



Samuel I. Stupp of Northwestern University to give plenary address at 2015 MRS Spring Meeting

Samuel I. Stupp of Northwestern University has been selected to give the plenary address at the 2015 Materials Research Society (MRS) Spring Meeting to be held April 6–10 in San Francisco. The plenary session will be held on Wednesday, April 8, at 6:30 p.m., in the San Francisco Marriott Marquis.

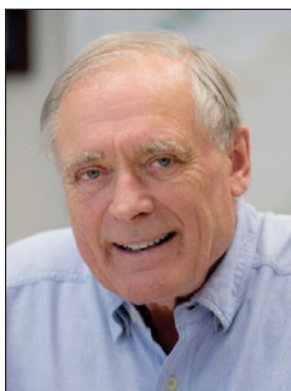
Soft materials in their many forms—polymers, organic crystals, liquid crystals, gels, supramolecular materials—mimic the structures and physical properties of biological systems and are therefore a rich platform for bioinspired materials design. All these forms of condensed matter are extraordinarily useful because of their unique functions or because replacement of hard materials with soft ones is increasingly a sustainability issue. Soft materials design is in its early stages and needs to be directed to functions that have not yet been

achieved. Examples include materials that are reversibly responsive, dynamic, adaptable, or capable of integrating synergistic functions. These features emulate biological structures such as cells.

Stupp's presentation will provide examples of soft matter design using supramolecular structures that integrate functions for energy applications or exhibit dynamic features of interest in bioactive materials. The lecture will also demonstrate how functions in soft matter are linked to energy landscapes and thus to synthetic pathways.

Stupp is currently the Director of Northwestern University's Simpson Querrey Institute for BioNanotechnology, and is also the Director of the US Department of Energy's EFRC Center for Bio-Inspired Energy Science. Stupp's research is focused on materials for medicine and energy

covering the fields of supramolecular chemistry, self-assembly of materials, solar photovoltaics, solar fuels, regenerative medicine, and nanomedicine for cardiovascular and cancer therapies. He earned his PhD degree in materials science and engineering at Northwestern University. He is a member of the National Academy of Engineering, the American Academy of Arts and Sciences, and the Spanish Royal Academy. He is also a Fellow of the American Physical Society, MRS, the American Association for the Advancement of Science, The World Technology Network, and the World Biomaterials Congress. His awards include the MRS Medal, the US Department of Energy Prize for Outstanding Achievement in Materials Chemistry, the Humboldt Senior Award from Germany, the American Chemical Society Award in Polymer Chemistry, the Sir Edward Youde Memorial Award in Hong Kong, the American Chemical Society Ronald Breslow Award for Achievement in Biomimetic Chemistry, the International Award from The Society of Polymer Science, Japan, and Honorary Doctorates from Eindhoven University of Technology, the University of Gothenburg, and the National University of Costa Rica. He holds distinguished visiting positions in Eindhoven, Singapore, and Hong Kong.



John M. Carpenter to receive MRS Innovation in Materials Characterization Award

John M. Carpenter of Argonne National Laboratory (ANL) is being honored with the Materials Research Society (MRS) Innovation in Materials

Characterization Award "for innovations in neutron sources that have fundamentally changed their performance and enabled opportunities for further

advancement of materials that improve the quality of life." He will be presented with the award at the 2015 MRS Spring Meeting in San Francisco. The award is endowed by Toh-Ming Lu and Gwo-Ching Wang.

Neutron scattering is one of the most important characterization tools available to materials scientists. The strengths of neutron scattering—sensitivity to hydrogen, deep penetration into materials, inelastic excitations, sensitivity to magnetism—have been critical in our understanding of high-temperature superconductivity (inelastic excitations), spin structure in exotic materials (magnetism), the function of proteins in pharmaceuticals (hydrogen),