

1 FEBRUARY AT 11.30 A.M.
ROOM B109 | POVO 2

CIBIO
EXTERNAL
seminar

A SECOND-GENERATION OF GENETIC-VULNERABILITY-MAPS IN CANCER CELLS

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“ In the pursuit of systematically identifying new therapeutic targets for cancer, various approaches have been explored in pre-clinical drug discovery. Some of these approaches involve large-scale chemical or functional-genomics screens of extensively characterised human cancer cell lines (CLs), with a focus on correlating molecular features - often cancer driver (epi)genomic events - with drug sensitivity and vulnerabilities.

These efforts have generated extensive public datasets encompassing thousands of CLs, their comprehensive characterisations, and responses to individual gene inactivation through CRISPR-Cas9 genome editing. This has laid the groundwork for the collaborative **Cancer Dependency Map project**, aiming to **catalog all intra-cellular cancer dependencies**, i.e., genes essential for cancer cell survival.

This endeavour has led to the **identification of drug response markers, synthetic lethality cases, and genome-scale prioritisation of novel therapeutic targets**. I will introduce our recent contributions in this field, including dedicated computational tools, a second generation of prioritised **cancer therapeutic targets**, and new data modalities shaping the future of **cancer dependency maps**. ”



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