It is our great pleasure to bring you the latest edition of the newsletter of the Controlled Release Society Focus Group in Nanomedicine and Nanoscale Delivery (CRS FG NND). This fourth newsletter brings you the latest news and activities of our FG, as well as highlights of the XIIIth Spanish-Portuguese Conference on Controlled Drug Delivery and the 1st International Northern-Southern Europe Workshop in Nanomedicine (NSENANO). Do not forget to visit our webpage and to follow us on social media! #seeyouinVegas2020

Highlights of the XIIIth Spanish-Portuguese Conference on Controlled Drug Delivery (25th Anniversary)

The XIIIth Spanish-Portuguese Conference on Controlled Drug Delivery took place on January 22-24, 2020 at the University of Santiago de Compostela (USC), Spain. The conference was opened by Prof. Dolores Torres (President of the Spanish-Portuguese Local Chapter of the CRS (SPLC-CRS), USC, Spain) and Prof. María José Alonso (CRS Immediate Past-President, USC, Spain) for an audience of about 200 participants. Concomitantly, the SPLC-CRS celebrated its 25th Anniversary, being one of the oldest Local Chapters of the CRS. The program of the conference had a variety of excellent plenary speakers, including Dr. Mark Prausnitz (Georgia Tech, USA), Dr. Alexander T. Florence (University of London, UK), Dr. Steven R. Little (University of Pittsburgh, USA), Dr. Luis Liz-Marzán (Ikerbasque, Bilbao, Spain) and Dr. Ignacio Melero (University of Navarra, Spain). The representatives of the CRS European Local Chapters were also present. From transdermal/transmucosal delivery, therapy/prevention of infectious diseases, regenerative medicine, cell therapy, targeted drug delivery, delivery ofmacromolecules/oligonucleotides to oral drug delivery, the program of the conference covered the most up-to-date discoveries in the field of controlled drug delivery. The exciting abstract-based selected talks were accompanied by a great number of invited speakers (Dr. Richard Guy, Dr. Marcelo Calderón, Dr. Juan Manuel Irache, Dr. Miguel Oliveira, Dr. Avi Schroeder, Dr. Hélder Santos, Dr. Javier Montenegro and Dr. Noemi Csaba). The conference concluded with a vibrant panel of experts discussing “The perspective of the industry in nanomedicine”.

BEST ORAL COMMUNICATION

TAMARA DACOBA
CIMUS, University of Santiago de Compostela, Spain
“Influence of Nanoparticle Design on the Immune Response against an HIV Peptide Antigen”

BEST POSTER PRESENTATION

DR. ARTUR FILIPE RODRIGUES
CNC, University of Coimbra, Portugal
“High-throughput screening of a combinatorial polymer library of nanoparticles for controlled delivery of messenger RNA”

BEST THESIS AWARD

DR. JUAN PARIS
International Iberian Nanotechnology Laboratory, Spain

WEBINAR

TUE, FEB 18, 2020

6 PM – 7 PM CET

(12 PM – 1 PM EST, 9 AM – 10 AM PST)

LIPID NANOPARTICLE TECHNOLOGY ENABLING NUCLEIC ACID THERAPEUTICS

ROY VAN DER MEEL, PhD
Eindhoven University of Technology

Registration deadline: February 16
Exclusive for members of the CRS NND FG
The 1st International Northern-Southern Europe Workshop in Nanomedicine (NSENANO) brought together scientists with vast expertise in the field of nanomedicine from the northern and southern parts of Europe, and from around the world, to discuss and network on how to foster basic science into translational and personalized nanomedicine. The event was co-chaired by Prof. Donatella Paulino (University of Catanzaro “Magna Graecia”, Italy), and Prof. Helder A. Santos (University of Helsinki, Finland; chair of the CRS FG NND), with the support of the Controlled Release Society. The program of the workshop was divided in different thematic sessions, including anti-cancer research, regenerative medicine, cardiovascular diseases, polymer and supramolecular chemistry, towards a reliable pre-clinical and clinical assessment. Morning and afternoon sessions with well-reputed young and senior speakers were organized in three days, to highlight the impact of nanomedicine in academia and pharmaceutical companies. The idea was to create a strong network between academic and industrial professionals towards the better development of the nanomedicine field and the clinical translation of nanomedicines, as well as to offer a breadth of science knowledge in this field. 21 invited talks, 2 selected oral communications, and 20 posters were presented in the different sessions. The speakers and poster presenters were selected based on the quality and impact of the science, and worldwide contribution to the field of nanomedicine. A selected committee awarded the two best posters and oral communications. A special award was provided by SCI Abruzzo, which supported the registration fee for two young scientists.

