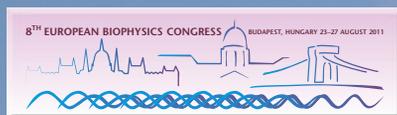


# Programme Booklet

Budapest, Hungary, 23–27 August 2011

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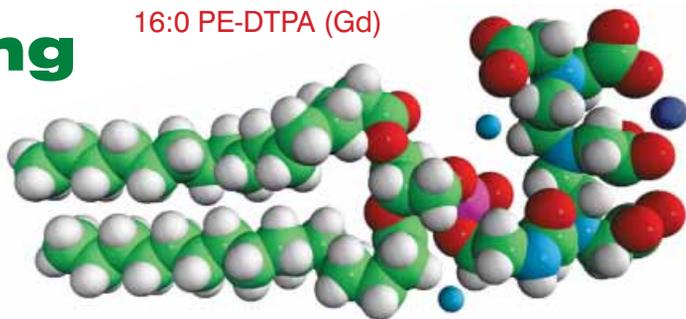
# Exhibitors



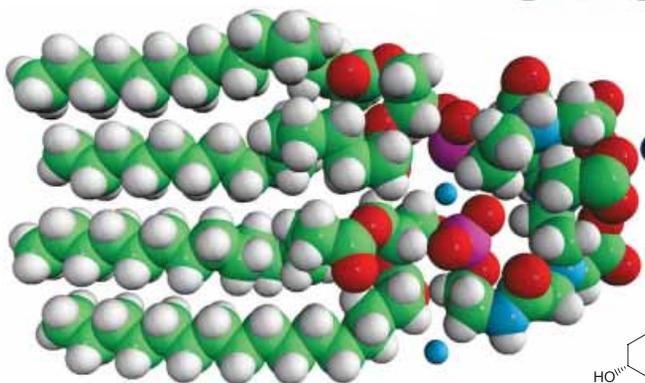
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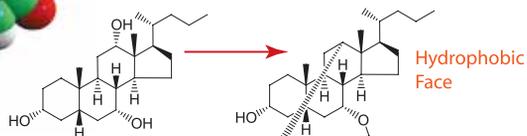
14:0 PE-DTPA (Gd)

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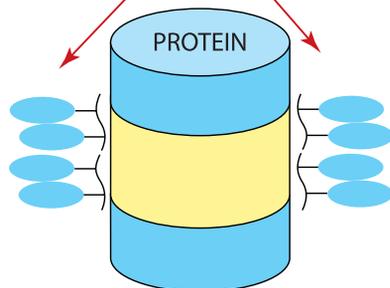
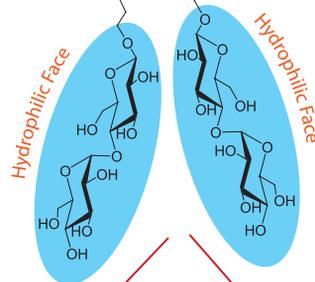
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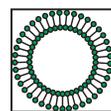
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## **Welcome to the 8th European Biophysics Congress**

### **LADIES AND GENTLEMEN,**

On behalf of the Hungarian Biophysical Society and the European Biophysical Societies Association I am pleased and honoured to welcome you at the 8th European Biophysics Congress in Budapest. Biophysics has been traditionally strong in Hungary. The first Biophysics Department was organised in Pécs in the late forties followed by several others all over the country. The organisation of the Hungarian Biophysical Society started in 1960 and was completed in March, 1961, thus this year we celebrate the 50th anniversary of our society. The first president of the society was Eugene Ernst, followed by József Tigyi, Lajos Keszthelyi, Pál Ormos and Péter Závodszy. The Honorary Presidents are Sándor Damjanovich, Lajos Keszthelyi, Pál Ormos, Györgyi Rontó and József Tigyi. The society started with 111 members. The membership steadily increased and in the past 20 years we have about 400 members.

This congress is the 8th European Biophysics Congress and is the fifth since EBSA decided to organise congresses biennially. Organising congresses more frequently became possible because of the larger income generated by EBSA. The main source is the European Biophysics Journal magnificently managed by Anthony Watts. The financial support from EBSA and Springer was pivotal for organising this congress. This is the first time when 60 bursaries were offered for young talented colleagues to facilitate their participation. We continue the tradition of the EBSA Prize: this year the winner is Kinneret Keren from Israel. EBSA is important in supporting "Biophysics in Europe". Please be involved in the activities of EBSA, please attend the General Assembly, even if you are not the voting representative of your country.

The continuous increase of the number of abstracts proves that European biophysics is getting stronger. I proudly report that almost 700 abstracts have been received and about 900 people registered from more than 50 countries. The help of the Scientific Committee was essential in assembling the program. Members of the EBSA Executive Committee were extremely helpful. The continuous support from Anthony Watts and Michael Ferenczi is much appreciated. Hungarian members of the Organising and the Scientific Committee supported the hard work of organisation in the past two years. Special thanks are due the Péter Závodszy and Győző Garab.

All the congress activities will be at the new Campus of the Eötvös Loránd University, conveniently located close to the arteries of public transportation. The congress follows the classical scheme, with plenary lectures, followed by three parallel sessions and poster presentations. After the scientific sessions you can explore the beauties and the glamour of the city of Budapest – also known as the “Queen of the Danube” – the capital of Hungary, the centre of Hungarian cultural life. The monuments and museums will give you the possibility to learn more about Hungary. Please enjoy the wonderful architecture of Buda, the Castle Hill with the Royal Palace, the Matthias Church and the ramparts of Fisherman’s Bastion, or at Pest the House of Parliament or the Andrassy Boulevard. A river cruise on the Danube or a visit the thermal bath in one of the Turkish-era bath houses might be a memorable experience.

We hope that you find the 8th EBSA Congress interesting, and that you will plan to attend the 9th Congress, to be held in Lisbon, Portugal, on 13–17 July 2013.

*László Mátyus*

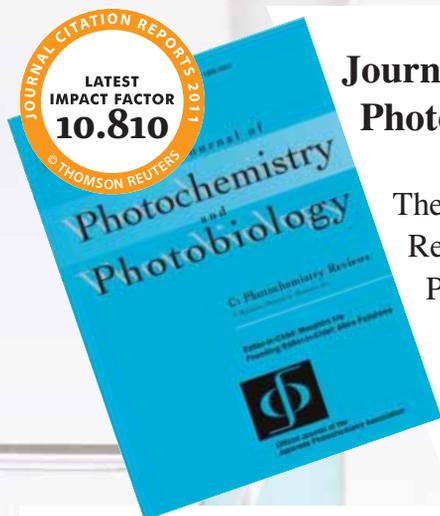
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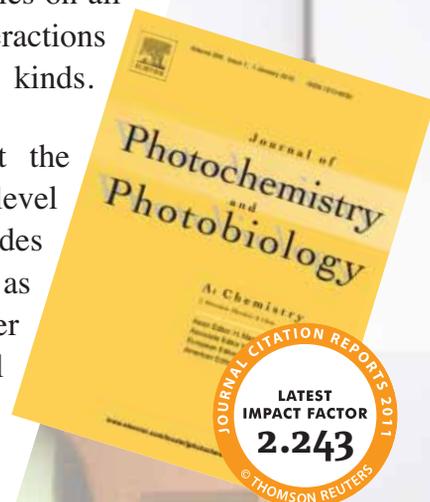
## Journal of Photochemistry and Photobiology C: Photochemistry Reviews

The international journal, Photochemistry Reviews, as the official journal of the Japanese Photochemistry Association, provides a forum for mutual communication among scientists in various fields of photochemistry and aims to promote new interdisciplinary fields.

## Journal of Photochemistry and Photobiology A: Chemistry

JPPA publishes the results of fundamental studies on all aspects of chemical phenomena induced by interactions between light and molecules/matter of all kinds.

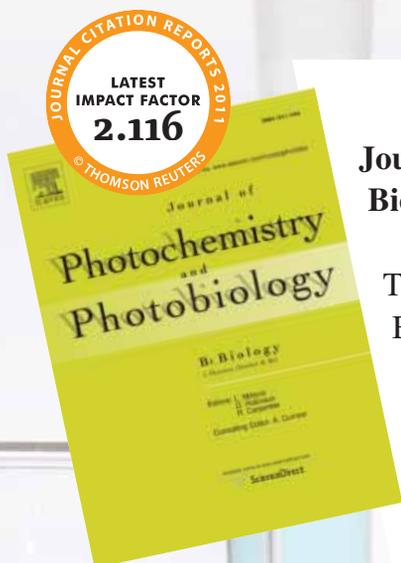
All systems capable of being described at the molecular or integrated multimolecular level are appropriate for the journal. This includes all molecular chemical species as well as biomolecular, supramolecular, polymer and other macromolecular systems. In addition, the journal publishes studies of semiconductor and other photoactive organic and inorganic materials.





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### Journal of Photochemistry and Photobiology B: Biology

The Journal of Photochemistry and Photobiology B: Biology provides a forum for the publication of papers relating to the various aspects of photobiology, as well as a means for communication in this multidisciplinary field.

The scope includes:

- bioluminescence
- chronobiology
- DNA repair
- environmental photobiology
- nanotechnology in photobiology
- photocarcinogenesis
- photochemistry of biomolecules
- photodynamic therapy
- photomedicine etc.

## Welcome to Budapest

The capital city of Hungary, Budapest, was created out of the unification of the separate historic towns of Buda, Pest and Obuda in 1873. Although the area had been inhabited from early times, it was from this date that the city's expansion into a world capital really began. Budapest is bisected by the River Danube, with the city as much a natural geographical centre as it is the country's transport hub. Covering an area of two hundred square miles and divided into 23 administrative districts, it is home today to a population of 2 million people.

Budapest owes everything to the mighty River Danube which flows north to south through the centre of the city, simultaneously dividing and linking Pest in the east from the wooded hills of Buda on the western side. This majestic river has been the focus of Budapest's rich and fascinating history and vibrant cultural heritage throughout the centuries since the Celts first settled at Gellert Hill in the third and fourth centuries B.C. The city is rightly known as the Queen of the Danube. It has also been called the City of Spas, as there are a dozen thermal baths complexes served by over a hundred natural thermal springs. Budapest is not an out-of-the way little town waiting to be discovered, it reveals itself right from the start. It is a city that has always attached great importance to its appearance, so that it would appear hospitable and friendly at first sight. In a single glimpse the visitor can take in the World Heritage panorama with the Parliament, the imposing Royal Castle, Fisherman's Bastion, the impressive Danube Embankment in the heart of the city and some of the nine bridges spanning the Danube.

On Monday morning, when people go to work, the city shows its other face. While the tourists set out to explore Buda, Pest is pulling up its shutters and the pedestrian streets are beginning to bustle with life again. Spending time in Budapest affords a real journey through time. In some areas, a stroll of merely half a kilometre is all that is needed to reveal a dazzling architectural feat of glass-metal-halogen in contrast to the astonishing sight moments before of a Roman monument dating back over a thousand years. Whatever your favourite era or architectural style, you are certain to find a masterpiece of it in Budapest.

Naturally, the history and the beauty of the city is not all. The people living here create the soul of the city and they have contributed to its vitality throughout the centuries. Whether sitting in a quiet cafe over a pastry or admiring one of the performances in the Opera House or perhaps relaxing in one of the numerous ancient thermal baths, it is easy for one to observe how pleasantly the time passes in Budapest, the heart of Europe.

