

# Hematology and Oncology

August 23-24, 2018 | London, UK

## Hematopoietic toxicity and blood diseases induced by benzene exposure

**Cheng Peng**

The University of Queensland, Australia

**B**enzene is a representative compound of volatile organic compounds (VOCs). As an organic solvent, benzene has been widely used in various areas such as rubber, plastic, and petroleum industries. Contamination of benzene may not only occur in occupational settings but also in general environment since it is a component in petrol, paints and cigarette smoke. People are exposed to benzene mainly through inhalation but digestion and dermal contact may also lead to benzene exposure. Notably, benzene is an established environmental leukemogen that can causes haematological

malignancies and has been classified as Group 1 carcinogen by IARC. Although the toxicity and health effect of benzene have been extensively studied and documented, the exact mechanisms of these effects remain to be fully addressed. This talk will discuss recent progress and gaps in the benzene metabolism as well as the genetic and epigenetic effects of its metabolites leading to benzene-induced hemotopoietic toxicity and blood disorders, particularly acute myeloid leukaemia.

e: [c.peng@uq.edu.au](mailto:c.peng@uq.edu.au)