EIGHTH CRISTOFOR I. SIMIONESCU SYMPOSIUM FRONTIERS IN MACROMOLECULAR AND SUPRAMOLECULAR SCIENCE 29 May – 3 June 2016

CONFERENCE PROGRAM

May 29 – 31 • Romanian Academy, Bucharest, Romania June 1 – 3 • "Petru Poni" Institute of Macromolecular Chemistry Iasi, Romania Sunday, May 29 – Monday, May 30

Registration of Participants Team building activities

Tuesday, May 31 Location • *Academy Hall*, Romanian Academy, Bucharest, Romania

	$09^{30} - 10^{00}$
	Opening Ceremony
09 ³⁰ - 09 ⁴⁵	Welcome address
	Ionel Valentin VLAD
	President of Romanian Academy
09 ⁴⁵ - 10 ⁰⁰	Evocation of Cristofor I. Simionescu
	Virgil PERCEC
	University of Pennsylvania, Philadelphia, USA
	$10^{00} - 12^{40}$
Session 1. CONFERENCES	
	Chair: Bogdan C. SIMIONESCU, Virgil PERCEC
$10^{00} - 10^{40}$	State-of-the-Art in Modeling of Water and Ionic Solutions
	Michael L. KLEIN
	Temple University, Philadelphia, PA, USA
$10^{40} - 11^{20}$	Fluorine in Peptide and Protein Engineering
	Beate KOKSCH
	Freie University of Berlin, Germany
$11^{20} - 12^{00}$	Polymers for Biological Applications
	Jean M. J. FRECHET
	UC Berkeley, CA, USA and KAUST, Saudi Arabia
1200 - 1240	Supramolecular Polymers with Self-regulated Secretion: Towards New
	Antifouling Materials
	Joanna AIZENBERG
	Harvard University, Cambridge, MA, USA
1240 - 1320	Lunch

1320 - 1520

	Session 2. CONFERENCES
	Chair: Bogdan C. SIMIONESCU, Virgil PERCEC
$13^{20} - 14^{00}$	Synthesis of Functional Materials using Metathesis Initiators
	Robert H. GRUBBS
	Caltech, Pasadena, USA
$14^{00} - 14^{40}$	Helical Supramolecular Polymerization of Homochiral, Heterochiral,
	Racemic and Chiral Building Blocks
	Virgil PERCEC
	University of Pennsylvania, Philadelphia, PA, USA
$14^{40} - 15^{20}$	Synthetic Carbohydrate Materials
	Peter H. SEEBERGER
	MPI, Potsdam-Golm and Freie University of Berlin, Germany
$15^{20} - 15^{50}$	Coffee Break

	$15^{50} - 17^{50}$
	Session 3. CONFERENCES
	Chair: Bogdan C. SIMIONESCU, Virgil PERCEC
$15^{50} - 16^{30}$	Chemistry Education for Sustainable Development
	Katherine B. AUBRECHT
	Stony Brook University, NY, USA
16 ³⁰ – 17 ¹⁰	Stimuli-responsive Gels: New Composition Architecture and Functions
	Michael AIZENBERG
	Harvard University, Cambridge, MA, USA
$17^{10} - 17^{50}$	From Molecules to Macromolecules to Functional Materials: Controlling
	Structure and Properties through Synthesis
	Robert B. GRUBBS
	Stony Brook University, NY, USA
19 ³⁰ – 21 ⁰⁰	Transfer to lasi
2100 - 2300	Dinner

Wednesday, June 1 Location • *Conference Hall "*Petru Poni" Institute of Macromolecular Chemistry, Iasi