**Enjoy your stay in Budapest!**

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Panyi, György, Debrecen  
Vonderviszt, Ferenc, Veszprém  
Závodszy, Péter, Budapest  
Zimányi, László, Szeged

## Official Meetings

**EBJ Editorial Board Meeting**

Wednesday, August 24<sup>th</sup> 2011, 12.45–14.30

Dean's Council Room, Level 1, Northern Building

**General Assembly of the French Biophysical Society**

Wednesday, August 24<sup>th</sup> 2011, 13.30–15.00

Conference Hall, Level –1, Northern Building

**Executive Committee Bursary Reception**

Friday, August 26<sup>th</sup> 2011, 13.00–14.15

Historical Mineral Hall, Level 0, Southern Building

**EBSA General Assembly**

Friday, August 26<sup>th</sup> 2011, 14.45–16.00

Globe Hall, Level 0, Northern Building

## SCIENTIFIC PROGRAMME

### Tuesday, August 23<sup>rd</sup> 2011

ELTE University Congress Center  
Pázmány Péter sétány 1/a, H-1117 Budapest  
<http://www.ucc.hu>

14.00–19.00 **REGISTRATION**

17.00–17.30 **OPENING CEREMONY** – Globe Hall

17.30–18.30 **OPENING LECTURE** – Globe Hall

Chair: Anthony Watts, *Oxford, UK*

**Ada Yonath**, *Department of Structural Biology, Weizmann Institute, Rehovot, Israel (O-001)*

View into the ribosomal exit tunnel

18.30–19.45 **WELCOME RECEPTION**

### Wednesday, August 24<sup>th</sup> 2011

ELTE University Congress Center

9.00–10.00 **EBSA PRIZE LECTURE** – Globe Hall

Chair: Michael A. Ferenczi, *London, UK*

**Kinneret Keren**, *Technion, Israel Institute of Technology, Haifa, Israel (O-002)*

The interplay between actin dynamics and membrane tension determines the shape of moving cells

10.00–10.30 **Coffee break**

### PARALLEL SESSIONS

10.30–12.45 **1. Biomolecular Interactions** – Globe Hall

Chairs: Catherine Royer, Péter Maróti

#### INVITED SPEAKERS

10.30–11.00 **Sarah Cianferani**, *Strasbourg, France (O-025)*

Native mass spectrometry to decipher interactions between biomolecules

11.00–11.30 **Jelle Hendrix**, *Leuven, Belgium (O-046)*

Visualizing and quantifying HIV-host interactions with fluorescence microscopy

**SHORT TALKS**

- 11.30–11.45 **Stephan Grage**, *Kahlsruhe, Germany (O-043)*  
Crowding of membrane proteins and peptides
- 11.45–12.00 **Pietro Parisse**, *Trieste, Italy (O-073)*  
Enzymatic reactions in nanostructured surfaces: unzipping and cutting the double helix
- 12.00–12.15 **Masahide Terazima**, *Kyoto, Japan (O-096)*  
Time-resolved detection of protein-protein interaction
- 12.15–12.30 **Anna Wypijewska**, *Warsaw, Poland (O-107)*  
Experimental physics resources for studying biological macromolecules; deep insight into DcpS enzymatic hydrolysis of short capped mRNAs
- 12.30–12.45 **László Smeller**, *Budapest, Hungary (O-090)*  
Unfolding of the cod parvalbumin Gad m1 allergen by high pressure

10.30–12.45 **2. Neuronal Systems and Optogenetics** – Conference Hall  
Chairs: Nir Grossman, Zoltán Nusser

**INVITED SPEAKERS**

- 10.30–11.00 **Thomas Knöpfel**, *Wako, Japan (O-111)*  
Optogenetic electrophysiology
- 11.00–11.30 **Máté Lengyel**, *Cambridge, UK (O-118)*  
Neuronal biophysics: optimised for information processing?
- 11.30–12.00 **Zoltán Nusser**, *Budapest, Hungary (O-120)*  
Subcellular compartment-specific distribution of voltage-gated ion channels

**SHORT TALKS**

- 12.00–12.15 **Emily Ferenczi**, *Stanford, USA (O-114)*  
Opsin stability under varying stimulation conditions
- 12.15–12.30 **Martin Kopani**, *Bratislava, Slovakia (O-117)*  
Hematite particles in human brain
- 12.30–12.45 **Joanna Mattis**, *Stanford, USA (O-119)*  
An analysis of new and existing opsins for scientific application

10.30–12.45 **3. Calcium Fluxes, Sparks & Waves** – János Bólyai Hall  
Chairs: Ernst Niggli, László Csernoch

**INVITED SPEAKERS**

- 10.30–11.00 **Niall Macquaide**, *Leuven, Belgium (O-126)*  
High sensitivity of  $\text{Ca}^{2+}$  wave propagation to ryanodine receptor inhibition in cardiac myocytes
- 11.00–11.30 **Francesco Zorzato**, *Ferrara, Italy (O-131)*  
Calcium influx analysis by TIRF microscopy on myotubes from patients with RYR1 mutations linked to MH and CCD
- 11.30–12.00 **Ernst Niggli**, *Bern, Switzerland (O-127)*  
Alterations of ryanodine receptor (RyR) function and arrhythmogenic  $\text{Ca}^{2+}$  waves in cardiomyocytes
- 12.00–12.30 **László Csernoch**, *Debrecen, Hungary (O-130)*  
Caffeine and depolarization alters the morphology of calcium spark in amphibian skeletal muscle

**SHORT TALK**

12.30–12.45 **Dirk Gillespie**, *Chicago, USA (O-125)*

A simple model to describe single and multichannel calcium regulation of ryanodine receptors

12.45–15.00 **POSTER SESSION & EXHIBITS** with **Lunch Break**

15.00–16.00 **PLENARY LECTURE** – Globe Hall

Chair: Erick J. Dufourc, *Bordeaux, France*

**Holger Stark**, *Max-Planck-Institut für biophysikalische Chemie, Göttingen, Germany (O-003)*

Structure determination of dynamic macromolecular complexes by single particle cryo-EM

16.00–16.30 **Tea break**

**PARALLEL SESSIONS**

16.30–18.45 **4. Membrane Lipids, Microdomains & Signalling** – Globe Hall

Chairs: Petra Schwille, János Matkó

**INVITED SPEAKERS**

16.30–17.00 **Didier Marguet**, *Marseille, France (O-188)*

Spot variable Fluorescence Correlation Spectroscopy reveals fast scouting of K-Ras at the plasma membrane of living cells

17.00–17.30 **Christian Eggeling**, *Göttingen, Germany (O-142)*

Imaging membrane heterogeneities and domains by super-resolution STED nanoscopy

17.30–18.00 **Petra Schwille**, *Dresden, Germany (O-182)*

Minimal systems for membrane associated cellular processes

**SHORT TALKS**

18.00–18.15 **Nicolas Destainville**, *Toulouse, France (O-139)*

Role of long-range effective protein-protein forces in the formation and stability of membrane protein nano-domains

18.15–18.30 **Erick Dufourc**, *Bordeaux, France (O-141)*

Magnetic camemberts and liposomes: New tools for structural biology of membrane molecules

18.30–18.45 **Nicky Ehrlich**, *Copenhagen, Denmark (O-143)*

Ca<sup>2+</sup> controlled all-or-none like recruitment of synaptotagmin-1 C2AB to membranes

16.30–18.45 **5. Aggregated Proteins** – Conference Hall

Chairs: Michele Vendruscolo, Miklós Kellermayer

**INVITED SPEAKERS**

16.30–17.00 **Tuomas Knowles**, *Cambridge, UK (O-200)*

Kinetics of protein aggregation

- 17.00–17.30 **Sara Linse**, *Lund, Sweden (O-205)*  
Mechanistic insights into A $\beta$ 42 aggregation and effects of inhibitors

**SHORT TALKS**

- 17.30–17.45 **Martino Calamai**, *Florence, Italy (O-192)*  
Amyloid-like aggregates alter the membrane mobility of GM1 gangliosides
- 17.45–18.00 **Sylvie Noinville**, *Paris, France (O-208)*  
Membrane permeabilization by purified soluble beta-enriched oligomers of prion protein
- 18.00–18.15 **Anja Stefanovic**, *Twente, The Netherlands (O-213)*  
Mechanistic insights into oligomeric alpha-synuclein/membrane interactions
- 18.15–18.30 **Annelies Vandersteen**, *Brussels, Belgium (O-218)*  
Biophysical consideration of gamma-secretase modulation as potential target for Alzheimer's disease
- 18.30–18.45 **Bojan Zagrovic**, *Vienna, Austria (O-219)*  
Microscopic analysis of protein oxidative damage: effect of carbonylation on structure, dynamics and aggregability of villin headpiece

16.30–18.45 **6. Nucleic Acid and Chromatin Structure & Function**

– János Bólyai Hall

Chairs: Sanford H. Leuba, Jörg Langowski

**INVITED SPEAKERS**

- 16.30–17.00 **Antoine van Oijen**, *Groningen, The Netherlands (O-238)*  
Single-molecule studies of DNA replication
- 17.00–17.30 **Jean-Marc Victor**, *Paris, France (O-239)*  
In silico single molecule manipulation with rigid body dynamics: an efficient tool for modeling the mechanical properties of DNA-protein complexes

**SHORT TALKS**

- 17.30–17.45 **Vera Böhm**, *Heidelberg, Germany (O-225)*  
Nucleosome accessibility investigated using single molecule fluorescence
- 17.45–18.00 **Péter Brazda**, *Debrecen, Hungary (O-226)*  
Dissecting the role of coregulator exchange and chromatin binding in retinoic acid receptor (RAR) mobility by live cell FCS
- 18.00–18.15 **Nikolay Korolev**, *Singapore, Republic of Singapore (O-230)*  
Chromatin condensation: general polyelectrolyte association and histone-tail specific folding
- 18.15–18.30 **Carlo Manzo**, *Castelldefels (Barcelona), Spain (O-232)*  
Lambda genetic switch sensitivity depends on complex looping kinetics driven by nonspecific binding
- 18.30–18.45 **Jeff Stear**, *Berlin, Germany (O-236)*  
DNA replication machinery clamps down on chromatin mobility

## Thursday, August 25<sup>th</sup> 2011

ELTE University Congress Center

9.00–10.00 **PLENARY LECTURE** – Globe Hall

Chair: László Mátyus, *Debrecen, Hungary*

**Tamás Balla**, *Section on Molecular Signal Transduction, Program for Developmental Neuroscience, NICHD, National Institutes of Health, Bethesda, USA (O-004)*

Detection and rapid manipulation of phosphoinositides with engineered molecular tools

10.00–10.30 **Coffee break**

### PARALLEL SESSIONS

10.30–12.45 **7. Computational Biophysics and Simulation** – Globe Hall

Chairs: Helmut Grubmüller, István Simon

#### INVITED SPEAKERS

10.30–11.00 **Andrea Vaiana**, *Göttingen, Germany (O-310)*

Molecular dynamics simulations of ribosomal translocation based on Cryo-EM data

11.00–11.30 **Nir Ben-Tal**, *Tel Aviv, Israel (O-247)*

Using low-resolution structural data to model structure, function and motion in transmembrane proteins

#### SHORT TALKS

11.30–11.45 **Lennart Nilsson**, *Stockholm, Sweden (O-286)*

Nucleotide modifications and tRNA anticodon – mRNA codon interactions on the ribosome

11.45–12.00 **Stefano Piana-Agostinetti**, *New York, USA (O-293)*

The quest for the perfect force field

12.00–12.15 **Tatjana Skrbic**, *Trento, Italy (O-302)*

The role of non-native interactions in knotted proteins

12.15–12.30 **András Szilágyi**, *Budapest, Hungary (O-308)*

Segment swapping between domains is an evolutionary mechanism that generates new protein folds

12.30–12.45 **Ilpo Vattulainen**, *Tampere, Finland (O-313)*

Trafficking of lipids between high density lipoprotein and cholesteryl ester transfer protein

10.30–12.45 **8. Imaging and Optical Microscopy** – Conference Hall

Chairs: Vinod Subramaniam, János Szöllősi

#### INVITED SPEAKERS

10.30–11.00 **Alberto Diaspro**, *Genoa, Italy (O-329)*

Optical nanoscopy and individual molecule localization with focused light under linear and non linear regimes

11.00–11.30 **Werner Kühlbrandt**, *Frankfurt, Germany (O-341)*  
Cryo-EM of membranes and membrane proteins

**SHORT TALKS**

11.30–11.45 **Donna J. Arndt-Jovin**, *Göttingen, Germany (O-321)*  
Programmable Array Microscope imaging of living cells and spin-off to tumor diagnostics

11.45–12.00 **Virginijus Barzda**, *Toronto, Canada (O-322)*  
Three-dimensional video-rate nonlinear microscopy of contracting myocytes

