

# Biospecimens Ready for Analysis

Complete your procurement with laboratory services to mitigate risk and maximize efficiency

Human biospecimens are indispensable components of modern drug development, including cell & gene therapy. Analytical measurements and genetics linked to donor health outcomes and demographic information provide invaluable biomarker data informing on disease history, pharmacology, and response to treatment.

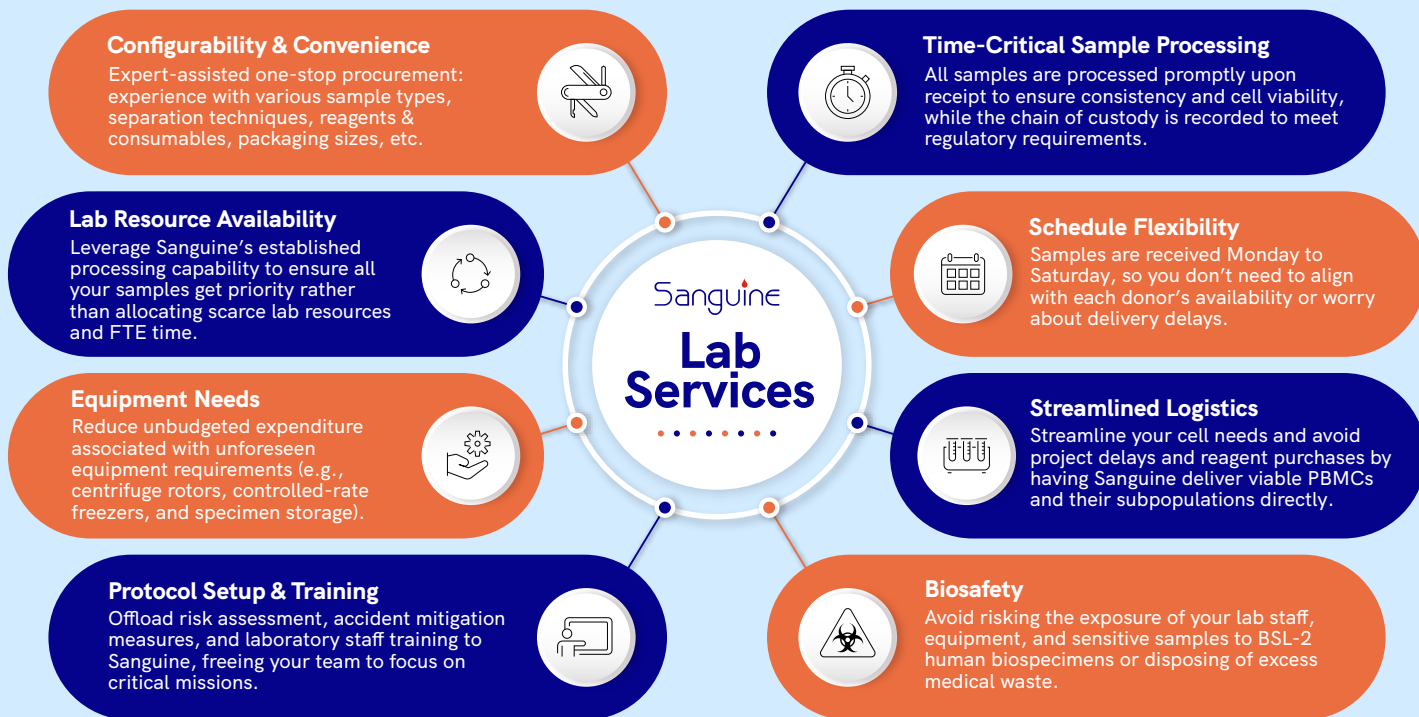
The complex and labile nature of peripheral blood mononuclear cells (PBMCs) and other human samples can limit their research utility when donor information, specimen handling, and downstream processing details are lacking. Inconsistencies in reporting such crucial information introduce uncertainty and variability that

complicate study design and interpretation. Prolonged cryopreservation of PBMCs is further associated with declining cell viability and quality.<sup>1-3</sup>

By working with Sanguine, you can procure research biospecimens with comprehensive collection, processing, shipping, and donor data. Designing prospective studies with Sanguine enables you to eliminate sources of uncertainty and receive specimens according to your research needs. The figure below describes how using Sanguine's Lab Services as an extension of your lab can mitigate risk and maximize efficiency to accelerate drug development.



## Specimen Processing Considerations



## Enhance your biomarker studies with adoptable post-collection services.

Lab Service	Specimens Collected In-Home	Leukopaks
Serum/Plasma Isolation	Available	N/A
PBMC Isolation	5-10M cells / aliquot	25M or 100M cells / aliquot
Lymphocyte (T, B, NK cells) Isolation	5-10M cells / aliquot	25M or 100M cells / aliquot
Other Sample Types	Urine, DNA/RNA; inquire	N/A
200+ Clinical Tests	Inquire	N/A
CBC/Flow Cytometry/HLA Typing	Inquire	Standard
Short-/Long-Term Storage	Appropriate -20°C, -80°C, liquid N <sub>2</sub>	Liquid N <sub>2</sub>
Customizations	Inquire	Inquire

<sup>1</sup>Li *et al.* Comprehensive evaluation of the effects of long-term cryopreservation on peripheral blood mononuclear cells using flow cytometry. *BMC Immunology* (2022)

<sup>2</sup>Ticha *et al.* Effects of long-term cryopreservation of PBMC on recovery of B cell subpopulations. *Journal of Immunological Methods* (2021)

<sup>3</sup>Marino *et al.* Impact of 12-month cryopreservation on endogenous DNA damage in whole blood and isolated mononuclear cells evaluated by the comet assay. *Scientific Reports* (2021)