

# True precision medicine through single-cell science

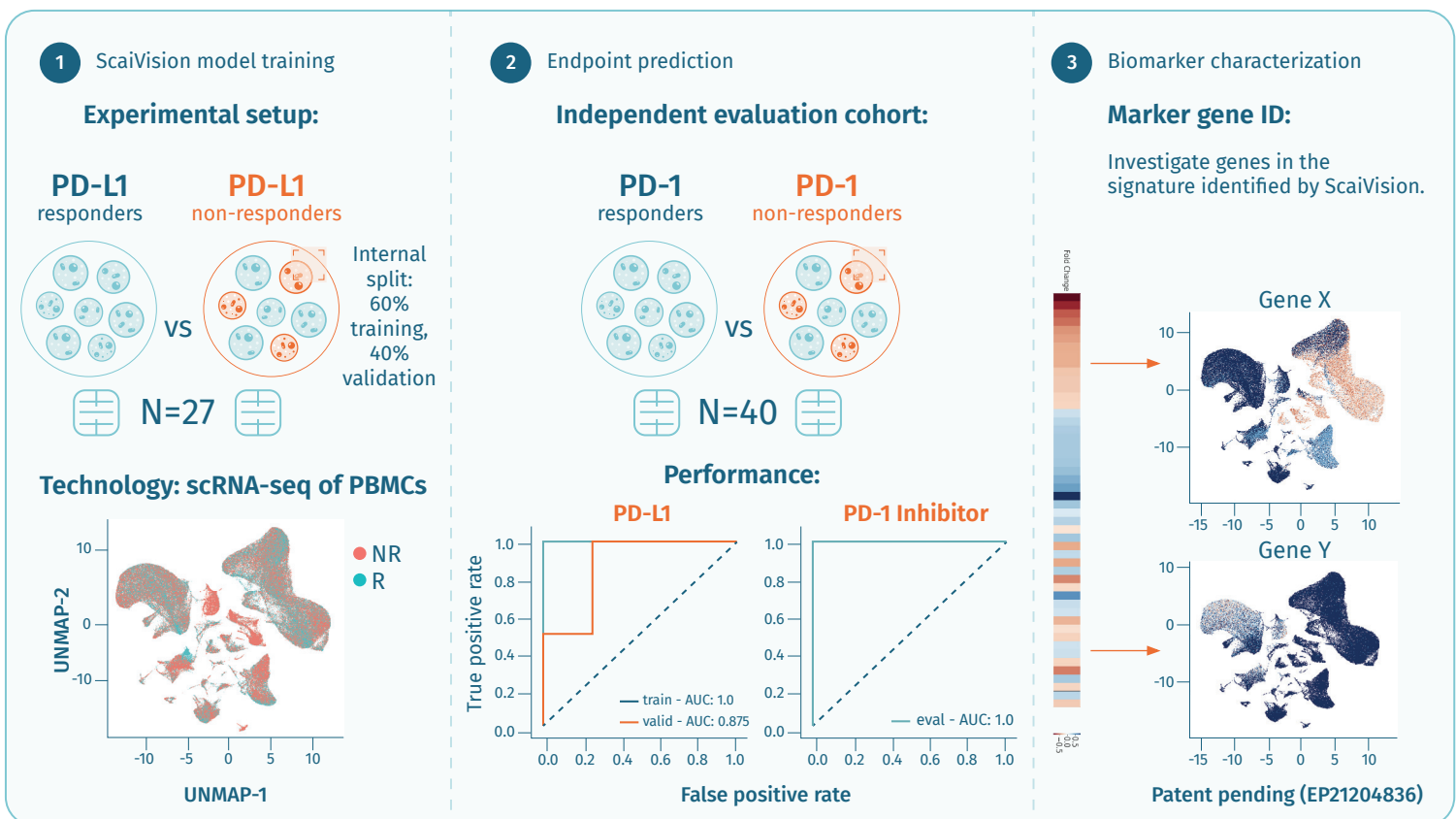
## Generating clinically relevant insights from single-cell data

### Discovery pipeline

Together with our clinical and industry partners, Scailyte has discovered biomarker signatures in several disease areas.