	$09^{30} - 10^{00}$
	Opening Ceremony
09 ³⁰ – 9 ⁴⁵	Welcome address
	Valeria HARABAGIU
	"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
09 ⁴⁵ - 10 ⁰⁰	Evocation of Cristofor I. Simionescu
	Virgil PERCEC
	University of Pennsylvania, Philadelphia, USA
	$10^{00} - 12^{00}$
	Session 4. CONFERENCES
	Chair: Valeria HARABAGIU, Virgil PERCEC
$10^{00} - 10^{40}$	State-of-the-Art in Modeling of Water and Ionic Solutions
	Michael L. KLEIN
	Temple University, Philadelphia, PA, USA
$10^{40} - 11^{20}$	Polymers for Biological Applications
	Jean M. J. FRECHET
	UC Berkeley, CA, USA and KAUST, Saudi Arabia
$11^{20} - 12^{00}$	Gene Therapy through Non-viral Vectors based on Polyrotaxane Structures
	Mariana PINTEALA
	"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
$12^{00} - 13^{00}$	Lunch – <i>Library Hall</i>
$13^{00} - 14^{00}$	Visit of the Institute
	$14^{00} - 15^{20}$
	Session 5. CONFERENCES
	Chair: Ecaterina Stela DRAGAN, Michael KLEIN
$14^{00} - 14^{40}$	Supramolecular Polymers with Self-regulated Secretion: Towards New
	Antifouling Materials
	Joanna AIZENBERG
	Harvard University, Cambridge, MA, USA
$14^{40} - 15^{20}$	Helical Supramolecular Polymerization of Homochiral, Heterochiral,
	Racemic and Achiral Building Blocks
	Virgil PERCEC
	University of Pennsylvania, Philadelphia, PA, USA
$15^{20} - 15^{50}$	Coffee Break
	$15^{50} - 17^{45}$
	Session 6. CONFERENCES // ORAL COMMUNICATIONS
	Chair: Maria CAZACU, Michael AIZENBERG
$15^{50} - 16^{20}$	A Range of Spin Crossover Temperatures in Some Ferrous Materials
	Sergiu SHOVA
	"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
$16^{20} - 17^{00}$	Chemistry Education for Sustainable Development
	Katherine B. AUBRECHT
	Stony Brook University, NY, USA

17 ⁰⁰ – 17 ¹⁵	Nanoconjugates with fullerene C60 core for biomedical applications
	ANDREI DASCALU, CEZAR UNGUKENASU, MARIANA PINTEALA,
	Bogdan C. SIMIONESCU
	"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
17 ¹⁵ – 17 ³⁰	Macromolecular architectures containing naphthylimide chromophores
	Catalin – Paul CONSTANTIN, Mariana Dana DAMACEANU, Maria BRUMA
	"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
17 ³⁰ – 17 ⁴⁵	UV-visible light-induced degradation of some organic compounds by
	photopolymerized hybrid films containing nano-TiO ₂
	Andreea CHIBAC, Violeta MELINTE, Tinca BURUIANA, Emil BURUIANA
	"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
17 ⁴⁵ - 18 ⁴⁵	Poster session
	Chair: Marcela MIHAI, Catalin – Paul CONSTANTIN
19 ³⁰ – 22 ⁰⁰	Dinner

Thursday, June 2 Location • *Conference Hall* "Petru Poni" Institute of Macromolecular Chemistry, Iasi

	$09^{30} - 10^{50}$
	Session 7. CONFERENCES
	Chair: Mariana PINTEALA, Jean M. J. FRECHET
$09^{30} - 10^{10}$	Synthesis of Functional Materials using Metathesis Initiators
	Robert H. GRUBBS
	Caltech, Pasadena, USA
$10^{10} - 10^{50}$	Cryogels – Superporous Gels with Remarkable Features
	Maria Valentina DINU, Ecaterina Stela DRAGAN
	"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
$10^{50} - 11^{20}$	Coffee Break
	$11^{20} - 12^{40}$
	Session 8. CONFERENCES
	Chair: Joana AIZENBERG, Sergiu SHOVA
$11^{20} - 12^{00}$	From Molecules to Macromolecules to Functional Materials: Controlling
	Structure and Properties through Synthesis
	Robert B. GRUBBS
	Stony Brook University, NY, USA
$12^{00} - 12^{40}$	Engineering Raw Natural Products: Cellulose Case
	Sergiu COSERI
	"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
1240 - 1340	Lunch – <i>Library Hall</i>
	$13^{40} - 15^{05}$
	Session 9. CONFERENCES // ORAL COMMUNICATIONS
	Chair: Robert B. GRUBBS, Sergiu Coseri
$13^{40} - 14^{20}$	Stimuli-responsive Gels: New Composition Architecture and Functions
	Michael AIZENBERG
	Harvard University, Cambridge, MA, USA

