Institute of Medical Biology
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Seminar Announcement
- All Are Welcome -



Speaker: **Professor Kenneth O'Byrne**
Consultant Medical Oncologist
Princess Alexandra Hospital,
Translational Research Institute &
Queensland University of Technology, Brisbane, QLD

Title : **"Recent advances in the treatment of malignant Disease: focus on lung cancer"**

Date : **21 November 2017 (Tuesday)**
Time : **2.00pm – 3.00pm**
Venue : **Codon A & B, Matrix Level 5, Biopolis**
Host : **Prof Zee Upton**
(Tel: 6407 0153, email: zee.upton@imb.a-star.edu.sg)

Abstract of the Seminar:
The advent of personalised medicine has led to the development of novel compounds that have resulted in significant improvements in the outcomes for patients with cancer. Lung cancer has provided the most striking examples of this where the two most significant advances are targeting oncogene drivers and immunotherapy. In the region of 20-60% of adenocarcinoma lung cancer patients will harbour oncogenic Epidermal Growth Factor Receptor (EGFR) mutations, and the ALK and ROS1 fusion proteins. With the development of first, second and third generation agents, median life expectancy for these patients with advanced lung cancer has increased from ~15 months to over 5 years. Immunotherapy, with the immune checkpoint inhibitors targeting PD-1 and CTLA4 are having dramatic impacts on the survival of patients with smoking associated lung cancers. These patients with advanced disease previously had a survival of approximately 9 months if fit enough to have chemotherapy. The data from completed 1st and 2nd line studies now indicate that a proportion of these patients will live for 5 years or more, especially if the agents are combined with each other and with chemotherapy. For patients with resectable or locally advanced disease the outlook from receiving immunotherapy is even more promising. Maintenance PD-L1 targeted immunotherapy following concurrent chemoradiotherapy has improved median survival by ~2 years. Advances in targeting DNA repair, used alone or on combination with immunotherapy, and in reversing drug resistance, may be the final nails in the coffin for many solid tumours.

About the Speaker:
Prof Kenneth O'Byrne is a Medical Oncologist and Clinical Scientist working at the Princess Alexandra Hospital (PAH) and in the Queensland University of Technology (QUT) Translational Research Institute (TRI) laboratories on the PAH campus. He is the founder of the British Thoracic Oncology Group (BTOG), and founder member of the European thoracic oncology platform (ETOP), a member of the ESMO chest tumours faculty, is on the education and fellowship committees of the International Association for the Study of Lung Cancer (IASLC) and on the board of the Thoracic Alliance for Cancer Trials (TACT). He is co-chair of the advanced lung cancer sub-committee of the Australian Lung cancer Trials Group (ALTG), Medical Oncology Group of Australasia (MOGA), Australian Genomics Health Alliance (AGHA) cancer flagship and Queensland Genomcis Health Alliance (QGHA. Prof O'Byrne has been involved in over 200 Clinical Trials in his career including designing investigator-initiated, grant-funded Phase II and III studies. He has established collaborative studies and networks for biomarker detection and validation and has been involved in biomarker driven clinical trials including the LUX-Lung (Boehringer-Ingelheim), checkpoint immunotherapy (BMS, MSD) and the ETOP programs. He is clinical lead for the 'Cancer and Ageing Research Program' at PAH-QUT-TRI, his research including biomarker identification in solid and liquid biopsies, and drug resistance linked to cancer 'stemness' and genomic instability. He has published over 300 peer-reviewed manuscripts and has recently patented novel anti-cancer therapeutics (Australian Provisional Patent Number 2015905380) and predictive biomarker tests (Australian Provisional Patent Number 2016903623 & 2016269564). He and his collaborators have successfully applied for NHMRC, CCA, CCQ, Advance Queensland, Queensland Genomics, Prostate Cancer Foundation Australia (PCFA) and Movember, as well as local, grants in Australia.