



SCS  
Swiss Chemical  
Society

## Community News

[www.scg.ch](http://www.scg.ch)

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### SWISS CHEMICAL SOCIETY NEWS

#### General Assembly of the youngSCS



The general assembly of the youngSCS was held online at the SCS Fall Meeting on September 10, 2021. An overview of the last years events was given, future events were presented, and a new board was elected. More than 80 attendees joined the event and motivated the board members to continue the efforts to further establish the community. The past year

has been very productive which can be recognized by the development of the organization on several levels. Following the change of name (from SYCA to youngSCS) and a new logo design, the mission & vision as well as a new organization structure have been defined and published in CHIMIA (<https://doi.org/10.2533/chimia.2021.345>). Furthermore, representatives from almost all Swiss research institutions guarantee broad integration in the community. The rebranding of the association was done in order to give a quick and clear image that they are an SCS network that represents the young chemists.

#### *The new youngSCS board positions are:*

President: Lluç Farrera-Soler, University of Geneva  
Vice-President: Eva Vandaele, University of Zurich  
Secretary: Marie-Désirée Scheidt, University of Neuchâtel  
Treasurer: Tara Forrest, Université de Genève  
Representative for IYCN: Stephanie Linker, ETH Zurich  
Representative for EYCN: Patrick W. Fritz, University of Fribourg  
Communication: Marie Perrin, ETH Zurich

Stay informed about the youngSCS' activities:

[scg.ch/youngSCS](http://scg.ch/youngSCS)

Twitter @SwissYoungChem

#### Review of the first Swiss Chemistry Science Night 2021 – A Celebration of Chemical Research



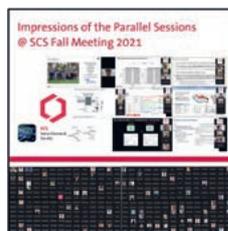
On September 9, 2021 the first Swiss Chemistry Science Night took place at Casino Bern! More than eighty award winners and invited guests followed the invitation and enjoyed the first real on-site event of the SCS since March 2020. Leslie Fendt, F. Hoffmann-La Roche, and Martin Vollmer, Clariant, guided through the evening as moderators and

presented the guests and awardees in dialogue with the SCS president, Alain De Mesmaeker, in a competent and highly entertaining manner. Andrea Gmür, Die Mitte (LU), and Stephan Mumenthaler, director of scienceindustries, opened the evening with their welcome messages before no less than 32 winners for 17 prizes were honored. Some of the award winners gave their

award lecture at the online *SCS Fall Meeting 2021* the following day.

After six years of service, Alain De Mesmaeker will step down as SCS President at the end of 2021 and was honored for his impact and achievements. Next year, Prof. Christian Bochet will take over the mandate and will be the host of the 2<sup>nd</sup> Swiss Chemistry Science Night. Also Hans Peter Lüthi was honored for his service of nine years as SCS treasurer. He already handed over the mandate to Maud Reiter in August 2021.

#### SCS Fall Meeting 2021: Again a successful online event with more than 500 participants



The SCS Fall Meeting 2021 is one of the largest annual research conferences held in Switzerland. For generations of young chemists educated in Switzerland, the Fall Meeting has been a great platform to present their research – often for the first time ever at a major conference – and to be inspired by the people one gets to meet.

For the second time the Fall Meeting took place as an online conference to fulfill the regulations of the government and to facilitate safe exchange of scientific information. After a successful event last year, we were using the same platform again for this edition due to the uncertain situation with the ongoing pandemic. Instead of displaying a (static) image of a classical poster, the SCS decided to grant the presenters a three-minute slot to showcase their research in the form of a video. These videos were on display for the entire week. For the Commercial Exhibition we also created a virtual room through which the participants could enter and view the online booths of the exhibitors. Interactivity, i.e. the exchange between presenter and viewer, was granted through Gather.Town, a virtual platform where participants could move around with their avatar and get in 1:1 interaction with other conference participants, the speakers and exhibitors.

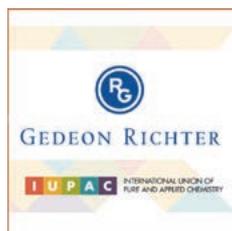
The 'Control Center' to control and supervise the online activities was installed at the Department of Chemistry, Biochemistry and Pharmaceutical Sciences of the University of Bern.

The attendance, in terms of sessions established, was very good. Peak attendance was reached with more than 400 logins. The actual number of participants will be higher (estimated over 500 participants) as some shared the screen with their colleagues in the research groups' seminar room.

#### *Program Highlights:*

- Two plenary sessions with lectures of SCS price winners 2021
- Virtual Poster Session during the whole week
- Nine thematic parallel sessions with key note lectures and 15min PhD presentations
- Best oral and best virtual poster presentation award ceremony

## 2022 IUPAC-Richter Prize – Call for Nominations



The 2022 IUPAC-Richter Prize will be presented during the 37<sup>th</sup> ACS National Medicinal Chemistry Symposium (26–29 June 2022) in New York (USA) and the recipient will also give a lecture on the subject of his/her/ research at the XXVII EFMC International Symposium on Medicinal Chemistry (4–8 September 2022) in Nice (France).

The prize is to be awarded to an internationally recognized scientist, preferably a medicinal chemist, whose activities or published accounts have made an outstanding contribution to the practice of medicinal chemistry or to an outstanding example of new drug discovery.

The Prize has been established by a generous gift from the Chemical Works of Gedeon Richter, Plc. (Budapest, Hungary) to acknowledge the key role that medicinal chemistry plays toward improving human health. Applicants should be received by nomination only, with just one person needing to serve in that capacity, although a total of five (5) individuals should be listed as referees overall. The package must be submitted electronically and should contain a complete resume, a professional autobiography of not more than two pages, and a one-page summary of what the individual considers to be his/her activities, accomplishments and/or publications that have had the most significant impact upon the field of Medicinal Chemistry. The material will be forwarded confidentially to an independent selection committee appointed by the IUPAC Subcommittee on Medicinal Chemistry and Drug Development.

Submission deadline is **December 15, 2021** via nomination form on their website.

