Luis Paz-Ares's research focuses on lung cancer and new therapeutic strategies development, both at the lab and clinical sides, and has published more than 414 articles in peer review journals including New England Journal of Medicine, Lancet, Lancet Oncology, Journal of Clinical Oncology and many others.

Lung cancer is a complex group of diseases that encompasses two main histological tumor types, non-small cell lung cancer (NSCLC) and small cell lung cancer (SCLC).

The NSCLC is a paradigmatic example of diversity. There are numerous genomic anomalies that define specific subtypes of lung tumors with diverse biological behavior. Some of them are subsidiaries of specific treatments, and the administration of treatments aimed at subgroups of tumors that share these alterations has had a substantial impact on the survival of these patients.

In particular, in advanced CNMP patients who harbor activating mutations in the kinase domain of EGFR, or those with translocations of ALK or ROS1, drugs that inhibit these kinases have shown a significant increase in response rates and survival compared to chemotherapy, being currently therapies of choice in these tumors.

However, several factors make it difficult to implement large-scale precision oncology strategies in lung cancer, which is why multidisciplinary research is necessary to diagnose tumor events more quickly and accurately.

Strong in this conviction, Paz-Ares has promoted and led studies where the combination of nanotechnology, genomics and animal models constitute the bases for clinical and translational research in lung cancer.