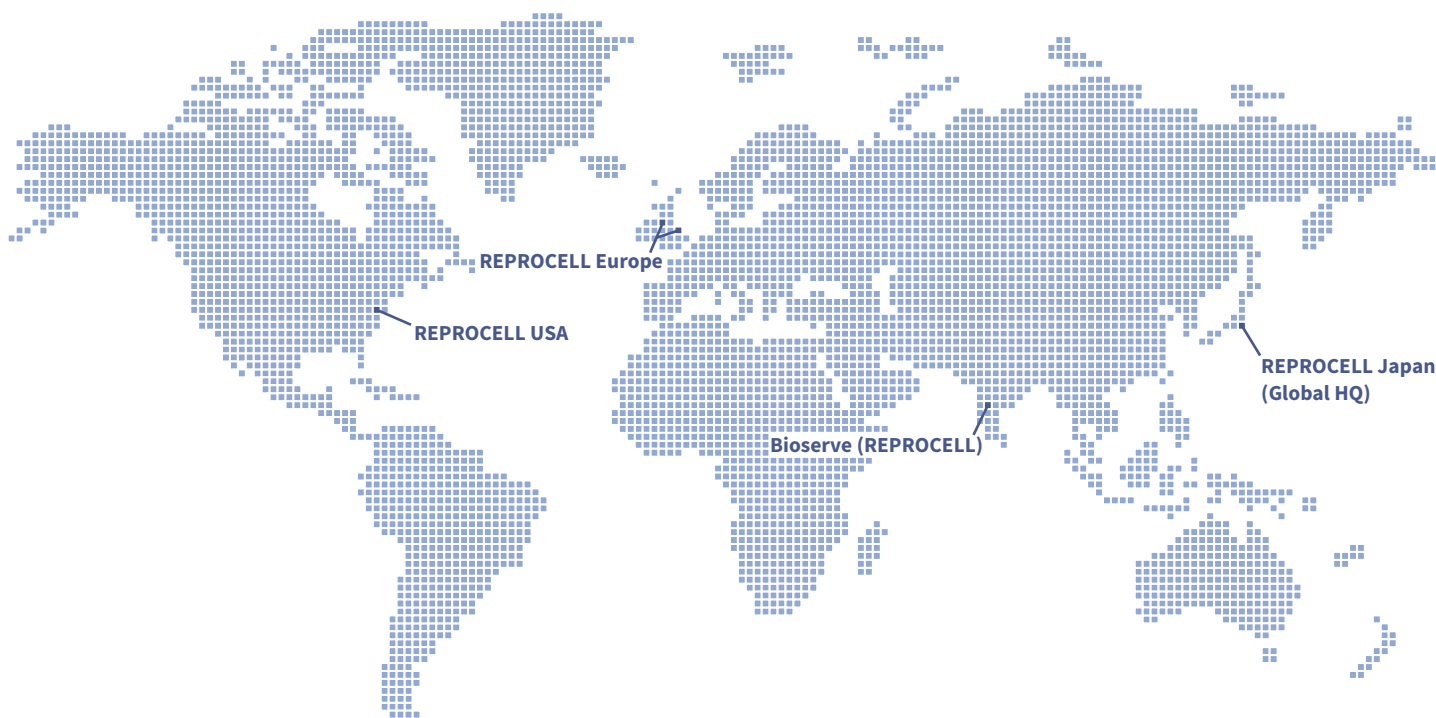# REPROCELL

Our services and products for **stem cells** and **drug discovery** enable scientists worldwide to translate their research into clinical therapies.

REPROCELL Europe

REPROCELL USA

REPROCELL Japan (Global HQ)

Bioserve (REPROCELL)

REPROCELL USA

REPROCELL Europe (UK)

Bioserve Biotechnologies (India)

REPROCELL Japan (HQ)

Established in 2003 by preeminent Japanese university researchers, REPROCELL quickly became the leading stem cell research company in Japan. Soon thereafter, REPROCELL products were employed by Professor Shinya Yamanaka during his pioneering research on iPSC technologies at Kyoto University. We were the first company to offer iPSC-derived human cardiomyocytes, hepatocytes, and neuronal cells for research applications and were listed on the Japan JASDAQ / Growth stock market in 2013.

