

Eidgenössische Technische Hochschule Zürich Swiss Federal Institute of Technology Zurich

German Stem Cell Network

Department of Biosystems Science and Engineering

ETH Zürich

Nouraiz Ahmed

Laboratory of Cell Systems Dynamics

Mattenstrasse 26

4058 Basel, Switzerland

Phone +41 61 387 34 16 nouraiz.ahmed@bsse.ethz.ch

Basel, 7 September 2019

Report on Annual Scientific Meeting of "International Society for Experimental Hematology" in Brisbane, Australia 2019.

The annual scientific meeting of the International Society for Experimental Hematology (ISEH) provides a unique opportunity for a huge and internationally diverse community of scientists to meet and discuss the latest research findings in the field of hematopoietic (blood) stem cell (HSC) biology. This year, the conference was organized in the dynamic environment of Brisbane convention center in Australia from 22nd to 25th August.

The conference represented a decent mix-up of scientifically diverse oral and poster presentations in addition to a vast number of career prospect related workshops including the new investigator pre-meeting workshop, the junior PI survival workshop, new investigators meet the expert mixer and new investigator technology session.

Importantly, I had the chance to present my work in the form of a 10- minute oral presentation on the cell-intrinsic role of PU.1 transcription factor (TF) autoregulation in the cell fate choice of hematopoietic stem cells during the lineage commitment session of the conference. This provided me with the opportunity to discuss my results with some notable scientists in the field and was ideal to foster new collaborations, In particular, I had the chance to meet, discuss and extend the research ideas with Emmanuella Passegue, Dan. G. Tenen, Ulrich Steidl, Eric Pietras and Berthold Goettgens – the noteworthy experts in the field. The work has drawn constructive criticism from some while support from the others at the same time in a pleasant environment.

During the conference, some oral (as well as poster) presentations were directly related to my project while a couple of others, despite irrelevancy to my research direction, sparked my interest. The talk by Mick Milsom during the "Inflammation" session on decoding the hematopoietic lineage commitment decisions by genome-wide DNA methylation patterns was particularly relevant since it sheds light on several important candidate TFs that ought to play a role in the HSC differentiation and paves an obvious research direction to be pursued in the future. Tomohiko Tamura delivered a very interesting and intellectually focused talk on the differential usage of IRF8 TF enhancers in monocyte and dendritic cell development. Notably, Shalin Naik presented a unique way to resolve the heterogeneity in the multipotent lymphomyeloid primed progenitors using a reporter mouse line of Dach TF.

A significant portion of the conference was dedicated to the myeloid malignancies and abrupt hematopoiesis. The presentations by Ross Dickins on the role of PU.1 and GATA1 TFs in blocking the myeloid differentiation pathways causing leukemia and by Connie Eaves on the understanding of human leukemogenic process was particularly interesting and relevant as well.

In addition to the scientific presentations, David Traver delivered a fascinating note during the "Pre-meeting workshop" on his scientific trajectory and provided useful tips and piece of advice on becoming (and thriving as) a research scientist in an ever-competing world of science. Several prominent experts in the hematopoietic field (and stem cell biology in general) joined the "meet the expert mixer" session as well including David Scadden and Sean Morrison with whom I had the chance to extensively discuss the current and future prospects of a scientific career.

In summary, the event provided with the chance to fulfilling the main premises of attending the conference – social networking, getting updated with current ideas and directions of hematopoietic stem cell research, discussions relevant to my project, fostering new collaborations and reinforcing current ones, an update on future directions and, above all, a sense of Australian culture of Science in the vibrant settings of Brisbane.

Therefore, I am highly grateful to the GSCN for providing me with the opportunity to attend this meeting. It was, undoubtedly, a valuable experience.

Nouraiz Ahmed, ETH Zürich.