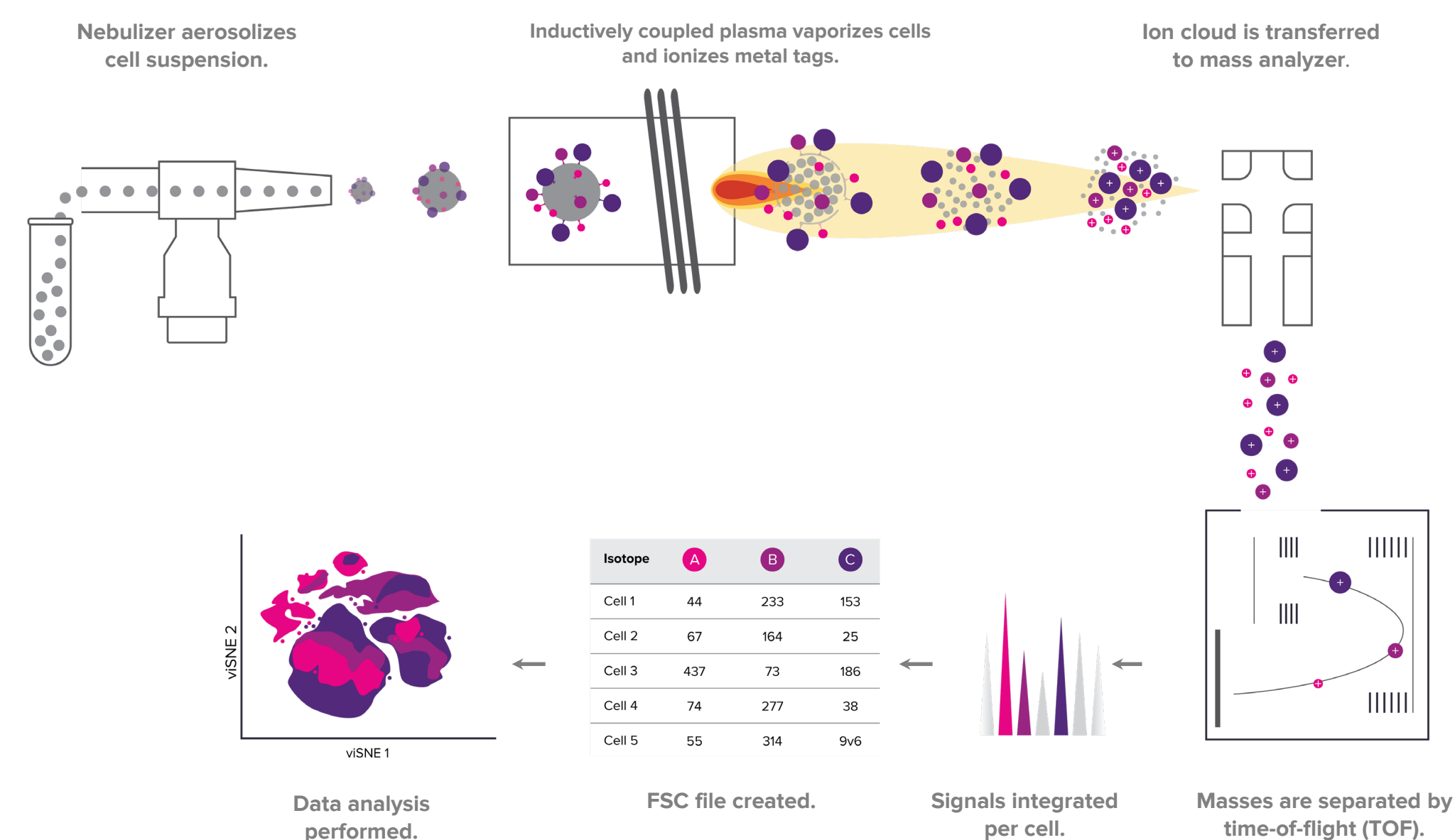


The Maxpar Direct Immune Profiling Assay and Maxpar Pathsetter Analysis

30 markers. 1 tube. 5-minute analysis. 37 populations.

