



SCG
Schweizerische
Chemische
Gesellschaft

SSC
Société
Suisse
de Chimie

SCS
Swiss
Chemical
Society

www.scg.ch

Society News and Announcements

CALL FOR NOMINATIONS FOR THE SCS SCIENTIFIC AWARDS 2016

Paracelsus Prize



CHF 20,000 and medal in gold
The Paracelsus Prize is awarded to an internationally outstanding scientist for his or her lifetime achievements in chemical research. It is awarded every two years;

Werner Prize



CHF 10,000 and medal in bronze
The Werner Prize is awarded to a promising young Swiss scientist or scientist working in Switzerland for outstanding independent chemical research. At the time of the award the candidate may not be a tenured professor or someone in a higher position in industry, and should be younger than 40. 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 to a teacher working in Switzerland at high school (gymnasium) level for innovation in chemistry teaching. The innovation must be easily applicable in current teaching and the costs for materials must be modest. The candidate may not make any claim to copyright in the innovation. The prize is awarded annually.

Dr. Max Lüthi Award



CHF 1,000 and medal in bronze
The Dr. Max Lüthi Award is presented for an outstanding diploma thesis in Chemistry conducted at a Swiss University of Applied Sciences. Nominations must be submitted by the head of the Chemistry Department of a Swiss University of Applied Sciences. The prize is awarded annually.

Sandmeyer Award



CHF 10,000 for individuals or CHF 20,000 for groups
The Sandmeyer Prize – sponsored by KPMG – is awarded to a person – excluding tenured professors – or to a group for outstanding work in industrial or applied chemistry. The work must be completed in Switzerland or with the involvement of a Swiss national. The prize is awarded annually.



KGF/SCS Industrial Science Awards

The KGF/SCS Industrial Scientific Awards are given to scientists working in Switzerland that are still working in industrial R&D.

Industrial Investigator Award honors successful investigators with outstanding achievements.

Certificate and cash check of CHF 7'000

Senior Industrial Investigator Award honors very successful and established investigators with outstanding achievements over many years.

Certificate and cash check of CHF 10'000

Distinguished Industrial Investigator Award honors senior scientists at the top of their research career for their lifetime achievements.

Certificate and cash check of CHF 15'000

Rewarded only on decision by the board

Nominations must be submitted electronically to info@scg.ch. For specific award information and required documents please visit our website <http://scg.ch/awards>

The deadline for all documents to reach the Swiss Chemical Society is September 30, 2015.

Swiss Chemical Society SCS
Prof E. Peter Kündig, President
David Spichiger, Executive Director
www.scg.ch/awards

SCS Awards are sponsored and supported by



THE CHEMISTRY OF COMPLEX SYSTEMS

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This year's Spring Meeting of the Swiss Chemical Society (SCS) was held at the University of Basel, Switzerland, on April 24. The meeting included five plenary talks, the presentation of the Werner Prize, and the General Assembly of the SCS. It was organized by Professor Thomas R. Ward and Professor Marcel Mayor from the University of Basel.

Plenary Talks



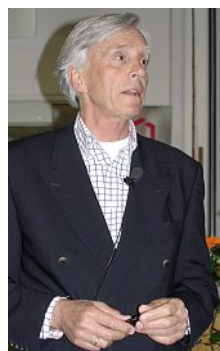
Professor **Itamar Willner**, University of Jerusalem, Israel, gave a talk about supramolecular nucleic acid nanostructures. His group has synthesized a five-ring DNA catenane that exists in four different configurations and demonstrates the cyclic reconfiguration of the system across these four states by the use of nucleic acids. Among these states is one that corresponds to the symbol of the Olympic Games, olympiadane (see picture).

Willner attached nanoobjects to the catenanes, which act as a mechanical scaffold to reconfigure the nanoobjects. These systems may find application as devices for molecular logic operations and add new dimensions to the area of DNA nanotechnology.