### Contact for further information:

Prof. Janos Fischer, Chair of the Jury and Member of the IUPAC Sub-committee on Drug Discovery and Drug Development, by e-mail at [j.fischer@richter.hu](mailto:j.fischer@richter.hu)

Source: [iupac.org/](http://iupac.org/)

## A Warm Welcome to Our New Members!

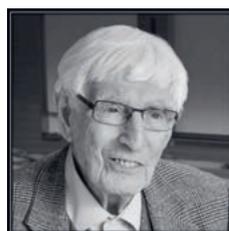


Period: 27.08.- 27.09.2021

Yimon Aye, Lausanne -Valeria Bertozzi, Basel – Máté Bezdek, Zurich – Luc Bondaz, Lausanne - Enrica Bordignon, Geneva – Martin Bullock, Lugano – Simona Capomolla, Rheinfelden – Lunhan Chen, Zurich – Adam Clark, Brugg – Patrick Marcel Danner, Dübendorf – Daniel Egli-Tedesco, Allschwil - Sandro

Fazzolari, Dübendorf – Sergey Fisher, Bern – Valentina Gasser, Zurich – Liam Grunwald, Zurich – Isabelle Holzer, Eggerberg – Annika Huber, Basel – Anna Kelemen, Zurich – Mariia Kirillova, Wallisellen – David Kreutter, Bern – Monique Kuonen, Zurich – Benjamin Lambert, Ecublens – Christopher Larsen, Geneva – Stefan Näf, Herisau – Soroush Naseri, Geneva – Anna Giorgia Nobile, Zurich – Sascha Ossinger, Basel – Kevin Pacios, Vétroz – Sarah Pati, Aarau – Ane Laura Fineid Pedersen, Ecublens – Ece Sahi Ilhan, Geneva – Claudio Screpanti, Stein – Ayian Speck, Geneva – David Steger, Winterthur – Nikolai Tiuf-tiakov, Geneva – Alexandra Tsybizova, Zurich – Paul Türtcher, Zurich – Lida Vadakumchery, Zurich – Cédric Van Goethem, Lausanne – Johannes von Szczepanski, Zurich – Alessandro Walker, Thun – Zuqiang Xu, Zurich – Snizhana Zaitseva, Basel – Kangning Zhao, Sion.

## Obituary Jack Dunitz (1923–2021)



Dear members of the Swiss Chemical Community,

It is with deep mourning that we have to communicate that **Jack Dunitz** passed away on September 12, 2021 in his 99<sup>th</sup> year.

Jack Dunitz studied chemistry at the University of Glasgow, where he also obtained his doctorate in 1947. After

research stays at the University of Oxford, the California Institute of Technology, the U.S. National Institutes of Health and the Royal Institution in London, the Federal Council elected him Associate Professor at ETH Zurich in 1957. In 1964 he was promoted to full professor of chemical crystallography. He was a member of the Lecturers' Committee for several years and from 1982 to 1984 he was Head of the Chemistry Department at ETH Zurich before he retired in 1990. He received numerous awards, including the Paracelsus Prize of the Swiss Chemical Society (1986), the Gregori Aminoff Prize of the Royal Swedish Academy of Sciences (1990), and the Buerger Award of the American Crystallographic Association (1991). He was a member of the Royal Society of London, the German Academy of Sciences Leopoldina, the Academia Europaea, the European Academy of Sciences and Arts, the Royal Netherlands Academy of Sciences, the American Academy of Arts and Sciences, the American Philosophical Society, and the US National Academy of Sciences. He was also an honorary member of the Swiss Society of Crystallography, the Royal Society of Chemistry and the Swiss Chemical Society.

Jack Dunitz consistently had a major influence on the development of crystallography over more than 70 years. He used crystal structure analysis as a tool to understand the structure and reactivity of chemical compounds. With his studies, he profoundly shaped the understanding of chemical reaction pathways, weak molecular interactions, polymorphic compounds, as well as phase transformations and reactions in solids. Special attention was always paid to the symmetry and chirality of chemical compounds. More than 350 publications document his active scientific work. Today, many of his contributions are important parts of chemistry textbooks. With his esprit, vitality and critical spirit, he was highly esteemed worldwide and a frequently invited lecturer and visiting professor. He embodied the spirit of the Laboratory of Organic Chemistry and ETH Zurich and made a decisive contribution to the international reputation of the university.

With his energetic, clearly understandable lectures, he inspired students of chemistry and related natural sciences. He was one of the scholars who embodied the Humboldtian ideal of the unity and universality of teaching and research. As a companion and friend of numerous scientists, he was a walking encyclopaedia; his stories were spiced with incomparable wit, humour and repartee. For his colleagues he was not only a great scientist – they occasionally called him “professor to the professors” – but above all a fine human being. With his clear mind and broad knowledge, which ranged from chemistry and the related natural sciences to literature, music and the fine arts, he was universally loved and appreciated for any discussion.

The members of ETH Zurich, his former staff and students, as well as his colleagues and the whole Swiss chemistry community will honour his memory.

Source: [chab.ethz.ch/](http://chab.ethz.ch/)

## University of Zurich: New Laboratory Building on the Irchel Campus



Light-flooded rooms and state-of-the-art infrastructure: The new UZI 5 laboratory building on the Irchel campus offers attractive workplaces for cutting-edge research in chemistry and the biosciences. The new building was officially inaugurated on August 27, and presented to the media the day before.

With a primary floor space of around 18,000 square meters, UZI 5 offers space for laboratories, offices, meeting rooms and meeting zones. Elegant spiral staircases reminiscent of modern sculptures connect the floors, specially coated louvers on the building's outer skin protect against too much sun, and photovoltaics on the roof provide sustainable energy. A landscaped courtyard with seating areas also invites visitors to pause for a moment.

UZI 5 is the first new building on the Irchel campus site in twenty years. The first four construction stages took place from the 1970s to the 1990s. In 2007, the project competition for the new building of the fifth construction stage was held, ten years later the excavators drove up, and since the end of August UZI 5 is ready for occupancy.

Most of the new laboratory building will be used by the Institute of Chemistry. Today chemistry is an experimental, equipment-intensive science that cannot be conducted without high-tech laboratories. Its previous premises, which were getting on in years, were no longer able to adequately guarantee the chemists' research operations. In addition, the chemistry department – like the natural sciences in general – has experienced particularly strong growth in student numbers in recent years and is therefore in need of more space.

