

PRODUCT CATALOG 2023



AllCells, Serving the Complete Cell and Gene Therapy Continuum

Since its inception in 1998, AllCells has been providing primary cell products to support the cell and gene therapy industry. In 2022, AllCells joined Discovery Life Sciences to expand its capabilities and serve the entire cell and gene therapy continuum — from basic discovery through commercialization. With more than 30 years of collective industry experience, AllCells and Discovery will focus on providing revolutionary products and services with greater speed and reliability.

ALLCELLS' PRODUCTS AND SERVICES

- GMP-compliant products
- Research use only products
- Isolated cell products
- Made-to-order (customized) products and services
- Analytical services

A Single Partner Delivering Speed, Quality & Scale

FROM EARLY RESEARCH THROUGH CLINICAL USE

DISCOVERY

(find the drug/diagnostic targets)

- FFPE
- Matched Biospecimen Sets
- DTCs
- BMMCs

*Reliability, speed
Single-chain of custody*

MULTI-OMIC SERVICES

*applicable throughout development and commercialization

- IHC, mIF, and other pathology services
- 10x single cell, WES, RNA-Seq, WGS, etc.
- Flow Cytometry and FACS
- ADMET products and services including primary hepatocytes

FULL STACK OF SERVICES

- Consultative Cell Services
- Donor Management Services
- Regulatory consultation

THERAPEUTIC DEVELOPMENT & COMMERCIALIZATION

- AllCells/DLS RUO/GMP portfolio of primary tissues
- Immune cell isolations

COMPREHENSIVE
SOLUTIONS





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Product Overview



RESEARCH GRADE

WHOLE TISSUE

MOBILIZED LEUKOPAK

LEUKOPAK

BONE MARROW

CORD BLOOD*

WHOLE BLOOD

ISOLATED CELLS

Hematopoietic Stem
and Progenitor Cells

Peripheral Blood
Mononuclear Cells
(PBMCs)

Lymphocytes
(T Cells, B Cells,
NK Cells)

Hematopoietic Stem
and Progenitor Cells

Hematopoietic Stem
and Progenitor Cells

Granulocytes
(Neutrophils)

Peripheral Blood
Mononuclear Cells
(PBMCs)

Non-cellular
Products (Serum,
Plasma)

**AllCells does not offer whole tissue from Cord Blood*

CLINICAL GRADE

WHOLE TISSUE

MOBILIZED LEUKOPAK

LEUKOPAK

BONE MARROW

AllCells' products are available in fresh, frozen, or cryopreserved formats from healthy human donors.

GMP-compliant

Clinical Grade Products



GMP-compliant
Clean Room



FDA-registered,
AABB Compliance



Extended Virals



Competitive
Pricing

RELIABLE AND TRUSTED GMP SUPPLIER

With over 5 years of GMP expertise and over two decades in the industry, AllCells is your reliable and trusted supplier of high-quality GMP-compliant starting material.

ROBUST AND ASSURED SUPPLY CHAIN

AllCells' highly reliable, recallable, and dedicated clinical grade eligible donor pool and geographically diverse facilities are designed for scalability.

INTEGRATED PROJECT MANAGEMENT

Our collaborative and dedicated GMP team of scientists, quality, donor and project management experts will customize your project, pulling from extensive experience and donor data.

>98% GMP COLLECTIONS DELIVERABILITY

Mitigate the cost of failure with built-in risk reduction steps including infectious disease screening across various time points and parallel donors.



For more information on AllCells' GMP-compliant products and services, please view the GMP Product Portfolio.

GMP Product Portfolio



HIGH QUALITY, CONSISTENT, GMP-COMPLIANT PRODUCTS

Our products undergo stringent quality control to ensure that they meet our high quality standards and minimize sources of variability. All our GMP products are collected from qualified, healthy and consenting donors per IRB-approved protocols and processed in our FDA-registered collection and processing facilities with robust quality systems, meeting all regulatory compliance requirements. All our GMP-compliant products are subjected to an extensive quality review and are provided with supporting extended documentation during batch release.

