



SCS
Swiss Chemical
Society

Community News

www.scg.ch

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SWISS CHEMICAL SOCIETY NEWS

SCS Awards 2021: Call for Nominations



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

The society hereby calls for nominations for the 2021 SCS Awards. Nominations have to be submitted electronically to info@scg.ch. The deadline for all documents to reach the Swiss Chemical Society is September 30, 2020. For specific award information and a list of required documents please visit our website: scg.ch/awards

Werner Prize

CHF 10'000 and medal in bronze

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

Grammaticakis-Neumann Prize

CHF 5'000

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

The prize is awarded every two years.

METAS Award

CHF 5'000

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

The prize is awarded annually.

Balmer Prize

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

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

Dr. Max Lüthi Award

CHF 1'000 and medal in bronze

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

Sandmeyer Award

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

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

SCS Industrial Science Awards

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

Industrial Science Award

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

Senior Industrial Science Award

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

Distinguished Industrial Science Award

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

Green & Sustainable Chemistry Award

CHF 10'000

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

Clariant CleanTech Awards Switzerland

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

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

The prizes are awarded every two years.

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

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

Eleven Companies assigned as SCS Partners



SCS implemented the SCS Partnership as a new strategic tool to strengthen the collaboration with industrial partners and to align our activities to the communities requirements.

Making the difference as an Institutional Partner through

- i) Active involvement in the strategic alignment of the society (board-, committee- and jury-membership)
- ii) Becoming Industrial Science Award Program stakeholders (former SISF program)
- iii) VIP guests/delegates at the Swiss Chemistry Science Night
- iv) ... and also enjoying the benefits of a "classical" corporate membership: free CHIMIA subscription, publication of company reports in CHIMIA, advertising at reduced rates, and logo presence on SCS documents (print, digital)

We already assigned SCS Partnership agreements with the following companies:

BASF, Clariant, Dottikon, DSM Nutritional Products, Givaudan, Idorsia, Merck, Metrohm, Novartis, Roche and Syngenta.

Contact the SCS Head Office or David Spichiger, Executive Director of the Society (spichiger@scg.ch), to become a Partner and to discuss your ideas for a fruitful collaboration.

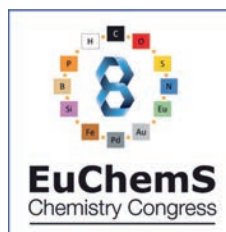
SCNAT Annual Report 2019



Big topics are still the crisis of biodiversity and the global climate change. Due to the fact that these two topics have much in common there is no point in playing one off against another. In fact, science must help finding a solution and participate start a dialog with the main actors.

For further information and more topics please enjoy reading through the SCNAT annual report 2019 naturalsciences.ch

8th EuChemS Chemistry Congress postponed to 2022



The COVID-19 pandemic that so deeply affects our lives and countries is not expected to end soon, and its consequences will be felt for a long time. We are thus forced to postpone the 8th EuChemS Chemistry Congress (ECC8) to 2022. ECC8 will still be held in Lisbon, Portugal, from 28 August to 1 September 2022.

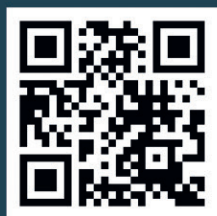
More information is available on the ECC8 website and on its official Twitter account. euchems2022.eu

The European Commission reprioritised the budget of H2020 to fight the COVID-19 pandemic



European Commission reprioritized the Horizon 2020 framework programme funding. To help reach the objectives of the Coronavirus Global Response, €1 billion will be invested to fight the COVID-19 pandemic. It will fund global research on vaccines:

- €400 million for developing scientific solutions and health systems
- €400 million to finance Research and Developments investments
- €150 million for the European Innovation Council's Accelerator



GAINING INNOVATION MOMENTUM THROUGH DATA ANALYTICS

Business leaders are exploring how businesses can empower experts and provide the right environment for effective data analytics.

Watch the discussion
jmp.com/innovation

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If you are interested in funding opportunities in relation to Coronavirus, both at the European Union level and the national level, the European Research and Area and Corona Platform offers up-to-date information about Horizon 2020 calls and deadline extensions related to COVID-19 funded and ongoing projects.

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/covid-19>

A Warm Welcome to Our New Members!