Mass cytometry or cytometry by time-of-flight, based on CyTOF technology

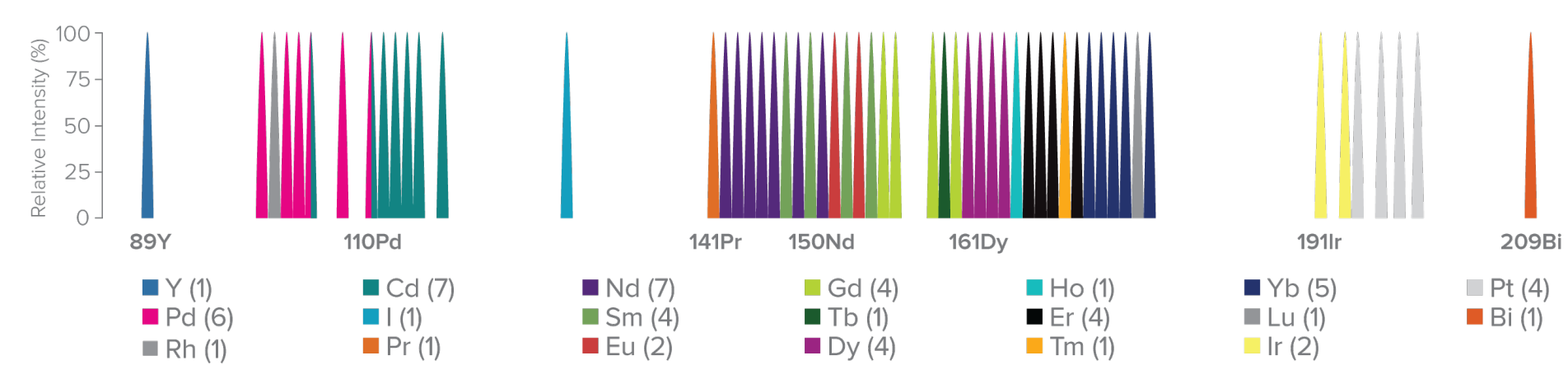
High-level workflow



Helios system workflow

- Cells labeled with metal-tagged antibodies in solution are injected into the nebulizer. They are aerosolized and reduced to single-cell-containing droplets.
- The cells are directed to the ICP torch, where they are vaporized, atomized and ionized in the plasma.
- The high-pass ion optics transfer ions of >75 amu toward the TOF mass analyzer.
- The ions are separated based on their masses and are accelerated to the detector.
- The detector measures the quantity of each isotope for each individual cell in the sample.
- Data is generated in an FCS 3.0 format and analyzed.

Over 50 metal isotopes are commercially available for use in a wide variety of applications.



- >650 antibodies conjugated to 37 different isotopes
- Secondary antibodies to biotin, GFP, FITC, APC, PE as well as mouse, rat and goat immunoglobins
- Viability indicators
- Nucleic acid intercalators
- Barcoding reagents
- 42 isotopes for antibody labeling

