



Institute of
Molecular and
Cell Biology

SEMINAR ANNOUNCEMENT

DATE: 7 February 2012, Tuesday
TIME / VENUE: 11:00AM @ Level 3, IMCB Seminar Room 3-46, Proteos Building, Biopolis
SPEAKER: Dr. Chng Wee Joo
TITLE OF SEMINAR: **Translational Research Program in Haematologic Malignancies**



The focus of our laboratory is in 2 disease models, multiple myeloma and acute myeloid leukemia (AML), where significant gaps in therapy exist. Myeloma is a bone marrow cancer of terminally differentiated plasma cells. Our work on myeloma over the last 8 years have defined the main genetic pathways of disease evolution, the prognostic relevance of these genetic abnormalities, identification of novel mutations affecting the NF κ B pathways and also identify the hitherto unappreciated importance of MYC activation in early transformation of myeloma. In the next phase of our research, we will be focusing on translating the application of genomics in myeloma to the clinic, and also better biological understanding of the myeloma with the worst outcomes, those characterized by t(4;14) where 2 putative oncogenes FGFR3 and MMSET are concurrently deregulated, and those characterized by 17p13 (locus containing p53) deletion, so that we can derive better therapeutic strategies. Acute myeloid leukemia is a blood cancer characterized by differentiation block and accumulation of abnormal precursor cells of the myeloid lineage. Treatment for AML has not changed for the last 2 decades. While we can cure about 40-50% of patients with current chemotherapy-based treatment, there are clear needs to improve on this, and novel strategies are needed. In this regard, our group together with Dr Zeng Qi at IMCB has identified novel oncogenic role of PRL-3 in AML. Together with another novel epigenetic modifying gene, EZH2, our group are currently working on better defining the role of these proteins in the pathogenesis of AML and as potential novel therapeutic targets.

Host: Prof. Wanjin Hong

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