## Programme: Polyelectrolytes in Chemistry Biology and Technology 2018

### Day 1 - Monday, 12 March 2018

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| 09:15 – 09:30 | **Opening Ceremony** |
| 09:30 – 10:00 | **Gero Decher**: *Bioinspired nano-composite materials with complex anisotropies* |
| 10:00 – 10:30 | **Yoshihito Osada**: *Emergent Motions of Motor Protein Hydrogel* |
| 10:30 – 10:45 | Tea / Coffee Break |
| 10:45 – 11:15 | **Kazue Kurihara**: *Surface forces measurement for polymer brushes and gels* |
| 11.15 – 11:45 | **Björn Lindman**: *Association between amphiphilic polyelectrolytes and surfactants* |
| 11:45 – 12:05 | **Yury Shchipunov**: *Polyelectrolyte complex (PEC)* |
| 12:05 – 13:30 | Lunch Break and poster session |
| 13:30 – 14:00 | **John van Noort**: *The structure of chromatin; single-molecule experiments on model fibers and real genes* |
| 14:00 – 14:30 | **Gerard Wong**: *Polyelectrolyte physics meet innate immunity and autoimmunity* |
| 14:30 – 15:00 | **Garegin Papoian**: *Multiscale Studies of Nucleosomal Assembly and Dynamics* |
| 15:00 – 15:30 | Tea / Coffee Break |
| 15:30 – 16:00 | **Patrick Doyle**: *DNA knots* |
| 16:00 – 16:20 | **Günter Siegel**: *The brain – pancreas axis: an Alzheimer nanoplaque study* |
| 16:20 – 16:40 | **Thomas W. Seviour**: *Extracellular DNA (eDNA) in Pseudomonas biofilms: from nucleoid to structural foundation exopolymer* |
| 16:40 – 17:00 | **Anatoly Zinchenko**: *Unimolecular compaction of megabase-long chromatin* |

### Day 2 - Tuesday, 13 March 2018

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| 09:00 – 09:30 | **Phan Anh Tuan:** *Structure, dynamics and recognition of G-quadruplex nucleic acids* |
| 09:30 – 10:00 | **Ishi Talmon**: *Direct-imaging of the nanostructure of complexes formed by oppositely charged amphiphyles and polyelectrolytes* |
| 10:00 – 10:30 | **Bo Nyström**: *Self-assembling of charged copolymers and formation of intricate nanostructures* |
| 10:30 – 11:00 | Tea / Coffee Break |
| 11:00 – 11:30 | **Matthias Ballauff**: *Interaction of proteins with polyelectrolytes* |

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| 11:30 – 11:50 | **Miroslav Stepanek**: *Probing counterion distribution around a polyelectrolyte chain by means of fluorescence spectroscopy* |
| 11:50 – 12:10 | **Barbara Jachimska**: *Physicochemical and structural characterization of poly-L-lysine (PLL) monolayers on gold surface* |
| 12:10 – 12:30 | **Takashi Nishio**: *Stabilization of DNA by branched-chain polyamine at high temperatures* |
| 12:30 – 14:00 | Poster Session and Lunch Break |
| 14:00 – 14:30 | **Alexander Lyubartsev**: *Multiscale modeling of macromolecular systems by structure-based coarse-graining* |
| 14:30 – 15:00 | **Rudolf Podgornik**: *Charge regulation - not an upgrade but rather a game changer* |
| 15:00 – 15:20 | **Alberto Canelas**: *Polarizable surfaces, crowders and polyelectrolyte adsorption* |
| 15:20 – 15:45 | Tea / Coffee Break |
| 15:45 – 16:05 | **Magnus Ullner**: *Simulations of Osmotic Pressure in Polyelectrolyte Solutions* |
| 16:05 – 16:25 | **Sun Tiedong**: *Coarse-grained Modeling and Simulation of DNA Condensation Induced by Multivalent Cations* |
| 16:25 – 16:55 | **Rita Dias**: *Synergism of DNA-binding agents and macromolecular crowding on DNA condensation* |
| 16:55 – 17:15 | **Bruno Silva**: *Pathway-dependent effects in the complexation of DNA with PEGylated Cationic Liposomes* |
| 17:15 – 17:35 | **Guangcan Yang**: *Modulation and control of DNA charge inversion* |
| 19:00 – 21:00 | **Conference BBQ Dinner** (Campus Clubhouse) |
| **Day 3 - Wednesday, 14 March 2018** | |
| 09:00 – 09:30 | **Alexey Onufriev**: *Physical epigenetics at the nucleosome level* |
| 09:30 – 10:00 | **Johan van der Maarel**: *Shaping the bacterial genome by nucleoid associated proteins Hfq, HU, and H-NS* |
| 10:00 – 10:20 | **Nikolay Korolev**: *An analysis of structures and forces defining chromatin compaction* |
| 10:20 – 11:00 | Tea / Coffee Break |
| 11:00 – 11:20 | **Prasanta Kumar Das**: *Formation and Dissipation of Self-Assemblies by Complementary Covalent Interaction* |
| 11:20 – 11:40 | **Debashish Mukherji**: *Soft, smart multi-responsive materials under alcoholic intoxication* |
| 11:40 – 12:00 | **Stefanie Schneider**: *pH-dependent properties of weak polyampholyte networks: a monte carlo study* |
| 12:00 – 12:20 | **Marie Skepö**: *Structural and thermodynamical properties of intrinsically disordered proteins: theory and experiment* |

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| 12:20 – 13:20 | Lunch Break |
| 13:20 – 13:50 | **Stefan Zauscher**: *Biomolecular synthesis of high MW ssDNA block-co-polynucleotides* |
| 13:50 – 14:20 | **Nam-Joon Cho**: *Adsorption of hyaluronic acid on solid supports: role of pH and surface chemistry in thin film self-assembly* |
| 14:20 – 14:40 | **Jing Yu**: *Structure of Polyelectrolyte Brushes in the Presence of Multivalent Counterions* |
| 14:40 – 15:00 | **Hande Cingil**: *Conjugated polyelectrolytes as mechanochromic sensors to monitor supramolecular assemblies* |
| 15:00 – 15:15 | Tea / Coffee Break |
| 15:15 – 15:35 | **Jean-Christophe Gabriel**: *1 and 2D mineral polyelectrolyte* |
| 15:35 – 15:55 | **Jean-Paul Chapel**: *The three possible states of polyelectrolyte complex coacervates: small angle neutron scattering signatures of the soluble, dispersed & macroscopic phase* |
| 15:55 – 16:10 | Tea / Coffee Break |
| 16:10 – 16:55 | **Rudolph A. Marcus**: *Theoretical analysis of complex systems and the role of phenomenology and computer based calculations in treating the experimental data* |
| 16:55 – 17:00 | Closing |