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$14^{20} - 14^{35}$	Dielectric elastomers optimized through interpenetration strategies
	Codrin TUGUI, Adrian BELE, Stelian VLAD, Carmen RACLES, Maria
	CAZACU
	"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
$14^{35} - 14^{50}$	Pulsed laser deposition of non-polar Al-doped ZnO electrodes on
	polymer surfaces: a new approach
	Cristian URSU
	"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
$14^{50} - 15^{05}$	Smart macroporous IPN hydrogels responsive to pH, temperature and
	ionic strength. Evaluation of uptake and controlled release of drugs
	Ana Irina COCARTA, Ecaterina Stela DRAGAN
	"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
15 ⁰⁵ – 15 ²⁰	Closing of the Symposium
15 ³⁰ – 19 ⁰⁰	Iasi sightseeing
19 ³⁰ – 23 ⁰⁰	Dinner

Friday, June 3

Team building activities

POSTERS LIST

Wednesday, June 1, 17:45 – 18:45

P1	Chitosan Iminoboronate Hydrogels – New Promising Materials for the
	Treatment of Candidiasis
	Daniela AlLINCAI , Mariana PINTEALA, Bogdan C. SIMIONESCO, Luminita MARIN
D 2	"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
PZ	Phenothiazine Dyes with Tunned Emission Color
	Andrei Bejan , Mariana Pin Leala, Bogdan C. SimiONESCO, Luminita MARIN
D 2	Petru Pont Institute of Macromolecular Chemistry, Iasi, Romania
P3	Centrose-Based Hydrogels: Experimental Design and Characterization
	Diana Ciulacu , corneliu cujucaru, Daniel TAMPU "Detru Doni" Instituto of Magnomologular Chemistra, Issi, Domania
D4	MOEs Puilt on Tri. Totro. Donto, and Infinito Nuclear Clusters and Silano
F4	MOrs built on 111-, Tetra-, Penta- and Infinite Nuclear Clusters and Shane Delycorhowilic Acide
	Polycarboxync Acius Mirola-Fornanda 741 TADIOV Maria CA7ACH Angolica VIAD
	"Datry Doni" Institute of Macromolocular Chemistry Jasi Pomania
P5	New Insights in Isomerization Mechanism Pathways in the Ground State of
15	Insubstituted Azohenzene: Assessment of Computational Procedures/
	Methodologies
	Dragos - Lucian ISAC. Dan MAFTEL Anton AIRINEL Ionel HUMELNICU, Mariana
	PINTEALA
	"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
P6	Non-toxic Cationic Polymeric Systems as Promising Nanocarriers for
	Sustained, Photo-triggered Drug Delivery
	Ionel A. DINU ^{1,2} , Anja CAR ¹ , Jason T. DUSKEY ¹ , Cornelia G. PALIVAN ¹ , Wolfgang
	MEIER ¹
	¹ Department of Chemistry, University of Basel, Basel, Switzerland
	² "Petru Poni" Institute of Macromolecular Chemistry Iasi, Romania
P7	Novel Ionic Organic/Inorganic Hybrids and Their Interaction with Methyl
	Orange
	Maria Marinela LAZAR, Cristian–Dragos VARGANICI, Maria CAZACU, Ecaterina
	Stela DRAGAN
	"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
P8	Plasma Enhancement of Metal Spreading on Polysilane Films
	MARIUS SOROCEANO, ANDREA IFINA BARZIC, IUIIANA STOICA, LIVIU SACARESCO,
	GNIOCEI EMII IUANID, VAIETIA HARABAGIU
DO	"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
P9	Polyaimetnyisiloxane Modified Mesoporous Carbon
	"Detro: Deni" Institute of Manual IgnA1, Lucia PRICOP, Valeria HARABAGIO
D 40	Petru Pont Institute of Macromolecular Chemistry, Iasi, Romania
P10	Structural Characterization of Lidocaine / Lactide-Modified Cyclodextrin
	Complexes Deguan DOTADU1 Cristian DEDTU1 Catalina DEDTU2 Magdalana LEON3 Dagdan
	TAMPA3 Valaria HADADACIII
	יחטיים-, vaicita itanadauiu- 1"Detru Poni" Institute of Macromolecular Chemistry Iasi Domania
	2"Ch Asachi" Technical University Jasi Romania
	3"Grigore T. Pona" University of Medicine and Pharmacy Iasi Romania
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P11	Chitosan-ZnFe ₂ O ₄ Magnetic Sorbent for Wastewater Treatment
	Maria IGNAT, Petrisor SAMOILA, Corneliu COJOCARU, Liviu SACARESCU, Valeria
	HARABAGIU
	"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
P12	Synthesis and Characterization of New Hybrid Materials Based on a Siloxane
	Compound and Chitosan
	Irina Elena ANTOCHI, Mihaela Adriana OLARU, Corneliu COTOFANA
	"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania
P13	Microcapsules based on calcium carbonate and pH-sensitive polymers
	Marcela MIHAI, Florica DOROFTEI, Stefania RACOVITA, Ana-Lavinia
	MATRICALA, Cristian BARBU-MIC
	"Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania