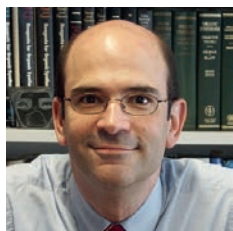
Period: 24.04.–18.05.2020

Maria Bilichenko, Zürich – Filippo Buttignol, Villigen – Tomáš Carný, Basel – Carmen Casado-Martinez, Lausanne – Nadine Mariel Chiera, Villigen – Claudiu Colbea, Zurich – Richard-Emmanuel Eastes, Sorvilier – Andrew J. F. Edmunds, Basel – Christian Ehinger, Zürich – Robert Eichler, Villigen, PSI –

Tara Forrest, Genève – Hannes Frey, Zürich – Teresa González de Chávez Capilla, Bern – Hang Guan, Bern – Hevia Hevia, Bern – Neil Judge, Bern – Levente Juhasz, Geneva – Morris Keller, Basel – Alessandra Logallo, Bern – Freideriki Michailidou, Zürich – Dominique Rust, Dübendorf – Simon Solari, Zürich – Sofia Spataro, Genève 4 – Zoltán Szakács, Geneva – Michael Wright, Basel.

HONORS, AWARDS, APPOINTMENTS

Membership in the US National Academy of Science for Prof. Erick M. Carreira, ETH Zurich



Becoming member of the National Academy of Science is one of the greatest honors for scientists. Now **Prof. Erick M. Carreira**, Professor at the Laboratory of Organic Chemistry at ETH Zurich, has also received this membership due to his outstanding research achievements in the field of asymmetric synthesis of biologically active, stereochemically complex natural products.

Albert Einstein was a member and so was famous chemist Albert Eschenmoser: Being elected for a membership in the US National Academy of Science is still among the greatest honors researchers can achieve. Erick M. Carreira, entered this selected circle of approximately 2.400 US members and 500 international members.

Source: chab.ethz.ch

Prix Schläfli 2020 for the best PhD in Chemistry awarded to Robert Pollice, ETH Zurich



Swiss Academy of Sciences (SCNAT) has awarded the Prix Schläfli 2020 to the four most important insights gained by young researchers at Swiss universities. Alice Berhin (Biology), Oliver Müller (Astronomy), **Robert Pollice** (Chemistry) and Fabian Rey (Geosciences) receive the prize for the findings arrived at in their dissertations. Four of the candidates for the Prix Schläfli award were also selected as Young

Scientists at the internationally prestigious 70th Lindau Nobel Laureate Meeting.

Robert Pollice received the award for researching material properties that are, amongst other things, important in nanomedicine.

Source: naturalsciences.ch

JOURNAL NEWS

Helvetica, Volume 103, Issue 4, April 2020



Communications

Transition Metal-Free Alkyne-Aldehyde Reductive C–C Coupling through Cascade Borylation/Olefin Isomerization
Imran Khan, Zhibin Luo, Yin Xu, Jimin Xie, Weihua Zhu, Bin Liu

Full Papers

The mRNA-Binding Protein HuR Is a Kinetically-Privileged Electrophile Sensor
Jesse R. Poganik, Alexandra K. Van Hall-Beauvais, Marcus J. C. Long, Michael T. Disare, Yi Zhao, Yimon Aye

Inkjet-Printed TiO₂/Fullerene Composite Films for Planar Perovskite Solar Cells

Aron J. Huckaba, Inés Garcia-Benito, Hiroyuki Kanda, Naoyuki Shibayama, Emad Oveisi, Sachin Kinge, Mohammad K. Nazeeruddin

onlinelibrary.wiley.com/journal/15222675/

INDUSTRIAL NEWS

Source: www.chemanager-online.com

Lonza Teams up with Moderna on Covid-19 Vaccine

May 4, 2020: Swiss fine chemicals producer and CDMO Lonza has signed a 10-year worldwide strategic collaboration agreement with Cambridge, Massachusetts-based US biotech Moderna to enable larger scale manufacture of Moderna's RNA-1273 based Covid-19 vaccine candidate as well as other of products in future. Under the terms of the agreement, the two companies plan to establish manufacturing suites at Lonza's facilities in the US and Switzerland and will eventually produce the mRNA-1273 vaccine at both sites. Technology transfer is expected to begin next month, with the first batches to be produced at the Swiss company's US site beginning in July. "Over time," Lonza said, the partners plan to establish additional production suites across the CDMO's worldwide facilities, ultimately enabling production of the material equivalent of up to 1 billion doses of mRNA-1273 per year for use worldwide, assuming the currently expected dose of 50 µg. The Basel-based company said its facilities complement Moderna's US manufacturing efforts, which continue to be ramped up to prepare for the further clinical development and commercialization of mRNA-1273. An undisclosed part of the funding for building up manufacturing operations at Lonza in the US will be covered by Moderna's contract with Biomedical Advanced Research and Development Authority (BARDA). To accelerate development of mRNA-1273, the US preparedness agency, which will support late-stage clinical development programs of mRNA-1273, is making \$483 million available to fund