Source: [news.uzh.ch](https://news.uzh.ch)

## HONORS, AWARDS, APPOINTMENTS

### Prof. Victor Mougel, ETH Zurich: Recipient of the 2020 EuChemS Lecture Award



The 2020 EuChemS Lecture Award has been awarded to **Prof. Victor Mougel** for major achievements in chemistry as a junior scientist. Prof. Mougel is a French chemist and is currently an Assistant Professor of Inorganic Chemistry at ETH Zurich. He has made fundamental and application-driven contributions to his field, specifically through the development of efficient bio-inspired electrocatalytic CO<sub>2</sub> reduction, constituting an important step towards more sustainable energy storage and conversion.

As the recipient of the 2020 EuChemS Lecture Award, Professor Mougel will give a plenary invited lecture at the 8<sup>th</sup> EuChemS Chemistry Congress (ECC8) in 2022.

Source: [euchems.eu/2020-lecture-award/](https://euchems.eu/2020-lecture-award/)

### Prize Winners of the Swiss Summer School in Les Diablerets



The Swiss Summer School 2021 took place in Les Diablerets, in the Apls Vaudoises region above Lake Geneva. The focus of this edition of the series was on catalysis and sustainability and was a joint event with the NCCR Catalysis. A total of four awardees were honored with the Best Poster and Best Short Communication Award, sponsored by Helvetica and Chemistry Europe (CE). Two students received the NCCR Catalysis Poster and Short Communication Prize for a special contribution to the field of catalysis and sustainable chemistry.

#### Best Poster Award sponsored by Helvetica

**Julia Reisenbauer**, ETH Zurich

«Shuttle Catalysis enabled Transfer Hydrocyanation: A Mechanistic Investigation»

#### Runner-up Poster Awards sponsored by Chemistry Europe

**Pablo Diaz-Kruik**, University of Bern

«From L-Lysine to active pharmaceutical ingredients»

**Diana Cavalli**, EPFL

«Duality of Hypervalent Iodine Reagents in Photomediated Synthesis: From Radical Trap to Photooxidant»

#### Best Short Communication Award sponsored by Helvetica

**Eloïse Colson**, University of Bern

«One-pot synthesis of azabicyclo[3.2.1]octane derivatives by photoredox activation of amines»

#### Runner-up Short Communication Award sponsored by Chemistry Europe

**Susanne Reischauer**, Max Planck Institute for Colloids & Interfaces

«The Wavelength Matters»

#### NCCR Catalysis Poster Prize:

**Francesco Bernasconi**, Empa

«Controlling the Selectivity of CO<sub>2</sub> Electrolysis with Electrospun Gas Diffusion Electrodes»

#### NCCR Catalysis Short Communication Prize

**Arik Beck**, ETH Zurich

«The structure of multicomponent catalysts across the pressure gap»  
[summer-school21.scg.ch](https://summer-school21.scg.ch)

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## 40 young Scientists awarded with one of the Best Presentation Awards at the SCS Fall Meeting 2021

In collaboration with Metrohm and DSM Nutritional Products, the SCS offered again a 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.

The 40 winners received travel vouchers to attend international conferences (total value CHF 16'500), cash (total value CHF 11'800) and invitations to publish an article in the laureates issue of CHIMIA 4/2022 (total value CHF 9'600).



### Best Oral Presentation Awards 2021

Markus Steinke, representative of Metrohm, awarded a total of 17 winners at the end of the SCS Fall Meeting online on September 10, 2021.

### Analytical Sciences

Winner: Robin Nussbaum, University of Geneva  
Runner-up: Thomas Vonderach, ETH Zurich

### Catalysis Sciences & Engineering

Winner: Emanuele Moioli, PSI  
Runner-up: Arik Beck, ETH Zurich

### Computational Chemistry

Winner: Amol Thakkar, University of Bern  
Runner-up: Eric Heller, ETH Zurich

### Chemistry and the Environment

Winner: Neeru Mittal, ETH Zurich  
Runner-up: Mattia Cerri, ETH Zurich

### Inorganic Chemistry

Winner: Dieuwertje Modder, EPFL Lausanne  
Runner-up: Liam Grunwald, ETH Zurich

### Medicinal Chemistry

Winner: Jade Nguyen, EPFL Lausanne

### Organic Chemistry

Winner: Stephanie Amos, EPFL Lausanne  
Runner-up: Marius Lutz, ETH Zurich

### Physical Chemistry

Winner: Valentina Zhelyazkova, ETH Zurich  
Runner-up: Gonzague Rebetez, University of Bern

### Polymers, Colloids & Interfaces

Winner: Richard Whitfield, ETH Zurich  
Runner-up: Hanna Traeger, AMI

#### Prizes for Winners

- certificate and cash contribution of CHF 500.00
- travel voucher of CHF 1'000.00 to attend an international conference.
- invitation to present the research in the laureates issue of CHIMIA. Value CHF 540.00

#### Prizes for Runners' up

- certificate and cash contribution of CHF 400.00



## Best Virtual Poster Presentaion Awards 2021

Dr. Werner Bonrath, Senior Scientist at DSM and representative of DSM Nutritional Products Ltd. awarded a total of 23 winners at the end of the SCS Fall Meeting online on September 10, 2021.