INVITED SPEAKERS

(ALPHABETICAL OREDER)

Joanna AIZENBERG is a professor of chemistry and chemical biology at Harvard University.



She is the Amy Smith Berylson Professor of Materials Science at Harvard's School of Engineering and Applied Sciences, the Co-Director of the The Kavli Institute for Bionano Science and Technology and a core faculty member of the Wyss Institute for Biologically Inspired Engineering. She is a prominent figure in the field of biologically inspired materials science, having authored \sim 200 publications and holding \sim 50 patents, > 250 invited talks. Aizenberg did her postdoctoral research with George Whitesides at Harvard University, investigating micro/nanofabrication and near-field optics. In 1998, she joined Bell Labs as a member of the technical staff where she has made a number of pioneering contributions, including

developing new biomimetic approaches for the synthesis of ordered mineral films with highly controlled shapes and orientations, and discovering unique biological optical systems that outperform technological analogs, as well as characterizing the associated organic molecules. The lab's research focuses on a wide range of topics which include biomimetics, self-assembly, adaptive materials, crystal engineering, surface wettability, nanofabrication, biooptics, biomaterials, and biomechanics.

Michael AIZENBERG worked extensively in both academic research and industrial



development, and has a broad synthetic chemistry experience - from organic and polymer to organometallic, inorganic, and even nuclear. As a Senior Staff Scientist at the Wyss, he is mostly involved in the Programmable Nanomaterials and Adaptive Material Technologies platforms. Aizenberg received his Ph.D. from the Weizmann Institute of Science in 1996. His main research interests are in using synthetic chemistry tools to design active and programmable materials and drugdelivery systems, in tissue engineering, nanoparticle synthesis, microfabrication, and in developing energy-efficient materials and devices. 16 scientific articles in ISI journals.

Katherine B. AUBRECHT is a chemist whose research and teaching interests include: the



development of learning materials about sustainability for the chemistry curriculum, context-based approaches in chemical education, biodegradable and biorenewable polymers, and environmentally benign synthetic methodology. She earned a B. A. in Chemistry from Reed College and a Ph.D. in Organic Chemistry from Cornell University. With support from NSF TUES (Transforming Undergraduate Education in Science) program, are developed inquiry-based learning materials and a project-based lab for three undergraduate chemistry courses that focus on sustainability. With support from the Camille and Henry Dreyfus Foundation's Special Grant Program in

the Chemical Sciences, developed a series of hands-on workshops for high school students that link chemistry content to issues of sustainability. These workshops are offered through the Center for Science and Mathematics Education at Stony Brook University. 16 scientific articles in ISI journals.

