

Driven by Innovation. Grounded by Mission.

LifeNet Health's LifeSciences Division combines innovative, technology-driven preclinical research programs to create a vertically integrated human tissue- and cell-based *in vitro* biology program within LifeNet Health. This program meets the demand for human tissues, primary cells and hepatocytes for scientific research, drug discovery and safety testing. The application of three-dimensional matrices and the use of human cellular models enables significant scientific improvements for precise biologic experiments.

LifeNet Health helps save lives, restore health, and give hope to thousands each year. It is the world's most trusted provider of transplant solutions — from organ procurement to bio-implants and cellular therapies — and a leader in regenerative medicine, while always honoring the donors and healthcare professionals who enable healing.



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For more information, please contact us at:
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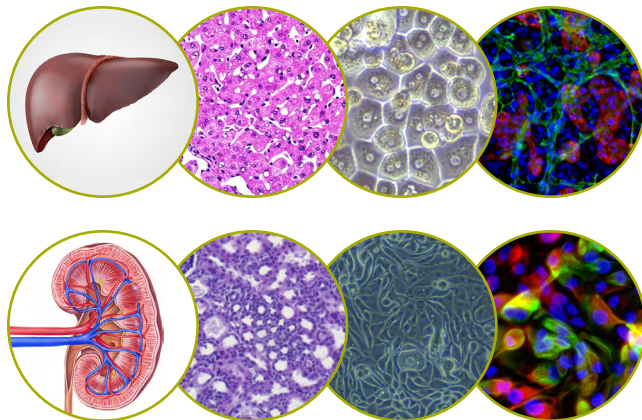


Saving Lives. Restoring Health. Giving Hope.

Human *In Vitro* Biology

Human Biospecimens for Research
Human Primary Cells
Oncology Testing Services

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Human Primary Cells

Optimized use of human primary cells enables more reliable study of the functionality and interaction of organ systems, tissues, and cells. Timely access to the highest quality tissues allows for rapid isolation of primary cells for research.

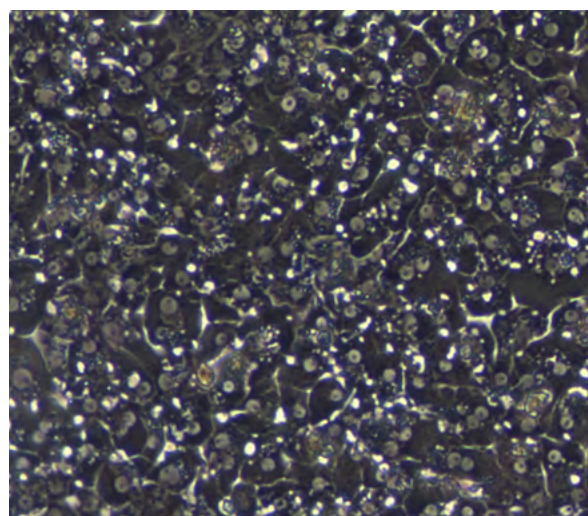
LifeNet Health is able to create new cell products according to customer requests and specifications, including lifestage and passage number.

Available primary cells include:

- Hepatocytes*
- Liver Non-Parenchymal Cells
- Dermal Fibroblasts
- Epidermal Keratinocytes
- Umbilical Vein Endothelial Cells
- Renal Tubule Epithelial Cells

**Optimized Media Available*

Adult hepatocytes, 10 days. Magnification: 100 X



Human Biospecimens for Research

LifeNet Health aims to advance science and medicine by providing researchers access to high-quality, well-characterized organs and tissues from normal and diseased donors. These biospecimens — including cells, extracellular matrices, and growth factors — are derived from organs provided for research by selfless donors. These resources fulfill unmet needs at research institutes as well as pharmaceutical, reagent, and biotechnology organizations while honoring the desire of organ and tissue donors to improve lives through scientific discovery.

Available biospecimens include:

- Blood
- Bone Marrow
- Digestive
- Lymphatic
- Nervous
- Respiratory
- Cerebral Spinal Fluid
- Cardiovascular
- Endocrine
- Musculoskeletal
- Reproductive
- Urinary

Oncology Testing Services

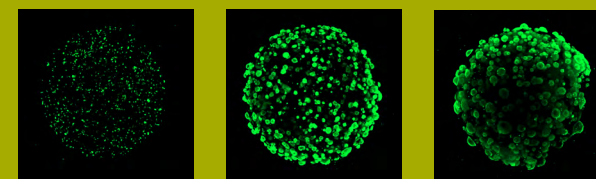
3D Microtumor Assay Platform Using Patented Human ECM

Accelerate drug development via accurate tumor efficacy/response analysis

High-throughput drug screening system established with NCI-60 and PDX tumor models

Physiological benefits over other cell culture models (such as 2D):

- LifeNet Health's 3D HuBiogel™ culture technology supports long-term growth of multiple cell types.
- 3D tumor assay models replicate *in vivo*-like biology and microenvironment.
- High-throughput screening capability allows cellular, functional and genomic analysis in parallel.
- New screening platform offers time/cost savings and predictive outcomes.



HuBiogel™ Extracellular Matrix

HuBiogel is a human-derived extracellular matrix (ECM) which replicates the biology and microenvironment of human tissue. HuBiogel is available only through LifeNet Health's Oncology Services.