#### **Ultivue InSituPlex® Advantages**



Pre-optimized off the shelf panels
Single cells phenotyping assays for immuno-oncology applications



Whole-slide imaging of more biomarkers
One-day staining to data workflow for up to 8 biomarkers
stained on a single tissue slide



Custom and FlexVUE kits with rapid turn around time Modular platform to pick and mix your markers to develop an optimized custom panel including novel or proprietary markers in 8-13 weeks



Preservation of tissue architecture and cellular morphology Non-destructive chemistry allowing H&E staining on the same slide



Multi-indication applicable
One optimized multiplex panel for plug-and-play use across
multiple tumor indications



#### Multiplex Made Simple - same day staining to result



#### Staining

5.5 hours, manually or automated

# Whole Slide Imaging 15 minutes or less per slide

Image Analysis
Ultivue Custom Solutions
or User Preference

ZEISS Axio Scan.Z1 — Akoya Biosciences Polaris — Olympus VS-120/200



Leica BOND RX Leica BOND RXM



Hamamatsu NanoZoomer S60 - Leica Aperio VERSA — 3DHISTECH P250 — RareCyte CyteFinder HT



Ultivue Custom Solutions— Indica Labs – VisioPharm



#### Multiplex Made Simple - Same Day Staining to Results



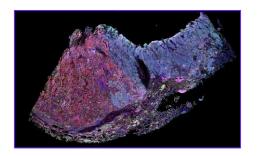
- Fully pre-optimized
- Minimal reagents
- Simple and clearly labeled and color coded
- Standardized protocols
- Consistent reagent calculations/dilutions



# **Ultivue Technology**



### **High Resolution Cellular Phenotyping**



**Antigen-presenting M1 macrophages** 







Immunosuppressive M2 macrophages





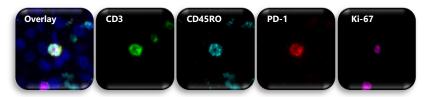




Naïve regulatory T cells



**Proliferating exhausted memory T cells** 

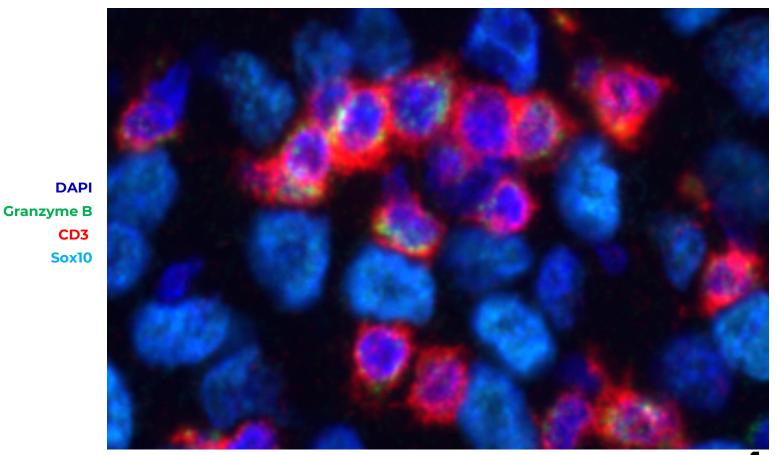


**Exhausted memory cytotoxic T cells** 

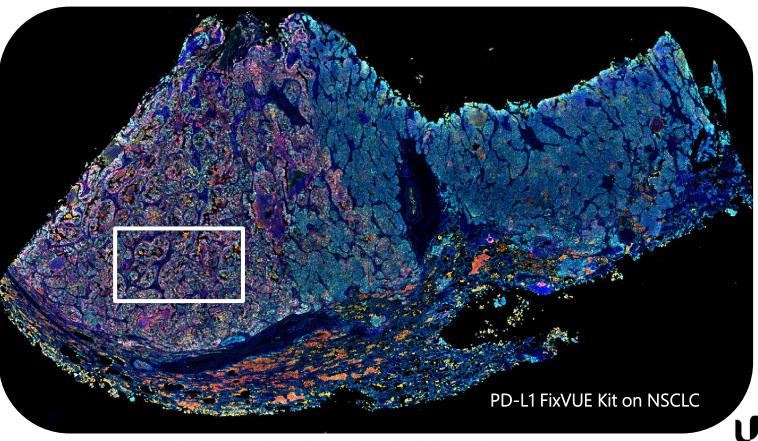




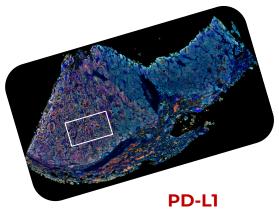
#### Cytotoxic T-Cell Mediated Melanoma Tumor Cell Death







