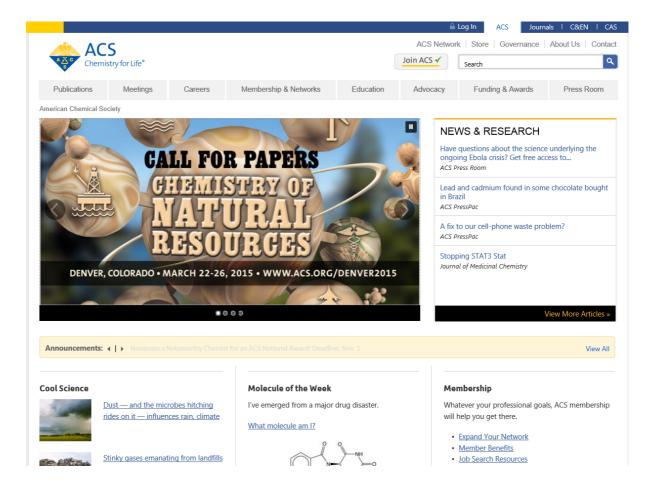
## **American Chemical Society (ACS)**

(http://www.acs.org)



#### **About ACS**

With more than 161,000 members, the American Chemical Society (ACS) is the world's largest scientific society and one of the world's leading sources of authoritative scientific information. A nonprofit organization, chartered by Congress, ACS is at the forefront of the evolving worldwide chemical enterprise and the premier professional home for chemists, chemical engineers and related professions around the globe.

ACS is dynamic and visionary, committed to "Improving people's lives through the transforming power of chemistry." This vision - developed and adopted by the ACS Board of Directors after broad consultation with the membership - fully complements the ACS Mission statement, which is "to advance the broader chemistry enterprise and its practitioners for the benefit of Earth and its people." Together, these two statements represent our ultimate reason for being and provide a strategic framework for our efforts.

PMSE: Division of Polymeric Materials Science and Engineering

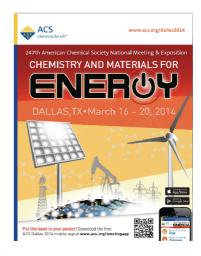
**POLY**: Division of Polymer Chemistry

## 247th ACS National Meeting & Exposition

학회기간: March 16-20, 2014

장소: Dallas, TX

주제: Chemistry & Materials for Energy



#### **Selected Presentations**

#### 12th International Symposium on Biorelated Polymers (POLY)

Building synthetic mimics of naturally occurring proteins (Gregory Tew)

Photoresponsive and biodegradable biomaterials: A tale of two chromophores (Shuangyi Sun)

H<sub>2</sub>O<sub>2</sub>-responsive antioxidant polymeric prodrug as a ischemia/reperfusion nanotherapeutic agent (Dongwon Lee)

Targeting cells of the immune system: Glyco-polymers for biomedical applications (Nicole Mohr)

Amphiphilic cholesterol-containing pyromellitates with increased loading capacity for drug delivery (Olena Kudina)

POZ (poly(oxazoline) - a next generation polymer for drug delivery (Randall Moreadith)

Platinated acrylate copolymers as antitumor prodrugs (Pratik Chhetri)

Renaissance of polyphosphonates: Biocompatible polymers by modern synthetic pathways (Tobias Steinbach)

Development of degradable diblock copolymer, polyphosphoester-block-poly(L-lactide), and its conversion into well-defined shell crosslinked nanoparticles as delivery carriers for antimicrobial agents (Young H. Lim)

Intracellular environment-responsive nanocapsules exhibiting cytosol specific drug release (Atsushi Harad)

PEGylated poly(amino acid)s: A platform for biomedical copolymers (Carmen Scholz)

Encapsulation of proteins in micro and nano hydrogel carrier systems for controlled drug delivery (Henning Menzel)

Cytocompatible phospholipid polymer hydrogel matrix for higher efficient cell differentiation (Kazuhiko Ishihara)

Synthesis of biomolecule-responsive bioconjugated gel particles for biomedical applications (Akifumi Kawamura)