development of the vaccine through to FDA licensure and manufacturing. Lonza's experience in scaling manufacturing of innovative medicines, including support for more than 50 commercial approvals across regulatory jurisdictions, will support Moderna for global supply, the Swiss company said. Moderna's vaccine candidate was developed in conjunction with the US National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health (NIH). At the end of April, the firm announced it had submitted an Investigational New Drug (IND) application to the US Food and Drug Administration (FDA) for phase 2 and late stage studies of mRNA-1273, if supported by safety data from the phase 1 study. Most recently, Moderna announced that its NIH-led phase 1 study had completed enrollment of three dose cohorts (25 µg, 100 µg and 250 µg) at Emory University in Atlanta, Georgia, and is expanding to an additional six cohorts of older adults and elderly adults. Commenting on the collaboration with Lonza, Moderna's CEO, Stéphane Bancel, said this will accelerate tenfold the biotech's manufacturing capacity for mRNA-1273 and other clinical products. Moreover, he said, "Lonza's global presence and expertise are critical as we scale at unprecedented speed." Albert M. Baehny, chairman and CEO ad interim at Lonza, said his company is "fully committed" to leveraging its global network and experience in manufacturing technologies to support Moderna.

Virtual Industrial Services

May 4, 2020: In order to protect both their own employees and those of their service providers, many industrial plant operators are currently limiting access to their facilities. With fewer people moving around the plant, the risk of the Coronavirus spreading is also lower. But many of these plants produce essential products for everyday use – including fuels and chemicals, for example. In order to ensure that these industrial plants can operate with reduced on-site personnel, Bilfinger is offering two solutions for "virtual" industrial services: The secure access to systems for controlling and monitoring production from any computer with an Internet connection as well as the connection of experts at other locations for on-site maintenance tasks using augmented reality (AR) glasses.

Using AR glasses to connect remote experts

Bilfinger Maintenance, for example, uses AR glasses when special knowledge is required for certain maintenance or repair tasks. Instead of sending the expert to the relevant location, he can connect to a colleague already on site via software. Despite a distance of hundreds of kilometers, the expert can see the plant in real time through the colleague's AR glasses and simultaneously discuss it with him by phone. If necessary, he can use a screen to display additional information on maintenance or repair in his colleague's field of vision. This can include technical data or manufacturer information. The colleague on site has his hands free and can carry out the repair or maintenance. For a current project in Poland, Bilfinger provided one of the customer's employees with AR glasses at the plant in order to gain virtual access to the facilities. Actual access to the plant by Bilfinger employees was not possible at short notice due to the COVID 19 pandemic.

Customized offer even for difficult operating conditions

"AR glasses enable us to save time, reduce travel costs and reduce health risks in the current situation," says Jörg Stieglitz, Rollout Manager Digital Solutions at Bilfinger Maintenance GmbH. "We provide the appropriate hardware and software depending on the individual needs of colleagues or customers." The harsh environmental conditions in the process industry put particularly high demands on the AR glasses and the software used. Safe use must be ensured in accordance with applicable standards – in the hazardous areas of a plant, for example. And even with loud background noise, the employee on site still has to be able to operate the AR glasses by voice control. With this in mind, Bilfinger Digital Next has selected the most appropriate products for industrial services from the wide range of offers on the market. In recent years, the Group's digital subsidiary has developed and tested remote maintenance using AR glasses for Bilfinger. With the transfer to Bilfinger Maintenance GmbH, the technology is now being used in practice to work remotely in the maintenance business. "We will continue to develop our range of services in the future," says Stieglitz. "Because of the current significant increase in demand, we are looking at ways in which such remote expert involvement can also work with standard software and equipment such as cameras or smartphones."

