

Controlled Release Society Italy Chapter Annual Workshop 2018 - Advances in Drug Delivery and Biomaterials: Facts and Vision

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The 2018 Controlled Release Society (CRS) Italy Chapter Annual Workshop was held in Padova, 18-20 October 2018. The University of Padova kindly supported the Workshop offering two wonderful venues: the new main conference room of the “Orto Botanico”, heritage of humanity (Botanical Garden, <http://www.ortobotanicopd.it/en>) and the main hall of the “Palazzo del Bo” (<https://www.unipd.it/palazzo-bo>) in Padua.

The workshop theme was *Advances in Drug Delivery and Biomaterials: Facts and Vision*. While drug delivery and biomaterials are different areas of science, they are, at the same time, tightly related and intertwined. The 2018 CRS Italy Chapter Annual Workshop aimed at exploring the more recent advances in the design and development in these areas. A number of colleagues from all over Europe lectured and stimulated the discussion on exploring new frontiers and tackling new horizons. To foster the discussion on recent research and networking opportunities among attendees, all poster presenters were provided with the opportunity to give a short talk (10 min, in front of the poster).

Over 100 delegates from universities and pharmaceutical companies, mainly from Italy, attended the workshop, which featured 14 speakers with diverse research interests and backgrounds. Proceedings containing abstracts from the invited speakers and the 38 poster presentations will be published in the *Journal Pharmaceutic* in due course.



Opening the first scientific session in the new Orto Botanico Auditorium.

The symposium opened with a warm welcome from the CRS Italy president, Professor Pietro Matricardi (Sapienza University of Rome, Italy) and a program overview by the chair of the conference, Professor Paolo Caliceti (University of Padua, Italy).

The first session started with a lecture on “Adaptive nanoparticles for nanomedicine applications” by Professor Jan C.M. van Hest, Radboud University, The Netherlands. The second lecture on “Melanin binding: approach targeted drug delivery?” was given by Professor Arto Urtti, University of Helsinki, Finland. The first session was concluded by Professor Giuseppe De Rosa, University of Naples, Italy, who gave a lecture on “Nanomedicine in cancer: toward overcoming chemoresistance”.



Professor Gert Storm delivering his talk on “Nanoparticles for drug targeting”.

After the coffee break, the first poster session (20 posters) allowed many PhD students to present the main results of their research.

The Friday morning session scheduled five presentations. The first was given by Professor Stefaan de Smedt, University of Gent, Belgium, who told us his exciting journey on “Exploring micro- and nanomaterials to combat infectious diseases - on our failures and successes”. Dr. Teresa Pellegrino, IIT, Genua, Italy, updated the attendees on her research on “Few examples of nanoplatforms to combine magnetic hyperthermia with stimuli-mediated drug delivery for cancer treatment”. Professor Gert Storm, University of Utrecht, The Netherlands, with his usual additive and clear style, exposed his point of view during the presentation entitled “Nanoparticles for drug targeting: current status and future”.

The coffee break allowed attendees to network and share their ideas.

The morning session continued with presentations of Professor Tina Vermonden, University of Utrecht, The Netherlands, on “Flower-like and golden thermosensitive micelles for drug delivery”, and Professor Gianfranco Pasut, University of Padua, Italy, on “Biotech drugs advances by polymer conjugation”.

The technical presentation on "Renishaw RA802 Pharmaceutical Analyser: Redefine Formulation Analysis" by Dr. Claudia Cencetti from QI Technologies concluded the morning session.

After a delicious and pleasant lunch, the afternoon session started immediately, and the first presentation was given by Professor Veronique Preat, Catholic University of Louvain, Belgium, on her very recent research around hydrogels for “Local and targeted delivery of nanomedicines for the treatment of glioblastoma”.

Professor Preat was followed by a presentation from Professor Giovanna Lollo, Université Claude Bernard, Lyon, France, on “Nanotechnological approaches to enhance anticancer chemo-immunotherapy”. Dr. Marco Maria Gentile, Dompè Pharmaceuticals, Italy, explored the industrial point of view on developing new pharmaceutical products in his lecture “Ophthalmic protein drug packaging: critical aspects, existing solutions and opportunities - A case study”. Professor Alessandro Dalpiaz, University of Ferrara, Italy, told us on his experience on “Bile acids: new opportunities for the drug targeting of drugs”. Finally, Dr. Andrea Pigozzo, Alfatest, Italy, gave a technical presentation on “MADLS®: the ultimate technology for nanoparticle size and number concentration”.

The second poster session concluded the Friday afternoon workshop session and all the attendees had a very traditional social dinner.



Best PhD Thesis Award 2018 winners (from left to right) Dr. Patrizia Nadia Hanieh, Dr. Chiara Bastiancich and Dr. Katia Maso.

The Saturday morning started with three short presentations given by the recipients of the “Best PhD Thesis Award 2018”, promoted by the CRS Italy Chapter: Dr. Chiara Bastiancich (Université Catholique de Louvain,

Belgium), Dr. Patrizia Nadia Hanieh (Sapienza University of Roma, Italy) and Dr. Katia Maso (University of Padua, Italy). Prof. Gennara Cavallaro, Palermo University, Italy, started the scientific session with her presentation “Tailor-made functionalized polymers for nanomedicine”. Professor Koen Raemdonck, University of Gent, Belgium, with his presentation “Repurposing cationic amphiphilic molecules to promote cellular delivery of therapeutics “and, finally, Professor Silvia Muro, University of Barcellona, Spain, with “Drug carrier transport across the blood-brain barrier: an elusive parametric balance”, closed the CRS Italy Chapter 2018 Annual Workshop.

The Workshop brought many opportunities for people to mingle and discuss collaborations and future research and was clearly well received by all in attendance. We will try to continue organizing such exciting workshops in the future, but we will work to have more attendees from abroad to improve networking among people involved in drug delivery.