12.00–12.15 **Benjamien Moeyaert**, *Leuven, Belgium (O-343)*  
Rational design and applications of photoconvertible and bi-photochromic fluorescent proteins

12.15–12.30 **Vinod Subramaniam**, *Twente, The Netherlands (O-349)*  
Integrin-dependent activation of the JNK signaling pathway in live cells by mechanical stress

12.30–12.45 **Thomas van Zanten**, *Barcelona, Spain (O-350)*  
Direct mapping of nanoscale compositional connectivity on intact cell membranes

10.30–12.45 **9. Molecular Motors** – János Bólyai Hall  
Chairs: Michael A. Ferenczi, Miklós Nyitrai

**INVITED SPEAKERS**

10.30–11.00 **Toshio Yanagida**, *Osaka, Japan (O-369)*  
Switch between large hand-over-hand and small inchworm-like steps in myosin VI

11.00–11.30 **Anne Houdusse**, *Paris, France (O-360)*  
How myosin traps and how actin triggers the release of phosphate at the beginning of force generation

**SHORT TALKS**

11.30–11.45 **Marco Capitanio**, *Florence, Italy (O-354)*  
Myosin on an optical leash: Load dependence of the working stroke in a single myosin head

11.45–12.00 **Ryohei Chiwata**, *Tokyo, Japan (O-356)*  
Rotation of F1-ATPase with a protrusion-less gamma rotor

12.00–12.15 **Michael Kolbe**, *Göttingen, Germany (O-361)*  
Assembly and function of the type 3 secretion system needle from *Salmonella typhimurium*

12.15–12.30 **Anna Roujeinikova**, *Victoria, Australia (O-366)*  
Mechanism of the force generation in the bacterial flagellar motor: a structural biology perspective

12.30–12.45 **Andrej Vilfan**, *Ljubljana, Slovenia (O-368)*  
Longitudinal and rotational motion of microtubules driven by the kinesin-14 motor ncd

12.45–13.45 **POSTER SESSION & EXHIBITS** with Lunch Break

13.45–14.45 **PLENARY LECTURE** – Globe Hall

Chair: J. Antoinette Killian, *Utrecht, The Netherlands*

**Ferenc Mezei**, *Research Institute for Solid State Physics and Optics, Budapest, Hungary (O-005)*

Spectroscopic explorations of the nature of protein dynamics

## PARALLEL SESSIONS

14.45–17.00 **10. Structure of Proteins and Protein Complexes**

– Globe Hall

Chairs: Jose Carrascosa, Péter Závodszy

### INVITED SPEAKERS

14.45–15.15 **Malcolm Walkinshaw**, *Edinburgh, UK (O-408)*

Structural and biochemical studies show divergent allosteric mechanisms in glycoytic enzymes

15.15–15.45 **Susan Lea**, *Oxford, UK (O-393)*

Structural insights into the control of type three secretion

### SHORT TALKS

15.45–16.00 **Tuomo Glumoff**, *Oulu, Finland (O-382)*

Structure-function relationships in different MFE-2 proteins by various biophysical techniques

16.00–16.15 **Tommi Kajander**, *Helsinki, Finland (O-389)*

The structure of factor H in complex with C3d explains regulation of immune complement alternative pathway

16.15–16.30 **Mikel Valle**, *Derio, Spain (O-406)*

Three-dimensional structure of ClpB, a chaperone that rescues aggregated proteins

16.30–16.45 **Anthony Wilkinson**, *York, UK (O-410)*

Structure of an Intercellular Channel Formed during Sporulation in *Bacillus subtilis*

16.45–17.00 **Johann Klare**, *Osnabrück, Germany (O-392)*

Conformational changes during GTPase activity induced self-assembly of human guanylate binding protein 1 revealed by EPR spectroscopy

14.45–17.00 **11. Live Cell Imaging (Prof. Sándor Damjanovich Symposium)** – Conference Hall

Chairs: Alberto Diaspro, György Vereb

### INVITED SPEAKERS

14.45–15.15 **Tom Jovin**, *Göttingen, Germany (O-425)*

FRET approaches to signal transduction: from QD biosensors to live-cell EGFR signaling

15.15–15.45 **Ranieri Bizzarri**, *Pisa, Italy (O-416)*

Engineering the excited state of fluorophores for high resolution imaging of bio- and soft-matter

**SHORT TALKS**

- 15.45–16.00 **Ana Morales Garcia**, *Sheffield, UK (O-430)*  
SFM study of bacterial cell walls
- 16.00–16.15 **Marina Kuimova**, *London, UK (O-427)*  
Measuring intracellular viscosity: from molecular rotors to Photodynamic Therapy of cancer
- 16.15–16.30 **Andrew Shevchuk**, *London, UK (O-434)*  
Multifunctional ion conductance microscopy for biophysical studies at nanoscale
- 16.30–16.45 **Markus Staufenbiel**, *Osnabrück, Germany (O-437)*  
Triple-colour super-resolution imaging in living cells
- 16.45–17.00 **Stephen Webb**, *Harwell, UK (O-438)*  
Simultaneous, multicolour single molecule imaging of the entire ErbB receptor family in live cells

**14.45–17.00 12. Trends in Neutron Scattering for Biology**

– János Bólyai Hall

Chairs: Thomas Hauss, László Rosta

**INVITED SPEAKERS**

- 14.45–15.15 **Hans Frauenfelder**, *Los Alamos, USA (O-444)*  
Protein dynamics explored by Mössbauer effect and neutron scattering
- 15.15–15.45 **Maikel Rheinstädter**, *Hamilton, Canada (O-449)*  
Nanobiology: Membranes and proteins in motion

**SHORT TALKS**

- 15.45–16.00 **Ralf Biehl**, *Jülich, Germany (O-440)*  
Function of phosphoglycerate kinase enabled by large domain movements
- 16.00–16.15 **Alexandre Chenal**, *Paris, France (O-441)*  
Deciphering membrane insertion of the diphtheria toxin translocation domain
- 16.15–16.30 **Christine Ebel**, *Grenoble, France (O-442)*  
Fluorinated Surfactants (FSs) for studying Membrane Proteins (MPs)
- 16.30–16.45 **Stéphane Longeville**, *Gif-sur-Yvette Cedex, France (O-447)*  
Influence of macromolecular crowding on protein stability
- 16.45–17.00 **Andreas Stadler**, *Jülich, Germany (O-451)*  
Thermal fluctuations of hemoglobin from different species

**17.00–23.00 SOCIAL DINNER**

**Friday, August 26<sup>th</sup> 2011**

ELTE University Congress Center

9.00–10.00 **PLENARY LECTURE** – Globe HallChair: Alberto Diaspro, *Genoa, Italy***Ernst Bamberg**, *Department of Biophysical Chemistry, Max-Planck-Institute of Biophysics, Frankfurt (O-006)*

Microbial Rhodopsins: Light-gated ion channels and pumps as optogenetic tools in neuro- and cell biology

10.00–10.30 **Coffee break****PARALLEL SESSIONS**10.30–12.45 **13. Cytoskeleton and Cell Migration** – Globe Hall

Chairs: Jürgen Bereiter-Hahn, Judit Ovádi

**INVITED SPEAKERS**10.30–11.00 **Christoph Schmidt**, *Göttingen, Germany (O-472)*

Control of the fast, slow and reverse gear of the yeast mitotic kinesin-5 Cin8

11.00–11.30 **Josef Alfons Käs**, *Leipzig, Germany (O-463)*

Are biomechanical changes necessary for tumor progression?

11.30–12.00 **Paul Janmey**, *Philadelphia, USA (O-459)*

Driving cytoskeletal remodeling by extracellular matrix mechanics

**SHORT TALKS**12.00–12.15 **Beáta Bugyi**, *Pécs, Hungary (O-481)*

Tropomyosin isoform specific regulation of nucleation factors

12.15–12.30 **Siddharth Deshpande**, *Basel, Switzerland (O-453)*

Dynamics of confined actin networks in microchambers

12.30–12.45 **Pierre Recouvreux**, *Amsterdam, The Netherlands (O-470)*

Automated image analysis of microtubule dynamics and maintenance of fission yeast cells morphology

10.30–12.45 **14. Ion Channels: Structure and Function** – Conference Hall

Chairs: Florian Lesage, György Panyi

**INVITED SPEAKERS**10.30–11.00 **Bernard Attali**, *Tel Aviv, Israel (O-483)*

Targeting the promiscuous voltage sensor of voltage-gated cations channels by novel gating-modifiers

11.00–11.30 **Declan Doyle**, *Dublin, Ireland (O-486)*

Over-expression of human ion channels and transporters for structural studies

**SHORT TALKS**11.30–11.45 **Aura Jimenez**, *Mexico City, Mexico (O-491)*

Effect of cholesterol and cytoskeleton on KV10.1 membrane distribution

- 11.45–12.00 **Péter Lukács**, *Vienna, Austria (O-495)*  
Differential modulation of inactivated states by hydrophilic and hydrophobic sodium channel blockers
- 12.00–12.15 **Lubica Lacinova**, *Bratislava, Slovakia (O-494)*  
Gating currents of low-voltage-activated T-type calcium channels family
- 12.15–12.30 **Tibor Szántó G.**, *Debrecen, Hungary (O-502)*  
Molecular rearrangements during slow inactivation of the Shaker-IR potassium channel
- 12.30–12.45 **Ligia Toro**, *Los Angeles, USA (O-506)*  
Molecular characterization of BK<sub>Ca</sub> channel in cardiac mitochondria

10.30–12.45 **15. Photosynthesis** – János Bólyai Hall  
Chairs: Rienk van Grondelle, Győző Garab

#### INVITED SPEAKERS

- 10.30–11.00 **Holger Dau**, *Berlin, Germany (O-515)*  
Photosynthetic water oxidation: From biophysics to solar fuels
- 11.00–11.30 **Rienk van Grondelle**, *Amsterdam, The Netherlands (O-534)*  
Excitation energy transfer and non-photochemical quenching in photosynthesis
- 11.30–12.00 **Péter Maróti**, *Szeged, Hungary (O-527)*  
Relaxation of bacteriochlorophyll fluorescence in intact cells of photosynthetic bacteria

#### SHORT TALKS

- 12.00–12.15 **László Kálmán**, *Montreal, Canada (O-523)*  
Effect of hydrophobic mismatch on the light-induced structural changes in bacterial reaction centers
- 12.15–12.30 **Jidnyasa Joshi**, *Frankfurt am Main, Germany (P-522)*  
Characterization of the light harvesting antenna system in the diatom *Phaeodactylum tricornutum*
- 12.30–12.45 **Gert Schansker**, *Szeged, Hungary (O-530)*  
Variable chlorophyll fluorescence: in part a yield change due to light-induced conformational change

12.45–14.45 **POSTER SESSION & EXHIBITS** with Lunch Break

13.00–14.15 **EXECUTIVE COMMITTEE BURSARY RECEPTION**

14.45–16.00 **EBSA GENERAL ASSEMBLY**

16.00–17.00 **PLENARY LECTURE** – Globe Hall  
Chair: Manuel Prieto, *Lisbon, Portugal*  
**Philippe Bastiaens**, *Max Planck Institute of Molecular Physiology, Department of Systemic Cell Biology, Dortmund, Germany (O-007)*  
The spatial organization of growth factor signaling systems in cells

17.00–17.30 **Tea break**

**PARALLEL SESSIONS****17.30–19.45 16. Electron and Proton Transfer, Bioenergetics**

– Globe Hall

Chairs: Michael Verkhovsky, László Zimányi

**INVITED SPEAKERS****17.30–18.00 Janos K. Lanyi, Irvine, USA (O-545)**

Proton transfers in a light-driven proton pump

**18.00–18.30 Jochen Blumberger, London, UK (O-537)**

Computational Bioenergetics: From pure electron transfer in mono- and multi-heme cytochromes to chemistry in catalases

**SHORT TALKS****18.30–18.45 Dimitri Khoshtariya, Tbilisi, Georgia (O-544)**

Mechanistic insights for redox-active proteins functionalized at Au/SAM junctions

