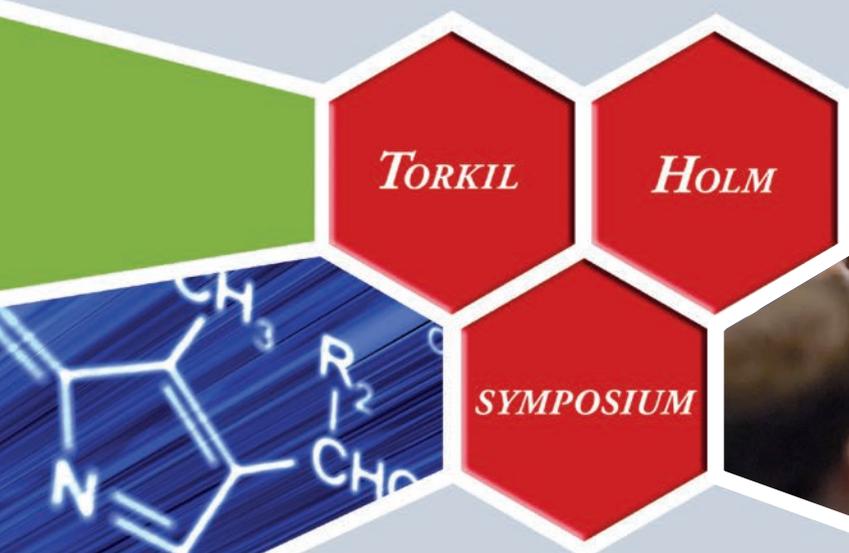


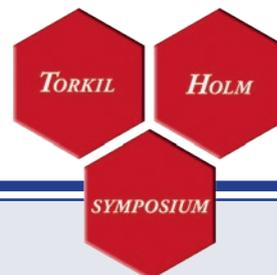
VISIONS IN CHEMISTRY THE TORKIL HOLM SYMPOSIUM

Radisson Blu Falconer Hotel & Conference Center, Copenhagen 29 – 30 January 2016

PROGRAMME



THE SYMPOSIUM



The Themes

Topics to be presented include: organic synthesis, catalysis, bioinorganic chemistry, nanoscience, photosynthesis, drug discovery, and chemistry at the interface to biology.

The Aim

The aim of the Torkil Holm Symposium is to bring together world-leading experts, from both academia and industry, to present a broad range of topics within the field of chemical science.

The Sponsor

Thanks to a generous donation from the Torkil Holm Foundation, the third Torkil Holm "Visions in Chemistry" Symposium will take place in Copenhagen on January 29 and 30 2016.



Dr. phil Torkil Holm

Dr. phil Torkil Holm is a distinguished emeritus in organic chemistry at the Technical University of Denmark.

The Danish Academy of Technical Sciences

Since the first symposium in 2000, ATV has structured these symposiums, which are today regarded among the world's most influential. ATV is a private, independent institution, the object of which is to promote technological and scientific research and ensure the application of research results to further the creation of value and welfare in the Danish society.

The Torkil Holm Prize

During the symposium the Torkil Holm Research Award for Chemistry will be announced. The prize will be awarded to a younger researcher, who has already established his or her credentials as an independent investigator in any area of chemical science and who shows great promise for further scientific development. Candidates from Danish academia, private research institutions and industry are all eligible for the prize.

Networking

The Torkil Holm Symposium provides an excellent environment for networking with some of the best in the chemistry field. This is further promoted by scientific and social gathering in appropriate breaks for discussion including seated lunch breaks and a symposium dinner.

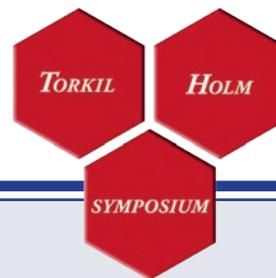
Join the Torkil Holm Symposium to boost your network and experience world class chemistry.

We look forward to two intensive days of presentations and discussions of research at the leading edge of chemistry.

The ATV Scientific Organizing Committee



PROGRAMME



FRIDAY 29 JANUARY 2016

08:30 Registration and breakfast

09:00 Symposium opening and welcome

Professor David Tanner, Technical University of Denmark

Chairman of the ATV Scientific Organizing Committee

09:05 SESSION 1

Chaired by Professor Jesper Wengel

An Expanding Genetic Code

Professor Peter G. Schultz

Redesigning Life

Dr. Steven Benner

Coffee and tea break

11:30 The Torkil Holm Prize 2016

Chaired by Professor Klaus Bock

Lecture by prize winner

12:30 Lunch

14:00 SESSION 2

Chaired by Professor Kurt Vesterager Gothelf

Personalized Energy for 1 (x 6 Billion)

Professor Daniel G. Nocera

Carbon Nanostructures as Functional Multitalents - Sensing, Catalysis, Drug Delivery, Electronics