Safe remote access to plant IT systems

Bilfinger GreyLogix also offers another solution for plant operation with reduced on-site personnel. Systems engineer Marvin Dunn sets up direct, encrypted access for industrial customers to their systems to control and monitor production plants. Using a Virtual Private Network (VPN) connection, customers can log into the plant systems as though they were on site themselves. "Basically, it's like a virtual extension of the cable connecting the computer to the plant IT systems," explains Marvin Dunn. "The computer can access the systems as if it were actually connected to them with a physical cable." The Bilfinger GreyLogix team sets up access for customers and carries out the necessary security updates on an ongoing basis. "Our experience in industrial services is a real advantage here: We often have many years of knowledge about our customers' plants, systems and requirements," says Marvin Dunn.

Pathway to the "virtual plant"

A few weeks ago, a customer from Bilfinger GreyLogix in Hamburg approached Marvin Dunn and had remote access to their systems set up: "Our customer thus not only saves time, effort and costs, but also protects the health of its employees. Now colleagues no longer have to be sent to the plant specifically to gain access to the production systems". In addition to convenient, location-independent access to the plant's control systems, Bilfinger GreyLogix offers further solutions for a virtual plant. If desired, the colleagues can also assume responsibility for regularly checking plant data and informing the customer in the case of irregularities. The Bilfinger subsidiary, which has sites in Germany, Austria, Switzerland, the Netherlands and Russia, can also ensure the recording and storage of data and modernize and maintain the IT infrastructure of the industrial plants. The plant is thus gradually "virtualized".

Accelerated use of new technologies

Jörg Stieglitz and Marvin Dunn agree: "The use of technologies such as AR glasses or remote access to plant control systems is the future – but at Bilfinger, the future has already arrived. The technologies are mature and projects that have already been executed successfully demonstrate their benefits. The significant increase in demand due to the current situation can thus become the first step for our customers on the path toward the virtual industrial plant".

Resinex to Distribute Ascend's PA 6.6 in Europe

May 8, 2020: Belgium-based thermoplastics distributor Resinex has received the nod to handle Ascend Performance Materials' polyamide 6.6 resin in major European countries and regions. Financial terms of the agreement were not disclosed. The distribution arrangement covers supply of customers in Germany, Austria, Switzerland, the Benelux, the Nordic countries, the UK, Ireland, France, east-central Europe, Russia, Turkey and South Africa. Ascend is regarded as the world's largest fully integrated producer of PA 6.6 resins, which it markets under the Vydyne trademark. Customers using Vydyne – primarily in the automotive, electrical and electronics, consumer and industrial sectors – often require specialized, highly technical products, said Christelle Staller, Ascend's European sales director. "Having the right distribution partner with a keen technical focus is critical to ensuring that each customer gets the best possible support on both a commercial and technical level," she said. "The wide reach of Resinex in the European thermoplastic market supports Ascend's growing European distribution model and better equips us to serve our customers efficiently," Staller added.

Bachem and Jitsubo in Licensing Agreement

May 11, 2020: Swiss CDMO Bachem has signed an exclusive licensing agreement to use the liquid phase peptide manufacturing technology Molecular Hiving developed by Japan's Jitsubo. The latest agreement, which builds on previous collaborations between the two companies, covering active pharmaceutical ingredients (APIs) and cosmetic peptides, calls for Jitsubo to develop selected manufacturing processes for Bachem. The Swiss company with subsidiaries in the US, UK and Japan will further optimize, scale up and produce for commercial applications, and Jitsubo will receive development fees and royalties. Bachem said it expects the implementation of Molecular Hiving to result in reduced manufacturing costs, improved sustainability, greener chemistry, efficient scale up and enhanced in-process controls. Günther Loidl, chief technology officer of Bachem Holding, said Jitsubo's technology complements his company's own extensive technology base and offers "unique capabilities in the area of solid phase, hybrid, and solution phase peptide chemistry." Jitsubo CEO Kazuaki Kanai said the licensing agreement, which will provide opportunities to deliver products to customers much faster and at greater scale.

Petroineos Seeking UK Government Loan?

