

FOLDAMERS: Design, Synthesis and Applications

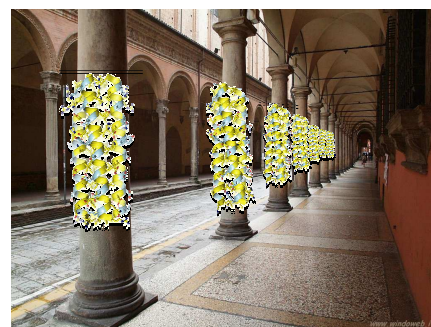
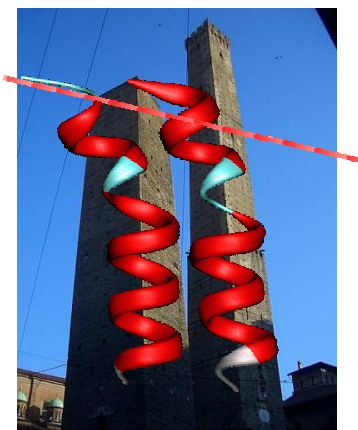
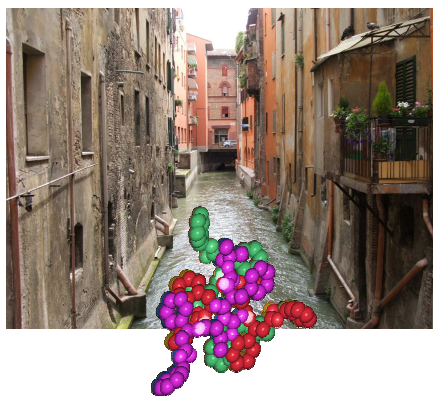
**6-8 OCTOBER 2010 - Accademia delle Scienze
Sala Ulisse, Via Zamboni, 31 – 40126 Bologna, Italy**

With the participation of:

David J. Aitken - Università Paris-Sud
Jonathan Clayden - University of Manchester
George Fleet - Oxford University
Juan R. Granja - Universidad de Santiago
Janis Janne - University of Eastern Finland
Knud J. Jensen - University of Copenhagen
Dieter Seebach - ETH Zurich
Peter Timmermann – Pepscan
Claudio Toniolo - Università di Padova
Zsolt Szakonyi - University of Szeged
Volkmar Wendisch - Chiroblock

Organizing Committee:

Claudia Tomasini – Università di Bologna
Fernando Formaggio – Università di Padova
Antonio Guarna – Università di Firenze
Ferenc Fülöp – University of Szeged
David Aitken – Università Paris-Sud
Rosa Ortuño – UAB, Barcelona
Andrew Wilson – University of Leeds
Tamas Martinek – University of Szeged



Timetable

Wednesday, 6th October

8.30-9.30	Registration	
9.30-10.00	Welcome	
Chairperson	Gilles Guichard	
10.00-10.20	Ferenc Fulop	The Past and the Future of CM0803 COST action
10.20-11.20 PL-1	Dieter Seebach	β - and γ -Peptides Built of Homologated Proteinogenic Amino Acids - from Synthesis to Structure to Biomedical Investigations and Back
11.20-11.40	<i>Coffee Break</i>	
Chairperson	Oliver Reiser	
11.40-12.00 OC-1	Ludwig Pils	De Novo Design of new $\alpha,\alpha,\beta,\beta$ Peptide Foldamers
12.00-12.20 OC-2	Roman Erdmann	Effect of Intramolecular Hydrogen Bonds on the Conformational Stability of Collagen
12.20-13.00 KL-1	Knud Jensen	Ligands for Control of Peptide Self-Assembly
13.00-14.30	<i>Lunch + Posters & Coffee</i>	
Chairperson	Claudio Palomo	
14.30-15.10 KL-2	Juan R. Granja	Self-Assembling Peptide Nanotubes Based on β -Sheets
15.10-15.30 OC-3	Frédéric Godde	Aromatic Foldamers and DNA : do helices recognize each other?
15.30-15.50 OC-4	Andras Perczel	Backbone Dynamic Studies of Mini-Protein Foldamers
	<i>Short Break</i>	
Chairperson	Andy Wilson	
16.00-16.20 OC-5	Mariano Venanzi	From Photovoltaics to Antimicrobial Activity: 15 Years of Optical Spectroscopy, Theoretical Conformational Analysis and Passion on Peptide Foldamers
16.20-16.40 OC-6	Ona Illa	Synthesis and Structure of Chiral Cyclobutane Containing C3-Symmetric Peptide Dendrimers
16.40-17.40 PL-2	George Fleet	Making Monosaccharides: Opportunities for Difficult Foldamers