### Analytical Sciences

Winner: Bettina Steckenbach, ETH Zurich  
Runner-up: Ali Abikhodr, EPFL Lausanne

### Catalysis Sciences & Engineering

Winner: Dario Faust, ETH Zurich  
Runners-up: Vanessa Wyss, University of Basel  
Marin Nikolic, Empa

### Computational Chemistry

Winner: Salomé Rieder, ETH Zurich  
Runner-up: Charlotte Müller, ETH Zurich

### Chemistry and the Environment

Winner: Dominique Rust, Empa  
Runner-up: Scott Docherty, ETH Zurich

### Inorganic Chemistry

Winner: Alessandra Logallo, University of Bern  
Runners-up: Fabio Maswero, ETH Zurich  
Manuel Besmer, University of Zurich

### Medicinal Chemistry

Winner: Luisa Deberle, PSI  
Runner-up: Xingguang Cai, University of Bern

### Chemical Biology

Winner: Carlotta Cecchini, University of Geneva  
Runner-up: Alexandra Teslenko, EPFL Lausanne

### Organic Chemistry

Winner: Jordan De Jesus Silva, ETH Zurich  
Runners-up: Nina Declas, EPFL Lausanne  
Thomas Buchholz, University of Basel

### Physical Chemistry

Winner: Lukas Heuberger, University of Basel  
Runner-up: Pragma Verma, University of Geneva

### Polymers, Colloids & Interfaces

Winner: Patricia Risch, ZHAW  
Runner-up: Riccardo Wehr, University of Basel

#### Prizes for Winners

- certificate and cash contribution of CHF 200.00
- travel voucher of CHF 750.00 to attend an international conference.
- invitation to present the research in the laureates issue of CHIMIA. Value CHF 540.00

#### Prizes for Runners' up

- certificate and cash contribution of CHF 200.00

Source: [scg.ch](http://scg.ch) and [fm21.scg.ch](http://fm21.scg.ch)

## JOURNAL NEWS

### Helvetica, Volume 104, Issue 9, September 2021

#### Communications

Blacklight-Induced Hydroxylation of Arylboronic Acids Leading to Hydroxyarenes Using Molecular Oxygen and Tetrabutylammonium Borohydride

*Bumhee Lim, Yangyang Cheng, Takuji Kawamoto, Ilhyong Ryue*

A Practical Route to Cyclobutanols and Fluorocyclobutanes

*Vincent L. Revil-Baudard, Samir Z. Zard*

Teflon Magnetic Stirring Capsules (TMSC) as a Practical and Reusable Delivery System for Sensitive Reagents and Catalysts

*Sylvain Taillemaud, Stéphane Rosset, Clément Mazeti*

#### Full Papers

Halogen Bonding of *N*-Halosuccinimides with Amines and Effects of Brønsted Acids in Quinuclidine-Catalyzed Halocyclizations

*Jing Li, Eunsang Kwon, Martin J. Lear, Yujiro Hayashi*

Redirection of the Transcription Factor SP1 to AT Rich Binding Sites by a Synthetic Adaptor Molecule

*Mathias Bolz, Ute Scheffer, Elisabeth Kalden, Michael W. Göbel*

Intramolecular Charge-Transfer Dynamics in Benzodifuran-Based Triads

*Stephan Keller, Jihane Hankache, Oleksandr Yushchenko, Latévi Max Lawson Daku, Qinchao Sun, Jie Ding, Silvio Decurtins, Eric Vauthey, Robert Häner, Andreas Hauser, Shi-Xia Liu*  
[onlinelibrary.wiley.com/journal/15222675/](https://onlinelibrary.wiley.com/journal/15222675/)

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[roempp.thieme.de](https://roempp.thieme.de)

NEU in 2020 – RÖMPP 5.0:  
• Heimzugang von zuhause  
• Playlists für wiederkehrende Recherchen  
• bibliographischer Download

Thieme

## INDUSTRIAL NEWS

Source: [www.chemanager-online.com](http://www.chemanager-online.com)

### Clariant Hikes Catalysts Output in Germany

July 30, 2021: Clariant has expanded and enhanced capacity for emission control catalysts at its plant in Heufeld, Germany, in order to meet growing demand worldwide, and especially in China. The plant produces its EnviCat catalysts, which remove up to 99% of harmful emissions such as volatile organic compounds (VOCs), hydrocarbons, carbon monoxide, nitrous oxide, nitrogen oxide and ammonia, from industrial off-gases in chemical production plants, stationary engines and turbines. Clariant said output has increased 100% compared with that in 2019, adding it has seen a dramatic increase in global demand for this type of catalyst, particularly in China which had introduced strict new legislation to improve air quality. The Swiss firm noted that in 2020 and the first half of 2021, 56 Chinese chemical producers had decided to use its catalysts to upgrade their production facilities, with strong growth for controlling emissions in propane dehydrogenation, as well as in acrylic acid, acrylonitrile and acrylonitrile butadiene styrene (ABS) production. The Heufeld plant is Clariant's second-largest production site for catalysts, producing more than 500 varieties of those used in emission control.

### Bayer to Acquire US Biotech Vividion Therapeutics

August 9, 2021: In a deal potentially worth \$2 billion, German drugs and agriculture company Bayer is acquiring Vividion Therapeutics, a San Diego-based US biotech. The California company focuses on using protein surface screening to unlock high value, traditionally undruggable, targets. The terms foresee Bayer paying \$1.5 billion upfront and up to \$500 million for milestones not publicly defined. Closing of the transaction is expected during the current third quarter, subject to all approvals. With the perspective of being acquired, US reports said Vividion has canceled its recently announced plans for an initial public offering. In future, the company will continue to operate separately from its new owner, however. As part of the agreement, Bayer will gain full rights to Vividion's proprietary discovery platform, which comprises what the biotech said are three integrated, synergistic components: a novel chemoproteomic screening technology, an integrated data portal and a proprietary chemistry library. Vividion's approach identifies previously unknown binding pockets in undruggable targets to generate first-in-class novel compounds in indications of high unmet medical need. The company said its technology "has already proven its applicability pre-clinically in oncology and immune-related diseases, with potential to expand into additional therapeutic areas. "Despite advances in genomics, structural biology and high-throughput screening, about 90% of disease-causing proteins cannot be targeted by current therapies due to the lack of a known addressable binding site," said Vividion CEO Jeff Hatfield. For Bayer, Stefan Oelrich, managing board member and president of the pharmaceuticals division, said the acquisition reflects the Leverkusen-based group's drive to fuel its platform with breakthrough innovation. "Vividion's technology is the most advanced in the industry, and it has demonstrated its ability to identify drug candidates that can target challenging proteins," he commented. Leveraging Vividion's and Bayer's own knowhow, Oelrich said the German pharma will be able to develop first-in-class drug candidates and increase the value of its pipeline with a view to providing innovative therapies for patients with unmet medical needs. Bayer is the second major pharma player in a week to announce plans to acquire a small, highly specialized US biotech. Earlier, French drugmaker Sanofi said it would buy Translate Bio, with

which it is developing a Covid-19 vaccine. Vividion currently collaborates with several major pharmaceutical producers, including Switzerland's Roche and Bristol Myers Squibb of the US, in immunology and oncology.

