EX-VIVO CULTURE OF LUNG CANCER DERIVED CIRCULATING TUMOUR CELLS FOR PRECISION MEDICINE

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BACKGROUND

CTCs as prognostic biomarkers in lung cancer

- CTCs are prospective drivers of metastasis, with approximately 90% of cancer related deaths due to metastatic disease6
- Non-invasive techniques such as "liquid biopsies" through a simple blood draw to undertake further investigation into the pathogenesis of cancer metastasis, provides potential to facilitate the early diagnosis of cancer and valuable insights into tumour heterogeneity9

METHODOLOGv

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RESULTS

CTCs were detected in 74% of patients using a spiral microfluidic chip

- RosetteSep isolated CTCs successfully generated short term cultures in a clinically relevant time period

- Whole Exome sequencing of CTC and white blood cells (as germline control) confirmed the presence of somatic mutations in the CTC culture with mutational signatures consistent with NSCLC

REFERENCES

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2. Ellis PM et al., J Thorac Dis 2011
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