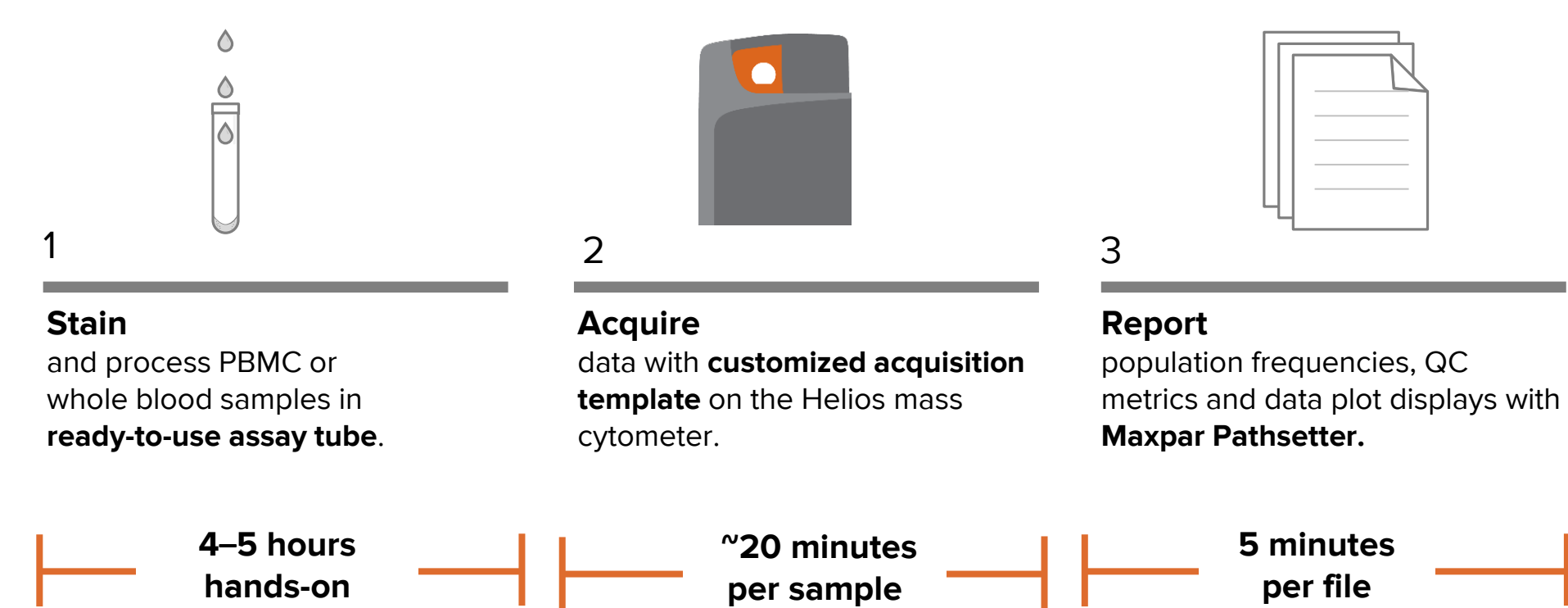
Proven applications

- Phenotyping by cell-surface or intracellular markers
- Signaling and transcriptional protein analysis
- Cytokine production
- Cell death and apoptosis
- Cell cycle analysis
- TCR identification with tetramer technology
- Epigenetic studies
- Biomolecular and enzymatic processes (for example, protein synthesis, metabolism)