**18.45–19.00 Manuela Pereira, Lisbon, Portugal (O-548)**

Sodium influence on energy transduction by bacterial complexes I

**19.00–19.15 Andrei Pislakov, Tokyo, Japan (O-549)**

Mechanism of proton transfer in nitric oxide reductase: computational study

**19.15–19.30 Ivo Saraiva, Oeiras, Portugal (O-552)**

Molecular characterization of photosynthetic iron oxidation

**19.30–19.45 László Zimányi, Szeged, Hungary (O-557)**

Characterization of a vacuolar cytochrome b561 by redox titration and spectrum analysis

**17.30–19.45 17. Ion Channels and Disease – János Bólyai Hall**

Chairs: Mustafa Djamgoz, Balázs Sarkadi

**INVITED SPEAKERS****17.30–18.00 Kenji Okuse, London, UK (O-568)**

Clustering of voltage-gated sodium channel Nav1.8 in lipid rafts is essential for action potential propagation in nociceptive unmyelinated axons

**18.00–18.30 David Beech, Leeds, UK (O-562)**

Calcium channels of vascular remodelling

**18.30–19.00 Annarosa Arcangeli, Florence, Italy (O-558)**

hERG1 channels: from antitargets to novel therapeutic targets in oncology

**SHORT TALKS****19.00–19.15 András Balajthy, Debrecen, Hungary (O-559)**Analysis of the K<sup>+</sup> current in human T cells in hypercholesterinaemic state**19.15–19.30 Karlheinz Hilber, Vienna, Austria (O-565)**

Voltage-gated ion channel dysfunction precedes cardiomyopathy development in the dystrophic heart

**19.30–19.45 Ildikó Szabó, Padua, Italy (O-572)**

Membrane-permeant inhibitors of the potassium channel Kv1.3 induce apoptosis in cancer cell lines

17.30–19.45 **18. New and Notable** – Conference Hall

Chairs: Anthony Watts, Gábor Szabó

**INVITED SPEAKERS**

17.30–18.00 **Mark Howarth**, *Oxford, UK (O-582)*

Get a grip: engineering ultra-stable interactions to proteins for biophysics and medicine

18.00–18.30 **Florian Lesage**, *Valbonne, France (O-580)*

Background K<sup>+</sup> channel gating and cell excitability

18.30–19.00 **Pál Ormos**, *Szeged, Hungary (O-590)*

Hydrodynamic synchronisation of light driven microscopic rotors

19.00–19.30 **Andrew Turberfield**, *Oxford, UK*

Protein structure by cryo-EM using DNA-templated protein arrays

**SHORT TALK**

19.30–19.45 **Gábor Szabó**, *Szeged, Hungary (O-589)*

Towards attosecond biophysics: what can ELI-ALPS offer?

**Saturday, August 27<sup>th</sup> 2011**

ELTE University Congress Center

9.00–10.00 **PLENARY LECTURE** – Globe Hall

Chair: Anthony J. Wilkinson, York, UK

**Michael Grätzel**, *Laboratory of Photonics and Interfaces, Institute of Chemical Science and Engineering, Station 6, Ecole Polytechnique Fédérale, Lausanne, Switzerland (O-008)*

Molecular photovoltaics mimic photosynthesis

10.00–10.30 **Coffee break****PARALLEL SESSIONS**10.30–12.45 **19. Membrane Structure** – Globe Hall

Chairs: Manuel Prieto, Tibor Páli

**INVITED SPEAKERS**10.30–11.00 **Derek Marsh**, *Göttingen, Germany (O-624)*

Biophysics of membrane lipidomics

11.00–11.30 **Gerhard Schütz**, *Linz, Austria (O-591)*

Single molecule biology – Studying meetings within the plasma membrane

11.30–12.00 **Timothy A. Cross**, *Tallahassee, USA (O-592)*

The native M2 proton channel structure from Influenza A

**SHORT TALKS**12.00–12.15 **Gregor Anderluh**, *Ljubljana, Slovenia (O-596)*

Perforin induces invaginations in model membranes

12.15–12.30 **Georg Pabst**, *Graz, Austria (O-631)*

Stereo-specific effect of the analgesic drug ketamine on lipid membranes

12.30–12.45 **Horia Petrache**, *Indianapolis, USA (O-632)*

Dependence of gramicidin A channel lifetime on membrane structure obtained from X-ray scattering measurements

10.30–12.45 **20. Conformational Dynamics, Folding and IDP**

– Conference Hall

Chairs: Anthony Watts, Péter Tompa

**INVITED SPEAKERS**10.30–11.00 **Peter Wright**, *La Jolla, USA (O-667)*

Promiscuous liaisons: functional interactions of intrinsically disordered proteins in biological signaling

11.00–11.30 **Mónika Fuxreiter**, *Budapest, Hungary (O-651)*

Fuzziness in protein-DNA interactions: beyond what can be seen

**SHORT TALKS**11.30–11.45 **Mónika Bokor**, *Budapest, Hungary (O-645)*

Wide-line NMR and relaxation characterization of interfacial water in protein solutions

11.45–12.00 **Karin Hauser**, *Konstanz, Germany (O-653)*  
Folding rates studied by a combination of static and time-resolved infrared spectroscopy

12.00–12.15 **Julien Roche**, *Montpellier, France (O-659)*  
Probing cavities in SNase structure: a high pressure NMR study

12.15–12.30 **Clemens Sill**, *Jülich, Germany (O-662)*  
Lactoferrin: Dynamics of a flexible protein in solution revealed by neutron scattering

12.30–12.45 **Carine van Heijenoort**, *Gif-sur-Yvette, France (O-665)*  
How scarce sequence elements control the function of single  $\beta$ -thymosin/WH2 domains in actin assembly

10.30–12.45 **21. Systemic and Collective Behavioural Aspects in Biology** – János Bólyai Hall

Chairs: Carl Philipp Heisenberg, Tamás Vicsek

#### INVITED SPEAKERS

10.30–11.00 **Ewa Paluch**, *Dresden, Germany (O-676)*  
Polar actin cortex mechanics and cell shape stability during cytokinesis

11.00–11.30 **Fernando Peruani**, *Dresden, Germany (O-677)*  
Transition to collective motion in bacterial colonies

11.30–12.00 **Roberto Mayor**, *London, UK (O-673)*  
Collective migration of neural crest cells: a balance between repulsion and attraction

#### SHORT TALKS

12.00–12.15 **Előd Méhes**, *Budapest, Hungary (O-674)*  
Pattern formation by collective cell migration-driven segregation

12.15–12.30 **Agnes Miermont**, *Paris, France (O-675)*  
Signaling cascade dynamics after a hyper-osmotic shock in the yeast *Saccharomyces cerevisiae*

12.30–12.45 **András Czirók**, *Budapest, Hungary (O-668)*  
Vasculogenesis and collective movement of endothelial cells

12.45–14.00 **POSTER SESSION & EXHIBITS** with Lunch Break

#### PARALLEL SESSIONS

14.00–16.15 **22. Single Molecule Biophysics** – Globe Hall  
Chairs: Christoph Schmidt, Imre Derényi

#### INVITED SPEAKERS

14.00–14.30 **Ahmet Yildiz**, *Berkeley, USA (O-714)*  
Cytoplasmic dynein moves through uncoordinated action of the AAA+ ring domains

14.30–15.00 **Nynke Dekker**, *Delft, The Netherlands (O-686)*  
Single-molecule torque spectroscopy for biophysical investigations

**SHORT TALKS**

- 15.00–15.15 **Pasquale Bianco**, *Florence, Italy (O-680)*  
Millisecond-piconewton force steps reveal the kinetics of DNA overstretching
- 15.15–15.30 **Nunilo Cremades**, *Cambridge, UK (O-685)*  
Direct observation of the interconversion of normal and pathogenic forms of alpha-synuclein
- 15.30–15.45 **Rony Granek**, *Beersheba, Israel (O-688)*  
Protein dynamics and stability: Universality vs. specificity
- 15.45–16.00 **Changjiang You**, *Osnabrück, Germany (O-715)*  
Self-controlled monofunctionalization of quantum dots and their applications in studying protein-protein interaction in live cells
- 16.00–16.15 **Carolina Carrasco**, *Madrid, Spain (O-684)*  
Magnetic Tweezers studies of AddAB: a molecular motor for repairing broken DNA

- 14.00–16.15 **23. Micro and Nanotechnology** – Conference Hall  
Chairs: Klaus Fendler, András Dér

**INVITED SPEAKERS**

- 14.00–14.30 **Klaus Fendler**, *Frankfurt, Germany (O-727)*  
SSM-based electrophysiology: Transport mechanism and pH-regulation of the Na<sup>+</sup>/H<sup>+</sup> antiporter NhaA from *E. coli*
- 14.30–15.00 **Francesco Valle**, *Bologna, Italy (O-752)*  
Multiscale pattern fabrication for life-science applications
- 15.00–15.30 **Joachim Heberle**, *Berlin, Germany (O-730)*  
Surface-Enhanced InfraRed Absorption Spectroscopy (SEIRAS) of membrane protein monolayers

**SHORT TALKS**

- 15.30–15.45 **Péter Galajda**, *Szeged, Hungary (O-728)*  
Swimming motility of bacteria near solid surfaces
- 15.45–16.00 **Daniel Horak**, *Praha, Czech Republic (O-732)*  
Multifunctional magnetic nanoparticles for cell imaging
- 16.00–16.15 **Kate Poole**, *Berlin, Germany (O-745)*  
Defining the forces required to gate mechanosensitive channels in mammalian sensory neurons

- 14.00–16.15 **24. Bioengineering & Biotechnology** – János Bólyai Hall  
Chairs: Gábor Forgács, Ferenc Vonderviszt

**INVITED SPEAKERS**

- 14.00–14.30 **Gábor Forgács**, *Columbia, USA (O-762)*  
Organ printing: the key to eternal life?
- 14.30–15.00 **Loredana De Bartolo**, *Rende, Italy (O-758)*  
Membrane biohybrid systems for tissue and organ engineering

**SHORT TALKS**

- 15.00–15.15 **Olivia Berthoumieu**, *Oxford, UK (O-756)*  
Engineered bacteriorhodopsin: a molecular scale conductance photoswitch

- 15.15–15.30 **Etienne Loiseau**, *Montpellier, France (O-769)*  
Continuous droplet interface crossing encapsulation for high throughput monodisperse vesicle design
- 15.30–15.45 **Elisa Migliorini**, *Trieste, Italy (O-770)*  
Acceleration neuronal precursors differentiation induced by substrate nanotopography
- 15.45–16.00 **Adél Muskotál**, *Veszprém, Hungary (O-771)*  
A polymerizable GFP variant
- 16.00–16.15 **Anna Tugarova**, *Saratov, Russia (O-777)*  
FTIR spectroscopic study of biopolyester synthesis traits in the bacterium *Azospirillum brasilense*
- 16.15–16.45 **Tea break**
- 16.45–17.45 **CLOSING LECTURE** – Globe Hall  
Chair: Attila Jenei, *Debrecen, Hungary*  
**Akihiro Kusumi**, *Institute for Integrated Cell-Material Sciences (iCeMS), Institute for Frontier Medical Sciences, Kyoto University, Kyoto, Japan (O-009)*  
Organizing principle of the plasma membrane: three-tiered meso-scale domain architecture revealed by single-molecule tracking
- 17.45–18.15 **POSTER PRIZE AWARDS** and **CLOSING CEREMONY**
- 18.15–19.00 **FAREWELL COCKTAIL**

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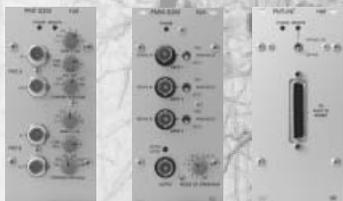
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- ⇒ Single Electrode voltage/patch clamp amplifiers
- ⇒ Drug screening system (ScreeningTool)
- ⇒ Temperature control systems (heat and cool)
- ⇒ Bridge-/Intracellular amplifiers
- ⇒ Extracellular amplifiers
- ⇒ Stimulus isolators (**without batteries**)
- ⇒ Modular system (EPMS-07)
- ⇒ Low pass Bessel filters
- ⇒ Fast Iontophoretic drug application systems
- ⇒ Fast Pneumatic drug application systems
- ⇒ Data acquisition hard- and software
- ⇒ Automatic chlorinator
- ⇒ Miniature headstage for *in vivo* recording
- ⇒ **ALA Scientific** Perfusion systems; accessories
- ⇒ **Lumen Dynamics** Micropositioners; GIBALTAR;
- ⇒ **(EXFO-Burleigh)** X-Cite fluorescence illumination systems
- ⇒ **Scientifica** Micropositioning systems

## GENERAL INFORMATION

### Venue

#### ELTE University Congress Center (UCC)

H-1117 Budapest, Pázmány Péter sétány 1/A, Hungary

While celebrating its 375th anniversary in 2010, the Eötvös L. University (ELTE) proudly hosts the EBSA2011 Conference. The conference venue, the new Danube Riverside Campus (Lágymányos), offers a modern and warm environment for the congress.