Professor Klaus Müllen

Coffee and tea break

Painting Chromatin with Synthetic Protein Chemistry

Professor Tom Muir

Bringing the Science of Proteins into the Realm of Organic Chemistry

Professor Stephen B.H. Kent

18:00 Symposium dinner

SATURDAY 30 JANUARY 2016

09:00 Breakfast

09:30 SESSION 3

Chaired by Professor Morten Meldal

Discovery of CFTR Potentiators for the Treatment of Cystic Fibrosis

Dr. Sabine Hadida

Microarrays and Polymers for Regenerative Medicine

Professor Mark Bradley

Coffee and tea break

Metals in Medicine and Neuroscience

Professor Stephen J. Lippard

12:30 Lunch

13:30 SESSION 4

Chaired by Vice President Klaus Bæk Simonsen

The Functionalization of C–H Bonds

Professor M. Christina White

Enantioselective Catalysis with Cations and Anions

Professor F. Dean Toste

Coffee and tea break

Chemical Diversity by the Functionalization of Aryl and Alkyl C–H Bonds

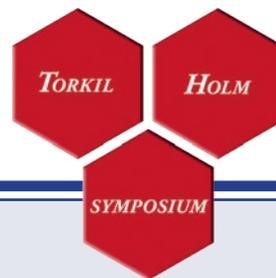
Professor John F. Hartwig

16:30 Symposium closing remarks

Professor David Tanner, Technical University of Denmark

Chairman of the ATV Scientific Organizing Committee

THE SPEAKERS



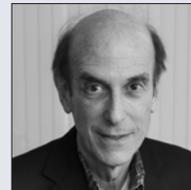
Senior Director Sabine Hadida Vertex Pharmaceuticals, USA

Sabine Hadida, Ph.D., is Senior Director and Head of Chemistry for Vertex's San Diego research team. Since joining in 2002, Sabine has led the chemistry efforts on Cystic Fibrosis that discovered multiple drug candidates including the approved medicine, KALYDECO. In 2013, her team was named Heroes of Chemistry by the ACS. Sabine received her PhD in Pharmacy from the University of Barcelona in 1994 and spent two years conducting postdoctoral research at the University of Pittsburgh.



Professor Mark Bradley Edinburgh University, Scotland

Professor Mark Bradley is a Professor of High-Throughput Chemical Biology at the University of Edinburgh. Prof. Bradley's research involves polymer microarrays, cellular delivery and optical imaging. More than 50 PhD students have emerged over the past decade from his group which has published more than 250 research articles. Professor Bradley is the recipient of several international prizes and awards.



Professor Stephen J. Lippard MIT, USA

Prof. Stephen J. Lippard is the Arthur Amos Noyes Professor of Chemistry at MIT. His work on the anticancer drug cisplatin elucidated its mechanism of action, leading to new strategies for cancer therapy heading into the clinic. His work on methane monooxygenase revealed its structure and key aspects of its mechanism. He founded the field of metalloneurochemistry, where he studies zinc signalling in the brain. Lippard has many academic distinctions; he trained hundreds of Ph.D. and post-doctoral students.



Professor Christina White University of Illinois, USA

Professor Christina White is a Professor of Chemistry at the University of Illinois. White's research focuses on catalytic C-H activation through palladium (the eponymous White catalyst) and iron (Fe(PDP)(MeCN)₂(SbF₆)₂ - the White-Chen catalyst). White has applied these catalysts and their derivatives to new applications, with the most recent being the White catalyst's dehydrogenative Diels-Alder reaction and the iron-mediated intramolecular C-H amination reaction. She has received numerous academic distinctions.



Professor Dean Toste UC Berkeley, USA

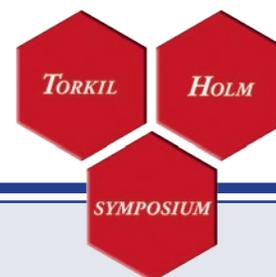
Professor Dean Toste is a Professor of Chemistry at UC Berkeley. His research is aimed toward the development of catalysts, catalytic reactions and methods for organic synthesis. He and his co-workers pioneered and advanced the field of homogeneous gold catalysis and were instrumental in uncovering the use of chiral anions in asymmetric catalysis. His recent awards include the ACS Award for Creativity in Organic Synthesis, the Mitsui Catalysis Award and the Horst-Pracejus Prize from GDCh.



Professor John F. Hartwig UC Berkeley, USA

Prof. Hartwig is the Henry Rapoport Professor of Organic Chemistry at the University of California, Berkeley. His research group focuses on the discovery and understanding of new reactions of organic compounds catalyzed by transition metal complexes. These findings result from a combination of organic synthesis, organometallic synthesis and mechanistic analysis of catalytic systems. Prof. Hartwig recently received the H.C. Brown medal for synthetic methods, the Nagoya Gold Medal for organic synthesis, and the prestigious Willard Gibbs Medal.