### **WuXi STA Closes Purchase of Swiss BMS plant**

August 11, 2021: WuXi STA, CDMO subsidiary of WuXi AppTec, has completed the acquisition of a drug product manufacturing facility in Couvet, Switzerland, from US pharma Bristol Myers Squibb. The Chinese company, which announced the purchase plans earlier this year, said the state-of-the-art facility significantly enhances its European capacity. The Couvet facility opened in 2018 has a state-of-the-art tablet & capsule manufacturing and packaging capabilities. By enhancing its network, WuXi STA said it can "better support customers' long-term needs globally, as they bring new and existing commercial manufacturing projects from their pipelines to a plant that has the capability and capacity to supply drug products to major global markets." With the transaction, the company has increased its global presence to eight R&D and manufacturing sites across Asia, North America and Europe, including the recently announced Middletown site in the US state of Delaware. "Through combining resources of the Couvet site with our other facilities, we continue strengthening and broadening our capacity and capabilities to better support our global customers in delivering innovative medicines to patients in need," said Minzhang Chen, co-CEO of WuXi AppTec.

### **Fine Chemicals in China**

August 23, 2021: Fu Xiangsheng, Vice Chairman of the China Petroleum and Chemical Industry Federation, characterized China's chemical industry as having a surplus of basic chemicals and a shortage of functional chemicals. Indeed, the share of fine chemicals as a percentage of the total industry value is only about 45% compared to 60–70% in the US and in many European countries, and 90% in Switzerland. Thus, the Chinese government is interested in supporting the development of local fine chemicals production. While there are about 100,000 different fine chemicals produced globally, in China the number reaches only 20,000, according to the Xingyuan Chemical Park Research Institute. A paper by Shanghai-based chemical industry consultant Kai Pflug examines the status and trends related to China's Fine Chemicals industry in some detail. "China's low share of fine chemicals has several disadvantages for China", Kai Pflug states in his special report for the China Chemical Reporter (CCR). This means that China is a net importer of chemicals, with the value of its chemical exports equal to only about 72% of its imports, the experts continue. Moreover, the self-sufficiency is particularly low in high-end segments such as new chemical materials, which in 2018 reached a self-sufficiency rate of only about 65%. "China's low share in fine chemicals is also a commercial disadvantage", Pflug adds. Fine chemicals on average have higher profit margins than basic chemicals, as the number of competitors is smaller, the number of buyers is larger, the relative cost share for buyers of specialty chemicals is lower, and buyers often lack the knowledge to easily replace fine chemicals suppliers. It is thus not surprising that the Chinese government is interested in supporting the development of local fine chemicals production, according to Kai Pflug, who is also a frequent contributing author for CHEManager. He adds: "However, establishing a strong fine chemicals industry in China is easier said than done. Main entry barriers for individual chemical companies include developing relevant R&D capabilities, establishing sufficient amounts of segment-specific application knowledge, gaining customers and a reputation for reliability and product quality among them." His paper discusses the above and the most recent trends in China's Fine Chemicals segment in more detail.

### **Lonza Invests in Chinese Drug Product Manufacturing**

August 24, 2021: Swiss CDMO Lonza plans to invest an undisclosed sum to establish drug product manufacturing capabilities at its site in Guangzhou, China. The investment in the central-southern province of Guangdong will include installation of an aseptic drug product fill and finish production line at the 17,000 m<sup>2</sup> state-of-the-art cGMP mammalian facility. Lonza said the fill & finish production line at the plant that began operation in Q2 2021, where it expects to deliver its first cGMP batch later this year, will "significantly expand" its capacity, thereby supporting global and domestic customers with supply for clinical trials and commercial batches in China. The project expected to be completed in 2022 will create more than 150 new positions at the Guangzhou site. The introduction of drug product manufacturing at the site, Lonza said, will provide a combined drug substance and drug product manufacturing service offering, in line with its strategy to provide integrated end-to-end solutions to customers. The sterile, multi-product fill line will support the filling of both liquid and lyophilized products. To facilitate the installation of the new drug product line, the CDMO also plans to expand the footprint of its global hub at its Basel, Switzerland, home base. Lonza operates the drug product services laboratories as a center of excellence, supporting drug product capabilities across its global network by providing formulation development and process development. Commenting on the investment, Hong Pan, the company's general manager for China, said it not only demonstrates Lonza's commitment to the Chinese market but also marks an important milestone in achieving its long-term ambition of increasing drug product capacity and addressing growing customer demand for an end-to-end drug product solution. "Through the expansion of our services at Lonza Guangzhou, we will have the capability to support our customers with the late-stage clinical trial and commercial development of potentially life-saving treatments," he said. Peter Droc, head of drug product services, added that the planned expansion at Basel "will be a key enabler to support our integrated drug substance and drug product offering across modalities." Lonza Biologics Guangzhou is a multi-product facility for clinical and commercial supply, with capabilities that include single-use bioreactors at 200 L, 1,000 L and 2,000 L and downstream processing equipment. The site will employ the Swiss company's current GS Xceed platform technology. The CDMO said the facility is capable of producing mammalian cell culture therapeutic proteins including monoclonal antibodies, bispecific antibodies, fusion proteins and recombinant enzymes.

### **Sika Sells German Coatings to Sherwin-Williams**

August 24, 2021: Swiss specialty chemicals company Sika has agreed to sell its European industrial coatings business to US paints and coatings group Sherwin-Williams for an undisclosed sum. The business based in Vaihingen, Germany, sells anticorrosive and fire protective coatings to specialized customer groups, such as those in steel construction, and mainly located in Germany, Switzerland, Austria and Poland. These customer segments, explained Sika, offer little synergy potential with the group and the business has remained a specialized niche. It had sales of approximately 75 million Swiss francs in 2020. The transaction is expected to close in the beginning of 2022. Sika said it believes Sherwin-Williams is the "right long-term owner" for the business, adding that "industrial coatings is a core competence for Sherwin-Williams and the acquired business an important strategic opportunity to drive growth and support the expansion of its market position in Europe." "This transaction fits our strategy of acquiring complementary, high-quality, differentiated businesses that add to our profitable growth momentum," said Sherwin-Williams chairman, president and CEO John Morikis. "The business brings us scale, unique technology, a strong sales and marketing

team, technical service capabilities, strategically located manufacturing, and leading specification and approval positions, all of which we can leverage further throughout Europe and other regions across the world. Additionally, synergy opportunities give us great confidence in accelerating the already strong financial performance of the business.” The acquired business, along with roughly 130 Sika employees, will become part of the Sherwin-Williams’ Performance Coatings Group segment.