'Unorthodox Reactions at Work' was the title of the presentation by Professor **Stefan Matile**, University of Geneva, Switzerland, who was introduced as doing very creative work which is a result in part of his love of the arts. Matile's work is inspired by highly sophisticated supramolecular architectures in Nature. Research topics included the transport of ions or molecules across lipid bilayer membranes, sensors, photosystems, and how to integrate interactions into functional supramolecular systems. Matile created, for example, mechanosensitive push-pull probes, called fluorescent flippers, which show fluorescence lifetime needed for practical use in biology.

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Professor **Roeland Nolte**, University of Nijmegen, The Netherlands, talked about controlling molecular complexity by designing bio-inspired catalysts and materials. One of his studies deals with constructing a molecular Turing machine. Here, a polymer chain is encoded *via* allosteric information transfer between macrocyclic complexes, such as a dimeric complex consisting of two zinc porphyrin macrocycles bridged by a 1,4-diazabicyclo[2.2.2] octane (DABCO) ligand.

The next talk was very unique in the way it was presented: Professor **David Leigh**, University of Manchester, UK, accompanied his lecture on making tiny machines with magic tricks.

Leigh has developed strategies for the preparation of arti-

cial molecular machines that can pick up and assemble reactive groups in sequence by traveling along a track. Leigh exemplified the methodology through a machine that adds four amino acid building blocks from a strand in sequence, featuring up to 20-membered ring native chemical ligation transition states.



Reprogramming the genetic code was the topic of the talk by Professor **Jason Chin**, University of Cambridge, UK. A challenge associated with genetic code expansion approaches is the site-specific incorporation of unnatural amino acids into proteins in mammalian cells. It will allow the synthesis of modified recombinant proteins and the introduction of new chemical functionalities into proteins to precisely control and image protein function *in vivo*. Chin has developed nanoscale molecular

devices and systems that can perform novel mechanical tasks or catalyze novel chemical reactions. He has, for example, established a strategy for site-specific, live-cell, fluorescent labeling of intracellular proteins at high density for super-resolution imaging of ultrastructural features within cells.

Werner Prize 2015



The Werner Prize was awarded to Professor Gilles Gasser, University of Zurich, Switzerland, for his "outstanding contributions in the field of medicinal inorganic chemistry and of inorganic chemical biology". The prize comprises CHF 10,000 and a bronze medal and is awarded annually to a promising young Swiss scientist or scientist working in Switzerland for outstanding independent chemical research. At the time of the award, the candidate should not be a tenured professor or someone in a higher position in industry and should be younger than 40.

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In his award lecture, Professor **Gilles Gasser** discussed new techniques to fight cancer. Photodynamic Therapy (PDT) is an alternative to chemotherapy with less side-effects. Light of an appropriate wavelength range creates controllable cytotoxicity by turning a light-activatable chemical, the photosensitizer (PS), into a reactive molecular species.

A paramagnetic copper(II) porphyrin is the first PS to display excellent phototoxicity. The cytotoxic action of a substitutionally inert cytotoxic Ru(II) complex (pictured) was successfully unleashed in living cells upon light illumination (350 nm). This is the first substitutionally inert cytotoxic metal complex to be used as a light-triggered prodrug candidate.

Thanks again to Prof. Tom Ward, Prof. Marcel Mayor and Isa Wormi from the University of Basel for the organization of this great symposium.

A great thank you goes also to our financial supporters:

Symposium sponsors: Swiss Academy of Natural Sciences (SCNAT), Swiss Academy of Technical Sciences (SATW), Contact Group for Research Matters, KGF (BASF, Novartis, Roche, Syngenta), Waters and Biazzi.

Exhibitors: Advion, Bruker, BüchiGlasUster, IGZ Instruments, Merck Millipore, MDPI, Sigma-Aldrich, Thieme, Waters and Wiley VCH.

