

06 APR
2023Thursday
LECTURE*

10.00am - 11.00am



Using Spatial Biology & Advanced Image Analysis Solutions to decipher tumour microenvironment and the drivers of cancer progression by Mass Spectrometry Imaging (MSI) and Imaging Mass Cytometry (IMC)

ABSTRACT

Imaging technologies have become a key aspect of the pharmaceutical research & development process to understand the complexity of biological events happening within tissue. The growth of spatial-omics is giving access to transcriptomic, proteomic and metabolomic data in a single tissue slice. At AstraZeneca, we're integrating those data with gold standard histological methods to generate a holistic understanding of drug action using Mass Spectrometry Imaging (MSI) and Imaging Mass Cytometry (IMC). The integration of both technologies is playing a pivotal role in modern drug development by providing Pharmacokinetics (PK), Pharmacodynamics (PD), safety and target engagement (TE) information, crucial for decision making. This presentation will showcase different examples of application dealing with cancer research to describe how MSI & IMC are in the centre of the development of spatial biology when integrated with other imaging and omics approaches. Thus, differences in tissue beyond pathology can be detected informing about the tumour biology and metabolism in greater details and provide the true measurement of heterogeneity and comparative response to drug in tissues.



SPEAKER

Dr Gregory Hamm

Imaging and Data Analytics, Clinical Pharmacology & Safety Sciences, R&D, AstraZeneca, UK

HOST:

Department of Cancer Research (LIH)

RESPONSIBLE SCIENTIST:

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*Please note that registration is mandatory by sending an email to siu-thinh.ho@lih.lu

Location:

LIH - Edison
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