



SYMPOSIUM PROGRAM

MONDAY JANUARY 26

12h30 - 14h00 *Arrival/registration / poster installation*

14h00 - 14h15 *Welcome address*

Session Chair: Amar Flood

14h15 - 15h05 **PL1 Fraser Stoddart (Northwestern Univ., USA)**

“Viologen-Based Foldamers”

15h05- 15h35 **KL1 W. Seth Horne (Univ. Pittsburgh, USA)**

“Foldamer mimics of protein tertiary structures through systematic engineering of backbone connectivity in biological sequences”

15h35- 15h55 **OC1 Andrew D Miranker (Yale Univ., USA)**

“Islet amyloid and the shared molecular origins of membrane poration and cytotoxicity”

15h55 - 16h25 *Coffee Break*

Session Chair: Tomohiko Ohwada

16h25- 16h55 **KL2 Alan Rowan (Univ. Nijmegen, The Netherlands)**

“Self-Assembling Polymer Networks: the key to cell control”

16h55- 17h15 **OC2 Carsten Baldauf (Fritz Haber Institute, Germany)**

“Structure and dynamics of foldamers from first principles simulations”

17h15- 17h35 **OC3 Gavin Collie (CNRS & Univ. Bordeaux, France)**

“Control of quaternary assembly of water-soluble non-peptide foldamers”

17h35 - 18h05 **KL3 Fernando Formaggio (Univ. Padova, Italy)**

“Exploring α -, 3_{10} -, 2_7 -, and 2_05 -helical structures with quaternary α -amino acids”

18h05 - 19h15 *Welcome reception*

TUESDAY JANUARY 27

Session Chair: Jean-Marc Escudier

- 9h30 - 10h20 **PL2** Kurt Vesterager Gothelf (Aarhus Univ., Denmark)
"DNA-Programmed Assembly of Molecules and Materials"
- 10h20 - 10h50 **KL4** Bradley Pentelute (Massachusetts Institute of Technology, USA)
"Cysteine arylation enables production of abiotic peptides and proteins"
- 10h50 - 11h20 *Coffee Break*

Session Chair: Tamás Martinek

- 11h20 - 11h40 **OC4** Vojislava Pophristic (Univ. Sciences, Philadelphia, USA)
"Conformational control of arylamide foldamers: Predicting oligomer structures in solution through molecular dynamics simulations"
- 11h40 - 12h00 **OC5** Sara Pellegrino (Univ. degli Studi di Milano, Italy)
" $\beta^{2,3}$ diaryl amino acids: effective tools in foldamer chemistry"
- 12h00- 12h30 **KL5** Jeanne Crassous (Univ. Rennes, France)
"Molecular engineering of helicenes"
- 12h30 - 14h50 *Buffet lunch at premises and Poster Session*

Session Chair: Miriam Royo

- 14h50 - 15h20 **KL6** Luc Brunsveld (Technical Univ. Eindhoven, The Netherlands)
"Foldamers Targeting Nuclear Receptors - Controlling Helix Length"
- 15h20 - 15h40 **OC6** Tamás Martinek (Szeged Univ., Hungary)
"Dark and light sides of protein mimicry: strands, sheets, sandwiches and fibers"
- 15h40 - 16h00 **OC7** Tomohiko Ohwada (Univ. Tokyo, Japan)
"Robust Cis- and Trans-Amide Helical Structures of Oligomers of Bicyclic Mimics of β -Proline: Full Control of Amide Cis-Trans Equilibrium"
- 16h00 - 16h20 **OC8** Galia Maayan (Technion- Israel Institute of Technology, Israel)
"Biomimetic Utilization of Metal-Binding Peptoids for Cooperative Catalysis and Recognition"
- 16h20 - 16h50 *Coffee Break*

Session Chair: Dan Yang

- 16h50 - 17h20 **KL7** Michinori Suginome (Kyoto Univ., Japan)
"New Functions of Chirality-Switchable Helical Macromolecules"

17h20 - 18h10 **PL3** Todd Yeates (UCLA, USA)
“Designing Highly Symmetric Self-Assembling Protein Structures”

20h00 *Gala Dinner*

WEDNESDAY JANUARY 28

Session Chair: Jonathan Clayden

9h30 - 10h20 **PL4** Vincent L. Pecoraro (Univ. Michigan, USA)
“Designing Peptides to Probe Metal Ion Geometry, Dynamics and Catalysis”

10h20 - 10h50 **KL8** Kyu-Sung Jeong (Yonsei Univ., Republic of Korea)
“Indole and Indolocarbazole Oligomers: Folding and Functions”

10h50 - 11h20 *Coffee Break*

Session Chair: Vojislava Pophristic

11h20- 11h40 **OC9** István M. Mándity (Szeged Univ., Hungary)
“Development of a packed bed reactor for the synthesis of peptides and foldamers: a revolutionary reduction of the amino acid excess”

11h40 - 12h00 **OC10** Urszula Lewandowska (ETH, Switzerland)
“Hierarchical Supramolecular Assembly of Sterically Demanding π -Systems by Conjugation with Oligoprolines”

12h00 - 12h20 **OC11** Ivan Huc (CNRS & Univ. Bordeaux, France)
“Iterative evolution of an abiotic foldamer sequence: Structure-based design of helically folded receptors for saccharides”

12h20 - 12h50 **KL9** Ronald Micura (Univ. Innsbruck, Austria)
“Folding and ligand recognition of RNA riboswitches”

12h50 - 14h30 *Buffet lunch at premises*

Session Chair: Jeanne Crassous

14h30 - 15h00 **KL10** Amar Flood (Indiana Univ., USA)
“Manipulating Chloride using Triazole Foldamers and the Hydrophobic Effect”

15h00 - 15h20 **OC12** Claudia Tomasini (Univ. Bologna, Italy)
“Pseudopeptide Foldamers Promoting Photoinduced Intramolecular Electron Transfer”

15h20 - 15h40 **OC13** Soo Hyuk Choi (Yonsei University, Republic of Korea)

“Residue-Dependent Folding Propensity of the α/β -Peptide 11/9-Helix”

15h40 - 16h00

OC14 Jonathan Clayden (Univ. Manchester)

“Dynamic foldamers as receptor mimics: Induced global conformational change in solution and in membranes”

16h00 - 16h30

Coffee Break

Session Chair: Kyu-Sung Jeong

16h30 - 17h00

KL11 Dan Yang (Hong-Kong Univ., Hong Kong)

“Aminoxy Acids as Building Blocks of Foldamers”

17h00 - 18h00

PL5 Bert Meijer (Technical Univ. Eindhoven, The Netherlands)

“Folding of single-chain macromolecules; towards synthetic enzymes”

18h00 - 18h15

Closing address