Today, with expert scientists and laboratories on three continents, together with a number of service partners

worldwide, REPROCELL provides a broad range of research and clinical stem cell services using our propietary RNA-based reprogramming technology; GMP iPSC master cell banks; MSC production and services for clinical applications; CRISPR-SNIPER gene editing services; a global biorepository of human tissue samples; preclinical genomic services; contract research preclinical assay services using human fresh tissue and bioengineered 3D tissue models; clinical central lab services; precision medicine services including our Pharmacology-AI machine learning platform; as well as an extensive product catalog of reagents, off-the-shelf iPSC cell lines, and labware for stem cell research and 3D cell culture.

reprocell.com

REPROCELL
bioserve • stemgent • alvetex • biopta

REPROCELL's Drug Discovery and Analytical Services
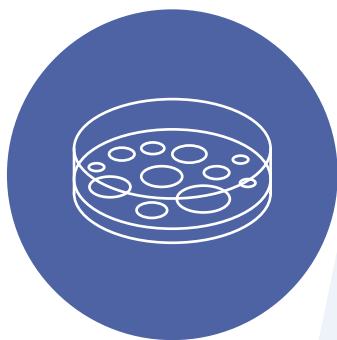
Research Stem Cell Services

We have a complete portfolio of services for the reprogramming and differentiation of high-quality induced pluripotent stem cells (iPSCs). Our research stem cell services include donor recruitment, target cell isolation, iPSC reprogramming, expansion, characterization, neuronal differentiation, and gene editing. Using our proprietary RNA based technology, our services and products for stem cell scientists are used by leading pharmaceutical and biotechnology companies as well as top academic and government research institutions all around the world.

Clinical Stem Cell Services

With global access to clinical and commercially consented human tissue samples, we can procure the tissues needed for your cell therapy project and perform the necessary viral and donor profile screenings. Our experts use our own RNA based reprogramming technology to generate clinical iPSC Seed Clone Banks using clinical-grade media and reagents compliant with the regulatory standards and guidelines of the FDA, EMA, and PMDA. With our partner Histocell, we can provide clinical mesenchymal stem cells (MSCs) from your chosen donor or we can source one for you, all performed in compliancy with the regulatory standards. In addition, we can isolate GMP MSC derived secretosomes to move your project forward.

StemEdit Clinical Gene Editing Services

Through our collaboration with GenAhead Bio, we provide CRISPR-SNIPER clinical gene editing services. This novel approach to genome modification makes it possible to achieve otherwise challenging mutations such as the insertion of large gene fragments, biallelic mutations, and multiple gene knockouts — all with increased screening efficiency. CRISPR-SNIPER greatly increases the likelihood of project success. Our clinical gene editing service projects include bulk screening for optimal conditions, scheduled cloning, PCR confirmation of transfection and all required QC to ensure your clinically gene edited cells are suitable for cell therapy development.

Precision Medicine Services

Our precision medicine services include our new **Pharmacology-AI** machine learning platform. Developed in collaboration with IBM and STFC, our automated system rapidly identifies the features driving variation in patient outcomes — streamlining the development of effective patient stratification strategies. Scientists and clinicians with clinical or genomic data can use Pharmacology-AI to identify the key features driving biomarker levels, drug response, or clinical outcome. Our experts can enable IBD researchers to analyze their data via our platform to identify the key 'omic' or clinical features driving differences in drug or biomarker response. We are also developing applications for a number of other organ systems and therapeutic areas.

Preclinical and Drug Discovery CRO

Our GLP contract research services in human tissues have been trusted by the top pharma and biotech companies since 2002. We provide data that is highly predictive of *in vivo* drug responses by characterising drug safety, efficacy and absorption in human fresh tissues or bioengineered human tissues, de-risking later clinical trials. Through our extensive clinical networks in the USA and the UK, we have ready access to healthy and diseased human living tissues and organs. We also offer a range of assays in human bioengineered tissue models built on our Alvetex® platform, including models of IBD, skin and IPF, and can create custom assays for your drug discovery programs.

