

## 73<sup>RD</sup> PMM PROGRAM

### MONDAY, JULY 6

**9:00**    **OPENING**

**F. Rypáček**

Director of IMC and the 73<sup>rd</sup> PMM chairman

**H. Ringsdorf**

73<sup>rd</sup> PMM Honorary chairman

Chairpersons: **J. Kopeček, H. Ringsdorf**

**9:30**    **IL 1**    **R. Duncan** (*UK*)

Bioresponsive polymer therapeutics for treatment of cancer and for tissue repair

**10:00**    **IL 2**    **D. Cohn** (*Israel*)

Engineering nano and macro-sized “smart” biomedical structures

**10:30 - 11:00**    *Coffee break*

**11:00**    **IL 3**    **K. Kataoka** (*Japan*)

Supra-macromolecular nanodevices for smart molecular therapy

**11:30**    **IL 4**    **E. Wagner** (*Germany*)

Dynamic polymers for therapeutic DNA and RNA delivery

**12:00**    **IL 5**    **G. Storm** (*The Netherlands*)

Targeted nanomedicines and EC-sponsoring in FP6

**12:30**    **Discussion**

Leaders: **J. Kopeček, H. Ringsdorf**

**13:00 – 14:15**    *Lunch*

Chairpersons: **R. Borsali, P. Štěpánek**

**14:15**    **IL 6**    **C.K. Ober** (*USA*)

Polymer brushes as responsive materials for the biology-materials interface

**14:45**    **IL 7**    **V. Percec** (*USA*)

Bioinspired synthesis of complex functional systems

**15:15 - 15:40**    *Coffee break*

**15:40**    **IL 8**    **A.J. Ryan** (*UK*)

Making polymers swim

**16:10**    **SL 1**    **M. Silverstein** (*Israel*)

Porous biodegradable polymers and hydrogels through emulsion templating

**16:30**    **SL 2**    **M. Özmen** (*Turkey*)

Preparation of macroporous poly(acrylamide) hydrogels in DMSO/water mixture

**16:50**    **Discussion**

Leaders: **R. Borsali, P. Štěpánek**

**17:30 – 19:00**

**POSTERS P 1 – P 60**

## TUESDAY, JULY 7

Chairpersons: **G. Nelles, V. Cimrová**

**9:00 IL 9 G. Wegner (Germany)**

Ion-transport in polymers: How to improve the performance of batteries and fuel-cells?

**9:30 IL 10 O. Azzaroni (Argentina)**

Polymer brushes in confined environments: New challenges and opportunities for designing advanced functional materials

**10:00 IL 11 H. Böhm (Germany)**

Molecular engineering of cellular environments: Cell adhesion to nano-digital surfaces

**10:30 - 11:00** *Coffee break*

**11:00 IL 12 G. Nelles (Germany)**

Functional material for future devices

**11:30 IL 13 Z. Bo (China)**

Towards stable blue light-emitting materials

**12:00 Discussion**

Leaders: **G. Wegner, O. Azzaroni, V. Cimrová**

**12:30 – 14:00** *Lunch*

Chairpersons: **A. Ryan, K. Dušek**

**14:00 IL 14 K. Mortensen (Denmark)**

The nano-scale structure of polymer amphiphilic systems: Tailored new phases and applications as smart materials

**14:30 IL 15 R. Borsali (France)**

Hybrid block gylcopolymer self-assemblies

**15:00 IL 16 K. Procházka (Czech Republic)**

Block copolymer micelles with complexed metallacarboranes in cores

**15:30 - 16:00** *Coffee break*

**16:00 IL 17 T. Etrych (Czech Republic)**

Polymer therapeutic architecture: A major factor in achieving highly efficient polymer medicines

**16:30 IL 18 A.S. Hoffman (USA)**

How the Institute of Macromolecular Chemistry inspired and influenced my research over the past 40 years

**17:00 Discussion**

Leaders: **A.S. Hoffman, A.J. Ryan, K. Dušek**

**17:30 – 19:00**

**POSTERS P 61 – P 120**

## WEDNESDAY, JULY 8

Chairpersons: **C.K. Ober, P. Kratochvíl**

**9:00 IL 19 S.P. Brown (UK)**  
New solid-state NMR methodology for probing structure-determining hydrogen-bonding interactions

**9:30 IL 20 J. Brus (Czech Republic)**  
Nanostructured polymer systems as seen by solid-state NMR spectroscopy

**10:00 IL 21 H.W. Spiess (Germany)**  
Self-assembly and dynamics of synthetic polymers and polypeptides from NMR spectroscopy

**10:30 - 11:00** *Coffee break*

**11:00 SL 3 M. Žigon (Slovenia)**  
Transparent UV-absorbing PMMA/ZnO nanocomposites

**11:20 SL 4 M. Ton That (Canada)**  
Biobased polyurethane nanocomposite foam

**11:40 SL 5 P. Marcasuzaa (France)**  
Irradiated microwave synthesis: A new way to obtain conducting copolymers

**12:00 Discussion**  
Leaders: **C.K. Ober, P. Kratochvíl**

**12:30 – 14:00** *Lunch*

Chairpersons: **M. Žigon, M. Dušková**

**14:00 SL 6 T. Wada (Japan)**  
Studies on the effects of arginine residues introduced to peptide ribonucleic acids (PRNA) on the complex stability with RNA and the cell membrane permeability

**14:20 SL 7 A. Bertin (Germany)**  
Thiol-ene chemistry on glass slides: easy way to carbohydrate microarrays, protein recognition, and tunable surfaces

**14:40 SL 8 M. Bílek (Australia)**  
Properties of polymeric surfaces suitable for linker free covalent binding of functional biomolecules: the role of free radicals

**15:30 Prague tour & conference dinner for all participants**  
*Tour buses leave from IMC, after the tour the participants will be brought directly to the Villa Richter Restaurant where the PMM dinner takes place*

## THURSDAY, JULY 9

Chairpersons: **Z. Bo, F. Rypáček**

- 9:00**    **IL 22**    **R.H. Friend** (*UK*)  
Polymer semiconductor solar cells – design of structures for charge photogeneration, separation and collection
- 9:30**    **IL 23**    **S. Slomkowski** (*Poland*)  
Polymer nano- and microparticle based systems for medical diagnostics
- 10:00**    **IL 24**    **B. Voit** (*Germany*)  
Thin functional polymer films for micro- and nanopatterning
- 10:30 - 11:00**    *Coffee break*
- 11:00**    **IL 25**    **Z. Pientka** (*Czech Republic*)  
Hydrogen economy and polymeric membranes
- 11:30**    **IL 26**    **B. Ratner** (*USA*)  
Biostable and biodegradable methacrylate hydrogels for healing and tissue regeneration
- 12:00**    **SL 9**    **W. Burchard** (*Germany*)  
Supra-molecular structure formation: What is the physical basis?

**12:30 – 14:00**    *Lunch*

Chairpersons: **R. Duncan, K. Ulbrich**

- 14:00**    **IL 27**    **C. Werner** (*Germany*)  
Biohybrid hydrogels for regenerative therapies
- 14:30**    **IL 28**    **L. Seymour** (*UK*)  
Polymers for improved delivery of cancer-killing viruses
- 15:00**    **IL 29**    **S. Zhang** (*USA*)  
Self-assembling peptide materials for diverse applications
- 15:30**    **Discussion**  
Leaders: **R. Duncan, K. Ulbrich**
- 16:00**    *Farewell toast at the IMC entrance hall*