Indication	Clinical question	Technology	Tissue	# patients	Outcome and Status
Sezary Syndrome (CTCL)	Diagnosis of CTCL	CytoF	PBMCs	93	0.98 AUC; patent filed (EP19219889) Flow-cytometry antibody panel prototype
Endometriosis	Diagnosis of endometriosis	scRNA-seq	PBMCs	102	0.9 AUC; patent filed (EP21204845) Clinical validation and assay development
		scRNA-seq	Endometrium	74	0.9 AUC; patent filed (EP21204856) Clinical validation and assay development
Covid19 / ARDS	Prediction of ARDS development in Covid19-patients	CytoF	PBMCs Clinical data	54	0.95 - 1.0 AUC Roussel et al., Cell Reports Medicine 2021
Non-Small Cell Lung Cancer (NSCLC)	Prediction of immunotherapy response	scRNA-seq	PBMCs	67	0.9-1.0 AUC; patent filed (EP21204836) Clinical validation and assay development
DLBCL (CAR-T Cells)	Prediction of therapy response and toxicity	scRNA-seq	Infusion cell product	23	0.8 AUC efficacy prediction 1.0 AUC toxicity prediction
Solid tumors (tg T cells)	Prediction of therapy response	scRNA-seq	Infusion cell product	14	Correlation of $r = 0.75$ with measured response Service project

### ScaiVision predicts ICI response at baseline in metastatic NSCLC

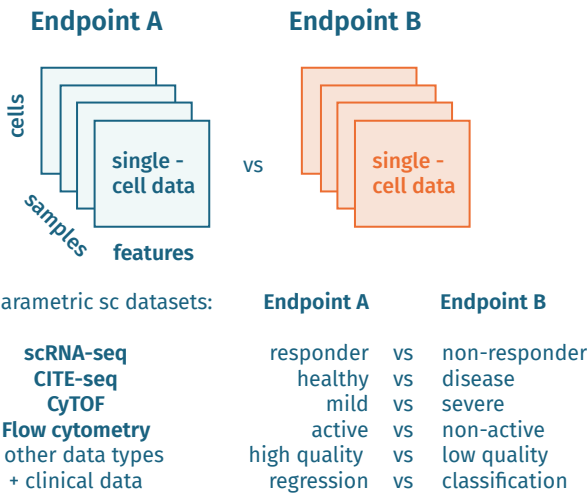


\*ICI: immune checkpoint inhibitor

# ScaiVision AI platform: project workflow to facilitate IO drug development

## INPUT

1



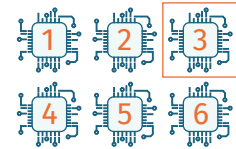
## DATA ANALYSIS

2



Train a network to find endpoint-specific patterns in the data

Validate predictive performance of the models and select one



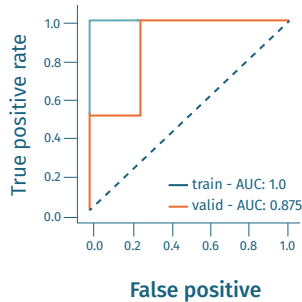
- Cell-type **agnostic** → works across different indications and tissues
- Data augmentation → discoveries from few samples

- Cluster-free → retains **single-cell resolution** → sensitive to rare events
- Shallow AI network → **explainable predictive performance**

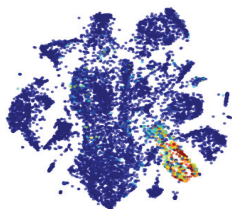
## OUTPUT

3

### Predictive accuracy



### Predictive cell identity



### Consolidated signature

feature 014
feature 021
feature 055
feature 167

Predict endpoints for new samples  
Extract cellular and molecular biomarker profiles

4

### Prototype of routine assay

PCR, Flow Cytometry