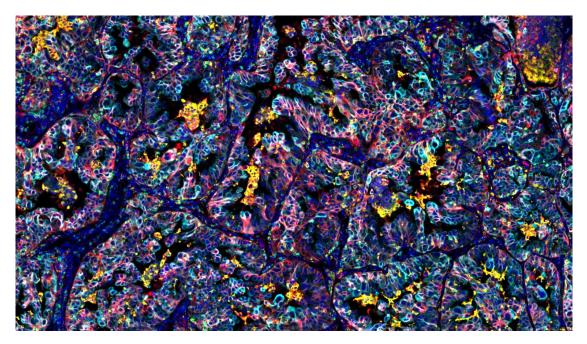
CD8
PD-L1
CD68
CK

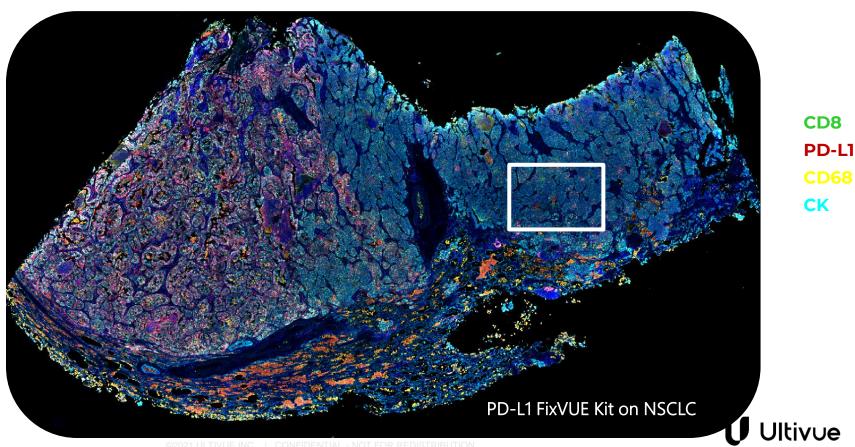


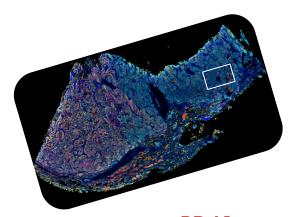
**CK tumor cells** 

**CD8 T cells** 

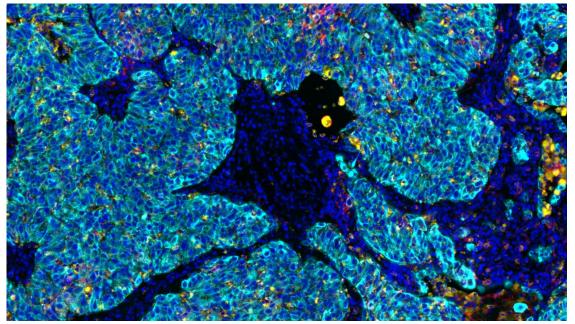
PDL1+ tumor cells







PD-L1
CD68
(macrophages)
CK tumor cells
CD8 T cells



# InSituPlex® (ISP) Overview

**SINGLE SINGLE** SINGLE ANTIGEN **SINGLE AMPLIFICATION STEP STAINING STEP DETECTION STEP RETRIEVAL** Mixture of Mixture of DNAfluorescent barcoded antibodies probes Increases the number of Incubate sample Complementary Dewax and retrieve samples with a mixture of binding sites for the fluorescent DNA DNA barcoded complimentary probe probes hybridize to strands to bind antibodies targets

Samples are ready to be imaged



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