Quick preparative method and formulation for biodegradable injectable polymers exhibiting temperature-responsive sol-gel transition (Yuichi Ohya)

Polysophorolipids: A promising new family of biomaterials (Yifeng Peng)

Biodegradable graft copolymers for drug delivery applications (Joerg Kressler)

Cartilage biopolymers and their assemblies (Ferenc Horkay)

Self-binding polymers as antibacterial coatings for metallic and ceramic implants (Henning Menzel)

Synthesis and characterization of water soluble multi-functionalized magnetic nanoparticles via RAFT polymerization (Lei Wang)

RGD peptide-modified dendrimer-entrapped goldnanoparticles enable effective gene delivery to stem cells (Lingdan Kong)

Synthesis, characterization and bioactivity of glycomimetic polymers (Andrea Kasko)

Synthesis of polysaccharide and phospholipid mimics for determination of amyloid-β peptide aggregation as a function of cellular composition (Sarah Exley)

Porous bone scaffolds fabricated by gas foaming polymeric gels (Leah Garber)

Osteoconductive biobased meshes based on poly(hydroxybutyrate-co-hydroxyvalerate) and poly(butylene adipate-co-terephthalate) blends (Mangesh Nar)

#### **Electrospinning and Nanofibers (PMSE)**

Electrospun fibrous membranes for preventing post-operation adhesion, infection, hemorrhage, and tumor deterioration (Charles Han)

Preparation and characterization of multi-layer biodegradable nanofibers by triaxial electrospinning (Wenwen Liu)

Directed differentiation and neurite extension of mouse embryonic stem cell on aligned poly(lactide) nanofibers functionalized with YIGSR peptide (Laura Smith)

Mimicking cellular environments inside and out: It's a small (nano-fibrous) world (Gary Wnek)

Biopolymer nanohybrids and nanocomposites (You-Lo Hsieh)

Assistant reducing abdominal adhesion and its complication by improved non-woven membranes (Shanshan Xu)

Electrospun nanofibrous scaffolds for the promotion of scar-free corneal wound healing (Amy Fu)

Electrospun nanoyarn scaffold for tissue engineering (Xiumei MO)

Functionalized nanofiber felts as a separation medium for the purification of biological products (Steven Schneiderman)

Electrospinning technology and its applications to fibrous membranes (Benjamin Chu)

Medical applications of nonwoven nanofiber matrices (Laura Frazier)

### ACS Award in Applied Polymer Science: Symposium in Honor of Nicholas Peppas (PMSE)

Microengineered hydrogels for stem cell bioengineering and tissue regeneration (Ali Khademhossieni)

One click at a time: Toward sequence controlled polymers and clickable oligonucleic acids (Christopher Bowman)

Injectable, physically and chemically forming hydrogels with hydrolysis-dependent thermosensitivity (Antonios Mikos)

Assembling nanoclusters in water for therapy or imaging (Thomas Truskett)

Hydrogels: From soft contact lenses and implants to self-assembled nanomaterials (Jindrich Kopecek)

Hydrogels: Origins, originality, and opportunities (Buddy Ratner)

Functional biorelated materials by atom-transfer radical polymerization (Krzysztof Matyjaszewski)

Electrostatic self-assembly of polymers and colloids: New routes to new functional materials (Matthew Tirrell)

Filamentous nanostructures for drug delivery and regenerative therapies (Samuel Stupp)

Topological constraints in interpenetrating polymer network hydrogels (Curtis Frank)

Spherical nucleic acid (SNA) nanostructures: Establishing a new paradigm in molecular diagnostics and intracellular gene regulation (Chad Mirkin)

Dynamic hydrogel niches through photochemical reactions (Kristi Anseth)

Co-opting Moore's Law: Design of shape-specific particulate-based vaccines and therapeutics (Joseph DeSimone)

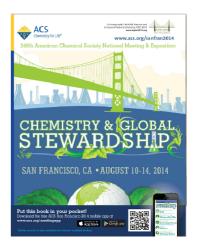
Intelligent and recognitive networks and hydrogels: From theory to biomedical applications (Nicholas Peppas)

