



# Obatala Sciences Product Catalog

**2024**

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Biomaterials • Stem Cells •  
Metabolic Disorders and  
Regenerative Medicine

- **General Information**
- **Product List**
- **Protocols, Safety Data Sheets, and Certificates of Analysis**
- **Prepared Culture Media**
- **Stem Cells**
- **Hydrogels**
- **Summary of Hydrogel Products and Applications**
- **3D and 2D Cellular Systems for Adipose Tissue**
- **Service Contracts**

# General Information

## About Us

We envision a world where enriched preclinical insights create future therapies that are accessible, equitable, and effective for patients worldwide, regardless of demographic and socioeconomic backgrounds.

## Our Mission

Obatala Sciences is dedicated to changing the status quo of traditional academic research and drug development through our comprehensive portfolio of human-derived research solutions. Our biomaterials and technologies are allowing deeper insight in normal and disease models and for drug development for treatments of metabolic diseases to mitigate their impacts of human health and streamline the translation from R&D to clinical trials.

## Service

In addition to our extensive product portfolio of superior performing products, we provide contract research services and are our team of experts dedicated to providing the highest levels of technical support and customer service possible.

## Shipments

Domestic orders received by 9am CT on Friday will be shipped by Tuesday the following week, unless otherwise specified or requested. Orders requiring special handling will be assessed an additional fee. Freight charges will be added to the invoice as a separate item. Please report all questions regarding a shipment to Customer Service within 7 days of receipt by emailing [orders@obatalasciences.com](mailto:orders@obatalasciences.com). International shipments require additional processing and shipping time is dependent on the final destination. Contact [orders@obatalasciences.com](mailto:orders@obatalasciences.com) with specific questions.

## Technical Service

Inquiries for technical information, product performance, or updates on new products should be directed to Technical Service at **504-300-0266**.

## Authorized Distributors

For Japan: Asone – [www.asone.jp](http://www.asone.jp)



## How to Order

<b>Online:</b>	Visit <a href="http://www.obatalasciences.com/order-now">www.obatalasciences.com/order-now</a>
<b>By Phone:</b>	To place an order for products listed in this catalog, call 504-300-0266 Monday - Friday from 9am to 5pm CST
<b>Payments:</b>	Contact <a href="mailto:invoices@obatalasciences.com">invoices@obatalasciences.com</a> with all payment questions.

# Product List

## Media Products

SKU#	Product Name	Size	Price
OS-001-01	StromaQual™	100mL	\$198.00
OS-001-02	StromaQual™	500mL	\$558.00
OS-002-01	AdipoQual™	100mL	\$218.00
OS-002-02	AdipoQual™	500mL	\$614.00
OS-003-01	OsteoQual™	100mL	\$248.00
OS-003-02	OsteoQual™	500mL	\$717.00
OS-008-01	Cryopreservation Medium	100mL	\$319.00
OS-309-02	StromaQual3D™	30mL	\$277.00
OS-310-02	AdipoQual3D™	30mL	\$306.00

# Product List

## Cell Products

SKU#	Product Name	Size	Price
OS-101-01	Human Adipose-Derived Stromal/Stem Cells	1 million cells per vial	\$684.00
OS-101-03	Human Adipose-Derived Stromal/Stem Cells - Pooled Donor	1 million cells per vial	\$684.00
OS-102-01	Human Bone Marrow-Derived Stromal/Stem Cells	1 million cells per vial	\$749.00
OS-103-01	Human Peripheral Blood Mononuclear Cells (PBMCs)	20 million cells per vial	\$199.00
OS-104-01	Human Bone Cells	1 million cells per vial	\$684.00
OS-105-01	Human Patellar Fat Pad-Derived Stromal/Stem Cells	1 million cells per vial	\$684.00
OS-106-01	Human Dermal Fibroblast Cells	1 million cells per vial	\$684.00
OS-107-01	Human Stromal Vascular Fraction	1 million cells per vial	\$838.00