MINUTES OF THE 25TH GENERAL ASSEMBLY OF THE SCS

April 24, 2015, 13:30–14:00 at University of Basel, Lecture hall OC. The minutes are published in CHIMIA 2015, vol. 69, No. 5.

1. Welcome; Approval of the Agenda

After the lunch break of the SCS Spring Meeting Peter Kündig opened the assembly and welcomed all attendees.

The agenda was approved. No changes requested.

2. Election of the vote counters

29 SCS members were present at the beginning of the assembly. At the end there were about 100 members in the assembly room. The increase in members during the assembly had no impact on the results of the votes as all decisions were made without any dissenting votes. The president proposed Yves Auberson as vote counter. They were confirmed unanimously.

3. Minutes from the 24th GA from April 24, 2014

The minutes were published in CHIMIA (2014, 68, No. 5, A335). It was approved unanimously.

4. Annual report 2014

The annual report was published in CHIMIA (2015, 69, No. 1-2, A73ff). They were approved unanimously.

5. Financial report 2014 and audit report

David Spichiger presented the financial statement. Incomes of CHF 2'050'784 and expenses of CHF 1'837'700 result in an operating surplus before taxes of CHF +100'458. Taking in account the portfolio income, the taxes and the transaction volume of the SCS Funds of CHF +112'603, a net surplus of 213'061 results for 2014.

As of 31.12.2014 the total assets are CHF 3'963'562.

Audit Report:

In his audit report from March 19, 2015, Peter Baumgartner from REVITREU Baumgartner, Gerzensee, proposes to the assembly to approve the financial statement with no restriction.

The assembly approved the financial statement 2014 and the audit report with no abstentions and no dissenting votes.

6. Discharge of the organs of the society

The assembly discharged the Board and the financial audit unanimously with no abstentions.

7. Elections (Changes in the SCS Board of Directors, BoD)

Persons leaving:

Prof. E. Peter Kündig will step down as President of the Society by the end of 2015.

Prof. Philippe Renaud stepped down as President of the Division of Fundamental Research. The President thanked Philippe Renaud for the services rendered to the SCS and the DFR.

The mandate of Cédric Invernizzi ends by end of 2015 and he will leave the board after his mandate of 3 years.

New members for the period 2015–2017:

Prof. Christian Bochet, University of Fribourg, succeeds Prof. Philippe Renaud, as President of the DFR. He joins the board *ex officio*.

The ExB and the BoD proposes Alain de Mesmaeker, Syngenta Crop Protection AG, as new SCS president as of January 2016 and as successor of Peter Kündig. The GA elected Alain de Mesmaeker with no dissenting vote and great applause.

The GA confirmed REVITREU as audit company for 2015.

8. Strategy, Membership fees and News

There are no changes in the SCS Mission Statement and the related strategy.

The BoD proposes to the assembly a revision of the SCS bylaws. The modification does not focus on the society's core values but on legal formalities. The revision includes the following items:

- Align the society's objectives to the mission statement and the strategy;
- Cancel the obligation to collaborate with the SCS Foundation as it is not the competence of the society to define such collaboration.
- Include the non-profit approach of the society;
- Align the bylaws to the current business structure (board, committees);
- Correct out-of-use wording;
- Eliminate duplication and paragraphs that are regulated in additional regulations or rules of procedure;
- Include the regulation to sign in the name of the society;

The assembly follows the recommendation of the BoD and approves the new bylaws unanimously with two small changes. The ExB gets the mandate to follow-up and to implement the new bylaws.

The annual membership fees will not change in 2015 and were approved unanimously.

Regular member	CHF 150.00
Student member	CHF 50.00
Retired member/unemployed members	CHF 80.00
Institutional member (companies)	CHF 800.00
Additional Fees for Divisions	
Ind. & Applied Chemistry – Regular/Student	CHF 20.00
– Company	CHF 100.00
Photochemistry Section – Regular	CHF 40.00
– Student	CHF 20.00

Collective membership for university research groups:

Research Group with one Professor and at least 5 members in total	15% discount on total sum
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New collaborations:

SCS acquired 5% of *Chemistry a European Journal* shares as of Jan 1, 2014, and is now full member of ChemPubSoc.