## 248th ACS National Meeting & Exposition

학회기간: August 10-14, 2014

장소: San Francisco, CA

주제: Chemistry & Global Stewardship



#### **Selected Presentations**

## Biomacromolecules/Macromolecules Young Investigator Award (POLY)

Sugar-coated polymer synthesis: From sustainable materials to selective drug deliver (Theresa Reineke)

Bioresponsive degradable polymeric nanocarriers for active intracellular drug and protein delivery (Fenghua Meng)

Self-assembly of macromoleculular ruthenium drugs into micelles and peptide tubes (Bianca Blunden)

Molecular Lego®s for macromolecular engineering (Sebastien Perrier)

# Stimuli-Responsive Supramolecular, Macromolecular and Nanostructured Systems and Biopolymer-Driven Organization of Nanostructures (PMSE)

Peptide-based hollow spherical nanoparticle superstructures: Syntheses, structures, and emergent properties (Nathaniel Rosi)

Optically reprogrammable assembly of DNA-linked nanomaterials (David Ginger)

DNA nanotags: Bright fluorescent labels based on intercalating dyes and DNA nanostructures (Bruce Armitage)

Multi-stimuli responsive polypeptides and block copolypeptide assemblies (Timothy Deming)

Functionalizable and responsive polymer nanoparticles (Sankaran Thayumanavan)

Self-assembly and responsiveness in polypeptide-based copolymers: From design to function (Gregory Strange)

Development of functional peptide nanostructures for therapeutic and sensing applications (Normand Voyer)

Covalent functionalization of platelets for controlled assembly (Emily Pentzer)

Stimuli-responsive capsules for 3D spatiotemporal biomolecular gradients (Maneesh Gupta)

Stable and pH-responsive polymersomes decorated with folate-antennas for targeting tumor cells (Brigitte Voit)

Engineered biocompatible polyester nanoparticles for the treatment of resistant cancer (Andreas Nyström)

Thermally, pH, and salt-responsive polyampholytes as building blocks for biomaterials (Harald Stöver)

Dynamic biomacromolecular patterning of photoresponsive hydrogel (David Tirrell)

Polymer functionalization with thiooximes: A facile route to H2S-releasing polymers (Jeffrey Foster)

Stimuli-responsive dendronized peptide amphiphiles for safe and effective siRNA delivery (Hanxiang Zeng)

Double hydrophilic block copolymers as cellular mimics (Sarah Brosnan)

Poly(N-isopropyl acrylamide) responsive to the presence of bacteria (Stephen Rimmer)

Bio-inspired colloidal multilayer materials: Dynamic, shape changing nanoparticles towards tunable structural color (Daniel Klinger)

Surface-modified melt extruded poly(\varepsilon-caprolactone) nanofibers promote cellular adhesion, spreading, and proliferation (Si-Eun Kim)

Stimuli-responsive conjugated polymer nanoparticles for cellular imaging and controlled-release drug delivery (Dönüs Tuncel)

Programming supramolecular biohybrid polymers for biomedical applications (Yuzhou Wu)

### **Future Meetings**

- 249th ACS National Meeting & Exposition: March 22-26, 2015 (Denver, Colorado)
- 250th ACS National Meeting & Exposition: August 16-20, 2015 (Boston, Massachusetts)
- 251st ACS National Meeting & Exposition: March 13-17, 2016 (San Diego, California)
- 252nd ACS National Meeting & Exposition: August 21-25, 2016 (Philadelphia, Pennsylvania)
- 253rd ACS National Meeting & Exposition: April 2-6, 2017 (San Francisco, California)
- 254th ACS National Meeting & Exposition: August 20-24, 2017 (Washington, DC)
- 255th ACS National Meeting & Exposition: March 18-22, 2018 (New Orleans, Louisiana)

## **Selected ACS Publications**

Accounts of Chemical Research

ACS Applied Materials & Interfaces

ACS Biomaterials Science & Engineering

ACS Macro Letters

ACS Nano

Bioconjugate Chemistry

Biomacromolecules

**Biotechnology Progress** 

Chemical Reviews

Chemistry of Materials

Journal of the American Chemical Society

Langmuir

Macromolecules

Molecular Pharmaceutics

Nano Letters