Mick Lee’s Conference Summary Notes

The Keystone Symposia conference on “Cardiovascular Epigenetics and Gene Regulation” (C5-2024) was held at the Harrenhausen Palace in Hannover, Germany, from 15 April to 18 April 2024. Prof Roger Foo (University of Singapore), Prof Federica Accornero (Brown University), and Prof Enzo R. Porello (Murdoch Children’s Research Institute) organized and co-chaired the conference. The conference has brought together young and established investigators, as well as industry counterparts, to share their latest discoveries, new technologies, and molecular biological pathways of gene programs and cell state transitions.

The first keynote lecture was given by Dr. Wolf Reik (Altos Labs), who outlined the intrinsic program by which cell types are formed both spatially and temporally, underpinned by cell fate dynamics and cell gene regulatory programme. Using single-cell multi-ome technology, he then teased out the dynamic gene regulatory networks and signals governing early human epiblast development from native to primed cell states. Finally, he outlined the key ingredients for successful science encompassing the best of both worlds in Industry and Academia – “Freedom from the worst and freedom to embrace the best”.

The second keynote lecture was given by Dr. Thomas Thum (Hannover Medical School, CEO & Co-Founder of Cardior) entitled “Non-coding RNA therapeutics from RNA to Clinics, who outlined the world of non-coding RNAs amongst the “dark genome” that regulates primarily the central dogma of life. He then elegantly outlined the roadmap and timeline of anti-miR-132 therapeutics – from bench to bedside, and shared with us what Cardior Pharmaceuticals is doing to tackle heart disease.

The Foo Lab was present at the Keystone Symposia Conference, represented by Rijan, Francesco, Michelle, and Mick. Mick was selected to give a short talk on validating cardiac disease-associated haQTL enhancers using STARR-Seq (A co-work with Dr Matias Autio). Michelle was awarded the NHLBI scholarship for her abstract submission. Both Rijan and Francesco were selected to present their poster abstracts during the poster sessions.

The Conference ended with, once again, cocktail hour, with even more scientific conversations and collaborations amongst young and established investigators! Till we meet again!