

Participation Report for GSCN Travel Award

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Venue: 51st Miami Winter Symposium: Stem Cells – Today's Research Tomorrow's Therapies

Place/Date: Miami (Florida, USA), January 28-31, 2018



Background: The 51st Miami Winter Symposium: Stem Cells – Today's Research Tomorrow's Therapies is one of the biggest international congresses in the field of stem cells that deals with a variety of new aspects of stem cell biology, biotechnology and therapy. Therefore, young scientists can benefit from being able to hear of the newest research trends and to network with outstanding international scientists. I am PhD student in my second year at the University Medical Centre Rostock, Department of Radiotherapy and Radiation Oncology working on the project "Influence of adipose-derived stem cells on the radiation response of MCF-7 breast cancer cells". I am grateful to the GSCN for giving me the opportunity to attend this congress so I could exchange ideas with scientists on an international scale and present my previous research results to the widest possible audience.

Highlights: Next to many impressive lectures, the presentations of Prof. Le Blanc (Karolinska Institutet, Sweden), Dr. Nakauchi, Dr. Marc van de Wetering (Hubrecht Institute, the Netherlands) and Prof. Badiavas (University of Miami, USA) were my personal highlights.

Prof. Le Blanc is a specialist in hematology and extremely successful in her field of research. At the symposium she gave a lecture on haematopoietic stem cell transplantation and an ongoing phase 1/2 clinical trial with autologous mesenchymal stem cells for the therapy of multiple sclerosis. The outcomes were very impressive and gave me new insights into the current state of bringing mesenchymal stem cells into the clinic. Prof. Badiavas is a dermatologist and dermatopathologist with specialized interest in wounds. He heads a federally-funded wound healing research laboratory focused on the role of bone marrow and stem cells in wound healing, regenerative medicine, and

gene therapy. He presented individual case studies of patients with deep second degree burns, treated by allogeneic stem cell transfer. Most impressive was the speed of wound healing, with almost daily improvements. These and other lectures highlighted the usefulness of stem cell research for clinical therapeutic approaches. The contribution of Dr. Marc van de Wetering came from an entirely different field of stem cell research. He and his lab group succeeded in creating patient-specific tumor organoids, which can be used to identify the most effective therapy of every individual tumor. Thus, different mutations can be identified within the same tumor type of different patients leading to different therapeutic sensitivities. This is a big milestone for patient-specific oncology therapies.

Personal Benefits: This symposium was the first one I attended all alone. Therefore my biggest personal benefit was to train myself in networking with unknown people. In preparation for the congress, I have played through various scenarios in which I could come into conversations with others. Surprisingly, it was easier than initially thought. I talked to many international PhD students who reported their diverse working conditions. Personally, I was most interested in the enormous differences in the ethics and laws for conducting animal experiments. During the lunch break, I was able to interact with many senior scientists who told me interesting details of the beginning of their careers.

Altogether, this congress has meant great progress for me as a scientist. I was able to improve my conversation skills, get an impression of the international state of research in my field and discuss my work with other scientists.