9. News and Outlook 2015

- HPLC 2015, 21.26.06.2015, Geneva; www.hplc2015-geneva.org
- PolyColl 2015, annual Meeting of the DPCI, 03.07.2015, Fribourg; scg.ch/polycoll/2015
- SCS Fall Meeting: 04.09.2015, EPF Lausanne; scg.ch/fallmeeting/2015
- SCS-Syngenta Symposium, 15.10.2015, Stein (AG); «Chirality – Upsides for Chemical Innovation» scg.ch/syngentasymposium/2015
- The Expanding Toolbox of Medicinal Chemistry, 16.10.2015, Dijon; scg.ch/etmc/2015
- Lectures and SCS Lectureships, scg.ch/lectures; scg.ch/scs-lectureships
- Education courses in Analytical Chemistry (by DAS) scg.ch/courses

10. Varia

No votes were requested from the audience. The President thanked for the confidence and closed the assembly.

Basel, April 24, 2015

Prof. Dr. E. Peter Kündig
President

David Spichiger
Executive Director

Portrait of the new SCS President



Dr. Alain De Mesmaeker

Principal Chemistry Expert, Principal Syngenta Fellow
Vice-President of the Swiss Chemical Society
Born in Brussels, Belgium (1955)

Education:

- Licence in Chemistry (1973–1978), Catholic University of Louvain, Louvain-La-Neuve, Belgium (Intramolecular reactions of norbornene derivatives; Prof. H. G. Viehe)
- PhD in Chemistry (1978–1983), Catholic University of Louvain, Louvain-La-Neuve, Belgium (Synthesis and thermal isomerisation of capto-dative substituted cyclopropanes, Prof. H. G. Viehe)
- Post-doctoral Research (1983–1985), Weizmann Institute of Sciences, Rehovot, Israel (Total synthesis of carbacyclic analogues of clavulanic acid using radical reactions, Prof. M. D. Bachi)

Industrial Research:

1985–1996: Team leader, Project Leader, Group Leader in Central Research Laboratories, Ciba-Geigy, Basel, Switzerland

1997–2000: Group Leader, Head of Research Chemistry, Novartis Crop Protection Research

2000–2008: Global Head of Research Chemistry, Syngenta Crop Protection (Switzerland, United Kingdom, India)

2008–present: Principal Chemistry Expert and Principal Syngenta Fellow (since 2010, Highest Scientific Level in Syngenta R&D), Syngenta Crop Protection and Crop Enhancement Research, Stein, Switzerland

Member of several boards and organizing committees

For ex. Bürgenstock EuCheMS Conference on Stereochemistry, Swiss Chemical Society-Syngenta Symposium on Organic Chemistry, Jury member of the 'Karrer Gold Medal Award', University of Zürich, Kontakt Gruppe für Forschungsfragen KGF, Werner Foundation, Board of Directors of the Swiss Chemical Society, Belgian Organic Synthesis Symposium BOSS)

88 Publications, >50 patents, >50 invited lectures

NEWS



Prof. Gilles Gasser awarded the Werner Prize 2015

On the occasion of the SCS Spring Meeting in Basel on April 24 2015, the SCS president Prof. E. Peter Kündig awarded Prof. Gilles Gasser, University of Zurich, the Werner Prize 2015 for his outstanding contributions in the field of medicinal inorganic

chemistry and of inorganic chemical biology.

