Lung cancer continues to be the most frequent cause of cancer-related deaths worldwide. Our Unit focuses on the study of lung cancer, from fundamental research proposals to other more clinically oriented ones, always aiming to solve the problems of lung cancer patients. We are particularly interested in 2 research areas: (i) the identification of new molecular biomarkers for diagnostic, prognostic and predictive purposes; and (ii) the development of novel treatment strategies, including targeted therapies and immunotherapeutics. For example, we have contributed to elucidating the molecular determinants of EGFR or FGFR oncogenicity and have discovered biomarkers that may guide the efficacy of inhibitors of those receptors in lung cancer. We have developed an extensive platform of patient-derived xenografts of non-small-cell lung cancers to test new therapeutic strategies. Finally, our Unit has extensive experience in taking new drugs to the clinic, as well as in conducting practice-changing phase II/III trials in the fields of personalised cancer care and immuno-oncology.

“Our Unit has significantly contributed to the development of novel biomarkers that have impacted the currently available selection of targeted therapies (e.g. EGFR mutation in the clinic) and novel immunotherapeutics (e.g. tumour mutational burden). We have led randomised clinical trials with novel agents as well as combinations of targeted therapies (e.g. Ramucirumab plus Erlotinib) or checkpoint inhibitors (e.g. chemotherapy plus Pembrolizumab or Nivolumab plus Ipilimumab) in lung cancer that have impacted clinical practice worldwide.”
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The Lung Cancer Clinical Research Unit has led phase III trials changing standard-of-care treatments in clinical practice.

**Figure 1** (A) Effect of siuimulin on tumour growth of the lung adenocarcinoma PDX model. (B) Effect of FGFR1 mRNA expression in an progression-free survival (PFS) in patients with retribution or gefitinib- treated lung adenocarcinoma, showing that patients with high FGFR1 expression had a shorter PFS period.

**Figure 2** Results of the CheckMate 227 trial, which showed improved overall survival (OS) of durvalumab plus platinum-etoposide, when compared to platinum-etoposide alone, in treatment-naive patients with extensive-stage small-cell lung cancer (SCLC).

**Publications**