The Maxpar Direct Immune Profiling System



High-level workflow

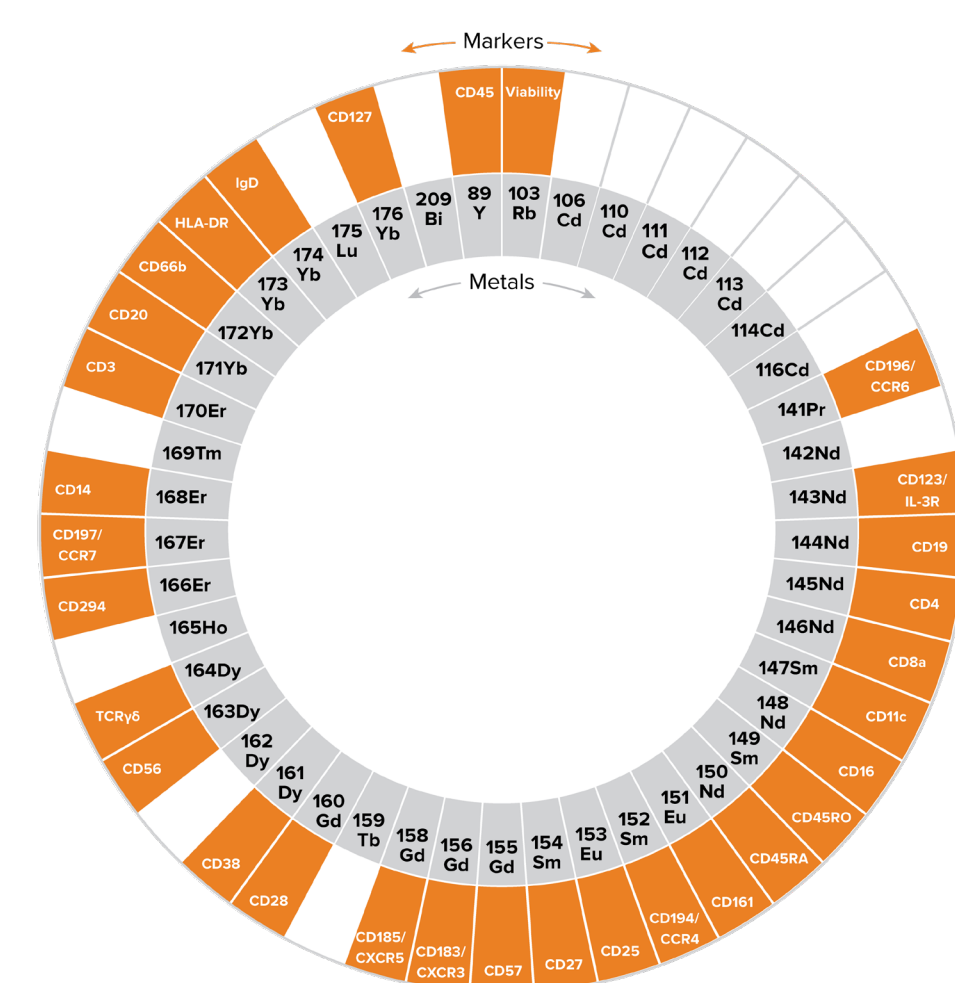


30-marker* panel with clones and metals

Antibody	Clone	Metal	Antibody	Clone	Metal
CD45	HI30	89Y	CD183 (CXCR3)	G025H7	156Gd
Live/dead indicator	N/A	103Rh	CD185 (CXCR5)	J252D4	158Gd
CD196 (CCR6)	G034E3	141Pr	CD28	CD28.2	160Gd
CD123	6H6	143Nd	CD38	HB-7	161Dy
CD19	H1B19	144Nd	CD56 (NCAM)	NCAM16.2	163Dy
CD4	RPA-T4	145Nd	TCRγδ	B1	164Dy
CD8a	RPA-T8	146Nd	CD294	BM16	166Er
CD11c	Bu15	147Sm	CD197 (CCR7)	G043H7	167Er
CD16	3G8	148Nd	CD14	63D3	168Er
CD45RO	UCHL1	149Sm	CD3	UCHT1	170Er
CD45RA	HI100	150Nd	CD20	2H7	171Yb
CD161	HP-3G10	151Eu	CD66b	G10F5	172Yb
CD194 (CCR4)	L291H4	152Sm	HLA-DR	LN3	173Yb
CD25	BC96	153Eu	IgD	IA6-2	174Yb
CD27	O323	154Sm	CD127	A019D5	176Yb
CD57	HCD57	155Gd			