# Product List

## Hydrogel Products

SKU#	Product Name	Size	Price
OS-301-00	ObaGel®	1mL	\$55.00
OS-301-01	ObaGel®	5mL	\$234.00
OS-301-02	ObaGel®	10mL	\$443.00
OS-302-00	ObaVate™	3mL	\$39.00
OS-302-01	ObaVate™	15mL	\$165.00
OS-302-02	ObaVate™	30mL	\$317.00
OS-303-01	ObaZolve™	30mL	\$88.00
OS-304-01	ObaFlow™	30mL	\$58.00
OS-313-00	ObaGel® & ObaVate™ Bundle	4mL (Total Volume)	\$94.00
OS-313-01	ObaGel® & ObaVate™ Bundle	20mL (Total Volume)	\$399.00
OS-313-02	ObaGel® & ObaVate™ Bundle	40mL (Total Volume)	\$760.00
OS-314-00	ObaGel® ECM	5mL	\$299.00
OS-314-01	ObaGel® ECM	10mL	\$569.00
OS-314-02	ObaGel® ECM	20mL	\$1,135.00
OS-314-03	ObaGel® ECM	40mL	\$2,151.00
OS-315-00	ObaGel® Coating	1mL	\$22.00
OS-315-01	ObaGel® Coating	5mL	\$55.00
OS-315-02	ObaGel® Coating	10mL	\$88.00
OS-315-03	ObaGel® Coating	50mL	\$220.00
OS-316-01	ObaGel® 2D Sample Pack	15mL (Total Volume)	\$317.00
OS-316-02	ObaGel® 3D Sample Pack	14mL (Total Volume)	\$420.00
OS-316-03	ObaGel® Comprehensive Sample Pack	23mL (Total Volume)	\$655.00

# Product List

## Microphysiological System Products and Live Cell Plates

SKU#	Product Name	Size	Price
OS-305-01	ObaCell® ASC Kit	Materials for 1 96-well plate	\$1,579.00
OS-306-01	ObaCell® SVF Kit	Materials for 1 96-well plate	\$6,845.00
OS-312-01	ObaCell® Live Plate	1 Donor	\$4,840.00
OS-312-02	ObaCell® Live Plate	2 Donors	\$5,324.00
OS-312-03	ObaCell® Live Plate	3 Donors	\$6,655.00
OS-312-04	ObaCell® Live Plate	4 Donors	\$7,986.00
OS-318-01	ObaCell® 2D Live Plate	1 Donor	\$4,200.00
OS-318-02	ObaCell® 2D Live Plate	2 Donors	\$5,000.00
OS-318-03	ObaCell® 2D Live Plate	3 Donors	\$5,800.00
OS-318-04	ObaCell® 2D Live Plate	4 Donors	\$6,600.00
OS-401-01	2D Adipose Kit	Materials for 1 96-well plate	\$1,100.00

# Protocols, Safety Data Sheets, and Certificates of Analysis

## Protocols

Protocols for using our products are available on our website [here](#).

## Safety Data Sheets

Safety Data Sheets for all of our products are available on our website [here](#).

## Certificates of Analysis

Certificates of Analysis for each lot of our materials are available on our website [here](#).



# Our Products and Use Cases

## Medium to Large Pharma

### Hydrogels

**Use case:** 3D cell growth, drug screening

### Stem Cells

**Use case:** Drug screening in diverse populations, preclinical data

### Media

**Use case:** Growing cells for drug screening

## Small Pharma/Biotech

### Hydrogels

**Use case:** 3D cell growth, drug screening

### Tissue Chips

**Use case:** Drug screening in different populations

## Academic Researchers

### Hydrogels

**Use case:** 3D cell growth, data generation for research

### Tissue Chips

**Use case:** Data generation for research; Human-derived hydrogels (ObaGel) for growing cells in 3D; Ideal for drug screening