All official congress activities will take place in two neighbouring buildings in the ELTE Campus (see maps at the end of booklet.):

- Southern Building, address: Pázmány Péter sétány, 1/C
- Northern Building, address: Pázmány Péter sétány, 1/A

### Advice for your departure

#### Airport Minibus

Participants leaving from Budapest International Airport (Liszt Ferenc Airport) are advised to use the Airport Minibus shuttle service, which takes one from any address in Budapest for a fee of 2990 HUF/person (cca. 12 EUR).

You may order your Airport Minibus at the information desk (Northern Building, level 0) or at your hotel at least one day before your departure. Telephone number: (36-1) 296-8555.

#### Taking a taxi

The tariffs of the taxi companies may differ but share a fixed common tariff ceiling. If you take a taxi, you can find the tariff chart on both dashboard and on the right rear window.

You get a price reduction if you order your taxi by phone, so it is better to order a taxi from the hotel reception or from a restaurant, rather than getting in a car in front of your hotel.

Phone numbers of some taxi companies: Főtaxi 222-2222, City Taxi 211-1111, Radio Taxi 377-7777, Taxi 2000 200-0000. During the congress the congress secretariat has entered a contract with City Taxi. These cars will be available at your service at the Danube Entrance of the venue.

### Transport in Budapest

**Trams 4 and 6** stop few hundred metres north of the University Congress Centre and both make a circle around the city centre, mainly on Pest side.

**Metro M3 (blue)** South–North line; the nearest metro station to UCC is: “Ferenc körút” Ferenc Boulevard.

**Metro M2 (red)** West–East line; to take the West–East line in either direction you need to travel three stops by the M3 (blue) line from “Ferenciek tere” and change lines at “Deák tér”.

For a transport map and further details including prices see [www.bkv.hu/english](http://www.bkv.hu/english)

### **IMPORTANT!**

Please note that EBSA2011 will provide a 5-day pass for public transportation from 23 to 27 August. The badge with the sticker authorizes the holder to use the following vehicles to use all BKV bus, tram, trolleybus, underground and cogwheel railway services on the whole length of the lines but on HÉV suburban railway only within the administrative boundaries of Budapest on the day of the event indicated from 0.00 am to 24.00 pm. BKV Zrt. does not take the responsibility for the damages arising from lost, stolen or destroyed tickets and will not replace them. The badge with the sticker is to be handed over to the ticket inspector on control.

### **Currency**

The unit of currency is Hungarian Forint (HUF). In Hungary the abbreviation of Forint is Ft. Coins: 5, 10, 20, 50, 100, 200 HUF. Notes: 500, 1.000, 2.000, 5.000, 10.000, 20.000 HUF. For up-to-date currency exchange rates see [www.xe.com/ucc](http://www.xe.com/ucc)

Banks are usually open from 9 a.m. to 5 p.m. – Monday through Thursday. On Friday, banks close earlier – usually at 3 or 4 p.m.

### **Tax**

VAT is currently 25% (18% for hotels and some food).

### **Tipping**

Tipping is part of the culture in Hungary and is the norm at most places. Unless you are particularly discontent with the service it is customary to tip approximately 10% of the total bill in restaurants. The way to tip in Hungary differs from other countries: when you get the bill, add on how much you want to tip for the service, and ask the waiter to charge you the total amount. A tip of approx. 10% of the cost of the journey would be expected when travelling by taxi.

### **Telephone**

The international code for Hungary is 36 and the area code for Budapest is 1. To call a number within Hungary, first dial 06. Budapest telephone numbers comprise seven digits, all other areas have six digits (excluding the area code in both

cases). To call a (Hungarian) mobile telephone, first dial 06, followed by the subscriber's seven-digit number starting with either 20-, 30- or 70-. To make an international call from Hungary, first dial 00, then the country code followed by the area code and the subscriber's telephone number.

## **Climate**

The weather in August is usually sunny and warm with temperatures from 25–30 degrees centigrade during the day.

## **Language**

The official language of Hungary is Hungarian; however, German and English are widely understood. The official language of the congress is English; please note that translation facilities will not be provided.

## **Electricity**

The electricity is 230 V, 50 Hz. Japanese, UK, USA and other visitors: please note that Hungary has European/continental-type round 2-pin plugs.

## **Time zone**

Hungary is in the Central European Time Zone:  
Central European Standard Time = GMT+1  
Central European Summer Time = GMT+2  
U.S. Eastern Standard Time + 6 hours)

## **Coat check/Luggage storage**

You will find a coat check/luggage storage room in the entrance level of Northern Building at the information desk, operating between 8.00 and 18.00.

Please note that we cannot take responsibility for valuable belongings such as passports, cash, etc. Please remove these from your coats/luggage before storage.

## **Emergencies, medical services**

The congress organisers provide medical duty during the meeting period. Please contact the information desks or the hosts/hostesses in case of necessity.

## Notice to drivers

Drivers should be aware that there is a zero tolerance for blood alcohol level while driving in Hungary.

## Parking

For those arriving by car, parking space is available at the campus free of charge. When entering you may have to simply say to the operator that you are coming to the EBSA Congress. Be aware that the parking lot is unguarded, do not leave any belongings in the car. The use of public transport is highly recommended. Please note that in the town you have to pay parking fees in the short parking zones. If you do not pay the parking charges you will be fined.

## Restaurants

For information on restaurants in Budapest, please contact the information desk in the Northern Building.

## Clothing

Informal for all occasions.

## Registration

The main building (Northern) has three entrances. Congress participants are kindly requested to use the Main Entrance from the river side. The registration desk is located on level – 1 (minus 1) of the Northern Building. Any inquiries about the congress and its social events may be addressed to either the registration desk or the information desk (Northern Building – level 0) – see floor plan for details.

### Opening hours of the registration desk

23 August (Tuesday)	14.00 – 20.00
24 August (Wednesday)	08.00 – 18.30
25 August (Thursday)	08.00 – 17.00
26 August (Friday)	08.00 – 19.30
27 August (Saturday)	08.00 – 18.30

Congress delegates and their companions will receive their badges, congress materials, social event tickets at the registration desk. Congress material will be handed over at a dedicated place on the entrance level at the information desk. Participants are kindly requested to wear their name badges during all events as they will be checked at the entrances during the congress.

## Messages

You may leave your messages on the message board located near the information desk in the Northern Building.

## Congress secretariat

If you need any help during the congress you can find the staff of Diamond Congress at the registration desk. In case of emergency please call this mobile number: +36 20 936 2969.

After the congress you can reach us at the following address:

H-1255 Budapest, P.O. Box 48, Hungary

Phone: +36 1 225 0210, Fax: +36 1 201 2680

E-mail: [diamond@diamond-congress.hu](mailto:diamond@diamond-congress.hu)

Internet: <http://www.diamond-congress.hu>

## Information desk, congress assistants

An information desk will be operating on level 0 in the Northern Building.

Congress assistants will be recognizable by their silver badge and T-shirts with a sign: **"Help Desk"**.

At the information desks and everywhere in the venue you will meet high school research students as host and hostesses, wearing yellow T-shirt with a sign: **"Can I help you?"** All these people will help you in all practical aspects of congress participation.

## Badge

Participants will receive a badge upon registration. Admission to the congress area and the social activities is possible only with a valid badge which must be worn throughout the congress period.

## Certificate of attendance

The Certificate of Attendance for congress participants can be requested from the information desk from the second day of the congress.

## Internet connection and internet room

During the congress, we provide wifi access in the Northern building. Special seating area is available at the Gallery of Globe Hall at level 1, near the coffee

break area. There are also some PCs available for delegates' use close to the main entrance (Northern Building, level 0).

**Opening hours:**

23 August (Tuesday)	14.00 – 20.00
24 August (Wednesday)	08.00 – 18.30
25 August (Thursday)	08.00 – 17.00
26 August (Friday)	08.00 – 19.30
27 August (Saturday)	08.00 – 18.30

**File upload room**

For the location of the room, please refer to the maps at the end of booklet.

**Opening hours (Northern Building)**

23 August (Tuesday)	14.00 – 20.00
24 August (Wednesday)	08.00 – 18.30
25 August (Thursday)	08.00 – 17.00
26 August (Friday)	08.00 – 19.30
27 August (Saturday)	08.00 – 18.30

**Lunch and refreshments**

Lunchbox will be provided during lunch time in the Northern Building at the dedicated areas in Harmony Hall at level –1 and the Gallery of Globe Hall at level 1.

Refreshments are included in the registration fee and will be offered during the coffee break time at the same places. (Please refer to the maps at the end of booklet.)

**Smoking**

In buildings of educational and scientific institutions, smoking is strictly prohibited by Hungarian law. Smoking is allowed only outside the building.

**Instruction for speakers**

Authors are kindly requested to give their presentation file to the technician in the File upload room, at least a half day before the beginning of the corresponding session in the Northern Building. Laptop computers with pre-installed PowerPoint software (maximum resolution of 1024x768) will be used. Preferred file format is PPT for MS Office (Office XP, Office 2003 or 2007, etc.). Pdf files can also be handled. Please, do not use MAC file format and make sure you bring your presentation file written on a properly closed CD ROM or USB pen drive. It is recommended that you bring a backup file as well. There will be technicians in the File upload room to assist you with your presentation.

Speakers should be aware of the time limit, and are kindly asked to keep the time of their presentations. It is essential that speakers leave ample time for discussion of their work. Short talks are 10 minutes + 5 minutes discussion, invited talks are 25 minutes + 5 minutes discussion. The duration of plenary lectures is 50 minutes.

## **Instruction for poster presenters**

The useful area of the poster board is 90 cm at width and 125 cm at height. The recommended size for your poster is about the standing A/0 standard (cca. 84 x 119 cm). Pins are to be provided to fix the posters. Posters are identified by posters numbers (please refer to the Abstract book for poster numbers). Poster presenters can mount their posters from Tuesday afternoon (23 August) and should remove them latest by Saturday evening before the end of the session (27 August).

### **POSTER ENCODING, TIME, LOCATION**

EBSA2011 poster encoding helps poster presenters to identify the place and the time of their poster presentation(s). As more than 500 posters can be viewed, the poster session will be held in two places. All posters will be on display from Tuesday 23 August till Saturday 27 August in order to ensure maximum visibility.

#### **Time of the attended poster sessions:**

Wednesday 12.45 – 15.00  
Thursday 12.45 – 13.45  
Friday 12.45 – 14.45  
Saturday 12.45 – 14.00

Presenting authors having **odd poster numbers** should be at their posters on **Wednesday** and **Thursday**.

Presenting authors having **even poster numbers** should be at their posters on **Friday** and **Saturday**.