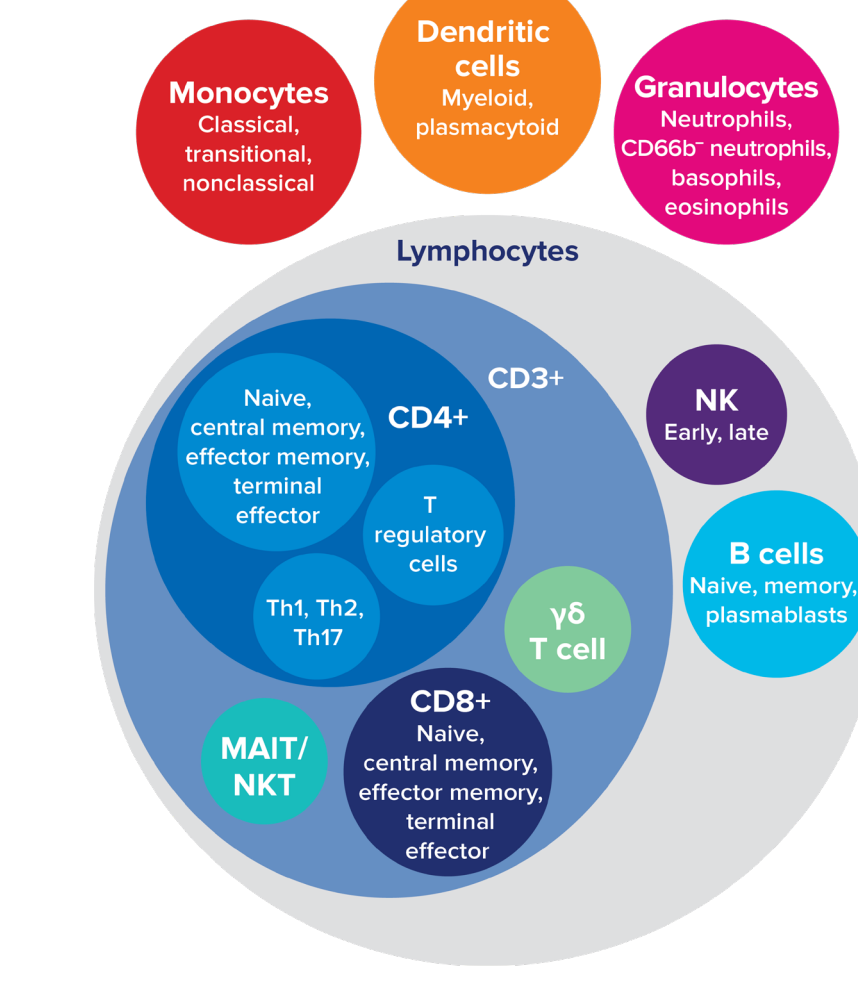
*31 markers including the ¹⁰³Rh live/dead indicator

14 open channels[†] for panel