



Stimulus-controlled delivery systems of therapeutic nucleic acids

Wednesday February 23, 2011, Babbio 122, 11am

**** rescheduled from Wednesday February 2 due to inclement weather ****

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Nanosized delivery systems capable of responding to environmental changes or stimuli by altering their properties and behavior promise to significantly improve the efficacy of nucleic acid delivery and to enable clinical application of various gene and RNAi based therapies. Variety of external (ultrasound, hyperthermia, magnetic field, light) and endogenous (pH and redox gradients) stimuli can be utilized to control and improve nucleic acid delivery. Applications of stimulus-responsive self-assembly nanoparticles and thin polyelectrolyte films in gene and siRNA delivery will be discussed.

Professor David Oupicky is an Associate Professor of Pharmaceutics in the College of Pharmacy and Health Sciences at Wayne State University in Detroit. He received his M.S. (1993) in Polymer Engineering from Prague Institute of Chemical Technology and his Ph.D. (1999) in Macromolecular Chemistry from the Institute of Macromolecular Chemistry, Academy of Sciences of the Czech Republic. He was a postdoctoral fellow at CRC Institute for Cancer Studies in Birmingham (UK) prior to joining WSU faculty in 2002. He is a member of Karmanos Cancer Institute and adjunct faculty at the Department of Biomedical Engineering, WSU. His research focuses on the design of novel stimulus-responsive polymers and nanomaterials for drug and nucleic acid delivery.

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