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Sergiu COSERI is the deputy head of the "Natural Polymers, bioactive and biocompatible



polymers" Laboratory in "Petru Poni" Institute of Macromolecular Chemistry (PPIMC) of Romanian Academy. He received his PhD in organic chemistry in 2001. He then continued as a postdoctoral fellow at Queens University in Kingston, Ontario, Canada for one year, and then, between 2003-2005 he was NSERC fellow, working at National Research Council Ottawa, Canada, under the guidance of Keith U. Ingold, in the field of kinetic and reaction mechanisms involving nitroxyl free radicals. After receiving a NATO reintegration grant, in 2005, he moved back to the PPIMC, starting research in the field of chemical functionalization of polysaccharides, under mild and environmentally friendly conditions. He

published several new protocols for the selective oxidation of polysaccharides (cellulose, starch, pullulan) and is also preoccupied by the bio (medical) and environmental applications of functionalized polysaccharides. In 2015, Dr. Sergiu Coseri received the "Costin D. Nenitescu" prize of the Romanian Academy. 40 scientific articles in ISI journals.

Maria Valentina DINU graduated in 1999, obtaining her Bachelor's Degree in Chemistry from



Faculty of Chemistry, "Al. I. Cuza" University of Iasi, Romania, and in 2009 the PhD from "Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania. Starting with 2006, she followed some research/postdoc stages at Istanbul Technical University, Turkey; Wroclaw University of Technology, Poland; Leibniz Institute of Polymer Research, Dresden, Germany; Institute of Macromolecular Chemistry, Prague, Czech Republic, and University of Basel, Switzerland. Her research interests include: organic sorbents (ion exchangers) and ionic composites for removal of contaminants from wastewaters; porous hydrogels and/or composites synthesized by

conventional methods, cryogelation and/or leaching techniques; chemical modification of various sorbents by post-polymerization reactions on pre-existing functional groups; polymer-filled nanoreactors as tools for investigation of enzymatic behavior in crowded environments. She received the "Nicolae Teclu" prize of the Romanian Academy in 2012. 33 scientific articles in ISI journals.

Jean M. J. FRECHET is a Professor Emeritus at the University of California, Berkeley. In



addition, he is the head of Materials Synthesis, Materials Science Division of the Lawrence Berkeley National Laboratory, Director of the Organic and Macromolecular Facility for the Molecular Foundry, Lawrence Berkeley National Laboratory, and Vice-President for Research at King Abdullah University of Science and Technology. He has authored nearly 900 scientific papers and holds over 70 United States Patents. His research areas include organic synthesis and polymer chemistry applied to nanoscience and nanotechnology with emphasis on the design, fundamental understanding, synthesis, and

applications of functional macromolecules. He was a good friend of American chemist Linus Pauling and consistently mentions him in his organic chemistry lectures. He is an elected fellow of the American Association for the Advancement of Science, the American Chemical Society, and the American Academy of Arts and Sciences, and an elected member of the US National Academy of Sciences, the US National Academy of Engineering, and the Academy of Europe (Academia Europaea). As of March 2011, he is 16th on the Hirsch index rating of all living chemists with an H-index of 105.

EIGHTH CRISTOFOR I. SIMIONESCU SYMPOSIUM – FRONTIERS IN MACROMOLECULAR AND SUPRAMOLECULAR SCIENCE 29 May – 3 June 2016

Robert B. GRUBBS is interested in the common ground shared by polymer, organic, and



materials chemistry and is involved in the design, synthesis, and characterization of polymer-based organic materials. Polymer physics provides a framework for understanding the basics of copolymer selfassembly in the bulk and in solution and this knowledge, in turn, suggests concepts for the design of novel polymers and copolymers that will organize into predictable arrangements on the nanometer scale. Such assemblies, many inspired by biological systems, are predicted to exhibit novel properties in a range of possible applications. The combination of living anionic, free radical, and cationic polymerization methods provide access to many possible polymeric structures, and many techniques of organic

chemistry are applicable to the modification of these polymers for the preparation of an even larger variety of materials. Professor Grubbs is the author of more than 40 scientific articles in ISI journals and 4 patents.

