Supplementary

 $Table \ S1 \ {\it The search strategy summary}$

Items	Specification
Date of Search	From 1 st June 2020 to 1 st July 2022
Databases and other sources searched	PubMed and Embase
Search terms used	The bulky literature search was carried out using the following terms: "Rare lung cancer", "Rare lung cancer histologies", "pulmonary sarcomatoid carcinoma", "adenosquamous lung cancer", "primary salivary gland-type lung tumor", "NUT carcinoma", "WHO 2021 classification lung cancer", "SMARCA4-deficient thoracic tumor", Most MeSH terms were not available due to rarity of these cancer histologies
Timeframe	Scientific articles published from 1st January 2010 to 1st July 2022 were selected
Inclusion and exclusion criteria	Only texts published in English were selected. No restrictions were applied regarding the type of studies to be selected for this review
Selection process	All authors contributed to the selection process of scientific articles