### Clariant Acquires Remaining 70% of Beraca

August 25, 2021: Swiss specialty chemicals producer Clariant has agreed to acquire the remaining 70% of Brazilian Personal Care Specialties company Beraca after taking a 30% stake in 2015. Seller is the founding Sabará family. Financial terms of the acquisition expected to close in this year’s fourth quarter were not disclosed. Based in the Amazon region, Beraca is one of the key manufacturers of natural ingredients for the personal care sector with a portfolio composed in particular of fats, oils and botanicals that are collected and extracted in an environmentally sustainable production process. The family-run company with 90 employees and 2020 sales of \$15 million has invested significant resources in expanding research and innovation and has steadily increased production capacity. It has won several awards for its ethical sourcing. With the purchase, which he described as “a building block in the strategy of further strengthening individual core business areas through targeted acquisitions,” the Swiss group’s CEO, Conrad Keijzer, said Clariant will gain valuable access to natural materials. based on the biodiversity of the Brazilian rainforest. This, he said, will open up opportunities for high-quality growth in its Care Chemicals business, into which the acquisition will be integrated. Having full control of Beraca will mean that Clariant is well placed to meet the increasing demand for ethically produced products on the world market, added Christian Vang, head of Industrial & Consumer Specialties business unit.

### Moderna Files with FDA for Full Covid Shot Approval

August 27, 2021: US biotech Moderna announced on Aug. 26 that it had completed its filing with the US Food and Drug Administration (FDA) for full marketing approval of its mRNA-based Covid-19 vaccine for people age 18 and older. The company said it has requested a priority review as was granted the Pfizer-BioNTech shot, also mRNA based. Moderna began submitting data to the FDA for its Biologics License Application (BLA) in June. CEO Stéphane Bancel called the completion “an important milestone in our battle against Covid-19 and for Moderna itself as this is the first BLA submission in our company’s history.” The Massachusetts-based biotech was the second vaccine maker after Pfizer/BioNTech to receive an Emergency Use Authorization (EUA) for its shot in the US. Moderna has also filed to the FDA for emergency use of its vaccine for young people aged 12 to 18. The Pfizer/BioNTech vaccine already has won an EUA for that age group, both in the US and the EU. This week the FDA granted full approval for the American-German partnership’s shot to be administered to those 16 and older. This means it can now be officially distributed in the US under the name Comirnaty. In Eu-

rope, Moderna has now named its vaccine Spikevax, but cannot use the name in the US until full approval is granted to both the shot and the name. Even with a priority review, the approval process can still take several months, experts point out. For Pfizer/BioNTech, it mobilized all resources to speed up the process that foresees having an FDA independent panel help parse the efficacy and safety data before recommending approval. Many believe it will do the same for Moderna. Not only is Moderna an American company that received federal aid to develop its product; the administration of US president Joe Biden is keen to get as many vaccines as possible fully approved to take the wind out of the sails of vaccine resisters who say the shots are “experimental.”

### Tentative plans to produce Covid shot in Canada

Outside the US, Moderna is now planning to build up a manufacturing presence in Canada for its mRNA Covid vaccine. The company recently signed a Memorandum of Understanding with the Canadian government to build a manufacturing facility at an as yet undisclosed location. No further details nor a timeline for the project have been announced. Moderna said it eventually wants to use the Canadian site to supply the US northern neighbor with “direct access to rapid pandemic response capabilities,” including its Covid vaccine. The biotech is also eyeing plans to produce a portfolio of vaccines against other respiratory diseases in Canada, including seasonal influenza and respiratory syncytial virus, pending regulatory approval. It is also in discussions with other governments about potential collaborations.

### Contamination fears over Moderna vaccine lots in Japan

All was not good news for Moderna this week. On Aug. 25, the company said it was investigating reports that some of its vaccine doses shipped to Japan may have been contaminated, after receiving “several reports of particulate matter” in the vials. Its Japanese marketing partner, Takeda, subsequently suspended the distribution of one product lot containing 1.63 million doses as well as two adjacent lots out of safety concerns. Japan’s health ministry said the possible contamination was reported from multiple vaccination sites. While some doses already may have been administered, no adverse health effects have been reported, the ministry said. Moderna said the issue may involve a production line at Spanish CDMO Rovi. Under an agreement with the US biotech, Rovi said in April it was doubling capacity at its plant in Grenada, Spain, to produce bulk drug substance and perform fill & finish duties for Moderna. The company said it is working together with Moderna, Takeda and Japanese authorities to find the source of the contamination. Previously, all active ingredients for Moderna vaccines used in Europe were made by Lonza in Switzerland. This past spring, the Swiss CDMO was said to have faced supply constraints due to a shortage of qualified personnel.

### Basel-based CDMO Start-up Focuses on Injectables

September 3, 2021: A new CDMO known as Ten23 Health has been launched in Basel, Switzerland. The company that takes its name from Avogadro’s number, a proportion that relates molar mass on an atomic scale to physical mass on a human scale,