Prof. Gilles Gasser and his group are currently working on

three different but complementary topics, namely Inorganic Chemical Biology, Medicinal Inorganic Chemistry and Medicinal Organometallic Chemistry. All projects undertaken in his group involve the preparation, characterization and utilization of metal complexes for biological or medicinal purposes. The single objective is to understand, identify and/or influence biological processes in living cells using metal-based compounds. Their research therefore lies at the interface between inorganic chemistry, medicinal chemistry, chemical biology and biology. As a consequence, Prof. Gilles Gasser not only hosts chemistry students but also a biology student who jointly works between the Institute of Inorganic Chemistry and the Institute for Molecular Cancer Research at the University of Zurich.

The following topics are at the forefront of their current work:
Inorganic Chemical Biology

- Development of new techniques to fight cancer
- Development of novel metal-based anticancer drug candidates
- Development of novel organometallic-based antiparasitic drug candidates

<http://www.cmszh.uzh.ch/index.php?id=56>

gilles.gasser@chem.uzh.ch



SCS – Syngenta Symposium, October 15, 2015

«Chirality – Upsides for Chemical Innovation»

Thursday, October 15, 2015; Syngenta Stein, Switzerland

The focus will be on cutting-edge research in chirality and its role in life science, from synthesis and beyond for chemical innovation.

4 plenary lectures

- Prof Ben Feringa (Groningen)
- Prof Eric Jacobsen (Harvard)
- Prof Scott Miller (Yale)
- Prof Manfred Reetz (Marburg)

Invited lectures

- Prof Jerome Lacour (Geneva)
- Prof. Oliver Trapp (Heidelberg)
- Dr. Eric Francotte (Novartis)
- Dr. Eric Francotte (Novartis)
- Dr. Edouard Godineau (Syngenta)
- Dr. Christoph Taeschler (Lonza)
- Dr. Alexander Mayweg (Roche)

Poster Session

Website: <http://scg.ch/syngentasymposium/2015>

A WARM WELCOME TO OUR NEW MEMBERS!

Period: 28.03.2015 – 28.04.2015

Tianchi Cao, Geneva – Aurea Chiaia, Zürich – Oliver Dumele, Zürich – Christophe Eggertswyler, Basel – Jelena Habjanic, Zürich – Jörg Heerklotz, Zürich – Andrei Honciuc, Wädenswil – Debora Käser, Fislisbach – Amandine Kolleth-Krieger, Saint-Louis (FR) – Katalin Molnar, Budapest (HU) – Mathilde Outin, Monthey – Marko Pavlovic, Geneva – Charles-Svend Perrenoud, Pully – Alma Salim, Zürich – Götz Schlotterbeck, Efringen-Kirchen – Shirin Shokoohi, Tehran (IR) – Evgeny Smirnov, Lausanne – Lucas-Alexandre Stern, Lausanne – Thibaud von Erlach, Lonay.



SCS

Division of
Analytical Sciences

Weiterbildung Analytik

Trenntechnik
Analytische Anwendungen
Methoden der Life Sciences
Qualitätssicherung
InCompany Trainings

