



# 11th International Seminar on Medical Physics (ISMP) 2019



## ASSOCIATE PROFESSOR DR CHAI HONG YEONG

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### Biography

Dr. Yeong is a medical physicist, a radiation protection officer and an Associate Professor at the Taylor's University. She is one of the few medical physicists in Malaysia who completed the IAEA Clinical Training of Medical Physicists Specialising in Diagnostic Radiology (DRMP). Dr. Yeong is currently chairing the Professional Relations Committee of the Asia-Oceania Federation of Organizations for Medical Physics (AFOMP) and a Web Sub-committee (Newsletter) of the International Organization for Medical Physics (IOMP). She is also an EXCO member of the South-East Asia Federation of Organizations for Medical Physics (SEAFOMP), a founding member of the ASEAN College of Medical Physics (ACOMP), and Treasurer of the Medical Physics Division, Institute of Physics Malaysia. Dr Yeong is currently leading the Non-Communicable Diseases research group at the Taylor's University. Her research areas mainly focus on theranostics, imaged-guided minimally invasive cancer therapies, pharmacoscintigraphy, 3D printing in medicine, radiomics as well as radiation protection and optimization. Her researches have won several local and international awards including the Certificate of Merit awarded by the European Society of Radiology in 2012, being the first Malaysian received such prestigious award. She currently has two patents registered to her name. Dr. Yeong has published extensively in academic journals, proceedings, academic books and book chapters. She has been constantly invited to talk at numerous local and international conferences. She also serves as a reviewer for several international renowned journals.

### Title: Age of Precision Oncology: Challenges and Opportunities

#### Abstract

In 2015, the President of the United States, Mr. Barack Obama announced a research initiative that aims to accelerate progress towards precision medicine. The mission is to enable a new era of medicine through research, technology and policies that empower patients, researchers and providers to work together toward development of individualized treatments. The concept of precision medicine is not new, but the prospect of applying this concept has been dramatically improved by the multidisciplinary efforts in omics studies (eg. genomics, proteomics, metabolomics), molecular imaging, functional imaging, anatomical imaging, as well as big data analysis (computing). Cancers are the leading causes of death worldwide and the incidence increases as the population ages. It is therefore a primary target in precision medicine to show near-term impact. The branch of precision medicine that relates to cancer treatment is referred to as "precision oncology". This talk aims to share some updates on personalized cancer treatment, with the focus on targeted therapies, theranostics (therapy + diagnostics) and radioimmunotherapy. We encourage researchers from multi disciplines to attend and contribute their ideas in cancer research.