## Government Labs

### Hydrogels

**Use case:** 3D cell growth, data generation for wound healing research



### Media

Supports growth and differentiation of stem cells – Highly Cited in publications

Ideal for growing and differentiating cells



### Hydrogels

Human-derived hydrogels (ObaGel) for growing cells in 3D

Ideal for drug screening



### Stem Cells

Adult human stem cells from biobank of diverse patients obtained under Informed Consent with Western IRB Approval

Ideal for differentiation and functional studies; drug screening, preclinical tests



### Tissue Chip Kits

Kit includes Hydrogel, Cells, and Media that can be shipped ready-to-use, offered as a kit or live plate service

Ideal for drug screening, data generation for research

2D and 3D options



# Prepared Culture Media

- **StromaQual™**
- **AdipoQual™**
- **OsteoQual™**

# Prepared Culture Media

## StromaQual™

Stromal maintenance medium for hMSCs. Complete stromal pre-differentiation maintenance medium intended for human stem cells, Recommended storage in 4C. 8 weeks shelf life.

Size	100mL	500mL
Price	\$198	\$558
SKU	OS-001-01	OS-001-02

## AdipoQual™

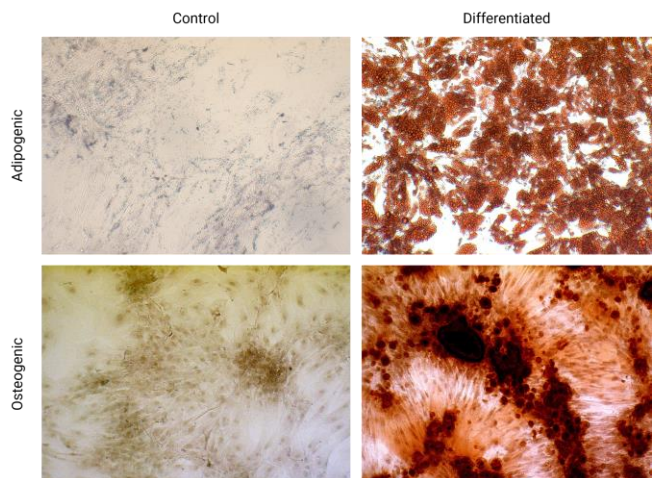
Adipogenic differentiation medium for hMSCs. Formulated to promote adipogenesis. Optimized for bone marrow-derived and adipose-derived stem cells. Recommended storage in 4C. 8 weeks shelf life.

Size	100mL	500mL
Price	\$218	\$614
SKU	OS-002-01	OS-002-02

## OsteoQual™

Osteogenic differentiation medium for hMSCs. Formulated to promote osteogenesis. Optimized for bone marrow-derived and adipose-derived stem cells. Recommended storage in 4C. 8 weeks shelf life.

Size	100mL	500mL
Price	\$248	\$717
SKU	OS-003-01	OS-003-02



# Stem Cells

- **Human ASCs**
- **Human BMSCs**
- **Human DFCs**

# Stem Cells

## Adult Stromal/Stem Cells

Isolated from Bone Marrow, Bone, Adipose, Skin. Isolated from otherwise routinely discarded medical waste, plastic surgical procedures, and orthopedic procedures under Western Institutional Review Board Approval with patient informed consent. De-identified samples. Donor information can be provided regarding age, ethnicity, BMI, sex, and medical history. Characterized and cryopreserved at  $1 \times 10^6$  cells/ml. Characterized at Passage 0.

## Human SVFs

Stromal vascular fraction, including multiple cell populations, such as endothelial progenitor cells, mesenchymal stem cells, and immune cells, directly isolated from human adipose tissue gathered from elective surgical procedures. Provided at 1 million cells per vial.

Price	\$838
SKU	OS-107-01

## Human ASCs

Adipose derived stem cells are mesenchymal stem cells (MSCs) isolated from human lipoaspirate or whole adipose tissue gathered from elective surgical procedures. Provided at 1 million cells per vial.

Price	\$684
SKU	OS-101-01

## Human BMSCs

Bone Marrow-derived stem cells are mesenchymal stem cells (MSCs) isolated from human bone marrow gathered from elective surgical procedures. Provided at 1 million cells per vial.

