



39th Annual Meeting & Exposition of the Controlled Release Society

July 15–18, 2012

Centre des Congrès de Québec
Québec City, Canada

Smart Materials – From Innovation to Translation

Bioactive Materials Program Chairs

Hamid Ghandehari
University of Utah, U.S.A.

Dusica Maysinger
McGill University, Canada

Consumer & Diversified Products Program Chairs

Christopher McDaniel
Fleet Laboratories, U.S.A.

Teresa Virgallito
Microtek Labs Inc., U.S.A.

Veterinary Program Chairs

Arlene McDowell
University of Otago, New Zealand

Thierry Vandamme
University of Strasbourg, France



New findings in materials science, biology, chemistry, translational medicine, and formulation technology have created unique opportunities for the development of a new generation of controlled delivery systems for active agents. These systems will take advantage of the new materials that offer improved biorecognition at the cellular and subcellular levels and of the growing understanding of how active agents can be protected from environmental hazards and interact optimally with all the other ingredients in the final application and how their release at the site of action, their degradation, their stability and their elimination can be optimized. The design of these materials has to be based on a sound biological and clinical rationale and, for industrial applications, has to have a clear improvement-based justification. To achieve success in the design of the advanced delivery systems we anticipate for the twenty-first century, we have to understand how cells and tissues respond to novel and existing materials, what biological barriers most influence specific delivery needs, how such barriers can be overcome, how new strategies can be translated to a clinical setting, and how these materials help optimize stability, as well as how these new materials improve the functionality of active ingredients in various industrial formulations, e.g., cosmetic creams, food and beverages, and self-repairing materials. The 2012 scientific program of the Controlled Release Society promises an exciting line-up of world-class scientists representing the continuum of materials science and engineering, the cellular and biological response to materials, the response of various formulations to materials, and the translational considerations, with a common focus on the controlled delivery of active agents. The topics to be discussed will include, but not be limited to, new polymer chemistries and biomaterials, inorganic nanosystems, cell responses to morphologically differentiated materials, stem cells, and regenerative medicine, as well as new materials for the delivery of active agents in cosmetic, food, and other industrial applications. Among the specific issues that will be addressed are the delivery of nucleic acids and vaccines, oral controlled release systems, imaging and diagnostics to guide delivery, oncology and the targeting of tumors, translational nanomedicine, nutraceuticals and functional foods, cosmetics, and other industrial applications (e.g., self-repairing materials).

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