Titel	Ort	Termin	Code
Isolierung und Reinigung von Proteinen	Basel/Novartis	04.–05.06.2015	LS-3
Validieren von Analyseverfahren I	Dübendorf	09.06.2015	QS-8
Grundlagen der Probenvorbereitung	Dübendorf	16.06.2015	AA-8
Gute Labor Praxis – GLP	Dübendorf	22.06.2015	QS-11
Referenzmaterialien	Dübendorf	25.06.2015	QS-14
Validieren von Analyseverfahren II	Dübendorf	26.06.2015	QS-9
GMP-Praxis im Labor	Dübendorf	26.06.2015	QS-10
Chemische Sensoren im analytischen Einsatz	Dübendorf	29.06.2015	AA-3
Einführung in die HPLC	Dübendorf	24.–25.08.2015	TR-9
Interpretation von NMR-, IR-, und Massenspektren	Dübendorf	26.08.2015	SP-11
Pharmazeutischen Technologien	Wädenswil	01.–02.09.2015	LS-5
AAS und AES für Einsteiger/-innen	Dübendorf	02.09.2015	SP-1
AAS und AES – Theorie für die Praxis	Dübendorf	09.09.2015	SP-2
Messunsicherheit in der Analytik	Dübendorf	16.–17.09.2015	QS-5
Messung und Interpretation von IR-Spektren	Biel-Benken	17.–18.09.2015	SP-9
Effiziente Führung kleiner Gruppen	Dübendorf	22.–23.09.2015	QS-16
GPC/SEC/GFC	Dübendorf	23.09.2015	TR-17
Einführung in die Kraftfeldmikroskopie (AFM)	Liestal	23.09.2015	AA-5
Schwingquarz-Mikrowaage	Dübendorf	25.09.2015	AA-7
Field Flow Fractionation – FFF	Dübendorf	29.09.2015	TR-3
HPLC-MS in der Spurenanalytik	Dübendorf	29.–30.09.2015	TR-6
Light Scattering as Analysis Tool for Bio Pharmaceuticals, Nano Particles, and Macro Molecules	Dübendorf	30.09.2015	AA-6
Interpretation von 1D- und 2D-NMR Spektren	Basel/Novartis	19.–20.10.2015	SP-12d
HPLC-Troubleshooting – Ergänzungskurs	Dübendorf	26.–27.10.2015	TR-11
GC Methodenentwicklung	Schlieren	27.10.2015	TR-4c
Quality by Design in the Analytical Laboratory	Basel/Novartis	29.10.2015	QS-12
Säulen, Phasen und Trennoptimierung in der HPLC – Ergänzungskurs	Dübendorf	02.–03.11.2015	TR-10
Einführung in die Surface Plasmon Resonance	Dübendorf	10.11.2015	LS-1
Interpretationstraining für IR-Spektren	Biel-Benken	13.11.2015	SP-10a
Röntgenfluoreszenz	Dübendorf	16.11.2015	SP-3

Es freut uns, Ihnen das Weiterbildungsprogramm 2015, das wir zusammen mit dem Centre de Compétence en Chimie et Toxicologie Analytiques (CCCTA) realisiert haben, vorzustellen.

Einzelmitglieder der folgenden Fachverbände können unsere Kurse zum vorteilhaften Mitgliedertarif besuchen:

Fachverband Laborberufe (FLB), Gesellschaft Deutscher Chemiker (GDCh), Schweizerische Arbeitsgemeinschaft für Spektrometrie und Elementaranalytik (SASP), Schweizerischer Chemikanten- und Chemisten-Verband (SCV), Schweizerische Gesellschaft für Lebensmittel- und Umweltchemie (SGLUC), Schweizerische Gruppe für Massenspektroskopie (SGMS) und Schweizerischer Verband Diplomierter Chemiker (SVC).

Falls Sie sich für unsere Veranstaltungen interessieren, erreichen Sie uns unter Telefon **058 765 52 00** oder Fax **058 765 58 01** oder mailen Sie an verena.schmid@eawag.ch. Online-Anmeldung im Internet unter: www.scg.ch/kurse

InCompany Training – Individuelle Beratung und Schulung

Im Rahmen des Weiterbildungsprogramms organisieren oder erarbeiten wir gemeinsam mit Ihnen InCompany-Schulungen und -Trainings nach Ihren Vorstellungen und Bedürfnissen. Profitieren Sie davon, dass wir für Sie

- Inhalte an firmenspezifische Anforderungen und Wünsche anpassen
- Frage- und Problemstellungen in Ihrem Einsatzgebiet gezielt behandeln
- praktische Übungen gegebenenfalls an Ihren Geräten durchführen
- Trainings bei Bedarf auch in französischer oder englischer Sprache durchführen

Ein weiterer Vorteil der InCompany-Trainings: für Ihre Mitarbeiterinnen und Mitarbeiter fallen keine Reise- und Übernachtungskosten an!

Experten stehen Ihnen für eine persönliche Bedarfsabklärung und Beratung gerne zur Verfügung.

Sie erreichen uns über
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