GMP-COMPLIANT FRESH & CRYOPRESERVED LEUKOPAK

GMP-compliant Leukopaks are collected from healthy human donors using the Spectra Optia Apheresis System directly into ACD-A anticoagulant. GMP Leukopak products are quality controlled for: volume, viability, total nucleated cell (TNC) concentration, and sterility USP <71>. The product is shipped using a validated shipping container.



GMP-COMPLIANT FRESH MOBILIZED LEUKOPAK

GMP-compliant Mobilized Leukopaks are collected from healthy, human donors using the Spectra Optia Apheresis System after the donors have been treated with FDA-approved drugs Neupogen® and Mozobil® to stimulate mobilization of CD34+ hematopoietic stem and progenitor cells from the bone marrow to the peripheral blood. GMP Mobilized Leukopak products are quality controlled for: volume, viability, and sterility USP <71>. The product is shipped using a validated shipping container.



GMP-COMPLIANT CLINICAL GRADE BONE MARROW

GMP-compliant Bone Marrow is collected from healthy, human donors by needle aspiration from the posterior iliac crest with heparin. GMP Bone Marrow products are quality controlled for: volume, viability, total nucleated cell (TNC) concentration, and sterility USP <71>. The product is shipped using a validated shipping container.

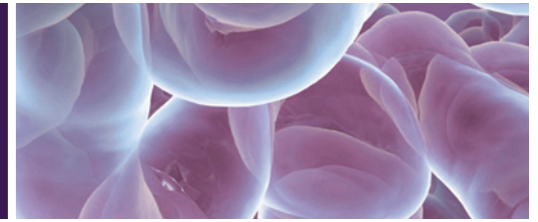
Leukopak

Leukapheresis products are highly enriched in mononuclear cells (MNC) and are a great source for large quantities of leukocytes. Peripheral blood is collected by leukapheresis from healthy and consenting donors using the Spectra Optia® Apheresis System following an IRB-approved protocol. Mononucleated cell-rich blood is continuously collected using ACD-A as an anticoagulant.

During collection, autologous plasma is combined with apheresed cells at a 4:6 ratio. This procedure results in large yields of single-donor MNC, allowing for scalability and reproducibility of experiments. Leukopaks typically contain up to 50% T cells, 20% monocytes, 10% B cells, 10% NK cells, 3% granulocytes, and 3% hematocrit. Actual percentages will vary from donor to donor. All products are quality controlled for viability and are determined using a validated AO/PI protocol. The viability of cryopreserved cell products is determined post-thaw.



Leukopak



APPLICATIONS

Cell-based assays (proliferation, T cell activation, etc.), cell therapy process development, and biomarker discovery.

PRODUCT	FRESH	CRYOPRESERVED
Whole	5B, 10B, Half Pak, Full Pak	2.5-3.0B, Full Pak, Custom
MNC	2B, 4B	10M, 25M, 50M, 100M
CD14+ Monocytes NS	Custom, Bulk	10M, 50M
CD14+ Monocytes PS	Custom, Bulk	10M, 50M
CD19+ B, NS	Custom, Bulk	10M
CD19+ B, PS	Custom, Bulk	10M
CD3+ Pan T, NS	Custom, Bulk	25M
CD4+ Helper T, NS	Custom, Bulk	25M
CD4+/CD45RA Helper T, NS	Custom, Bulk	5M
CD4+/CD45RO+ Memory T, NS	Custom, Bulk	5M
RegT(CD4+CD127lowCD25+), PSNS	Custom, Bulk	1M
CD8+ Cytotoxic T, NS	Custom, Bulk	10M
CD8+ Cytotoxic T, PS	Custom, Bulk	10M
CD8+/CD45RA+ Naïve Cytotoxic, NS	Custom, Bulk	5M
CD56+ NK, NS	Custom, Bulk	5M
CD56+ NK, PS	Custom, Bulk	5M

Cell type, cell selection method, and unit size (by volume or cell count) vary depending on format.

