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ADVANCED UNDERSTANDING OF THE TUMOR MICROENVIRONMENT WITH MULTIPLEX ANALYSIS: AN AUTOMATED 7-COLOR MULTIPLEX ASSAY USING AKOYA'S OPAL TECHNOLOGY

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Background Immunotherapy and precision medicine are rapidly developing approaches to cancer therapy. Biomarkers that detect the tumor and tumor microenvironment allow for the development of strategies that accelerate the development of treatments that enhance a patient's immune system. Akoya's MOTiF™ PD-1/PD-L1 Panel is a validated, multiplex immunoassay enabling detection of the 6 most clinically relevant immuno-oncology and spatial markers: PD-1, PD-L1, FoxP3, CD8, CD68, and PanCK. This panel provides unparalleled quantitative data for pre-clinical and translational IO research.

Methods The MOTiF™ PD-1/PD-L1 Panel was used to stain normal and tumor lung tissues. Stained slides were analyzed using the InForm® and Visiopharm® image analysis platforms.

Results We introduce the workflow and image analysis solutions using InForm® and Visiopharm® software to provide robust, quantifiable data.

Conclusions This data provides insight into the innate and adaptive immune environment for targeted design of new immunotherapies. These new targeted immunotherapies could potentially improve efficacy and reduce toxicity.

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