Background: SPECTAlung is a screening program of the European Organization for the Research and Treatment of Cancer (EORTC) in collaboration with the European Thoracic Oncology Platform (ETOP) for efficient clinical trial access for patients with thoracic tumors. Screening for molecular alteration is center/country dependent, and limited to a small subset of genes. Running clinical trials in small subsets of patients is challenging also because of lack of uniform testing program. SPECTAlung is the first European standardized, quality-assured molecular testing platform for thoracic tumor characterization with the overall goal of giving access to specifically targeted downstream clinical trials.

Trial design: After consenting, existing tumor tissue will be collected, centralized and processed according to defined international quality control standards at Gustave Roussy Biobank (Villejuif, Fr). Next Generation Sequencing (NGS) will be performed at Sanger Institute (Cambridge, UK) where a panel of 360 genes will be analyzed for mutations, rearrangements and gene copy number. Eligible patients will be those having a pathological diagnosis of any thoracic tumor (lung cancer, malignant pleural...