PRODUCT SPECIFICATIONS

Our Leukopak products are offered in fresh or cryopreserved and in different formats:

- Whole Apheresis Tissue
- Mononuclear Cells
- Subpopulations: T Cells, B Cells, NK Cells, and Monocytes



Introducing Cryopreserved Leukopaks

MAINTAIN FLEXIBILITY IN YOUR WORKFLOW WITHOUT COMPROMISING QUALITY

With AllCells' Cryopreserved Leukopaks, you have access to high-quality primary cells whenever you need them without worrying about potential delivery delays that can be associated with fresh cells. When stored properly, cryopreserved leukopaks allow for prolonged storage affording you flexibility in your workflow without compromising on quality.

A key advantage with AllCells' Cryopreserved Leukopaks is that our collection and processing facilities are adjacent to each other. This enables the leukapheresis material to be immediately cryopreserved in CryoStor® CS10 (GMP-grade cryopreservation medium) or any other cryoprotectants that customers require to maintain cell viability between collection and processing events.



HIGH QUALITY CELLS

Superior TNC and cell viability due to on-site processing facilities, which mitigate loss of fidelity prior to cryopreservation.



STATE-OF-THE-ART CRYOPRESERVATION

Cells are cryopreserved using a controlled rate GMP-compliant VIA Freeze Quad controlled-rate freezer, which enables consistently high post-thaw recovery and viability.



DEPENDABLE COLD CHAIN LOGISTICS

AllCells utilizes CryoPort LN₂ Dry Shippers for dependable end-to-end shipping logistics.



FLEXIBILITY

Cryopreserved cells give you the flexibility to do experiments on your schedule without waiting on delivery of fresh cells.

Product	LP, CR, Solo 2.5-3.0B	LP, CR, Full Pak, Custom
Description	Leukapheresis material cryopreserved in CS10	Leukapheresis material cryopreserved per custom specification
Pre-cryopreservation TNC	2.5 - 3B	Custom
Fill Volume	NMT 70mL per CS250 cryo bag	Custom
Sampling Vials	1	Custom
Certificate of Analysis	CBC, IP, Cell count, viability	Custom

*Donor variability applies



99% Enhanced Reliability

FOR MOBILIZED LEUKOPAK ORDERS

The timely delivery of GMP-compliant or Research Use Mobilized Leukopaks is a critical component of your biomedical research. To ensure your project timeline, AllCells offers an enhanced reliability of 99% to mitigate the risk associated with donor deferrals. Donor deferral, albeit a rare occurrence, is a risk that could cause a major disruption in your workflow and inflate the financial costs.

	RUO MOBILIZED LEUKOPAKS	GMP MOBILIZED LEUKOPAKS
Mobilization Regimens	mLP Ref H: Neupogen x 5 days + Mozobil x 2 days mLP Ref F: Neupogen x 5 days mLP Moz B: Mozobil x 2 days	mLP Ref H: Neupogen x 5 days + Mozobil x 2 days
Lead Time	3 Weeks	8 Weeks
Program Cost	35%-50% of the full regimen price	Inquire



Mobilized Leukopak

Mobilized Leukopaks are apheresis products collected from healthy and consenting donors treated with FDA-approved drugs to stimulate the mobilization of CD34+ hematopoietic stem and progenitor cells (HSPC). Mobilized peripheral blood enriched in single-donor CD34+ HSPCs is collected through leukapheresis using the Spectra Optia® Apheresis System's continuous flow centrifugal technology.

Approximately 120mL of autologous plasma is combined with apheresed cells. The product is filled to deliver a nominal 280mL in a blood bag. This procedure results in large-scale yields of single-donor CD34+ HSPCs. AllCells offers Mobilized Leukopaks with different mobilization regimens, including G-CSF (Neupogen®), plerixafor (Mozobil®), or a combination of the two drugs. Actual TNC concentration and CD34+ percentage vary based on donors' response to mobilization, and from collection to collection.



