



Editorial

This special issue of the Journal of Controlled Release (JCR) contains a collection of studies presented at the 10th Biennial Meeting of the Israeli Chapter of the Controlled Release Society held in Maalot Tarshiha, Western Galilee, Israel on September 14-16, 2016. There were more than 40 invited talks, 30 short presentations by students, and 100 posters. Appreciation of the importance of the activities of the Israeli Chapter requires a brief review of the Controlled Release Society (CRS).

The CRS was incorporated in 1978 as a nonprofit organization dedicated to the science and technology of controlled drug release. In the early days of the CRS, the main applications of drug delivery technology were on agrochemicals, and over the years, they were expanded to the pharmaceutical field. Currently, the CRS membership consists of about 70% of the pharmaceutical and veterinary scientists and the rest of the scientists in the consumer and diversified products. The vision of CRS is to advance delivery science and technology to solve global challenges through building a responsive, relevant, and strong global community. The CRS holds annual meetings to bring together scientists from around the globe for free exchange of ideas. The annual meeting is a place where researchers in academia, industry, and government get together to learn from each other. Although annual meetings are important, not everyone can attend. This led to establishing CRS local chapters in different countries and student chapters at the university level. Currently, there are 15 local chapters and 5 student chapters. Each chapter has its own activities, such as annual conferences and workshops. This has broadened the membership, especially students, around the world. Israel is the only country that has both the Israeli Local Chapter (www.icrs.org.il) and the Hebrew University of Jerusalem Student Chapter.

The Israeli Local Chapter of the CRS (ICRS) was founded in 1996 with the mission to enhance the interactions between academia and industry in Israel through its annual meetings and workshops. The ICRS has more than 250 members, and about 100 members from the Israeli pharmaceutical industry. The past ICRS presidents are world-renowned scientists, such as Joseph Kost, Abraham Rubinstein, Smadar Cohen, Yoram Sela, Elka Touitou, Rosa Azhari, and Ronit Satchi-Fainaro. The president of ICRS for the meeting in Maalot Tarshiha was Professor Dan Peer, and he was succeeded by Professor Marcelle Machluf. There were many exciting, invited talks describing the current state-of-the-art technologies in nanomedicine in cancer therapy. The topics include tumor-targeted delivery, subcellular targeting, tumor microenvironment, theranosis, gene silencing and editing, precision nanomedicine, and cancer immunotherapy. Discussion following each presentation was as vibrant as the talk itself. One of the highlights of the meeting was the panel discussion on "Translation: from Academia to Industry" moderated by Muhammad Safadi with panel members Chezy Barenholz, Simon Benita, Dan Peer, Pini Orbach, Yoram Sela, Adi Elkeles, and Menashe Levi, representing both academia and the pharmaceutical industry. One of the messages of the panel was that developing clinically

useful drug delivery systems requires much more than what is seemingly useful in mice, and more importantly, raising a serious amount of funds for going through clinical studies and regulatory processes.

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Israel has more startups per capita than any other country in the world. This disproportional quantity of successful startups must be due to unique characteristics of the country. It is often ascribed to elite training and the spirit of team work mediated by mandatory military service. Furthermore, Israel is a nation of immigrants and multiculture, encouraging exchange of diverse ideas for forming an innovation culture. The essence of Israel is well reflected by the ICRS. The ICRS is a good example of nurturing the young scientists who will be the future leaders of the drug delivery field. Every single member of the ICRS, mostly students, postdocs and young professors, attended the meeting in Maalot Tarshiha. They were all encouraged to ask questions and had plenty of insightful discussions. It was very gratifying to see that all of them had a profound motivation in drug delivery research and found meaning in dedicating their research efforts for developing new, clinically useful formulations. They are all dreamers. When their dreams come true, we all will be the beneficiaries of their hard work. The impact of their work should not be limited to cancer treatment, but be extended to other important diseases, such as heart disease, diabetes, and Alzheimer's disease. There is no reason to confine their imagination to one specific technology, nanomedicine in this case. All of us in the drug delivery field need to provide an environment for young scientists to be boldly innovative and not be afraid of doing something risky. As long as the same mistake is not repeated, each mistake, or failure, becomes a learning experience. Trying something new from the lessons learned is the key. We need to keep the motivation of young scientists up, and this requires recognizing their efforts and accomplishments. This ICRS special issue is a way of appreciating the work by the ICRS members. The appreciation is extended to all drug delivery scientists, as they are all intertwined through the drug delivery research. JCR encourages the future leaders in the world to be brave in their research and invites them to submit their paradigm-changing, challenging, and meaningful work.

I would like to express my special thanks to Professor Dan Peer for his courage to try something new and seek out different opinions in nanomedicine. His leadership as the president of ICRS for the 2014-2016 term was instrumental for the enormous success, in terms of the number and quality of the presentations, for the 10th Meeting of the ICRS in 2016.

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