#### **Place of the posters: Northern Building**

##### **P010 – P367**

Biomolecular interactions (Poster area "N1")  
Neuronal systems and modelling (Poster area "N1")  
Calcium fluxes, sparks, & waves (Poster area "N1")  
Membrane lipids, microdomains & signalling (Poster area "N3")  
Aggregated proteins (Poster area "N1")  
Nucleic acid and chromatin structure & function (Poster area "N2")  
Computational biophysics and simulation (Poster area "N2")  
Imaging and optical microscopy (Poster area "N3")  
Molecular motors (Poster area "N3")

**Place of the posters: Southern Building****P370 – P778**

Structure of proteins and protein complexes (Poster area "S4")  
Live cell imaging (Poster area "S4")  
Trends in neutron scattering for biology (Poster area "S4")  
Cytoskeleton and cell migration (Poster area "S4")  
Ion channels: structure and function (Poster area "S4")  
Photosynthesis (Poster area "S4")  
Electron and proton transfer, bioenergetics (Poster area "S5")  
Ion channels and disease (Poster area "S5")  
New and notable (Poster area "S6")  
Membrane structure (Poster area "S6")  
Conformational dynamics, folding and IDP (Poster area "S6")  
Systemic and collective behavioural aspects in biology (Poster area "S6")  
Single molecule biophysics (Poster area "S7")  
Micro and nanotechnology (Poster area "S7")  
Bioengineering & biotechnology (Poster area "S7")

**Hotels****Hilton WestEnd Budapest\*\*\*\*\***

1069 Budapest, Váci út 1–3.

Access to congress venue: 20 minutes by public transport. Take tram 4/6 at "Nyugati pályaudvar" to Petőfi bridge – Buda side (10 stops). Walk down to UCC.

**Hilton Budapest\*\*\*\*\***

1014 Budapest, Hess András tér 1–3.

Access to congress venue: 30 minutes by public transport. Take bus 16 or 16A to "Széll Kálmán tér". Walk down on the stairs. Take tram 61 to "Móricz Zsigmond körtér" (end station). Change tram 6 (2 stops). Petőfi bridge – Buda side. Walk down to UCC.

**New York Palace Budapest\*\*\*\*\***

1073 Budapest, Erzsébet körút 9–11.

Access to congress venue: 15 minutes by public transport. Take tram 4/6 at "Blaha Lujza tér" (6 stops). Petőfi bridge – Buda side. Walk down to UCC.

**Danubius Hotel Gellért\*\*\*\***

1111 Budapest, Szent Gellért tér 1.

Access to congress venue: 20 minutes walk down on Műegyetem rakpart.

**Mercure Budapest Metropol\*\*\*\***

1074 Budapest, Rákóczi út 58.

Access to congress venue: 15 minutes by public transport. Take tram 4/6 at "Blaha Lujza tér". Petőfi bridge – Buda side (6 stops). Walk down to UCC.

**ACHAT Premium Hotel\*\*\*\***

1101 Budapest, Hungária körút 5.

Access to congress venue: 25 minutes by public transport. Take tram 1 at “Ciprus utca” to Lágymányosi bridge – Pest side (7 stops). Change to bus 103 (1 stop) to the Lágymányosi bridge – Buda side. There you will be able to see the UCC which is a short walking distance from the bus stop.

**Art' otel Budapest\*\*\*\***

1011 Budapest, Bem rakpart 16–19.

Access to congress venue: 15 minutes by public transport. Take tram 19/41 for 6 stops till “Móricz Zsigmond körtér” and change to tram 4/6 till Petőfi bridge – Buda side (2 stops). Walk down to UCC.

**Danubius Hotel Flamenco\*\*\*\***

1113 Budapest, Tas vezér utca 3–7.

Access to congress venue: 15 minutes by public transport. Take tram 6 at “Móricz Zsigmond körtér” (2 stops). Petőfi bridge – Buda side. Walk down to UCC, or take bus 212 at “Kosztolányi Dezső tér” (3 stops). Petőfi bridge – Buda side. Walk down to UCC.

**Ramada Budapest\*\*\*\***

1094 Budapest, Tompa utca 30–34.

Access to congress venue: 15 minutes by public transport. Take tram 4/6 at “Mester utca” (2 stops). Petőfi bridge – Buda side. Walk down to UCC.

**Novotel Budapest Centrum\*\*\*\***

1088 Budapest, Rákóczi út 43–45.

Access to congress venue: 15 minutes by public transport. Take tram 4/6 at “Blaha Lujza tér” (6 stops). Petőfi bridge – Buda side. Walk down to UCC.

**Mercure Budapest Museum\*\*\*\***

1088 Budapest, Trefort utca 2.

Access to congress venue: 25 minutes by public transport. Walk to “Blaha Lujza tér” (10 min.) and take tram 4/6 from “Blaha Lujza tér” to Petőfi bridge – Buda side (6 stops). Walk down to UCC.

**Mercure Budapest Korona\*\*\*\***

1053 Budapest, Kecskeméti utca 14.

Access to congress venue: 20 minutes by public transport. Take the metro at “Kálvin tér” (1 stop). “Ferenc körút”. Change to tram 4/6 (3 stops). Petőfi bridge – Buda side. Walk down to UCC.

**Zara Hotel\*\*\*\***

1056 Budapest, Só utca 6.

Access to congress venue: 20 minutes by public transport. Take tram 2 at “Fővám tér” (2 stops). Change to tram 4/6 (1 stop). Petőfi bridge – Buda side. Walk down to UCC.

**Hotel Metro Budapest\*\*\***

1132 Budapest, Kresz Géza utca 1.

Access to congress venue: 20 minutes by public transport. Take tram 4/6 from "Nyugati pályaudvar" to Petőfi bridge – Buda side (6 stops). Walk down to UCC.

**Tulip Inn Budapest Millennium\*\*\***

1089 Budapest, Üllői út 94–98.

Access to congress venue: 20 minutes by public transport. Take the metro at "Népliget" (3 stops). "Ferenc körút". Change to tram 4/6 (3 stops) to Petőfi bridge – Buda side. Walk down to UCC, or take bus 103 at "Népliget" (5 stops). "Dombóvári út". Walk down to UCC.

**Gerand Hotel Ventura\*\*\***

1119 Budapest, Fehérvári út 179.

Access to congress venue: 20 minutes by public transport. Take tram 18/118/41/47 at "Albertfalva kitérő" (6 stops). "Bocskai út". Change to tram 4 (2 stops) to Petőfi bridge – Buda side. Walk down to UCC.

**Ibis Budapest City\*\*\***

1072 Budapest, Akácfa utca 1–3.

Access to congress venue: 15 minutes by public transport. Take tram 4/6 at "Blaha Lujza tér" (6 stops). Petőfi bridge – Buda side. Walk down to UCC.

**Mercure Budapest Duna\*\*\***

1095 Budapest, Soroksári út 12.

Access to congress venue: 10 minute by public transport. Take tram 4/6 at "Boráros tér" (1 stop). Petőfi bridge – Buda side. Walk down to UCC.

**Ibis Budapest Centrum\*\*\***

1092 Budapest, Ráday utca 6.

Access to congress venue: 15 minutes by public transport. Take the metro at "Kálvin tér" (1 stop). "Ferenc körút". Change to tram 4/6 (3 stops). Petőfi bridge – Buda side. Walk down to UCC.

**Best Western Hotel Art\*\*\***

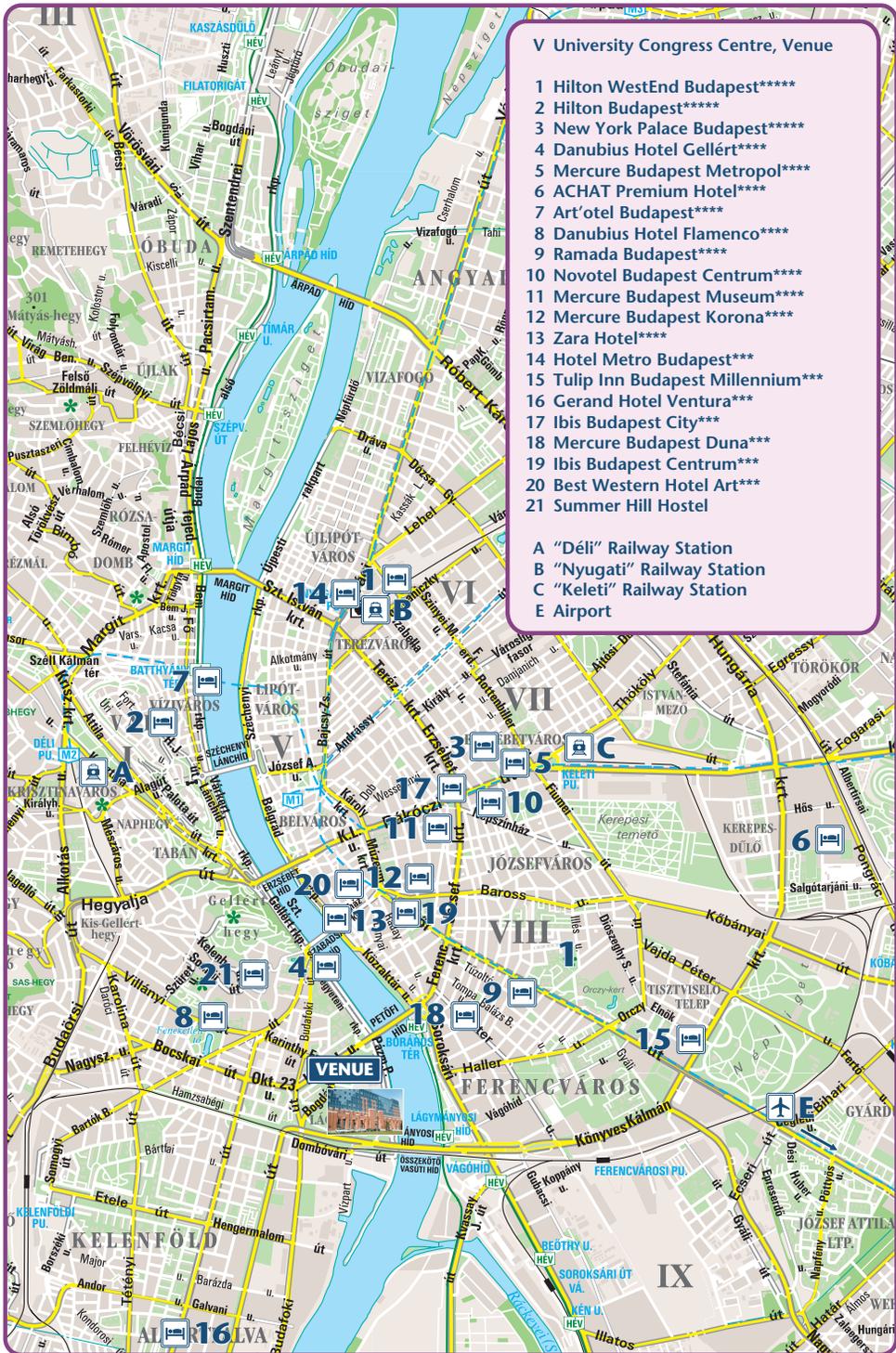
1053 Budapest, Királyi Pál u. 12.

Access to congress venue: 20 minutes by public transport. Take the metro at "Kálvin tér" (1 stop). "Ferenc körút". Change to tram 4/6 (3 stops). Petőfi bridge – Buda side. Walk down to UCC.

**Summer Hill Hostel**

1118 Budapest, Ménesi út 5.

Access to congress venue: 20 minutes by public transport. Walk to "Móricz Zsigmond körtér". Take tram 6 (start/end station) for 2 stops. Walk down to UCC.



## Social programmes

### **WELCOME RECEPTION – Tuesday, 23 August between 18.30 – 19.30**

The official welcome reception of EBSA 2011 will be held in Harmony Hall (level –1) at the exhibition area at UCC, (Congress Venue). Admission is free for all registered delegates, accompanying persons and exhibitors with registration fee.

### **SOCIAL DINNER – Thursday, 25 August**

The official social dinner of EBSA 2011 will be held in the Lázár Equestrian Park in Domony Valley, about 30 km to Budapest.

#### **Programme:**

Guests will be offered biscuits, pálinka (Hungarian brandy) and soft drink after arrival. Typical Hungarian menu will be served in the Csárda. After the dinner the Equestrian Show will start:

- Four-hand driving, pony carriage driving
- Nomad horsemanship show – shooting arrows from horseback at stationary and flying targets, show of nomad weaponry, jumping over a fire
- Range men's stunts: making the horse lie down and "sit"
- Whip snapping, range men's competition,
- Fun competitions with the involvement of the guests: knocking down bottle using a whip
- Wagon drawn by four oxen
- Humorous show with trained donkey
- Hungarian Post with five horses
- Queen Elisabeth's (Sisi's) equestrian show in contemporary attire, riding on a side-saddle

Price: 50 EUR (not included in any type of registration fees). Includes all transportation costs.

