

Report of the ISSCR 2023 Annual Meeting in Boston, USA, June 14th – 17th

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This year, the annual meeting of the ISSCR took place at the Boston Convention and Exhibition Center, gathering more than 4,000 scientists from around the world to take part in a 4-day program comprising the most important new advances in stem cell research.

Despite the high amount of talks and concurrent sessions, the conference was very well organized such that it was easy to attend the sessions that were most relevant for me, without missing anything important. All sessions were divided into different topics, for example “Clinical Applications” or “Cellular Identity”. Since I work with multi-lineage organoids focusing on heart and lung development, I was mostly interested in the “Modeling Development & Disease” sessions. From the concurrent Track Sessions, the talks given by Ulgu Arslan about the vascularization of hiPSC-derived 3D cardiac microtissues on chip and by Yifei Miao about vascularized gut tube organoids with proper mesenchyme were most interesting for me, since I could nicely draw parallels to my own work. Especially the latter talk emphasized the importance of mesenchymal tissues for endodermal organs, which is also a crucial part of my own project.

Furthermore, I received valuable input from the Innovation Showcase by Molecular Devices about automated production and high-content analysis of organoids. Automation of such processes is crucial to enable application of organoids for drug screening and toxicity/ teratogenicity assessment; however, this is not trivial and still too expensive to be attractive for industrial applications. Therefore, it was great to see that progresses are being made in this area.

The most fascinating talks for me, however, were given in the Plenary Sessions. It was amazing to see how the organoid field has progressed. Not only more and more complex organoids have been developed but also the advances in generating early embryo models are immense. In this regard, the talks given by Magdalena Zernicka-Goetz about hPSC-derived embryo models and Naomi Moris about extended gastruloid models were outstanding. However, although fascinating, these talks also raised ethical concerns about how far we can go in this area, reminding me of our responsibility as a scientist.

Apart from the exciting talks, I received also a lot of input from companies in the exhibition hall. It was interesting to learn about their new products and current developments in industry. Furthermore, I enjoyed the poster sessions, where over 1,000 posters were presented. I had the chance to talk to different people, especially when presenting my own poster. It was also great to meet the researchers whose publications I have read and to discuss my work with them. Additional networking opportunities were given at the „Junior Investigator Social Night“ and the GSCN-featured Meet-up Hub and WunderBar events, which I enjoyed a lot, since I had the chance to get to know new people and also meet familiar faces in a relaxed environment.

Together, attending the ISSCR 2023 Annual Meeting was a great experience. It helped me to get some new ideas for both my project and my future career and I received valuable input from researchers from both academia and industry. Therefore, I would like to thank the GSCN very much for supporting me and thus giving me the opportunity to attend this great conference.

Sincerely,

Lika Drakhlis