May 13, 2020: Petrochemical refinery operator Petroineos, owned by Ineos chairman Jim Ratcliffe's Jersey-based Ineos Investments and London-based PetroChina International, a subsidiary of the Chinese state owned chemicals group, has reportedly asked the UK government for an emergency loan amid a slump in oil demand triggered by the coronavirus crisis. Quoting "industry sources," Britain's Sky News said it has learned that Petroineos has been in talks "for weeks" with the Scottish and UK governments about a loan package worth "hundreds of millions of pounds." Sky's sources said the refinery located at Falkirk, near the Ineos complex at Grangemouth, Scotland, may be seeking as much as £500 million in state support, although a formal request could ultimately be for a substantially smaller sum, and the structure could also vary from a conventional commercial loan. Ineos moved its headquarters from the UK to Switzerland in 2010 after the UK government denied the company the financial support and tax breaks it wanted during the financial crisis of 2008-2010. Later that year, it sold a 49.9% stake in the perennially loss making Scottish refinery to PetroChina. Ratcliffe reportedly retained a residence in the UK as well as Switzerland, but relocated his tax headquarters to Monaco in 2018, along with other of Ineos' leading shareholders.

Bilfinger UK may cut service jobs at Ineos and BP

Energy service provider Bilfinger UK meanwhile has told 170 contract workers at the Ineos-owned Forties Pipeline System (FPS) at Grangemouth and the BP-owned Mossmorran chemical plant in Fife they are at risk of losing their jobs when the UK's coronavirus furlough scheme ends in June, due to the cancellation of work across the "vast majority" of sites it supports. Ineos has postponed maintenance on the pipeline from mid-2020 to the first quarter of 2021, due to the virus outbreak. The subsidiary of the Germany-headquartered Bilfinger industrial services group announced a multi-million pound maintenance services deal with Ineos at its Grangemouth and Kinneil sites in August 2019 and doubled its workforce in the region from 110 to 220. Bilfinger also has an offshore operations business in Aberdeen, Scotland, where it recently announced that the jobs of some 500 currently furloughed workers were also endangered.

Former GSK Vaccines Chief to Lead US Covid Sprint

May 15, 2020: Former head of GlaxoSmithKline's (GSK) vaccines division, Moncef Slaoui, has been named to lead the so-called "warp speed" effort to develop a coronavirus vaccine announced by US President Donald Trump at the beginning of May. Slaoui will act as the chief adviser to a new commission charged with accelerating the search for a vaccine, and four-star US Army General Gustave Perna has been selected as the chief operating officer overseeing logistics. Up to now, US efforts to ramp up production and organize distribution plans for a forthcoming vaccine, have been steered by Health and Human Services Secretary Alex Azar and Defense Secretary Mark Esper. The two agencies will remain involved in the project. Some drugmakers have already announced plans to ramp up their own capacities for vaccines, including biotech Moderna in cooperation with Switzerland's Lonza and Pfizer in cooperation with Germany's BioNTech. Slaoui headed GSK's global vaccines business from 2015-2017. Previously, he was the company's longtime chairman of global research and development, helping to develop vaccines for prevention of infantile rotavirus gastroenteritis, cervical cancer and shingles. Currently, he is a partner at Medicxi Capital, a Philadelphia-area venture capital firm. Slaoui has a Ph.D. in microbiology and immunology from the Free University of Brussels (Université Libre de Bruxelles). In a statement to US media, Jim Greenwood, president and CEO of the US biotech industry organization Bio., praised the former pharma executive as "an excellent choice and someone who has always stood for scientific excellence." The target of the president's Operation Warp Speed is to be able to produce 100 million doses of an as yet undiscovered vaccine for Covid-19 in the US in before November this year (presumably before the Nov. 3 US election), 200 million doses by December and 300 million doses by January 2021. Although most public health officials are skeptical that these goals can be met, scientists working on the Trump administration's coronavirus vaccine project have identified 14 vaccine candidates to focus on. The panel hopes to have three to four candidates make it through final testing and be made available for injection, depending on their success in clinical trials. Names of the candidates under consideration have not been revealed.

Several vaccine makers, including Moderna, Sanofi and Johnson & Johnson's Janssen unit, have already signed R&D collaboration with the US Biomedical Advanced Research and Development Authority (BARDA), part of the US Department of Health and Human Services, to work on development. Moderna's broader deal is worth \$483 million, Sanofi's \$226 million. Sanofi CEO Paul Hudson this week repeated earlier pronouncements that any vaccine developed will be made available in the US first, squarely in line with the president's hopes. "The US government has the right to the largest pre-order because it's invested in taking the risk," he said.