Price	\$749
SKU	OS-102-01

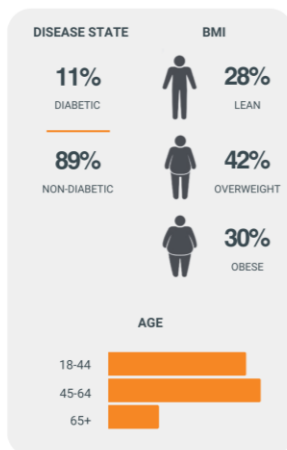
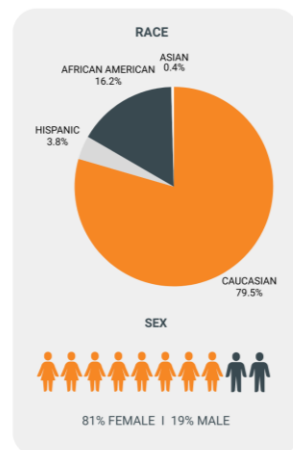
## Human DFCs

Dermal fibroblasts isolated from human abdominal skin tissue from elective surgical procedures or deceased individuals. Provided at 1 million cells per vial.

Price	\$684
SKU	OS-106-01

\*Contact customer service for customized production and donor pools

## Obatala Sciences Cell Inventory and Donor Demographics



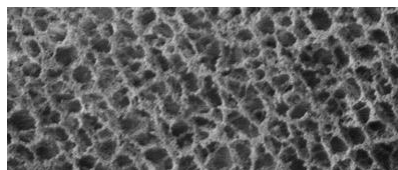
# Hydrogels

- **ObaGel®**
- **ObaGel® + ObaVate™**
- **ObaGel® ECM**
- **ObaGel® Coating**

# Hydrogels

## ObaGel®

ObaGel® is a comprehensive human blood-derived 3D cell culturing matrix that supports the development of robust human tissue-like responses from multiple cell types. ObaGel® is used to support and maintain functional characteristics such as proliferation, differentiation, vascularization, and immunogenic responses that are superior to the traditional methods of preclinical drug development. Its unique protein profile supports cell growth, motility, and vascular response. Protein Content: 65-75 mg/ml. Compatible with other basement membranes and ECM-based proteins. Supports in vitro organoid development and self-assembly as well as PDX models.



Size	1mL	5mL	10mL
Price	\$55	\$234	\$443
SKU	OS-301-00	OS-301-01	OS-301-02

## ObaGel® + ObaVate™

Supports 3D organoid culture and 2D coating applications. Our protocols recommend a 1:3 ObaGel:ObaVate solution for 3D culture and 1:1 ObaGel:ObaVate solution for 2D culture. Store at -20C. Use within 1 year of receipt.



Size	1mL & 3mL	5mL & 15mL	10mL & 30mL
Price	\$94	\$399	\$760
SKU	OS-313-00	OS-313-01	OS-313-02

## ObaVate™

Activation agent for ObaGel®. Our protocols recommend a 1:3 ObaGel:ObaVate solution for 3D culture and 1:1 ObaGel:ObaVate solution for 2D culture or PDX. Store at -20C. Use within 1 year of receipt.



Size	3mL	15mL	30mL
Price	\$39	\$165	\$317
SKU	OS-302-00	OS-302-01	OS-302-02

## ObaZolve™

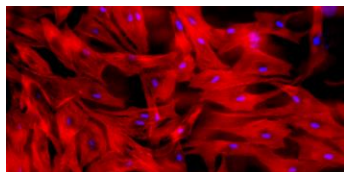
ObaZolve™ is a companion product to ObaGel® that allows for recovery of cells from an ObaGel® 3D culture. It dissolves ObaGel® to support cell retrieval. Store at 4C. Use within 8 weeks of receipt.