Mobilized Leukopak



APPLICATIONS

A mobilized leukopak is an excellent source of CD34+ hematopoietic stem and progenitor cells and is increasingly selected for its ease of collection and accessibility. These cells are used in research and process development in areas of hematopoiesis, humanized mouse model generation, and reprogramming.

PRODUCT SPECIFICATIONS

Our mobilized leukopak products are offered in fresh or cryopreserved and in different formats:

- Whole Tissue Apheresis
- Isolated Cells: CD34+ HSPCs

PRODUCT	REGIMEN DETAILS	FRESH	CRYOPRESERVED
mLP Reg F	Neupogen x 5 days	1 Pak, 2 Pak	—
mLP Reg H	Neupogen x 5 days, + Mozobil x 2 days	1 Pak, 2 Pak	—
mLP Moz A (Mozobil)	Mozobil x 1 day (11 hrs between injection and collection, 1 collection)	1 Pak	—
mLP Moz B (Mozobil)	Mozobil x 2 days (11 hrs between injection and collection, 2 collections)	2 Paks	—
Reg F CD34+, PS	Neupogen x 5 days	Custom, Bulk	0.5M, 1M, 5M, 10M, 25M
Reg H CD34+, PS	Neupogen x 5 days, + Mozobil x 2 days	Custom, Bulk	1M, 5M, 10M, 25M
Moz B CD34+, PS	Mozobil x 2 days (11 hrs between injection and collection, 2 collections)	Custom, Bulk	1M, 5M, 10M, 25M

Cell type, cell selection method, and unit size (by volume or cell count) vary depending on tissue format.

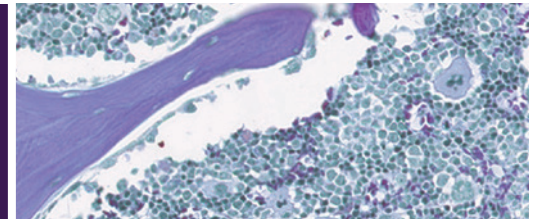
Bone Marrow

Bone marrow is an excellent source of CD34+ hematopoietic stem and progenitor cells (HSPCs) and mesenchymal stem cells. It is the primary site of hematopoiesis in adults, the process of mature blood cell formation from HSPCs to maintain blood homeostasis.

On average, bone marrow is composed of 70% granulocytes, 10% T cells, 3% B cells, 5% monocytes, and 0.8% CD34+ hematopoietic stem and progenitor cells (HSPCs). The total nucleated cell (TNC) concentration and cell type percentages vary from donor to donor. AllCells Bone Marrow products are quality controlled for cell count and viability determined using a validated AO/PI protocol.



Bone Marrow



The average CD34+ frequency from bone marrow is 0.8%. Bone Marrow is the most well characterized HSPC source with historical precedence.

APPLICATIONS

Bone marrow is used for research in hematopoiesis, erythropoiesis, humanized mouse models for multiple types of diseases, and *ex vivo* expansion studies.

PRODUCT SPECIFICATIONS

Bone Marrow products are collected by qualified clinicians from the posterior iliac crest of healthy and consenting donors following IRB-approved protocols. Bone Marrow is available in fresh, cryopreserved, and in different formats:

