



Universiteit
Leiden
The Netherlands

Diagnostic challenges of today's lung cancer pathology: personalizing therapy by immunohistochemical and molecular biomarkers

Hondelink, L.M.

Citation

Hondelink, L. M. (2023, November 8). *Diagnostic challenges of today's lung cancer pathology: personalizing therapy by immunohistochemical and molecular biomarkers*. Retrieved from <https://hdl.handle.net/1887/3656465>

Version: Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/3656465>

Note: To cite this publication please use the final published version (if applicable).

Stellingen behorende bij het proefschrift getiteld 'Diagnostic challenges of today's lung cancer pathology: Personalizing therapy by immunohistochemical and molecular biomarkers'

- 1 Programmed death ligand 1 immunohistochemistry is a problematic biomarker for immunotherapy response. (this thesis)
- 2 Lung cancer in never smokers should be seen as a distinct entity, and a different molecular testing sequence should be used for never-smokers. (this thesis)
- 3 There is no place for pan-TRK and ROS1 immunohistochemistry in the NSCLC workup. (this thesis)
- 4 Targeted hotspot DNA NGS can never stand alone to identify HER2 and MET amplifications in the EGFR TKI acquired resistance setting. (this thesis)
- 5 Cell free DNA sequencing can replace part of the molecular diagnostics for NSCLC.
- 6 In treatment resistance management and prediction, the model of tumor evolution should be the central hypothesis.
- 7 Novel methods, including artificial intelligence, methylation, tumor-immune microenvironment profiling and RNA expression are promising potential new biomarkers for both prognostication and therapy selection in NSCLC.
- 8 Similar to the pan-cancer treatment indication for NTRK-rearranged stage IV tumors, a target-specific approach should be considered for other mutations.
- 9 The best treatment for NSCLC is prevention; more (societal and scientific) effort should go into smoking eradication and prevention.
- 10 Similar to the tobacco industry, scientists and universities should cut ties with the fossil fuel industry.