
Teiko.bio

High-parameter cytometry for clinical trials

Trusted by translational scientists



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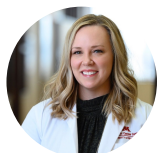
Genentech



Rachel Burga
Principal Scientist, Cell Therapy



OBSIDIAN
THERAPEUTICS



Shernan Holtan
Associate Professor



Your hosts



Kristina Magee
Associate Director,
Lab Operations



Ramji Srinivasan
Cofounder + CEO

What we do

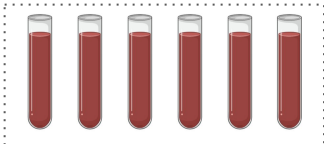
We measure the immune state of patients on trial

Drug customers send us specimens of patients on trial

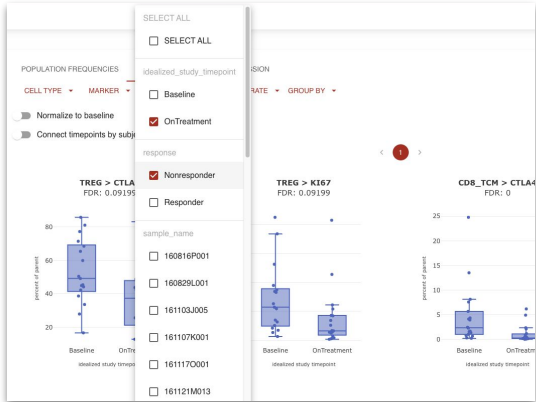
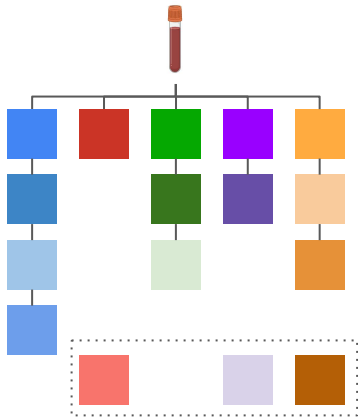
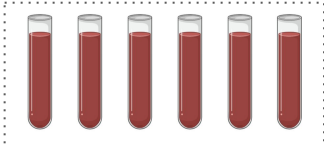
Run on 25-40 markers in our CLIA-registered lab

We run reports showing the immune state

Dose:
0.3 mg / kg



Dose:
1 mg / kg



Starting at \$1,250 per sample

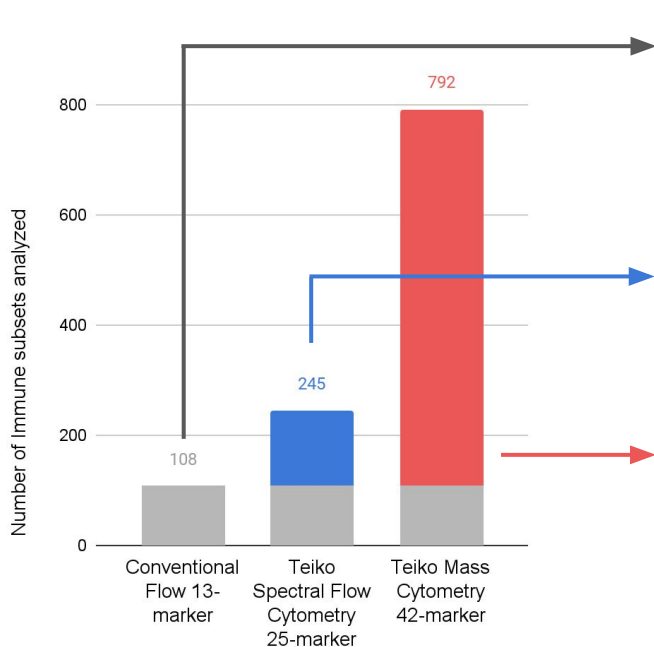
Teiko.bio offers the only **End-to-End Solution**

