sites in Couvet, Switzerland, and Wuxi City and Shanghai in China. Last month, the company opened a new continuous manufacturing plant for large-scale API and advanced intermediate production, as well as a large-scale oligonucleotide and peptide manufacturing facility at its Changzhou campus in China. In addition, WuXi AppTec announced plans on Jul. 19 to invest up to \$1.43 billion in a new R&D and manufacturing site in Singapore. The investment is expected to be made in stages over the next 10 years, depending on the company's business needs.

Arxada Expands at Visp to Continue Supplying DSM

August 26, 2022: Swiss specialty chemicals company Arxada said it will invest 20 million Swiss francs to expand production at its Visp site following the extension of a long-term supply partnership with DSM. Arxada supplies niacin and various other nutritional ingredients to DSM's vitamin and aroma ingredients business in neighboring Visp-Lalden. The company will also make further investments to cut Visp's carbon footprint so as to help meet both firms' sustainability commitments. "This significant new investment in our Visp facility secures the site's long-term future, helping to fuel our future growth, and demonstrates our clear commitment to sustainability and reducing our carbon footprint," said Antje Gerber, Arxada's president, specialty products solutions. Arxada did not give a start-up date for the expansion. The Basel-based firm said it had already made a "significant" investment at the site last year to reduce greenhouse gas emissions.

Novartis Definitely Plans to Spin off Sandoz

August 29, 2022: Novartis has finally confirmed definite plans to spin off its generic drugs arm Sandoz. It gave no timetable for the move which had seemed a foregone conclusion even before the Swiss drugmaker in October 2021 announced it was conducting a strategic review for the underperforming sub-

siary. During the review period, the Basel-based group said the generics side of its portfolio continued to be trapped in a protracted downward price spiral, reinforcing the need to separate the two segments and allow Novartis to focus on its more profitable prescription drugs business. Sandoz, which generated nearly \$10 billion in sales last year from generics and biosimilars, will emerge as Europe's leading generics company, Novartis predicted. Despite the currently sagging numbers, Novartis CEO Vas Narasimhan said the market for generics is "highly attractive," as branded products worth \$400–500 billion are likely to go off-patent over the coming decade. After the spinoff, Narasimhan said Sandoz would still be headquartered in Switzerland. The company's shares would be listed on the SIX Swiss Exchange, with an American Depositary Receipt program in the US. Richard Saynor would stay on board as CEO. In a conference call, Narasimhan told analysts that, apart from some preliminary interest, the company had received no formal binding offers for Sandoz. If these were to materialize, management would "fully consider" them. However, he said, "we think a spin is by far and away the most likely and best way to separate these two companies." Some analysts seemed less certain. At Citi, the view was that competitive pressures in the generic space a likely to translate into lesser near-term stock market interest.

BASF to Collaborate with Sulzer ChemTech

September 5, 2022: Germany's BASF and Swiss-based technology firm Sulzer Chemtech have announced plans to collaborate on finding sustainable solutions for a number of industrial applications, in particular renewable fuels and chemically recycled plastics. The collaboration will blend Sulzer Chemtech's capabilities in licensed processing technologies and mass transfer equipment with BASF's strong position in high-performance adsorbents and catalysts. The companies said they will not only seek to drive the development of innovative, cost-effective chemical processing solutions to improve the conversion of plastic waste into new plastics, but also to reduce the carbon intensity of renewable diesel and aviation fuel. BASF is already engaged in a number of initiatives aimed at converting plastics waste into secondary raw materials, as well as providing adsorbent and catalytic materials to produce clean and renewable fuels. The German chemical giant recently launched PuriCycle, a line of catalysts and adsorbents solutions that remove or convert a wide range of impurities in pyrolysis oils, a secondary raw material that can be obtained from chemically recycling plastics waste. Winterthur-based Sulzer Chemtech, an established licensor of process technologies for renewable fuels and chemical recycling of plastics, also collaborates with other chemicals and plastics industry players to harness resources that can help global producers achieve their net-zero ambitions. The Swiss company last year began collaborating with olefins and polyolefins producer Borealis on developing a process for expanded polypropylene (EPP) foam. The partners said they expect the new technology to offer significant cost savings and allow processors to meet circular economy guidelines.