Clinical Laboratory Services

Our integrated network of central laboratories can support your clinical trial sample processing needs across three continents, from our accredited laboratories in the USA, UK, India, and Japan. Our GLP/GCLP and ISO compliant systems are operational 24/7. We offer a range of options including kit preparation, logistics, biospecimen processing and storage, biomarker discovery, and testing. We can coordinate, process, test, and analyze a range of fresh human biospecimens to meet the demands of your clinical research.
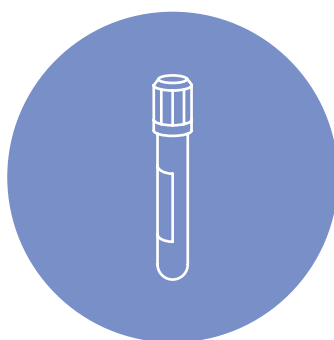
Human Tissue Samples

Our global biorepository of human tissue samples provides leading academic and industry researchers with access to over 600,000 human DNA, serum and tissue samples linked to detailed clinical and demographic data from 120,000 consented and anonymized patients on four continents. Customers of our human tissue samples and related molecular services include nearly every major pharmaceutical and biotechnology company, as well as top industry, academic, and government research institutions.

Genomic Services

We have more than two decades of experience in extracting DNA and RNA from a wide variety of starting materials. We have a large capacity to isolate different nucleic acids from a range of biospecimens, including blood, solid tissues, swabs, and formalin-fixed paraffin embedded blocks. Our preclinical genomic services include DNA and RNA extraction, biomarker discovery and validation, real-time PCR, and next generation sequencing.

REPROCELL Global

REPROCELL has aggressively expanded its business worldwide through a series of commercial acquisitions to become a global supplier and research partner for drug discovery, human tissue resources, and stem cell products for disease-model research.

In 2016, **REPROCELL USA** was established by merging the US holdings of Stemgent® Corporation (Lexington, MA) and Bioserve® Corporation (Beltsville, MD). A leader in iPSC reprogramming technologies, Stemgent is recognized for the brands of Stemolecule™ and StemFactor™, which are small-molecules and proteins for various stem cell and induced pluripotent stem cell (iPSC) applications that support growth and differentiation. Bioserve is a company with an extensive biobank of over half a million human tissue samples to support biomarker identification, and drug and disease research.

Also in 2016, **REPROCELL Europe** was established by merging the European holdings of Reinnervate® Corporation (County Durham, England) and Biopta® Corporation (Glasgow, Scotland). Known for the Alvetex® brand of plasticware plates and membrane products, Reinnervate developed 3D bio-engineered cell and tissue culture models. Biopta is a contract research organization (CRO) that specializes in customized drug discovery assays using live human tissues secured in accordance with government and medical agency ethical guidelines.

In 2018, REPROCELL acquired **Bioserve Biotechnologies India** Corporation (Hyderabad). Bioserve India offers a suite of services including oligo synthesis, DNA sequencing, and clinical oncology diagnostics. These services provide synergy with REPROCELL's stem cell technologies and innovative human tissue drug discovery services.

Working together as a global organization, REPROCELL provides an integrated workflow of services and products powering translational research with stem cells and discovery technologies for drug development and cutting-edge regenerative medicine. As a global technology partner, REPROCELL has the history, expertise, and flexibility to accelerate your research.

REPROCELL Brands

bioserve

Extensive biorepository of human tissue samples

Network of clinical sites for prospective sample collection

Molecular services

stemgent

RNA reprogramming systems and services

Reagents for pluripotent cell culture and differentiation

Extensive portfolio of small molecules

alvetex

3D cell culture technology creating *in vivo*-like cell environment

Protocols for stem cell, oncology and other tissue research applications

biopta

Experts in human tissue research services for drug development

Predictive safety, efficacy and ADME assays in human and animal tissues