Teiko.bio

CRO

	Sample Collection	Panel Design	Lab Excellence	High Quality Analysis
	<ul style="list-style-type: none"> ✓ Whole blood (rapid onsite protocol) [Flow validation Q2:24] ✓ Cryopreserved PBMCs 	<ul style="list-style-type: none"> ✓ Validated and customizable immune panels ✓ Detection of 25-40+ proteins 	<ul style="list-style-type: none"> ✓ High-dimensional cytometry experts ✓ Gating strategy design 	<p>Premier</p> <ul style="list-style-type: none"> ✓ Unsupervised clustering <p>Core</p> <ul style="list-style-type: none"> ✓ Gated and statistical analyses <p>Base</p> <ul style="list-style-type: none"> ✓ Online webapp ✓ Access to FCS and GatingML files
		<p>Base: 1.5 - 3 week turnaround time</p> <p>Core: 2.5 - 4 week turnaround time</p> <p>Premier: 3 - 6 week turnaround time</p>		
	<ul style="list-style-type: none"> • Limited or no sample collection support 	<ul style="list-style-type: none"> • Limited or no CLIA-validated panels 	<ul style="list-style-type: none"> • Limited to sample acquisition 	<ul style="list-style-type: none"> • Limited to providing data analysis software

If you only used 13-marker conventional flow...



...you would get this

↑CD4+ naive T cells
↑ CD38+ CD4+ Central Memory T cells

... but miss this

↓CD16+ Natural Killer

... and this

↓TIGIT+ Regulatory T cells
↑ CD39+HLA-DR+ CD8+ Central Memory T cells

...associated with

Clinical Benefit

Response biomarkers

...associated with

Severe irAE
Peak of irAE

Safety biomarkers

13-color flow panel based on translational scientist quotes. Biomarkers based on [JITC 2024](#) article, co-published by Teiko and Dr. Siwen Hu-Lieskovan at the Huntsman Cancer Institute.

Today's webinar: Sample Collection

TokuKit

Contents

TokuKit: two-step whole blood collection kit for immune profiling



TokuKit

- Vacutainer: sodium heparin or EDTA anticoagulant
 - Cell preservative: Stable-Lyse, Stable-Store system (SmartTube)
- After processing, whole blood can be stored on dry ice or at -80C until shipment to Teiko Bio

Before getting started

Confirm access to Protective Equipment and Cold Storage

 Required

- Personal Protective Equipment according to your institution's guidelines
- Dry ice or -80C freezer

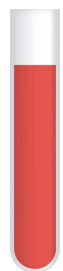
**Now it's
time to
draw!**

**While you
wait**

Teiko's TokuKit: a sample collection solution for the first mile

	PBMCs	Fresh blood	Cyto-chex BCT	Transfix	Teiko's TokuKit
Time to process sample	1.5 hrs	< 1 minute	< 1 minute	< 5 minutes	20 min
Sample stable for	Years	1-3 days	3-14 days depending on panel	3-14 days depending on panel	24 months
Specialty equipment needed	Yes	No	No	No	No
Cell viability	89% (13%-100%)*	75%-90%	> 95%	> 95%	>95%
Granulocyte subsets	No	4	4	4	4
Fragile cell types	No	Maybe	Yes	Yes	Yes
Cost	\$200-\$300	\$8	\$27.40	\$24	\$45
Other considerations	Long-term storage	Long shipping time can lead to cell loss	Advertised as 14 days; but we've found in internal testing that some markers require additional optimization		Easy, fast, consistent

5 hours to start process; 24 months to analyze



"Pre-fixation"

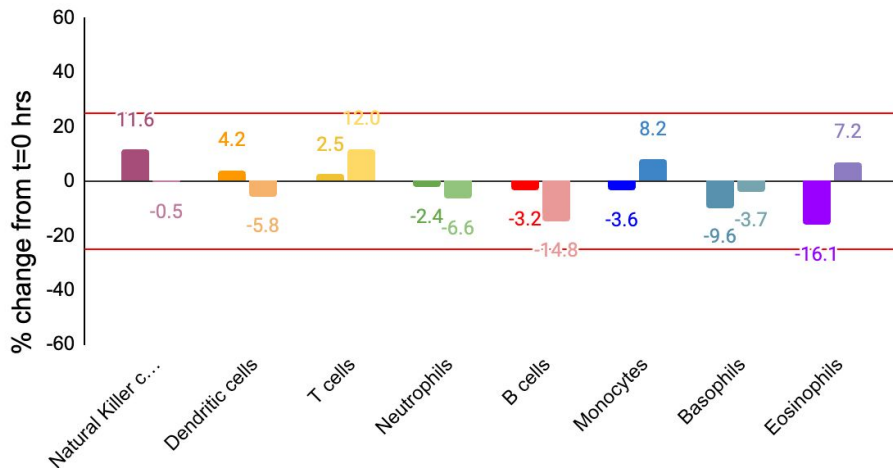


"Post-fixation"