Novartis Sued over its own Drug

September 6, 2022: Swiss drugmaker Novartis, already embroiled in a number of lawsuits against generics producers seeking to create copies of its blockbuster cardiac insufficiency treatment Entresto, is now itself being sued. The US universities of Michigan and South Florida claim that the pharma giant is infringing a co-crystal patent the two educational institutions hold and have filed a lawsuit in the US district court for the Northern District of California, seeking damages. At the center of the dispute is US Patent no. 10,633,344, awarded to the universities in April 2020, covering a technology that the plaintiffs say can produce multicomponent solid drugs with "improved

drug solubility, dissolution rate, stability and bio-availability.” Entresto is a combination of sacubitril and valsartan. The universities allege that the two co-crystals comprise “supramolecular synthons” that touch on their patented supramolecular technology. Given the stakes, the institutions want a jury trial, which, if successful, presumably could result in Novartis paying significant damages, in view of Entresto’s annual global sales of \$3.55 billion. Novartis itself has filed patent infringement lawsuits against several US generics manufacturers, including Teva, Viatrix, Aurobindo and Lupin. Due to multiple patent extensions it has won for various components and combinations of Entresto, the Swiss pharma giant has piled up patents protecting various aspects of its formulation into 2036 in some cases. In late 2021, Novartis also filed a citizen petition asking the US Food and Drug Administration not to greenlight any Entresto copies until at least February 2024. At the time, it noted, at least 18 drugmakers had submitted applications seeking approval of a generic version.

Novartis to Shutter a Sandoz US Plant

September 9, 2022: In advance of the planned spinoff of generics subsidiary Sandoz into a standalone generics producer, Novartis has announced it is closing one of the subsidiary’s US plants. By the end of 2023, the Swiss drugmaker said it will shutter the Sandoz oral solid dosage plant in Wilson, North Carolina, where it produces tablets and capsules for Canada and the US. Nearly 250 jobs are at risk. Novartis told US media that employees will not transfer automatically in the event that the business they work for is sold to an outside buyer. While the company said it will continue to look for divestment opportunities, it won’t guarantee any jobs. A spokesperson told US media that the Wilson closure is not related to the spinoff plan and the shutdown would have proceeded regardless, due to stiff US competition and pricing pressure. Novartis originally planned to close the plant this year, but extended the process into late 2023 to ensure that product transfers to other sites are completed. Earlier this year, the pharma giant said it planned to trim roughly 8,000 of its 108,000-member global workforce as part of a \$1 billion cost-cutting plan. Half of the job losses will be in leadership positions, Novartis confirmed to journalists during a media event in Zurich.

Germany’s Merck Expands French Facility

September 12, 2022: German science and technology company Merck has announced plans to invest more than €130 million at its site in Molsheim, France, to expand capacities for single-use assemblies, a key technology for producing COVID-19 vaccines and other therapies. The investment, which will increase capacity for making its Mobius single-use assemblies, is the largest ever in the site’s 50-year history and will create more than 800 jobs by the end of 2028. The new 3,500 m² ISO7 clean rooms, administrative building and new logistics warehouse are planned to be operational by the end of 2024 and will gradually ramp up to full production through 2028. Last year, Merck spent €25 million to add a single-use assembly production unit at Molsheim, which is the first site in Europe to make the product. “France is central to our strategy to drive long-term growth and expand our global leadership position in Life Science,” said Matthias Heinzl, member of Merck’s executive board and CEO Life Science. “In recent years, many biopharmaceutical manufacturers have turned to single-use technologies for their flexibility, cost savings, speed and reduced contamination risk, leading to double-digit market growth for this segment. The COVID-19 pandemic has reinforced this trend.” To achieve its goal of growing group sales to roughly €25 billion by 2025, the Darmstadt-based group is implementing several investment programs worldwide. Its

Life Science business unit has already announced projects in Darmstadt, Germany; Buchs, Switzerland; Cork, Ireland; Wuxi, China; as well as in Carlsbad, California; Jaffrey, New Hampshire; Danvers, Massachusetts; and Verona, Wisconsin in the US.