customization



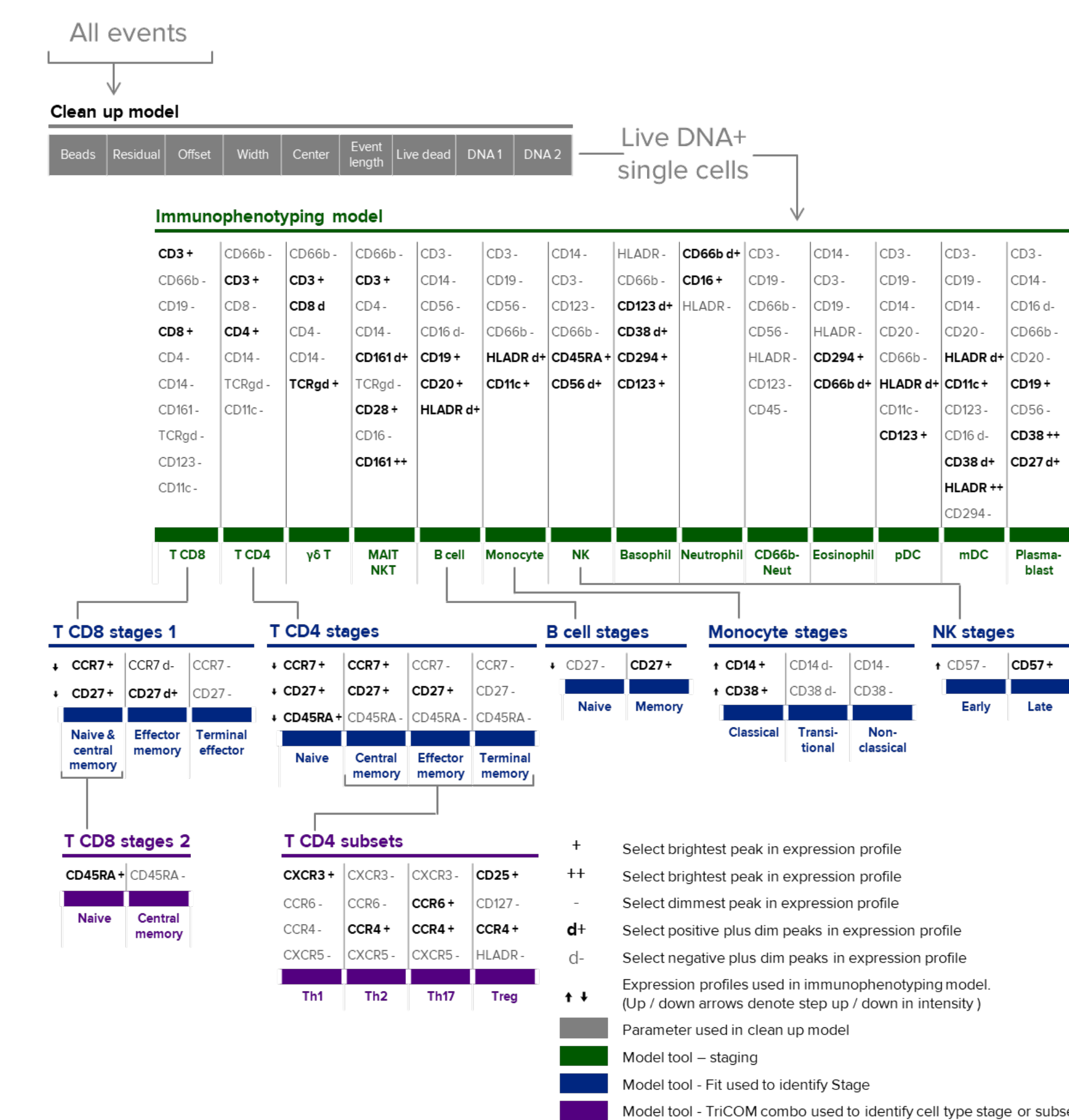
[†]As of October 1, 2019, with addition of 7 cadmium isotopes