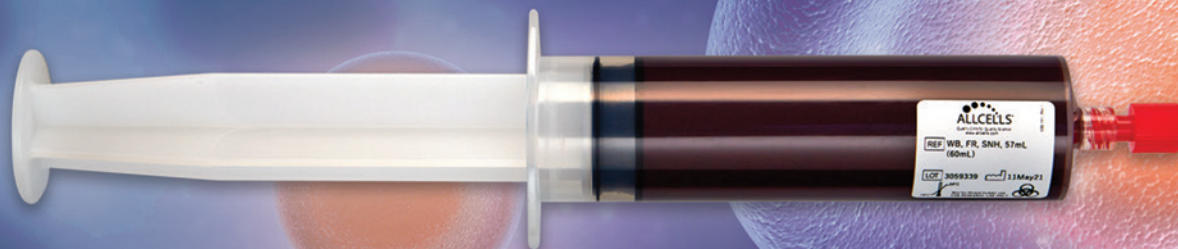
- Whole Tissue: Fresh
- Isolated Cells: CD34+ HSPCs

PRODUCT	FRESH	CRYOPRESERVED
Whole	3mL, 10mL, 25mL, 50mL, 100mL	—
CD34+ PS	Custom, Bulk	0.5M, 1M, 2M

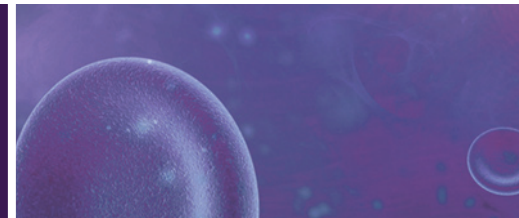
Cell type, cell selection method, and unit size (by volume or cell count) vary depending on format.

Whole Blood

Whole human peripheral blood contains red blood cells, white blood cells, plasma, and platelets. Whole blood products are collected by venipuncture of healthy and consenting donors following IRB-approved protocols. Whole blood products are based on the anticoagulant used during collection (ACD-A, Sodium Citrate, Heparin, and EDTA).



Whole Blood



APPLICATIONS

Discovery Life Sciences, AllCells' parent company, serves as the primary supplier of high-quality healthy and diseased whole blood products in addition to a variety of biospecimens suitable for a wide range of applications.

Whole human peripheral blood contains red blood cells, white blood cells, plasma, and platelets. Whole blood products are collected by venipuncture of qualified donors following IRB-approved protocols without further enrichment. Non-cellular serum, plasma products and isolated peripheral blood mononuclear cells (PBMCs) are also available.

SOURCING WHOLE BLOOD

Discovery offers access to thousands of highly characterized healthy donors and an extensive clinical network to collect diseased blood specimens. Donor demographics (age, sex, ethnic background, etc.) and clinical history information are included and additional biomarker characterization services are available to help you select biospecimens for your study-specific needs. and diseased whole blood research projects and providing access to thousands of highly characterized donors to fit your study design.

Contact Discovery Life Sciences at info@dls.com to discuss your project needs in detail with our team.

PRE-SCREENING OPTIONS FOR GMP COLLECTIONS

To expedite donor selection for GMP collections, AllCells offers customer-specific prescreening of clinical grade eligible donors via whole blood, leukapheresis or isolated mononuclear cells. This is a cost- and time-efficient mechanism for cell therapy developers to identify donors with suitable attributes who are eligible for future GMP-compliant leukopak or cryopak collections.

- Age, BMI, race, blood type, gender, smoking status, medications, CMV status
- HLA and KIR typing
- 9-color flow panel for immunophenotyping

Cell type, cell selection method, and unit size (by volume or cell count) vary depending on tissue format.

Cord Blood

Cord Blood products are collected from a single umbilical cord following IRB-approved protocols. Multiple cord blood units may be combined during processing for mixed donor products.

AllCells Cord Blood products are derived at the time of delivery from healthy pregnant women and are quality controlled. The stem cell purity is quantified post-thaw using a FACS assay.



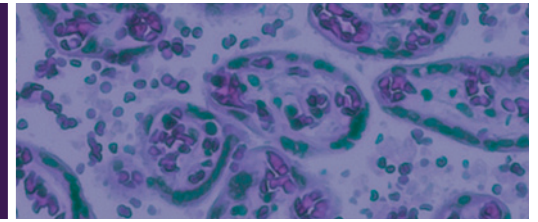
Cord Blood

Cord Blood CD34+ cells are regarded as more naive and primitive, having a higher proliferative engraftment and multipotent potential than other sources.