Timetable

Thursday, 7th October

Chairperson **Tamas Martinek**

9.00-9.40
KL-3

Peter Timmermann

Rebuilding Protein Surfaces Using Peptide Fixation Technologies

9.40-10.00
OC-7

Claude Taillefumier

Efficient Solution Phase Synthesis and Conformational Investigation of Novel α,β -Peptoid Backbones

10.00-10.20
OC-8

Alessandra Tolomelli

Linear and Cyclic Dehydro- β -Aminoacids as Conformationally Constrained Scaffolds for the Preparation of Bioactive Compounds

10.20-10.50
Coffee Break

Chairperson **Ivan Huc**

10.50-11.10
OC-9

Lilly Nagel

Living below the Freezing Point-Synthetic Antifreeze Glycopeptides

11.10-11.30
OC-10

Antonia Mielgo

A 4-Hydroxypyrrolidine-Catalyzed Mannich reaction of Aldehydes: Direct Approach to anti- α,β -Disubstituted β -Amino Acids and Derivatives

11.30-11.50
OC-11

Jean Ollivier

Synthesis of Enantiomerically Pure *trans*-Cyclopropyl γ -Amino Acids: 2,3- and 3,4-Methano-gaba Derivatives

11.50-12.50
PL-3

Claudio Toniolo

α and 3_{10} : the Split Personality of Polypeptide Helices

13.00-14.30
Lunch + Posters & Coffee

Chairperson **Santos Fustero**

14.30-14.50
OC-12

Zhilin Yu

Azobenzene Foldamers for Photoswitchable Systems with Maximum Extension

14.50-15.10
OC-13

Katja Petkau

Supramolecular Multivalent Assemblies for Peptide and Protein Assembly

15.10-15.30
OC-14

Leonard J. Prins

Dynamic Chemistry for the Detection of Weak Interactions

15.30-16.10
KL-4

Jonathan Clayden

Long-Range Conformational Communication in Helical Aib Oligomers

Timetable

Friday, 8th October

Chairperson **Juha Rouvinen**

9.00-9.40
KL-5 **Volkmar Wendisch** An Industrial Perspective on Enantiomerically Pure β^2 -Amino Acids: Market, Economic Aspects and Synthesis Approach

9.40-10.00
OC-15 **Sven Mangelinckx** Application of N-Sulfinyl Imines and Imidates in the Asymmetric Synthesis of β -Amino Acid Derivatives

10.00-10.20
OC-16 **Carlos del Pozo** N-Sulfinylamines as Nitrogen Source in the Asymmetric Intramolecular aza-Michael Reaction. Total Synthesis of (-)-Pinidinol

10.20-10.40
OC-17 **Andrea Trabocchi** Synthesis and Conformational Preferences of Molecular Structures Containing Morpholine-Based Amino Acids

10.40-11.00 *Coffee Break*

Chairperson **Fernando Formaggio**

11.00-11.40
KL-6 **Janis Janne** Mass Spectrometry as a Versatile Tool for Structural Characterization of Foldamers

11.40-12.00
OC-18 **Alexander J. A. Cobb** New Methods in the Synthesis of Novel γ -Aminoacids

12.00-13.00 **flash presentations & poster discussion**

13.00-14.30 *Lunch*

Chairperson **Rosa Ortuño**

14.30-15.10
KL-7 **Zsolt Szakonyi** Monoterpene-Based β -Aminoacid Derivatives: Chirality from Natural Source

15.10-15.30
OC-19 **Lucile Fischer** The Canonical Helix of *N,N'*-Linked Oligourea Foldamers: A new Scaffold for Molecular Recognition

15.30-16.30
PL-4 **David Aitken** Foldamer Building Blocks: the Synthetic Challenge of Cyclic 4-Membered Homologated Aminoacids

16.30-17.00 **Closing Remarks**