Multiple myeloma is the second most common haematologic malignancies in adults. The outcomes of patient have more than doubled over the last 2 decades due to improvement in understanding tumor biology and development of effective new drugs. However the disease remains incurable. The current clinical gaps are identification and treatment of high-risk patients who have not really benefitted from the improvement in treatment and also optimizing immunotherapy which are very costly. While antibody-based treatment and newer immune based therapeutic platforms like CAR-T and bi-specific T-cell engagers are showing strong early promise, not all patients respond and more importantly for those who do not or who progress on treatment, the outcomes are dismal.

The focus of our research is in understanding the biology of high-risk myeloma. In this context, we have identified a group of patients who do not have any of the existing high-risk features but yet have very poor outcomes. At the same time there are patients with persistent residual disease who have very long survival. We are now using single cell transcriptomics and proteomics (PROTEONA platform or Cite-Seq) to understand the difference in immune milieu and also intra-tumoral heterogeneity and changes in the cancer cells. Through this we hope to identify new biomarkers as well as new insights into biology. We are also building a prospective study to understand responders and nonresponders to immunotherapy and very interested to build better immunotherapeutic platforms (either better targets or better immune therapy platforms) that will have better specificity against myeloma (and not normal plasma or immune cells), better sustained response and better toxicity profile.

Improving outcomes of Multiple Myeloma – When Immunology comes to the fore

1 February 2021 (Monday)
11:00am – 12:00pm
Join Zoom Meeting: LINK
Meeting ID: 955 9869 9738
Passcode: 787195