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was founded by Hanns-Christian Mahler, a former employee of several well-known industry players, and is financed by private equity investor 3i Group. It plans to be globally active, supporting biotech startups and established pharmaceutical customers in the development of injectables. Open for business since August, the company operates from the Rosental campus in Basel on 4,000 m<sup>2</sup> of workspace, including a fully operational lab and office building taken over from Elanco. With the acquisition of new clients and projects, the startup plans to eventually provide a work environment for 150 full-time employees in addition to others working remotely. Currently, it has a staff of 20, including some former Elanco employees. Mahler, a German national who formerly headed Drug Product Services at Lonza, with previous roles as head of Pharmaceutical Development & Supplies at Roche and principal scientist at Merck, functions as the company's CEO, an acronym for what it calls Chief Enabling Officer. "There is a significant unmet need in the life sciences market," Mahler noted in announcing the launch. "The number and complexity of molecules and novel therapeutic modalities are increasing, and medical research is facing growing challenges with respect to the stability, usability, and consistent manufacturing of medicines." According to the CEO and founder, the young company's "comprehensive offering," which will include formulation development, drug product development and manufacturing as well as testing services for sterile pharmaceutical products, will allow its clients to focus on the medicine and the patient, while leveraging the CDMO's pharmaceutical expertise and knowledge to plan and de-risk product development. At the same time, Ten23 Health "will enable commercialization "with speed, quality, and success." The company's partners, Mahler added, "will benefit from shorter development timelines, a higher probability of technical success and ultimately stronger market positioning." Richard Relyea, partner at 3i and a member of the start-up's board of directors, said the private equity group's investment is aimed at supporting the establishment of a "uniquely differentiated partner" to leading global biotech and pharmaceutical customers in the development, manufacturing and testing of complex and effective injectable biopharmaceutical drugs. One differentiating factor will surely be that Ten23 Health intends to aim for net zero emissions and will track employees' personal footprint, recognizing those who reduce their carbon usage.

### Casale Wins Russian Melamine Project

September 6, 2021: Casale has signed a Memorandum of Understanding with Russia's Metafrax Chemicals for the construction of a melamine plant. The facility will be built at Metafrax's site in Gubakha in Russia's Perm region Under the terms of the MoU, Casale will provide engineering, procurement and construction services on a turnkey basis, including plant design, supply of all equipment and materials, and commissioning, which is scheduled for 2024. The unit will be integrated into Metafrax's existing ammonia-urea-melamine (AUM) complex, which was also built by Casale and employs the Swiss firm's technology. Current capacity at the complex is 300,000 t/y ammonia, 575,000 urea and 40,000 t/y melamine. "The development of the AUM complex, which will finally include two melamine production units, is the result of a close cooperation with our partner Metafrax Chemicals," said Casale CEO Federico Zardi, adding that the project also confirms its worldwide leadership in designing and constructing such plants. Metafrax general director Vladimir Daut also commented: "With this investment we will become one of the largest producers of melamine in Europe, provide ourselves with raw materials for the expanding production of resins and create new high-tech jobs for residents." Separately, Casale has announced that it has won a contract to supply a new hydrolyser for a major European melamine producer. The hydrolyser, which will treat wastewater from two melamine plants, will replace two existing treatment

units, which Casale said are based on obsolete technology that "makes them inadequate to the new environmental standards."

### J&J's Janssen Expands Presence in Ireland

September 14, 2021: Janssen Sciences Ireland, the pharmaceutical and biotechnology arm of US healthcare giant Johnson & Johnson, has submitted a planning application for a €150 million expansion of its biomedicines facility at Ringaskiddy, County Cork. The new capacity could create around 180 jobs, the Irish edition of British newspaper The Sunday Independent reported this week, quoting a Janssen spokesman. The company has been operating at the Irish site since 2005, backed by investment initiatives of the Irish Development Agency (IDA). According to the application submitted in early September, Janssen intends to add about 2,500 m<sup>2</sup> of space to the manufacturing premises that house its active pharmaceuticals ingredients (APIs) portfolio. Janssen said output would support drugs to treat conditions such as rheumatoid arthritis, psoriasis and cancer. The J&J group's latest expansion at Ringaskiddy follows a €300 million upgrade completed in 2019, when it added 19,100 m<sup>2</sup> of space and 200 jobs. This project expanded a warehouse, laboratory and administration buildings and adapted the wastewater treatment plant to accommodate increased volume. At the time, the company said the investment would boost capacity of APIs for drugs that treat multiple myeloma, rheumatoid arthritis and Crohn's disease. Even with the newest project, Ringaskiddy will still lose jobs, as Swiss drug-maker Novartis winds down functions there up to mid-2022. The Basel-based pharma group is closing its API plant and relocating a global services unit's functions to other centers in Europe and Asia. In late 2019, Novartis told workers that up to 320 jobs out of an original 550-strong workforce could be eliminated, including 240 in the API unit and 80 in the service center. Earlier this year, however, the pharma giant announced that 100 jobs would be saved as Swiss multinational SGS drugs certification group had agreed to take over the site's International Service Laboratory (ISL), which provides analytical services for pharmaceutical products and substances. Under its ownership, SGS said ISL, as a "strategic component" of its global life science laboratories network, will continue to provide drug substance quality control testing and support Novartis' major manufacturing operations.

### CureVac Cancels two Vaccine Manufacture Deals

September 15, 2021: German biotech CureVac has canceled manufacturing contracts with two prospective partners for its Covid-19 vaccine CVnCoV while retaining others. The company said on Sept. 14 it would end the arrangements with Germany's Wacker Chemie and Switzerland's Celonic Group, but leave the deals with Rentschler Biopharma and Novartis intact. Contracts with Germany's Bayer and Fareva of France also are not affected by the changes, the company told the Reuters news agency. The Tübingen-based biotech said its decisions were in response to the reduced short-term peak demand for vaccines following the first wave of the pandemic vaccination efforts and corresponding changes in the demand for CVnCoV, currently under regulatory review with the European Medicines Agency (EMA). Malte Greune, chief operating officer, said the continuous increase in mRNA manufacturing capacity together with the progress of large-scale vaccination efforts had strongly changed the demand for the first-generation candidate. Wacker's contract was for manufacturing the mRNA drug substance of CVnCoV and Celonic's for the manufacturing and formulation of the mRNA drug substance. CureVac said it would not disclose the financial terms of the contract terminations. In early July, CureVac published definitive results from a 40,000-subject international Phase 2b/3 trial with CVnCoV that it said confirmed that the vaccine candidate was only about 48% effective in preventing infection of any severity across the "unprecedented" 15 strains of the virus it said it

encountered during the tests with participants in Latin America and Europe. While the company has not given any indication that it will drop its first-generation candidate, it has made no secret of the fact that it expects more from potential second generation candidates, including those it is working on with GlaxoSmithKline. The biotech said these candidates are based on new mRNA backbones and include potential variants in multivalent vaccine formats as well as combination vaccines for potential protection against multiple infectious diseases in single injection. CureVac and GSK said at the time they expected to progress a second-generation vaccine candidate into clinical testing in the third quarter of this year, with the goal of launching a product in 2022, subject to regulatory approval.