### **FAREWELL RECEPTION – Saturday, 27 August**

All participants are invited to attend the Farewell reception (Congress Venue) where you can say goodbye to new friends in a relaxing atmosphere, reflect your experience in Budapest and make plans to keep in touch.

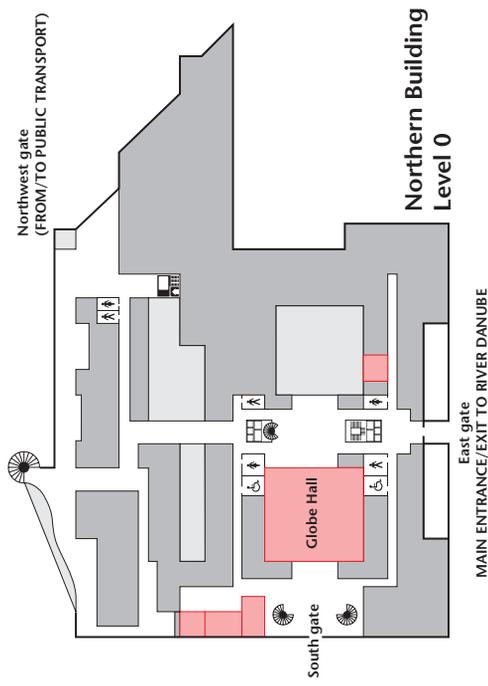
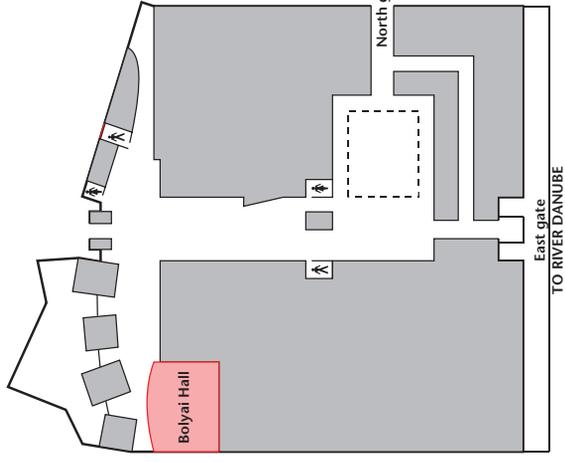
### **OPTIONAL TOURS DURING THE CONGRESS**

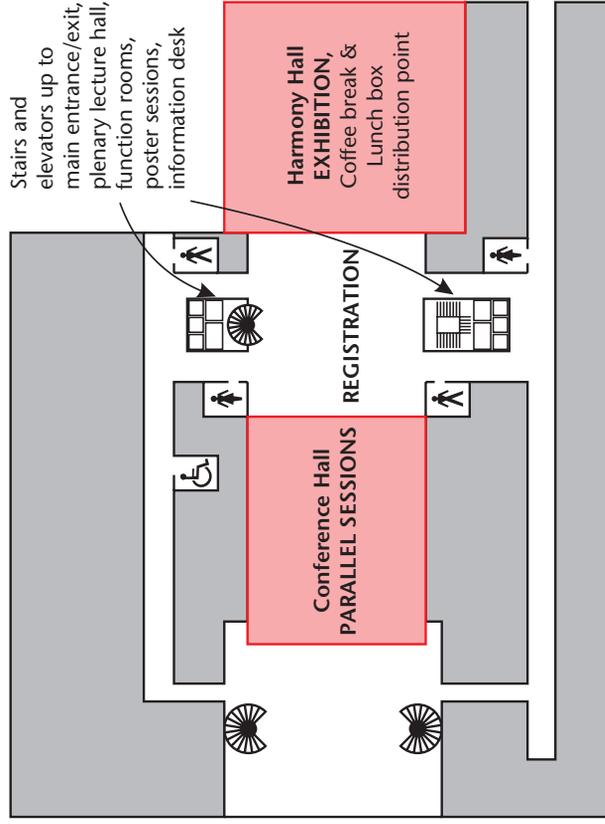
**Budapest sightseeing, Thursday, 25 August**

**Szentendre sightseeing, Friday, 26 August**

Unfortunately these tours are cancelled due to lack of interest.

# Floor plan of EBSA2011 Congress





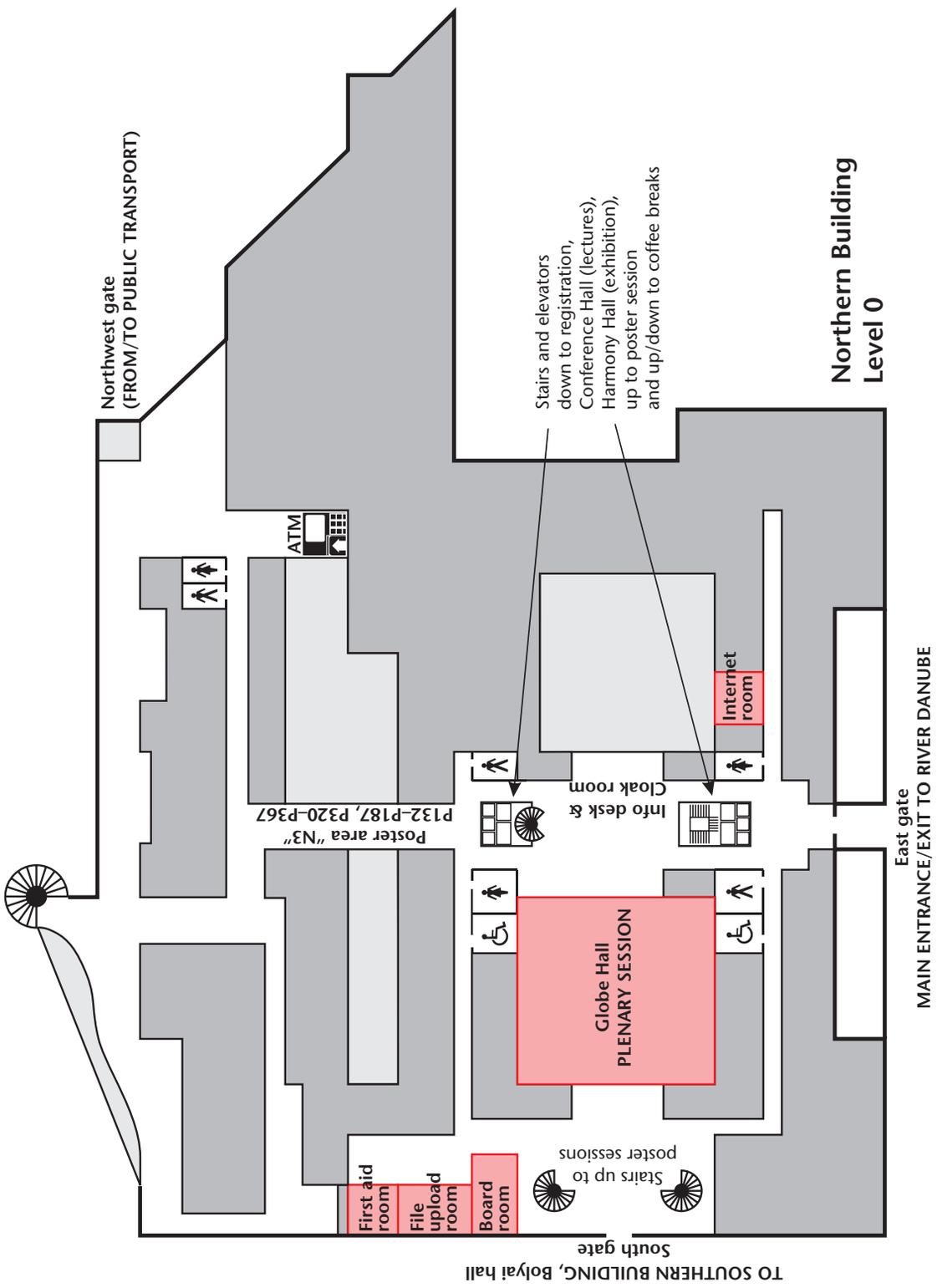
Stairs and elevators up to main entrance/exit, plenary lecture hall, function rooms, poster sessions, information desk

Harmony Hall EXHIBITION, Coffee break & Lunch box distribution point

Conference Hall PARALLEL SESSIONS

REGISTRATION

**Northern Building  
Level -1**



Northwest gate  
(FROM/TO PUBLIC TRANSPORT)

Northern Building  
Level 0

Stairs and elevators  
down to registration,  
Conference Hall (lectures),  
Harmony Hall (exhibition),  
up to poster session  
and up/down to coffee breaks