Pre-Fixation Stability by major lineage - EDTA

Pre-Fixation Stability 5 hrs (dark column) and 7 hrs (light column)



5 hours: 34/34 (100%) phenotypes within +/- 25% = **PASS**

7 hours: 34/34 (100%) phenotypes within +/- 25% = **PASS**

9 hours: 34/34 (100%) phenotypes within +/- 25% = **PASS**

27 hours: 30/34 (88.2%) phenotypes within +/- 25% = **FAIL**

Conclusion

EDTA blood samples need to be **processed with the Stable-Lyse Stable-Store TokuKit within 9 hours** to preserve immune cell integrity

Many mass cytometry markers post-fixation stable up to 24 months

Time at -80C (months)

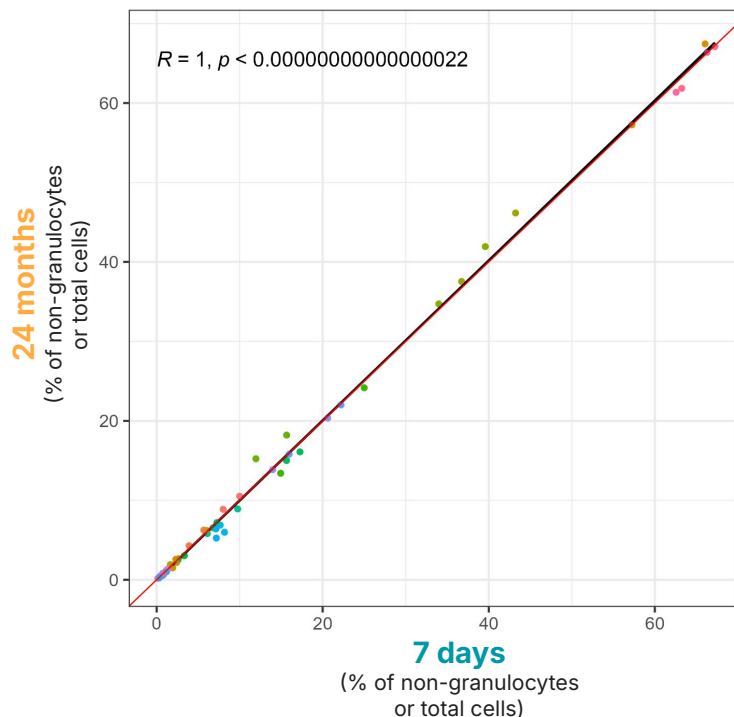
n=2 donors
27 marker base panel
EDTA vacutainer

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
x	x						x				x													x

Accelerated at -30C

X = collected timepoint

High concordance in the frequencies of immune cell populations in fixed whole blood samples processed 1 week after freezing and 24 months later



Red: $y = x$
Black: Best Fit Line

Cell population

- B_CELL
- B_NAIVE
- B_MEM
- T_CELL
- GDT
- NKT
- CD4_T
- CD4_nonTREG
- CD4_TNAIVE
- CD4_TCM
- CD4_TEM
- CD8_T
- CD8_TNAIVE
- CD8_TCM
- CD8_TEM
- CD8_TEMRA
- DNT
- NK
- CD16_NK
- CD56hi_NK
- MONO
- cMONO
- inMONO
- ncMONO
- DC
- cDC
- pDC
- BASOPHIL
- NEUTROPHILS
- GRAN

All of the individual cell populations quantified across the timepoints had a CV < 30%

Data represent the % frequency of each cell population for 2 healthy donors (n = 2) taken at two time points (7 days & 12 months)

The frequencies of 30 cell populations are plotted, with all populations having at least 100 cells quantified.

FAQ

Q&A

**Now, back
to
processing**