### UK Cancels Valneva Covid Vaccine Contract

September 16, 2021: Three days after the UK canceled its vaccine supply contract with French drugmaker Valneva on Sept. 13, speculation was mounting that the European Commission might be prepared to take the 100 million doses Valneva was pledged to supply or even offer production facilities in an EU member state. A French government source told the Reuters news agency that the EU is considering using the VLA2001 vaccine as part of its booster campaign plans, along with the shot being made by Sanofi and GlaxoSmithKline. The Commission did not comment on any fresh negotiations. Valneva and the EU had held vaccine talks last winter, but these are said to have ended inconclusively, as did the talks that were resumed in June. In the first round, reports said Valneva's prioritization of the UK's order may have been a factor in the failure of talks. At the time, Europe was still sparring with AstraZeneca over the same – since resolved – issue. Commercial rights to the strain of virus used in the drug substance, which the drugmaker had not yet secured, also could have been a hurdle, some said. The news that the UK was canceling the Valneva contract coincided with CureVac's announcement that the German biotech was ending its vaccine manufacturing contracts with Germany's Wacker Chemie and Switzerland's Celonic group, as it shifted priorities away from its first-generation vaccine that disappointed in trials.

#### *Drugmaker's relations with the UK on black ice*

In contrast to the presumably less disruptive break-ups between CureVac and its contract partners, relations between the UK and Valneva are skidding on black ice. Shares of the French pharma that reportedly quadrupled in price after it agreed to supply 100 million vaccine doses to the UK, plunged by 45% in Paris trading early this week, shaving off roughly \$1 billion of its value. The stock meanwhile has bounced back to about 60% above its initial valuation. The finances of US-based Dynavax Technologies, which has signed on to supply the adjuvant for the Valneva vaccine, also could potentially be strained by the collapse of the British deal, depending on whether Valneva finds other customers for its vaccine. A collapse clause allows the drugmaker to suspend payment for the adjuvant. Neither Her Majesty's government (HMG) led by prime minister Boris Johnson nor Valneva has provided details of what led to the ruptured relations. The drugmaker said HMG had unjustifiably accused it of breaching the contract although it had worked "tirelessly and invested significant resources" to meet requests for variant-derived vaccines. Citing largely "commercial reasons," HMG ministers have contended that the government was "within its rights." But as sentiment seem to be going against it, health secretary Sajid Javid told Parliament that the vaccine would not have been approved by the UK Medicines and Healthcare products Regulatory Agency (MHRA). Results of the ongoing late-stage Cov-Compare trial, which matches other vaccines' performance against AstraZeneca's, are expected this month. UK business newspaper Financial Times reported that Valneva's was "one of the weaker candidates," though the

company's management has claimed 80% efficacy – higher than AstraZeneca's. In a letter to trial participants, Valneva stressed that it is still expecting MHRA approval before the end of 2021. The French Covid vaccine candidate is made from an inactivated virus that targets the entire coronavirus rather than just its spike protein. The company says its is currently the only inactivated, adjuvanted, vaccine candidate in clinical trials against Covid-19 in Europe. Some scientists have said they thought the shot's unique properties might make it more effective against virus variants, compared with those of competitors.

#### *UK move stuns analysts and pharma industry*

The British termination will surely require that commercial dose production be located elsewhere, to avoid any further discussion about vaccine "exports." As the Johnson government has sunk millions of pounds into the factory at Livingston, Scotland, where trial quantities currently are being made and also touted the candidate's potential as a booster, London's about-face stunned many. Some called it an odd twist, as the government that pushed Brexit across the finish line had been seen as practicing one-upmanship vis a vis France, where no vaccine doses have yet been produced. Looking at its changed perspectives and taking a page from Wacker Chemie's playbook, the drugmaker said it would increase efforts to find other customers. Commenting on the CureVac cancellation, Biosolutions division head Susanne Leonhartsberger had said the company was confident it could find other customers interested in the freed-up capacity for their mRNA and other molecules. Analysts as well as the pharma industry expressed puzzlement at the British move. "We continue to see significant value in Valneva's Covid-19 vaccine, but its route to market is now far less clear," Stifel's Max Herrman told the Bloomberg news agency. Olivier Nataf, head of AstraZeneca in France, said in a radio interview, "It's important to have a new vaccine, a new technology that would complement the others." Pharma consultants noted that Valneva's promising vaccine candidates for Chikungunya and Lyme's disease should help the company cushion the financial blow.

### PVC Maker Kem One may Go to Apollo

September 21, 2021: French PVC maker Kem One is up for sale again. The company said its president and majority shareholder Alain de Krassny, who bought the erstwhile Arkema business out of the bankruptcy of a Swiss investor in 2015, is in exclusive talks about a deal with Apollo Global Management. The proposed sale could be finalized by the end of 2021. After successfully transforming the business through a "robust investment program," de Krassny, who holds an estimated 90% of the plastics producer, said he believes Kem One is "well-positioned for future growth under the ownership of the Apollo Funds." Since being bought by the French businessman, Kem One said it has undergone a "complete transformation" through a €500 million investment program to improve the quality and reliability of production facilities while lowering production costs and reducing its environmental footprint. The turnaround strategy was anchored by three strategic projects, starting with the conversion and upgrade of the electrolysis unit at the company's Lavéra plant, completed in 2017. This was followed by construction of an ethylene storage terminal at the company's Fos-sur-Mer plant, which is due to be completed during the upcoming fourth quarter. A third project, the conversion and upgrade of the electrolysis units at Fos-sur-Mer is planned to be launched in the coming months. With 1,400 employees, Kem One has eight production facilities for PVC and PVC compounds, along with precursors VCM, EDC and chlorine, across eight sites in France and Spain. With output capability nearing 1 million t/y, it has leading positions in Europe for both mass and suspension PVC, and is an established player in specialty markets such as including paste grade PVC and post-chlorinated PVC. Financial terms of the planned sale will not be disclosed, Kem One said.