37 populations identified and enumerated

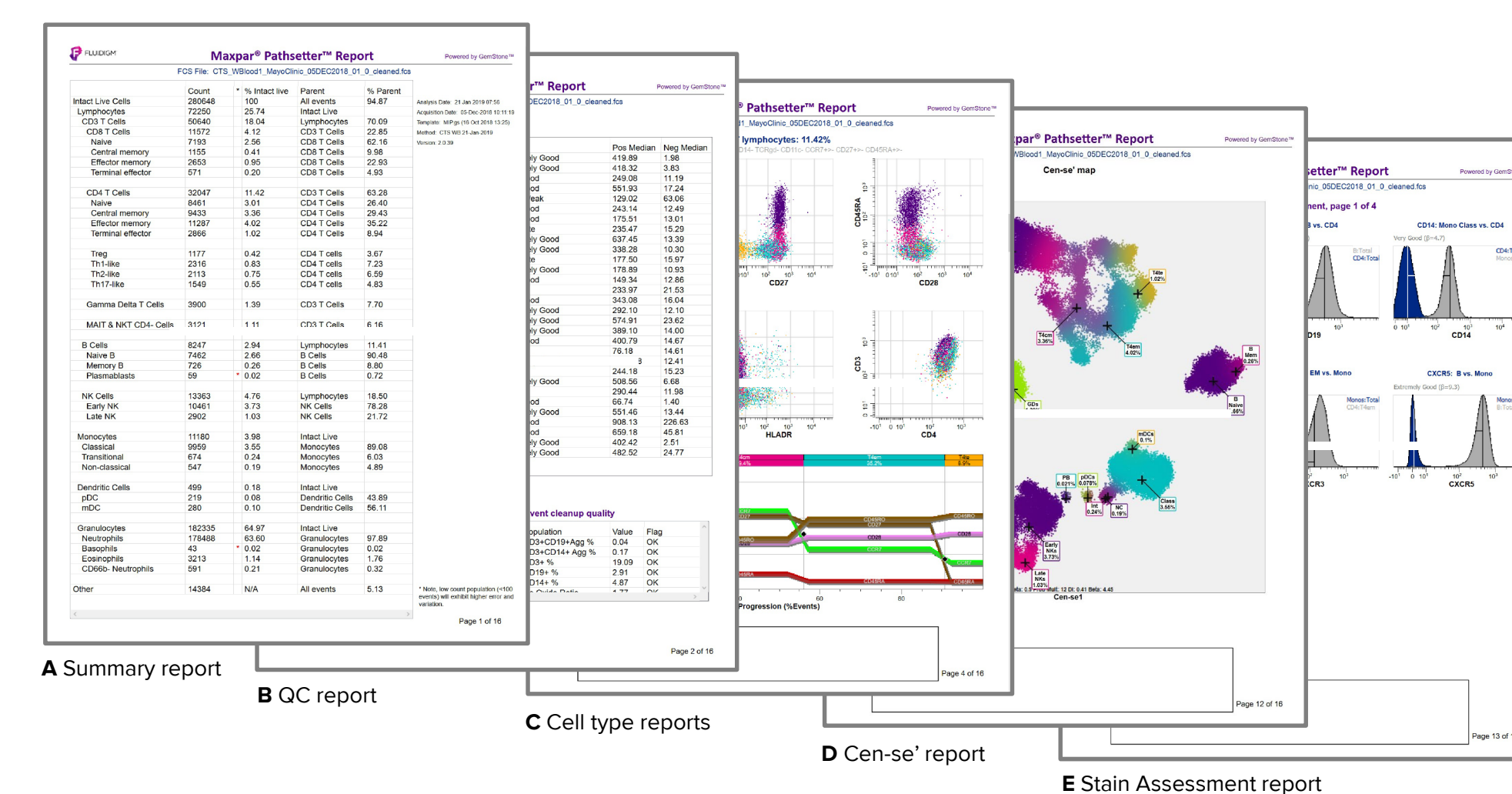
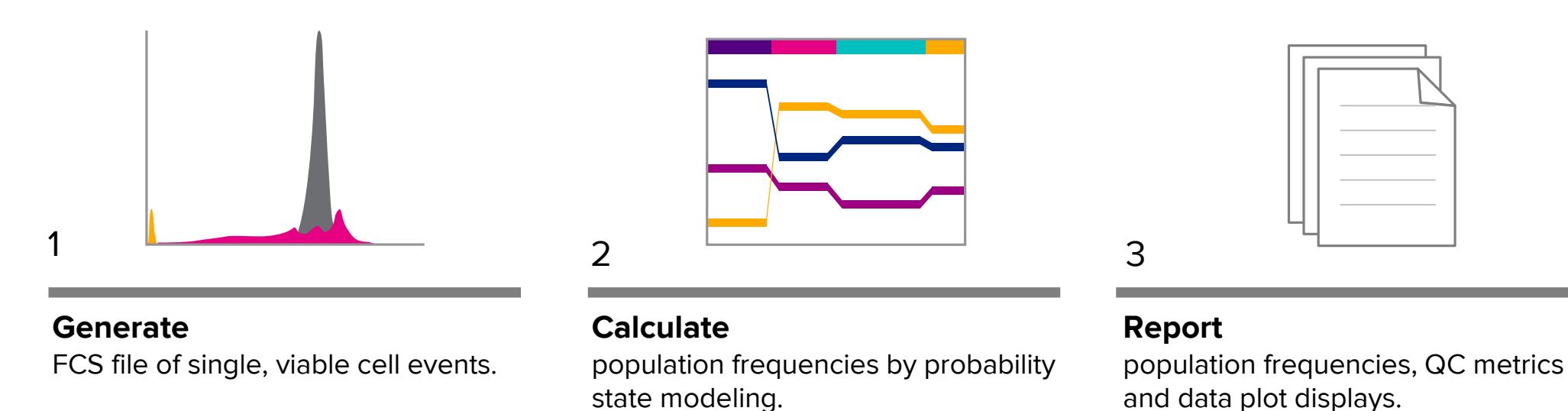


The Maxpar Pathsetter analysis pipeline

Immune cell populations and model definitions



Maxpar Pathsetter analysis workflow



Representative report pages from Maxpar Pathsetter analysis.
(A) summary report showing all population statistics. (B) QC report with stain assessments and QC alerts. (C) Cell type reports with associated plots. (D) Cen-se[™] report with a map of selected populations, color-coded, labeled and quantified. (E) Stain Assessment review reports with histograms for all markers.

Learn more about the Maxpar Direct Immune Profiling System: fluidigm.com/immuneprofile