Global Amines Commissions Indonesia Plant

September 15, 2022: Singapore’s Global Amines – a joint venture between compatriot company Wilmar and Switzerland’s Clariant – has successfully started up a new fatty amines plant in Surabaya, Indonesia. The plant will supply customers both in southeast Asia and worldwide, supporting the company’s existing facilities in China, Europe and the Americas. The company did not divulge the plant’s annual capacity. “Supplying our customers with competitive and high-quality fatty amines globally is our essential purpose, particularly with demand growing across markets. Construction and commissioning under the pandemic restrictions was extremely challenging, but we are now very happy to have our new facility on stream to complete our truly global network for fatty amines production,” said group general manager Ernesto Horikoshi. “The substantial new capacity and extended footprint enable us to provide our customers with the stability of reliable and competitive supply for their ever-increasing needs.” The company added that the plant’s location in the world’s largest integrated oleochemical site enables easy access to key feedstocks, particularly sustainable palm and derivatives certified by the Roundtable on Sustainable Palm Oil. Fatty amines are used to produce key ingredients in personal care and home care products, such as mild surfactants and co-surfactants for shampoo and dishwashing liquids, and also as raw materials for diverse industrial applications. Global Amines announced on Aug. 31 that it has agreed to buy Clariant’s quats and esterquats business. The acquisition is expected to close during the first half of next year.

Calum MacLean to Head Lanxess-Advent JV

September 19, 2022: German specialty chemicals producer Lanxess and private equity group Advent International have named Calum MacLean as CEO-designate of their planned joint venture for high-performance engineering plastics. The appointment will become official on closing of the transaction announced on May 31, which will create a company with annual sales of around €3 billion from assets contributed by Lanxess and Dutch DSM Engineering Materials. MacLean has extensive global experience as CEO of companies in the petrochemicals, polymers and specialty chemicals fields, most recently as head of Synthomer. During his 17-year tenure at Ineos, the British-born executive was instrumental in the integration of Styrolution, formerly a joint venture between Ineos and BASF, along with the consolidation of the PetroIneos JV with PetroChina. He is currently a non-executive board director of Saudi Arabian chemical giant SABIC and recently stepped down from the board of Swiss specialty chemicals producer Clariant. “Due to his background,” Ineos and Advent said MacLean “is the ideal candidate to lead the envisaged merger of equals following the ‘best-of-both-worlds’ principle and the ambition to preserve the rich heritage of both businesses.” Lanxess CEO Matthias Zachert said the JV partners will support the chief executive during the integration phase as the new company “establishes itself as a strong global player in this highly attractive market, following merger clearances.” Once it is established, in the first half of 2023, Advent will hold a minimum share of 60% in the materials company, Lanxess the remainder. The Cologne-based chemical producer and DSM, which is moving toward concentrating on life sciences, are currently working on completing the respective carve-outs and preparing business integration for “day 1,” Zachert noted.

Bachem Secures Major Peptide Contracts

September 22, 2022: Bachem, a Swiss specialist developer and manufacturer of peptides and oligonucleotides, has announced the signing of two major contracts for supplying large volumes of peptides over the next two years. The orders are worth 25 million and 150 million Swiss francs for 2023 and 2024, respectively. The name of the customer was not disclosed, but Bachem said the parties are currently negotiating for further “significantly” higher orders for the following years. “The need for peptide manufacturing and development capabilities across the biopharma industry is growing at a fast pace. That is why we are rapidly and consistently expanding our manufacturing base,” said CEO Thomas Meier. Bachem is currently implementing an investment program across all its sites to expand capacity. One of the projects is the addition of a new large-scale facility in Bubendorf, Switzerland. Construction started last November and the plant is scheduled to open in 2024. The project is being undertaken in two phases. The first will see an investment of 220 million Swiss francs, with a second sum of 150 million Swiss francs for phase two. In its final form, the facility will more than double capacity at Bubendorf. In addition, Bachem is in the advanced stages of selecting a location for a third site

in Switzerland as the company aims to strengthen its production network by the end of the decade. It said land reserves at the Bubendorf site will be exhausted in the medium term. Capacity expansions are also underway in Vionnaz, Switzerland; Torrance and Vista in California, USA; and St. Helens in the UK. In April this year, Bachem announced it had entered into a strategic collaboration with major drugmaker Eli Lilly to develop and manufacture APIs based on oligonucleotides. Under the terms of the agreement, Bachem is supplying appropriate engineering infrastructure and expertise to implement Lilly’s novel manufacturing technology. Furthermore, Bachem is providing R&D and production personnel at its Bubendorf site to develop and manufacture GMP-grade material for Lilly’s oligonucleotide-based investigational medicines. For its part, Lilly committed to place manufacturing projects with Bachem over the next seven years, with increasing demands for material following the successful implementation of its technology. Annual order volumes could potentially reach about 100 million Swiss francs, depending on Bachem achieving certain milestones and definite volumes ordered by Lilly.

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