THE SPEAKERS



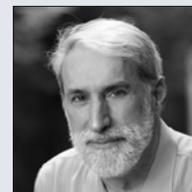
Professor Peter G. Schultz
Scripps Research Institute, USA

Professor Peter G. Schultz is the Scripps Family Professor of Chemistry. He has founded several institutes, e.g., the California Institute for Biomedical Research and GNF, and technology companies. His current research concentrates on 1) expansion of the genetic code, 2) the development of new medicines for unmet needs, 3) and the exploration of molecular diversity. Professor Schultz has co-authored over 500 scientific publications and is the recipient of numerous awards and academic distinctions.



Dr. Steven A. Benner
Ffame, USA

Dr. Steven A. Benner is the founder of The Westheimer Institute of Science and Technology. Dr. Benner has also founded EraGen Biosciences and Firebird BioMolecular Sciences LLC. He has also established the Foundation for Applied Molecular Evolution (FFAME). The Benner laboratory is an originator of the field of “synthetic biology” which seeks to generate, by chemical synthesis, molecules that reproduce the complex behaviour of living systems, including their genetics, inheritance, and evolution.



Prof. Daniel G. Nocera
Harvard University, USA

Prof. Daniel G. Nocera is the Patterson Rockwood Professor of Energy at Harvard University. He is a world leading researcher in renewable energy. He pioneered studies of energy conversion in biology and chemistry. He recently accomplished the solar fuels process that captures many of the elements of photosynthesis and has translated this science to produce the artificial leaf. His company Sun Catalytix was acquired by Lockheed Martin in 2014 which is now commercializing his energy storage technologies.



Professor Dr. Klaus Müllen
Max Planck Institute, Germany

Prof. Dr. Klaus Müllen is Director of the Max Planck Institute for Polymer Research. His research interests range from the development of new polymer-forming reactions to the chemistry and physics of single molecules as well as graphenes, dendrimers and biosynthetic hybrids. Prof. Dr. Müllen's group has f.ex. succeeded in performing the synthesis and characterization of previously inaccessible large polycyclic aromatics. He has published about 1,500 papers. He has received many academic distinctions.



Professor Tom Muir
Princeton University, USA

Prof. Muir, chair of the Chemistry Department at Princeton, investigates the physico-chemical basis of protein function in complex systems of biomedical interest. By combining tools of organic chemistry, biochemistry and cell biology, these new technologies provide fundamental insight into how proteins work and are now used by chemical biologists worldwide. He has published over 150 scientific articles and has won many awards including the Pew Scholars Award, the Leonidas Zervas Award and Jeremy Knowles Award.

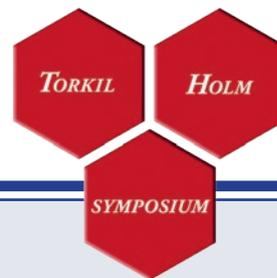


Professor Stephen B.H. Kent
Chicago University, USA

Stephen B.H. Kent is a Professor of Chemistry at the University of Chicago. His research group is devoted to inventing chemistries and applying them to reveal the molecular basis of protein function. Novel methods are developed for the total synthesis of proteins in order to apply advanced physical methods in unprecedented ways to understand the chemical origins of protein structure and function. That knowledge is then demonstrated by the design and construction of protein molecules with novel properties.



PRACTICAL INFO



Dates

29 - 30 January 2016

Friday 29 January: 8.30 am - 11.00 pm
(incl. symposium dinner)

Saturday 30 January: 9.00 am - 5.00 pm

Registration

Please register at www.atv.dk before 15 January 2016.

Participation Fee

Includes breakfast both days, coffee and tea breaks, lunches both days, symposium dinner and free bar (from 6.00 to 11.00 pm) Friday 29 January

Ordinary participants: DKK 3,650

Graduate participants: DKK 1,250

All prices are excl. 25 % VAT

Payment

Invoice and confirmation will be forwarded upon receipt of registration. If cancellation is received later than 15 January 2014, the participation fee cannot be refunded.

Accommodation

Accommodation must be arranged individually by the participants.

The ATV Scientific Organizing Committee

Professor Klaus Bock, Torkil Holm Foundation

Professor Kurt Vesterager Gothelf,
Aarhus University

Vice President Ole Kirk, Novozymes A/S

Professor Morten Meldal,
Copenhagen University

Vice President Klaus Bæk Simonsen,
H. Lundbeck A/S

Professor David Tanner (Chairman),
Technical University of Denmark

Professor Jesper Wengel, University of
Southern Denmark

Symposium Secretariat

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Venue

Radisson Blu Falconer Hotel & Conference Center
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Tel. +45 3815 8001

www.radissonblu.dk

► From left to right: Managing Director of ATV Lia Leffland, Vice President Ole Kirk, Novozymes, Sponsor Torkil Holm and Professor Klaus Bock

