Editor's Note:
The 18th World Conference of Lung Cancer (WCLC), hosted by International Association for the Study of Lung Cancer (IASLC), was held from October 15th–18th in Yokohama, Japan. We were honored to have an interview with Dr. Mari Mino-Kenudson.

Meet the Professor

Dr. Mari Mino-Kenudson: challenges and future developments in the field of biopsy

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Expert Introduction

Dr. Mino-Kenudson (*Figure 1*) is Associate Professor of Pathology at Harvard Medical School. She and her team have described the morphology of molecularly annotated and/or biologically aggressive lung adenocarcinomas. They were the first group to report the signet ring cell morphology associated with anaplastic lymphoma kinase (ALK) rearranged lung adenocarcinoma, as well as tumor islands, which associate with KRAS mutations and unfavorable patient outcomes, and are now considered to represent airspace invasion. She and her collaborators have also been actively investigating resistant mechanisms for epidermal growth factor receptor (EGFR) and ALK tyrosin kinase inhibitors that will aid in identifying appropriate treatment for those patients after development of resistance to the inhibitors. She has contributed to the 2015 WHO classification of lung tumours and is a member of the Pathology Panel of the International Association for the Study of Lung Cancer (IASLC).

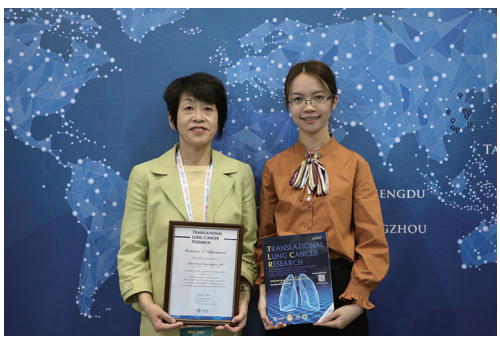

Figure 1 Dr. Mari Mino-Kenudson and our Science Editor Macy on WCLC held in Yokohama, Japan in October, 2017.

Interview (*Figure 2*)

Dr. Mari Mino-Kenudson delivered a speech on the topic "*Appropriate and Optimized Handling of Biopsy or Cytology Specimens*" during WCLC. Dr. Mino-Kenudson's sharing in our interview may be able to facilitate histologic subtyping and biomarker analyses using biopsy and cytology

Figure 2 Dr. Mari Mino-Kenudson: challenges and future developments in the field of biopsy (1).
Available online: http://www.asvide.com/articles/1901

specimens.

Dr. Mino-Kenudson is a professional and seasoned pathologist. She emphasized that personalized medicine for lung cancer patients required multiple tests, which combined with the generally small size of samples brought a complex situation to the pathology fields nowadays. For example, pathologists have to do appropriate histology subtyping for histology-oriented therapy, and molecular testing to detect driver mutations, and PD-L1 immunohistochemistry to select patients for immunotherapy. So it is of great importance to minimize tissue waste to conduct as many tests as possible.

Another challenge, as Dr. Mino-Kenudson brought up, was that some pathologists do not understand the importance of multiple tests that are required for advanced non-small cell lung cancer (NSCLC) patients. These pathologists include practice pathologists, i.e., non-academic pathologists, and pathologists not specializing in lung cancer.

"Appropriate tests influence the fate of patients," said Dr. Mino-Kenudson. If the patient is diagnosed to have an EGFR mutation, then the patient will be treated with an EGFR-TKI. If the patient is diagnosed to have increased PD-L1 expression (in ≥50% of the tumor cells), then the patient will be treated with pembrolizumab as a fast line therapy, "We should not miss the opportunity to provide patients with effective treatments."

Dr. Mino-Kenudson also shared her opinions on what we could expect from future developments. There is the development of liquid biopsy nowadays. Currently, the sensitivity of the plasma-based tests is not satisfactory. Yet in terms of biomarkers, such as mutations, even fusions, we may be able to detect them using next generation sequencing applied to the liquid biopsy. "At every single moment, technology is advancing," Dr. Mino-Kenudson believed that liquid biopsy could be widely applied for multiple tests and patients would significantly benefit from it in the near future.

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None.

Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

References

1. Li G, Liu M. Dr. Mari Mino-Kenudson: challenges and future developments in the field of biopsy. Asvide 2017;4:579. Available online: http://www.asvide.com/articles/1901

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