Robert H. GRUBBS began his academic education at the University of Florida and continued



his education at Columbia University in the labs of Prof. Ronald Breslow, and then at Stanford as a NIH Postdoctoral Fellow with Prof. James Collman. Professor Grubbs started his independent academic career in 1969 at Michigan State University, where he began his work on olefin metathesis. In 1978, he moved to the California Institute of Technology in Pasadena as a full professor in Chemistry. In 1990, he was promoted to his current chair as the Victor and Elizabeth Atkins Professor of Chemistry at Caltech. Currently the Grubbs group at Caltech is focused on expanding the methods and techniques of olefin metathesis with the development of new catalysts and materials. He is a co-recipient, along

with Richard R. Schrock and Yves Chauvin, of the 2005 Nobel Prize in Chemistry for his work on olefin metathesis. He is a co-founder of Materia, a startup to produce catalysts. Robert Grubbs recieved many honors for his scientific achievements including: the Arthur C. Cope Award, the ACS Herbert C. Brown Award for Creative Research in Synthetic Methods, and the Tetrahedron Most Cited Paper 2002-2006 Award for "Olefin Metathesis". Professor Grubbs is the author of over 700 scientific articles and at least 100 patents/patent applications. He is fellow of the American Academy of Arts and Sciences and of the Royal Society of Chemistry. Grubbs serves on many advisory and editorial boards such as Journal of Polymer Science, Polymer Chemistry and the Journal of the American Chemical Society.

Michael L. KLEIN is Laura H. Carnell Professor of Science and Director of the Institute for



Computational Molecular Science in the College of Science and Technology at Temple University in Philadelphia, USA. He was previously the Hepburn Professor of Physical Science in the Center for Molecular Modeling at the University of Pennsylvania. Klein obtained a B.Sc. from the University of Bristol in 1961, followed by a Ph.D. in 1964. He was a researcher at the National Research Council 1968-1987, and joined the faculty of the University of Pennsylvania in 1987.

Klein's research in computational chemistry, particularly statistical mechanics, intermolecular interactions, and modelling of condensed phases and biophysical systems is among the most highly cited in the field. He

received the Aneesur Rahman prize in 1999, which is the highest honor given by the American Physical Society for work in computational physics, and was elected to the United States National Academy of Sciences in 2009. Publications: 638 papers and 4 books (Edited).

Beate KOKSCH received her diploma in Chemistry and PhD in Biochemistry from the



received her diploma in Chemistry and PhD in Biochemistry from the University of Leipzig. She pursued her postdoc as a DFG research fellow in the laboratories of Professors M. R. Ghadiri and C. F. Barbas, III at The Scripps Research Institute, La Jolla, California. In 2000, she started her independent career under the mentorship of Professor Dr. K. Burger at the University of Leipzig. Since 2004, she has been Professor of Organic and Natural Product Chemistry at Freie Universität Berlin. Her group studies complex folding mechanisms that occur in neurodegenerative diseases, develops new multivalent scaffolds and investigates the impact of fluorine on amino acids, peptides and proteins. More than 110 scientific articles in ISI journals.

Virgil PERCEC received his B.S. in organic and macromolecular chemistry from the Polytechnic



Institute in Iasi and his PhD in macromolecular chemistry from "P. Poni" Institute of Macromolecular Chemistry, Iasi, Romania. After short postdoctoral stays at the Institute of Macromolecular Chemistry, Hermann Staudinger Hause of the University of Freiburg, Germany (July and August, 1981) and the Institute of Polymer Science of the University of Akron, USA (September, 1981 to March, 1982) he joined the Department of Macromolecular Science of Case Western Reserve University, Cleveland, USA in March, 1982 as an Assistant Professor. He was promoted to Associate Professor in 1984, to Full Professor in 1986 and to Leonard Case Jr. Chair in 1993. In 1999 he joined the Department

of Chemistry at the University of Pennsylvania, Philadelphia as the inaugural P. Roy Vagelos Chair and Professor of Chemistry, where he is leading a research group performing fundamental studies at the interface between organic, catalysis, supramolecular, macromolecular chemistry, liquid crystals, nanoscience and biology. He contributed over 700 refereed publications, 80 patents, 18 books and Special Issues and over 1140 Endowed, Plenary and Invited Lectures. He is the editor of the Journal of Polymer Science: Part A: Polymer Chemistry (since 1996) and of the Book Series "Liquid Crystals" (since 2007). Professor Percec serves on the Editorial and Advisory Boards of 20 International Journals, on the Scientific Advisory Board of Symyx Company, Henkel Company, Molecular Foundry, Berkeley and Lawrence Berkeley National Laboratory. He is a consultant to numerous US and International Companies and Governmental Offices.

