The Greenstone Biosciences iPSC Biobank

Greenstone Biosciences has established a large-scale, deeply characterized human induced pluripotent stem cell (hiPSC) biobank comprising >2,500 patient-derived lines. These lines capture broad genetic diversity across ancestry, age, and disease states, providing a robust foundation for human-relevant discovery and translational research.

Our biobank spans both healthy controls and disease-specific cohorts, including rare cardiovascular, oncologic, neurologic, metabolic, and musculoskeletal disorders. Each line is linked to rich phenotypic and demographic metadata, enabling stratified analyses and precision modeling.

Differentiated Cell Types

From this biobank, we generate high-quality, reproducible differentiated cell types, including:

- Ventricular and atrial cardiomyocytes
- Endothelial cells and vascular lineages
- Fibroblasts and smooth muscle cells
- Immune cells (e.g., macrophages)
- Epithelial cell systems (including gut and hepatic lineages)

These cells are optimized for functional assays, disease modeling, and high-throughput screening, with validated readouts spanning electrophysiology, contractility, barrier integrity, and cellular signaling.

Organoid and 3D Systems

We extend these capabilities into advanced organoids, including:

- Ventricular and atrial cardiac organoids (including vascularized formats)
- Gut organoids for barrier and inflammatory studies
- Pancreatic islet organoids for metabolic and endocrine applications

These platforms enable “clinical trials in a dish”, allowing early assessment of efficacy, safety, and patient-specific responses in a controlled human-relevant context.

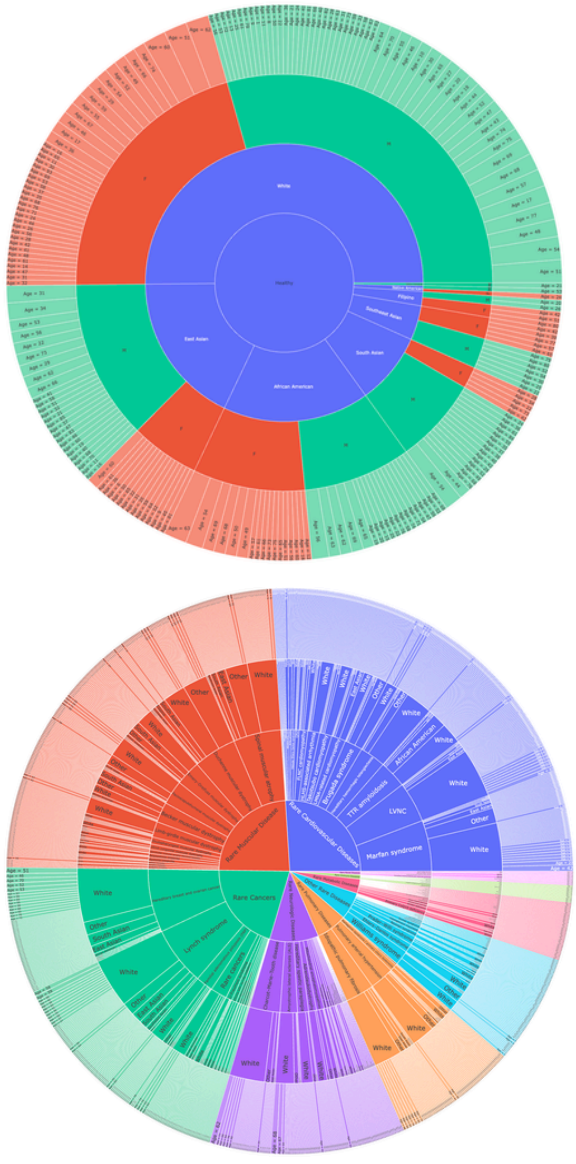
Bridging the Gap to Precision Health

Whether investigating the mechanisms of a rare mutation or testing the cardiotoxicity of a new therapeutic, our resources provide the human genetic context necessary for the next breakthrough through: (a) improved translational predictivity relative to traditional models, (b) early de-risking of therapeutic programs, (c) patient stratification insights prior to clinical entry and (d) a scalable engine for both partnered programs and internal pipeline development

Why Our Biobank?

Feature	Benefit to Researchers
Genetic Diversity	Capture the impact of modifier variants across different ethnic backgrounds.
Non-Integrating Methods	High-quality lines generated via Sendai virus to ensure genomic integrity.
Matched Clinical Data	De-identified clinical history allows for deep "genotype-to-phenotype" correlation.
Scalability	Standardized protocols enable high-throughput drug screening and toxicity testing.

Diversity and Diagnostic Breadth of the GSB iPSC Biobank



Contract: *info@greenstonebio.com* | Website: *greenstonebio.com*
Greenstone Biosciences, Inc. 3160 Porter Drive, Suite 140, Palo Alto, CA 94304