

NANOMATERIALS IN BIOMEDICAL SCIENCES

19-20 SEPTEMBER 2017, PAC 'HET ZUID', WOODROW WILSONPLEIN 2, 9000 GHENT, BELGIUM

TUESDAY 19 SEPTEMBER, 2017

08:15-08:45 *Registration & coffee*

08:45-09:00 Welcome
Stefaan De Smedt (Ghent University, Belgium)

09:00-09:45 Opening lecture: introduction to nanomaterials in biomedical sciences
Jackie Y. Ying (Institute of Bioengineering and Nanotechnology, Singapore)

Session 1: Interactions of nanomaterials in the extracellular environment

09:45-10:15 Fundamentals on protein corona formation
Roland Stauber (Universitätsmedizin Mainz, Germany)

10:15-10:45 *Coffee*

10:45-11:15 Avoiding protein corona formation: a critical note on the PEGylation of nanomaterials
Shaoyi Jiang (University of Washington, USA)

11:15-11:45 Aggregation and de-assembling of nanomaterials in extracellular fluids
Kevin Braeckmans (Ghent University, Belgium)

11:45-12:15 Bullet presentations by young investigators

12:15-13:15 *Lunch (with poster session)*

Session 2: Cellular interactions of nanomaterials

13:15-13:45 Nanomaterials overcoming cell membranes
Arwyn Jones (Cardiff University, UK)

13:45-14:15 Insights on the intracellular fate of nanomaterials
Anna Salvati (Rijksuniversiteit Groningen, The Netherlands)

Session 3: Immunological and toxicological effects of nanomaterials

14:15-14:45 (A)specific immunological reactions of nanomaterials
Diana Boraschi (Istituto Biochimica Proteine, Italy)

14:45-15:15 *Coffee*

15:15-15:45 (Intra)cellular toxicity of nanomaterials
Stefaan Soenen (KULeuven, Belgium)

Session 4: The regulatory landscape of clinically evaluated nanomaterials

15:45-16:15 Regulatory aspects of nanomaterials
Robert Geertsma (RIVM National Institute for Public Health and the Environment, The Netherlands)

16:15-16:45 Bullet presentations by young investigators

16:45-17:45 *Reception (with poster session)*

WEDNESDAY 20 SEPTEMBER 2017

08.30-09.00 *Coffee*

Session 5: Nanomaterials for the advanced delivery of drugs

09.00-09.30 Focusing on drug delivery in cancer treatment
Patrick Couvreur (Université Paris-Sud, France)

09.30-10.00 Focusing on drug delivery in non-cancer treatment
Samir Mitragotri (University of California, USA)

10.00-10.30 *Coffee*

Session 6: Nanomaterials as contrast agents in imaging

10.30-11.00 Focusing on pre-clinical imaging
Jeff Bulte (John Hopkins University School of Medicine, USA)

11.00-11.30 Focusing on clinical imaging
Fabian Kiessling (University Hospital Aachen, Germany)

Bullet presentations by young investigators

12.00-13.00 *Lunch (with poster session)*

Session 7: Nanomaterials in diagnosis

13.00-13.30 *In vitro* diagnosis: nanomaterials and lab-on-a-chip, microfluidics, ...
To be announced

13.30-14.00 Extracellular vesicles in diagnosis
Inge Mertens (VITO, Belgium)

Session 8: Nanomaterials in theragnosis

14.00-14.30 Potential of nanomaterials in theragnosis
Sehoon Kim (Korea Institute of Science and Technology, South Korea)

14.30-15.00 *Coffee*

15.00-16.00 Closing lecture: A critical note on how to proceed with nanomaterials in the biomedical field
David Grainger (University of Utah, USA)

16.00-16.30 *Closing remarks & awards*