APPLICATIONS

Cord blood is a rich source of potent CD34+ cells and used primarily for the generation of humanized mice for research in cancer immunotherapy and gene therapy.

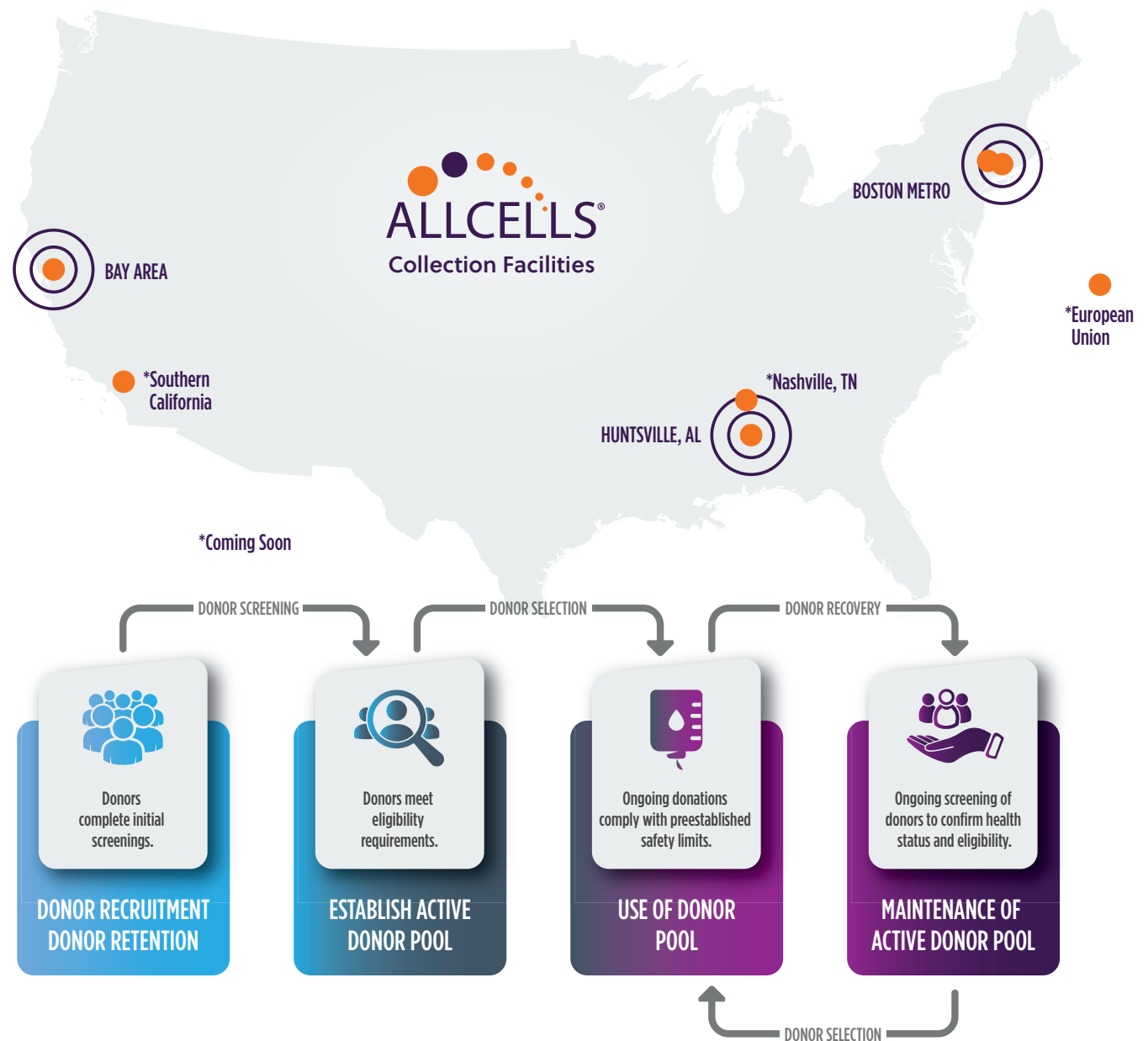
PRODUCT	FRESH	CRYOPRESERVED
CD34+ PS Single	—	1M
CD34+ PS Mixed	—	1M