East gate  
MAIN ENTRANCE/EXIT TO RIVER DANUBE

South gate  
TO SOUTHERN BUILDING, Bolyai hall

ATM

Poster area "N3"  
P132-P187, P320-P367

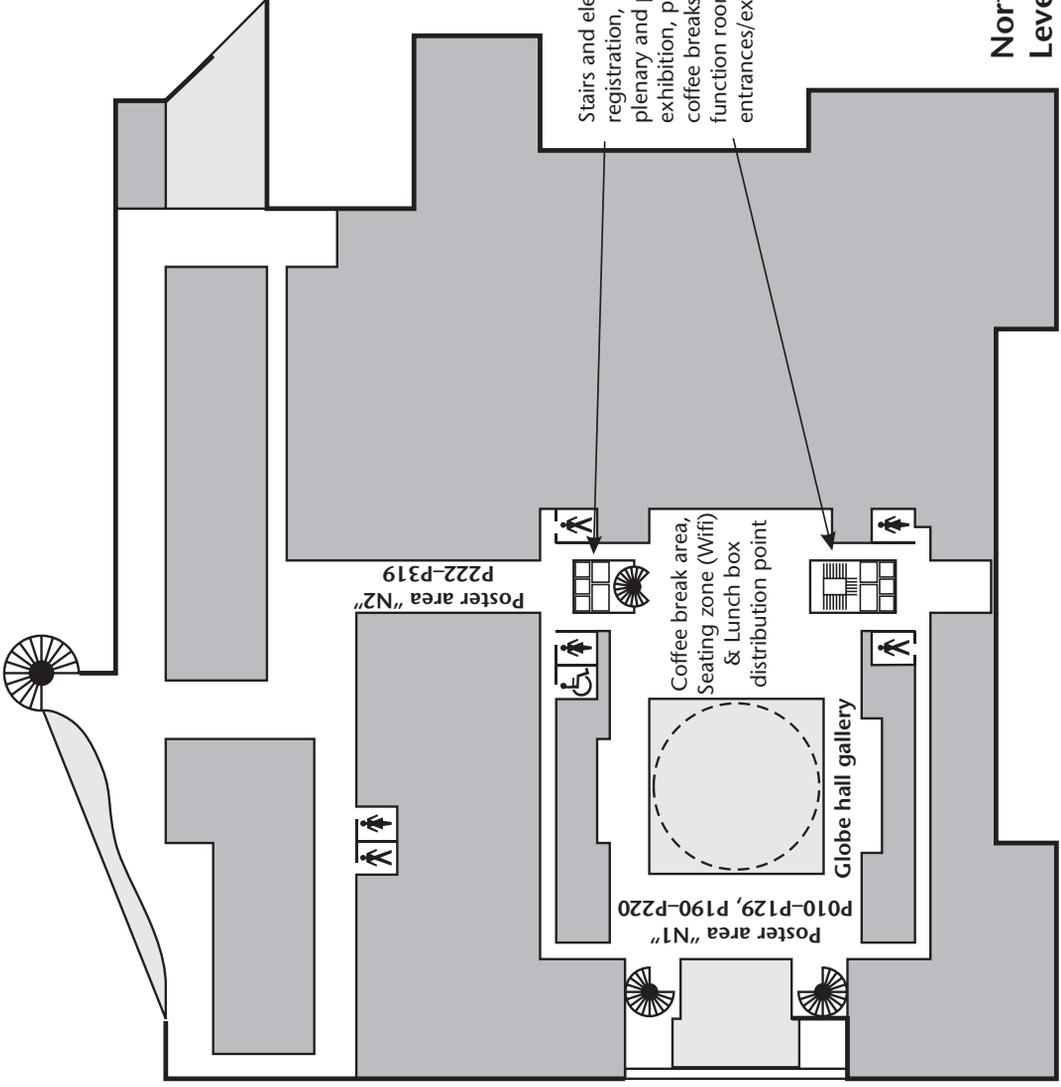
Globe Hall  
PLENARY SESSION

Internet room

Info desk &  
Cloak room

First aid room  
File upload room  
Board room

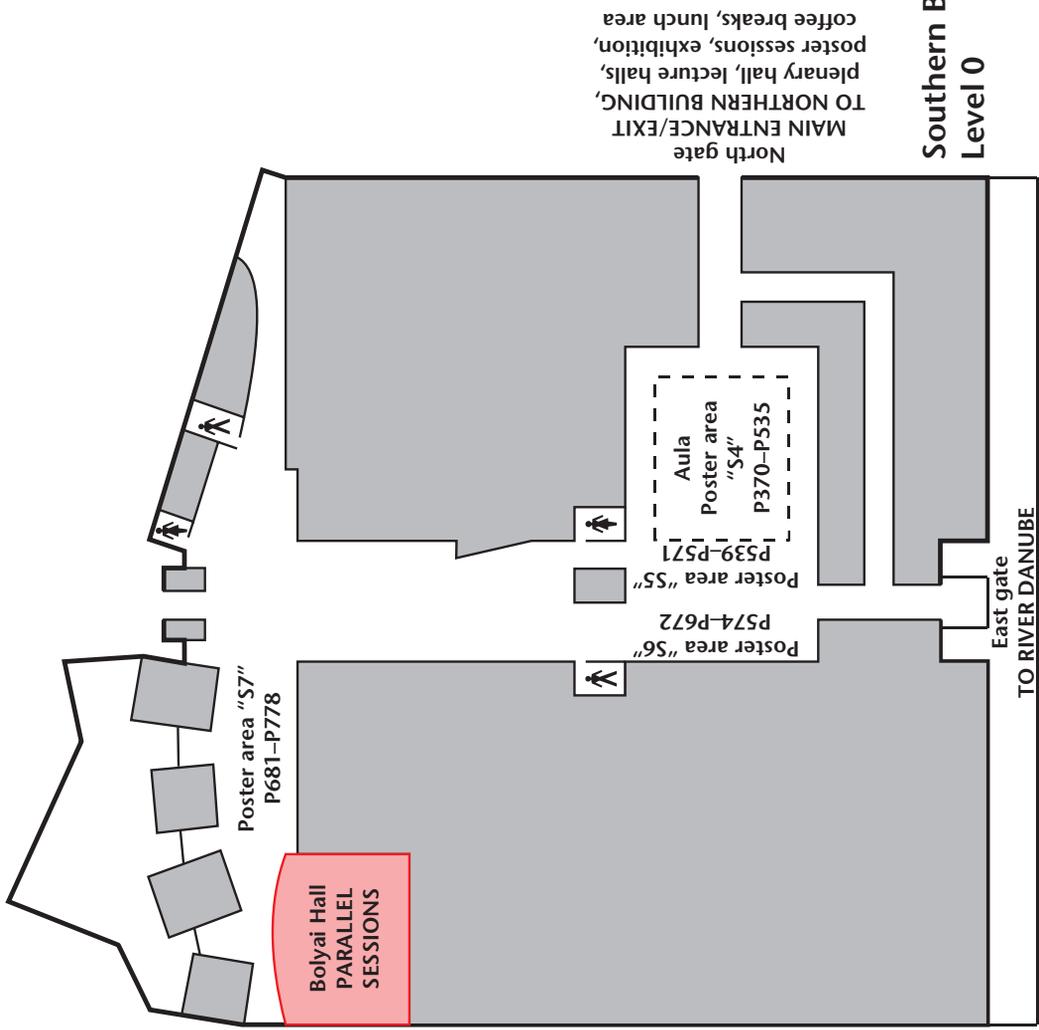
Stairs up to  
poster sessions

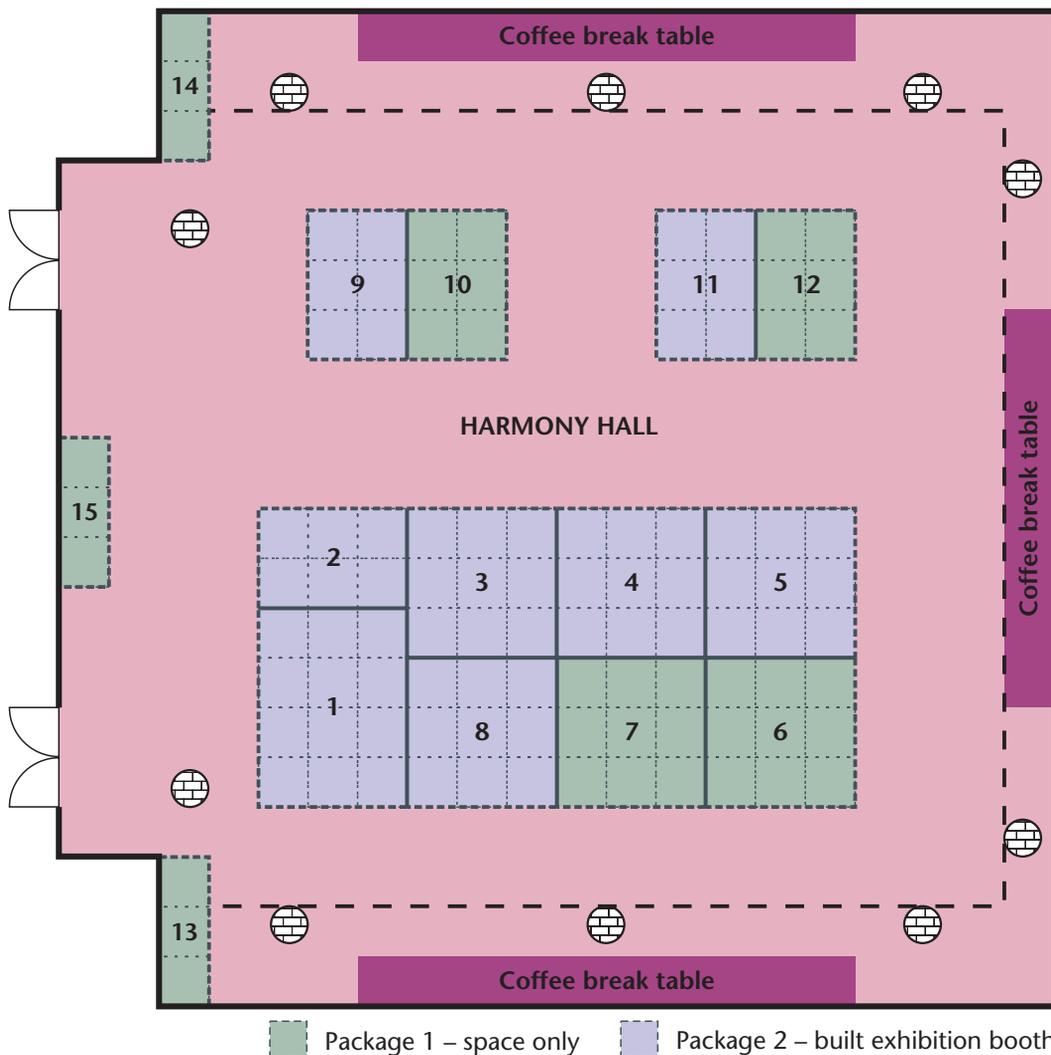


Stairs and elevators down to registration, plenary and parallel sessions, exhibition, poster session, coffee breaks, function rooms and entrances/exits

**Northern Building  
Level 1**

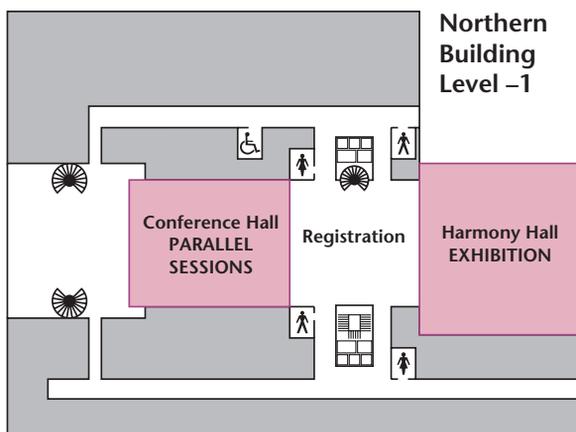
# Southern Building Level 0





### EXHIBITORS

1. Taylor&Francis
2. Carl Zeiss
3. Avanti Polar Lipids, Inc.
4. 89 North
5. HORIBA Scientific
6. Bio-Logic SAS
7. Hamamatsu Photonics
8. JPK Instruments
9. Springer
10. Laser Quantum
11. Atomic Force F&E GmbH
12. Pico Quant GmbH
13. Biofotonika R&D
14. Lisbon conference promotion
15. RK Tech





**July 18 – 22, 2015  
Dresden, Germany**

**EBSA  
2015**

## **10<sup>th</sup> European Biophysics Congress**

Dear Colleagues,

It is our privilege and great pleasure to announce the **10<sup>th</sup> European Biophysics Congress** to be held in Dresden, Germany on **July 18 – 22, 2015**.

Dresden, known as “Florence at the Elbe River”, is a city with a particularly rich arts and science heritage, a place where baroque meets the future, combining an intense cultural life with modern spirit and constantly growing scientific progress.

Outstanding speakers from Europe and overseas as well as state-of-the-art satellite symposia, oral and poster presentations will ensure for the 10<sup>th</sup> EBSA Anniversary Meeting a scientific program of highest quality.

The congress will be complemented by an exciting social program, giving participants and accompanying persons the chance to immerse themselves in the fascinating cultural life of Dresden.

Our ambition is to realize a successful and memorable congress for all participants, delegates, sponsors and exhibitors. Hence, please mark July 18 – 22, 2015 and look forward to experience science and culture in one of the most beautiful cities in Europe.

Auf Wiedersehen in Dresden!  
Prof. Helmut Grubmüller, Chairman of EBSA 2015



**[www.ebsa2015.org](http://www.ebsa2015.org)**

Tuesday, August 23		Wednesday, August 24		Thursday, August 25		Friday, August 26		Saturday, August 27	
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OPENING LECTURE Ada Yonath									
WELCOME RECEPTION									
		Membrane lipids, microdomains & signalling		Aggregated proteins		Nucleic acid and chromatin structure & function			
		POSTER SESSION & EXHIBITS		EBJ BOARD MEETING		PLENARY LECTURE Holger Stark			
		Biomolecular interactions		Neuronal systems and optogenetics		Calcium fluxes, sparks, & waves			
		POSTER SESSION & EXHIBITS		POSTER SESSION & EXHIBITS		Computational biophysics and simulation		Coffee break	
						Molecular motors		PLENARY LECTURE Tamás Balla	
						Imaging and optical microscopy		Coffee break	
						Structure of proteins and protein complexes		Live cell imaging	
						Trends in neutron scattering for biology		PLENARY LECTURE Philippe Bastiaens	
						EBSA GENERAL ASSEMBLY		Tea break	
						EXECUTIVE COMMITTEE BURSARY RECEPTION		POSTER SESSION & EXHIBITS	
						Cytoskeleton and cell migration		Ion channels: structure and function	
						Photosynthesis		Coffee break	
						Electron and proton transfer, bioenergetics		New and notable	
						Ion channels and disease		Tea break	
						SOCIAL DINNER		PLENARY LECTURE Akihiro Kusumi	
								CLOSING LECTURE	
								Tea break	
								Single molecule biophysics	
								Micro and nanotechnology	
								Biotechnology & bioengineering	
								Membrane structure	
								Conformational dynamics, folding and IDP	
								Systemic and collective behavioural aspects in biology	
								Coffee break	
								PLENARY LECTURE Michael Grätzel	
								POSTER PRIZE AWARDS AND CLOSING CEREMONY	
								FAREWELL COCKTAIL	