

### Téma přednášky:

# Application of metal nanoparticle for treatment of diabetes and glioblastoma

(Theragnosis of metal nanoparticle)

## Introduction of Hanyang University



#### Program:

Kdy: úterý 18. 8. 2015, od 13:00 hod.

*Kde:* seminární místnost (4.003), budova L, 4. patro, TUL – Ústav pro

nanomateriály, pokročilé technologie a inovace

#### Přednášející:

#### Dr. Dong Yun Lee - Associate Professor

Department of Bioengineering, College of Engineering, Hanyang University, Seoul, South Korea

Ph.D. (2005) Department of Materials Science and Engineering, Gwangju Institute of Science and Technology (GIST)

A Novel Immunoprotective Strategy Using PEG Molecules for Prolongation of Transplanted Pancreatic Islet Survival.

#### **Research Interests:**

- 1. Cellular therapy for curing Diabetes Mellitus:
- A. Development of immunoprotective and cell-compatible cellular device using polymers
- B. Molecular imaging of the transplanted pancreatic islets (MRI)
- 2. Nanomedicine for curing Cancer:
- A. Prevention of secondary cancer development from cancer stem cells (CSC)
- B. Molecular imaging of CSC
- 3. Environmental analytical chemistry:
- A. Designation of nanoparticles for detecting the POPs and EDCs
- B. Biomonitoring of POPs and EDCs in human blood and adipocytes

#### **Research Project Implementations:**

Development of nanoprobes and analytic algorithm for diagnosis of disease biomarker in tear. Study of Immunomodulating Cytomedicine using Nano Hybrid Systém.

Study for Transplantation of Pancreatic Islet Improving Cellular Viability and Tracking to Cure Diabetes Mellitus.

Tailored Cell Delivery System of Pancreatic Islet Cytomedicine.

Molecular imaging and therapy of immunoprtected pancreatic islets for curing diabetes mellitus. Development of pancreatic islet microencapsulation for immunoprotection and long-term survival after transplantation and for therapeutic protocol.

Development of cancer cell protein-targeted organic nanoparticles.

Na setkání s Vámi se těší

prof. Dr. Ing. Jiří Maryška, CSc.