Donor Management Services

AllCells Donor Management Services take a consultative approach with cell therapy developers to navigate the intricacies of securing a consistent, long-term supply of starting cellular material.

Leveraging AllCells' diverse and curated donor pool and FDA-registered collection and processing facilities provides worry-free end-to-end solutions. Our commitment to GMP standards delivers the quality assurance and regulatory compliance needed for successful clinical translation.



Donor Management Services

COMPREHENSIVE SOLUTIONS

Our team of experts will help you navigate the complexities of donor requirements and provide integrated project management to build a donor pool suitable for your immediate needs, as well as enable the easy transition and bidirectional movement between research and clinical program phases in the future.

COLLECTION AND TESTING

- Materials are collected from healthy and consenting donors by our experienced team of clinicians and registered nurses using IRB-approved protocols
- GMP Leukopaks are collected using the Spectra Optia® Apheresis System directly into ACD-A anticoagulant
- GMP Bone Marrow is collected from the posterior iliac crest via needle aspiration
- AllCells products are quality controlled for cell count and viability using a validated AO/PI protocol and pass a Sterility Test in accordance with USP <71> guidelines using compendial testing

REGISTRATIONS & LICENSES

- Tissue Bank License by State of California Department of Public Health
- License for the Production of Biologics by State of California Department of Public Health
- Certificate of Compliance by Clinical Laboratory Improvement Amendments (Alameda)
- FDA registered for HCT/P for: HPC Apheresis, Peripheral Blood Mononuclear Cells
- Certificate of Compliance by Clinical Laboratory Improvement Amendments (Quincy)
- Health Industry Number (Individual License)
- Medical Director and Independent IRB-approved donor consent program



DIVERSE DONOR POPULATION

Age, ethnicity, and other attributes



SPECIFIC DONOR ATTRIBUTES

Available upon request, including HLA



RECALLABLE DONORS

For specific research needs

Made-to-Order Products and Services



AllCells Made-To-Order products and services are here to help you meet the requirements of even the most demanding projects. Our in-house team of experts will help you define, design, and deliver your primary cell material to match your study-specific criteria. AllCells collection and processing facilities in California, Massachusetts, and Alabama provide a diverse donor pool, and our adjacent on-site collection and processing allows freshly collected tissues to be immediately processed with unparalleled quality and consistency. From donor collection to lab processing to packaging, this optimized workflow makes it possible to obtain the highest viability, purity, and cell counts available in the shortest amount of time to maximize product freshness.

Since 1998, AllCells has provided the biomedical research community with high-quality, consistently made products using GMP standards for a wide range of downstream applications and process development in the pharmaceutical, healthcare, biotechnology, and academic sectors.

Made-to-Order Products and Services

Fresh Cells, On Demand



AllCells' on-site collection and processing ensure the shortest lead times to maximize product freshness.

Donor Care and Management



We manage the largest, most diverse donor pool in the industry. You can choose recallable donors with specific attributes to meet your specific criteria.

Cell Processing



Our processing facilities can provide processed cell products with specific cell counts and/or volume, apply unique media, buffers and reagents to meet research-specific isolation protocols.

Packaging and Shipping



AllCells uses temperature controlled AerfoSafe Global shipping packages ensuring all orders arrive with the integrity and viability that you have come to expect from our products.

Your Research Project



AllCells delivers high-quality, consistent primary cells to enable success for a wide range of research applications and process development.

Visit allcells.com
for more information
on Made-to-Order
Products and
Services.



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