

WHAT WE DO

The Only Full-Architecture Human Skin Organoid Platform

BioHive organoids are the only in vitro models simultaneously integrating **all major skin compartments and cell types** in a single, **self-organized structure** — reproducing the **architecture, cellular diversity, and biological behavior** of real human skin.

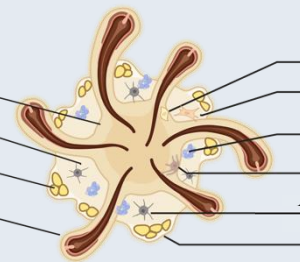
Not a simplified equivalent: the most complete human skin model available today.

iPSC-DERIVED SKIN ORGANOID

Full architecture and cell types

STRUCTURE

Epidermis
Dermis
Hypodermis
Hair Follicle



CELL TYPES

Keratinocytes
Fibroblasts
Sebocytes
Melanocytes
Neurons
Adipocytes

MODEL PORTFOLIO

Full-thickness

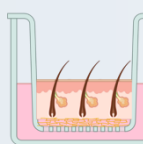


Complete skin architecture

Epidermis, dermis, hypodermis, hair follicle

Available

Air-Liquid Interface

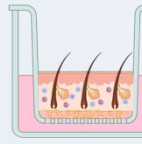


Barrier function modeling

Topical testing, permeability

Available

Immunocompetent

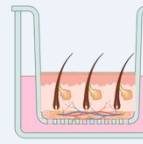


Macrophages, DC, T-cells

Immune-skin crosstalk

In Development

Vascularized



Perfusable capillary network

Systemic drug delivery & vascular-skin system

In Development

→ ALL MODELS ARE FULLY CUSTOMIZABLE — CELL TYPE COMPOSITION, GENETIC BACKGROUND, IMMUNE STATUS, AND PATIENT STRATIFICATION ARE DEFINED TOGETHER WITH YOUR SCIENTIFIC TEAM TO MATCH YOUR EXACT RESEARCH QUESTION.

VALIDATED ACROSS INDICATIONS

Proven Across Disease Models

SCIENTIFIC FOUNDATION

Hidradenitis Suppurativa

Patient organoid carrying NCSTN mutation · **HS-like morphology and cytokine signature validated** (IL-1 α , IL-18, CCL20, S100A7) · drug PoC: readthrough agents restore healthy phenotype

PHARMA VALIDATED

Atopic Dermatitis (SO-AD)

Laureate of the Sanofi iDEA-TECH program - **20+ AD donors enrolled** · iPSC-derived M1/M2 macrophages + dendritic cells integrated.

Analysis on going

PLATFORM VERSATILITY

HESIA — Alopecia

Developing the first standardized, in vitro platform for androgenetic alopecia research.

Minoxidil validation: +36% follicular length / +27% thickness ($p < 0.0001$)

Biobank:

BioHive maintains a growing, clinically phenotyped patient biobank across the full spectrum of inflammatory and genetic skin diseases.

Therapeutic areas:

Atopic Dermatitis ; Hidradenitis Suppurativa ; Androgenetic Alopecia ; Alopecia Areata ; Vitiligo ; Rosacea ; Prurigo Nodularis ; Epidermolysis Bullosa ; Xeroderma Pigmentosum (...)

How to Work with Us

Exploratory PoC

Rapid assays · defined deliverables

Research Collaboration

Custom analysis · biobank access · co-publication

Strategic Partnership

Co-development · exclusive biobank · shared IP

Let's connect



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→ COHORTS ARE BUILT AROUND YOUR SCIENTIFIC QUESTION: PATIENTS ARE STRATIFIED BY GENETICS, DISEASE SEVERITY AND RESPONDER STATUS. BIOHIVE CO-DESIGNS THE RIGHT PATIENT POPULATION FOR YOUR PROGRAM. ANY DISEASE. ANY SKIN TYPE. FROM REAL PATIENTS.

WHY BIOHIVE FOR YOUR PIPELINE ?

SCREEN

Reduce Clinical Attrition

Predictive human-relevant screening before clinical commitment

STRATIFY

Identify Responders Early

Patient-stratified organoids · genetic & immune variability

ACCESS

Access Unavailable Models

Clinically phenotyped biobank across 8+ indications

COMPLY

Meet Regulatory Expectations

NAM-compatible data · FDA Modernization Acts 2.0 & 3.0

BIOHIVE IS A SCIENTIFIC R&D PARTNER: WE DEVELOP THE MODELS YOUR PROGRAM NEEDS, WITH THE PATIENT ACCESS NO ONE ELSE HAS.