The first sessions of the scientific program were devoted to ‘Nanomedicine in drug delivery’ and ‘Nanoscale delivery in anti-cancer therapy, cardiovascular diseases and diabetes’. Invited speakers, young and senior scientists attending the workshop discussed hot topics of nanomedicine in a friendly and family atmosphere. The debate was focused on the recent updates and impact of nanomedicine in the selected fields. The second part of the scientific program was dedicated to industry and its contribution in nanomedicine. In particular, Dr. Vinaykumar Balasubramanian, from Bayer Oy, Finland, and Dr. Alice Brun, from Alfaetse, Italy, discussed new technologies for the scaling up and industrial production/commercialization of nanomedicines, and the mission and vision of industries in this field in terms of Research & Development. The last part of the scientific program was dedicated to ‘Nanomedicine in advanced therapeutics’. The participants discussed the recent developments and innovations of the nanomedicine field. Lectures and oral communications stimulated fruitful discussions on this topic. A round table discussion was dedicated to the invited speakers. In this round table, the invited speakers discussed the impact of nanomedicine-based therapies in the current landscape, as well as potential solutions for the translation of nanomedicine into the clinic and in the development of personalized nanomedicine.

A special emphasis was also given to the social events, in an attempt to promote the connections between the various participants. In particular, the social dinner was a mixture between history, local foods and culture. The beautiful city of Sulmona in the Appennino Mountain hosted this amazing experience. The participants had the opportunity to walk through the ancient city, visit the confetti factory ‘Pelino’ and enjoy local foods during the Gala Dinner. Furthermore, the participants had the opportunity to handle ancient books written by the Latin poet Ovidio, who was born in Sulmona listen to the origin and content of these books, and watch a short movie about the life of the poet. The social events and Gala Dinner combined research, science and the atmosphere of Abruzzo region. The event was hugely successful, showing what can be achieved by bringing together people from north and south of Europe with a common interest in nanomedicine. The second edition of this workshop will be held in the summer of 2022, in Helsinki. Save the date and keep an eye out for the future announcement.
The preparations for the CRS2020 are going at full steam, and we have exciting news for you! The first confirmed speaker is Dr. YOSHINORI OHSUMI from Tokyo Institute of Technology, Tokyo, Japan. Dr. Yoshinori Ohsumi was born in Fukuoka, in 1945. In 1963, he entered The University of Tokyo and studied molecular biology due to the influence of Prof. K. Imahori. As a graduate student, he enrolled at Rockefeller University to study under the supervision of Dr. G. M. Edelman, in 1974. He returned to The University of Tokyo as an assistant professor under Prof. Y. Anraku at the end of 1977. In 1988, he opened up his own small lab and started to work on the lytic function of the vacuole, and then found yeast autophagy by light and electron microscopy. After leaving the University of Tokyo he continued his research at the National Institute for Basic Biology at Okazaki. Then he moved to Tokyo Institute of Technology in 2009 and, in 2016, he received the Nobel Prize in Physiology or Medicine in 2016 for elucidating the mechanisms for autophagy.

**STARS COLLIDE LIVE!—ASSAULT ON THE IVORY TOWER**

Dr. JEFF KARP and Dr. STEVEN SCHWENDEMAN go head-to-head in the next Stars Collide debate. Dr. Christine Allen will moderate this ‘assault on the ivory tower’. “Is entrepreneurship good or bad for academia?” – do not lose the opportunity and watch it live on June 29, 2020, during the next annual meeting.

The board of the CRS FG NND is committed towards excellence, and driven by a solid will of making a difference in the field of nanomedicine! If there is anything you would like to address to us, or if there is anything we can do for you, please, do not hesitate in contacting us!