Mariana PINTEALA studied organic chemistry at the Polytechnic Institute, Iasi, Romania and



received her PhD in 1995 at the "Gh. Asachi" Technical University of Iasi, Romania. She is senior researcher at "Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania and from 2011 is the Leader of the IntelCentre Department (www.intelcentru.ro). She held research/ postdoctoral positions at CNRS – Universite d'Evry-Val d'Essonne, France and University of Detroit Mercy, USA. Scientific fields of interest: synthesis of nanoconjugates with biomedical application, inclusion complexes of cyclodextrins/modified cyclodextrins with different drugs, pseudo- and polyrotaxanes of cyclodextrins with (co)polymers, synthesis and characterization of polymers and copolymers, cationic, anionic and radical

copolymerization, structure-property relationship evaluation, data analysis and interpretation, interpolymer complexes between hydrophobic – hydrophylic copolymers, blend and networks containing silicon-based polymers, aggregation of block copolymers in solution by fluorescene, purification and analysis of antibiotics, synthesis and characterization of silicone resins, PEO membranes. More than 100 publications in ISI journals, 1 book, 10 book chapters and more than 50 participations at national and international conferences. Project leader of numerous

European and national projects. "Nicolae Teclu" award of Romanian Academy in 1994 and 2015 Award of Romanian Chemical Society.

Peter H. SEEBERGER studied chemistry in Erlangen (Germany) and completed a PhD in



biochemistry in Boulder (USA). After performing research at the Sloan-Kettering Cancer Center Research in New York he built an independent research program at MIT where he was promoted to Firmenich Associate Professor of Chemistry with tenure. After six years as Professor at the Swiss Federal Institute of Technology (ETH) Zurich, he assumed positions as Director at the Max-Planck Institute for Colloids and Surfaces in Potsdam and Professor at the Freie University of Berlin in 2009. He is honorary Professor at the University of Potsdam.

Professor Seeberger's research on the chemistry and biology of carbohydrates, carbohydrate vaccine development and continuous flow

synthesis of drug substances spans a broad range of topics from engineering to immunology and has been documented in over 400 peer-reviewed journal articles, four books, more than 35 patents, over 170 published abstracts and more than 700 invited lectures. This work was recognized with more than 25 international awards from the US (e.g. Arthur C. Cope Young Scholar Award, Horace B. Isbell Award, Claude S. Hudson Award from the American Chemical Society), Germany (e.g. Körber Prize for European Sciences), Holland (Havinga Medal), Israel (Honorary Lifetime Member Israel Chemical Society), Japan (Yoshimasa Hirata Gold Medal), Switzerland ("The 100 Most Important Swiss") and international organizations (Whistler Award 2012, Int. Carboh. Soc.). In 2013 he was elected to the Berlin-Brandenburg Academy of Sciences.

Sergiu SHOVA studied Chemistry at Moldova state University and received his PhD in 1985 at



the A. V. Bogatsky Physico-Chemical Institute, Odessa, Ukraine. He is senior researcher at "Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania from 2010. During 2003-2005 he had a postdoc position at LCC CNRS, Toulouse in the group of Professor Jean-Pierre Tuchagues. Scientific fields of interest: inorganic synthesis, synthesis of mono- and polynuclear coordination compounds with application as magnetic and biological active materials. magnetochemistry, Mossbauer Spectroscopy, single crystal X-ray Diffraction and other physical methods for study and structural-properties correlations in coordination and supramolecular compounds. 195 scientific articles

in ISI journals.