Size	30mL
Price	\$88
SKU	OS-303-01

## ObaGel® ECM

Human-derived hydrogel stiffer than ObaGel®; Protein profile rich in extracellular matrix proteins, such as collagen and fibronectin. Very supportive of cell growth. Lot-to-lot variability decreased by pooling. Growth factors and hormones closely mimic in vivo environment. Supports osteogenic differentiation in 3D. Store at -20C. Use within 1 year of receipt.



Size	5mL	10mL	20mL	40mL
Price	\$299	\$569	\$1,135	\$2,151
SKU	OS-314-00	OS-314-01	OS-314-02	OS-314-03

ASC encapsulated in ObaGel® ECM and cultured in 3D for >28 days. Treated with osteogenic media. Red= cytoskeleton, Blue= nuclei.

## ObaGel® Coating

A human-derived protein surface coating that supports the culture and expansion of multiple cell types. Provides a superior culture surface compared to tissue culture plastic and is comparable to fibronectin coated surfaces. Store at -20C use within 1 year of receipt.



Size	1mL	5mL	10mL	50mL
Price	\$22	\$55	\$88	\$220
SKU	OS-315-00	OS-315-01	OS-315-02	OS-315-03

\*Different than utilizing ObaGel® or ObaGel® +ObaVate™ as a 2D coating.

## ObaGel® 2D Sample Pack

ObaGel® (5 ml), ObaGel® Coating (5 ml), ObaZolve™ (5 ml)

Price	\$317
SKU	OS-316-01

## ObaGel® 3D Sample pack

ObaGel® (1 ml), ObaVate™ (3 ml), ObaGel® ECM (5 ml), ObaZolve™ (5 ml)

Price	\$420
SKU	OS-316-02

## ObaGel® Comprehensive Sample Pack

ObaGel® (1 ml), ObaVate™ (3 ml), ObaGel® ECM (5 ml), ObaGel® Coating (5 ml), ObaZolve™ (5 ml)

Price	\$655
SKU	OS-316-03





# Summary Hydrogel Products and Applications

Product Name	ObaGel®	ObaGel® + ObaVate™	ObaGel® ECM	ObaGel® Coating
Application(s)	Suitable for 2D culture of many mammalian cell types, including stem/stromal cells, HUVECs, and supports differentiation of adipocytes and osteoblasts.	Suitable for 2D and 3D culture of many mammalian cell types, including stem/stromal cells, HUVECs, and supports differentiation of adipocytes. Increased proliferation rate compared to ObaGel® ECM.	Suitable for 3D culture of many mammalian cell types, including stem/stromal cells. Greater matrix stiffness and scaffold integrity compared to ObaGel®/ObaVate.	Suitable for 2D cell culture of many mammalian cell types, including stem/stromal cells, HUVECs, and supports differentiation of adipocytes, osteoblasts, and chondrocytes.
Source	Human Origin	Human Origin & Animal Origin	Human Origin	Human Origin
Protein Concentration	63-83 mg/ml	19-24 mg/ml	30-47 mg/ml	>0.7 mg/ml
Shelf Life	12 months from date of receipt	12 months from date of receipt	12 months from date of receipt	12 months from date of receipt
Storage	-20C	-20C	-20C	-20C
Formats (Cat. No./Qty)	OS-301-00   1 ml OS-301-01   5 ml OS-301-02   10 ml	OS-313-00   1 ml/3ml OS-313-01   5 ml/15 ml OS-313-02   10 ml/30 ml	OS-314-00   5 ml OS-314-01   10 ml OS-314-02   20 ml OS-314-03   40 ml	OS-315-00   1 ml OS-315-01   5 ml OS-315-02   10 ml OS-315-03   50 ml

## Cell Types

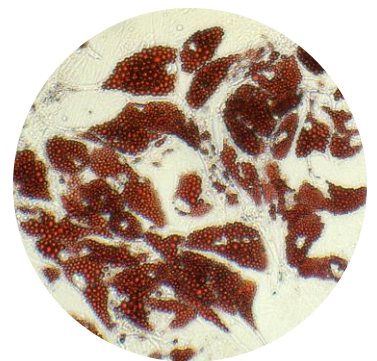
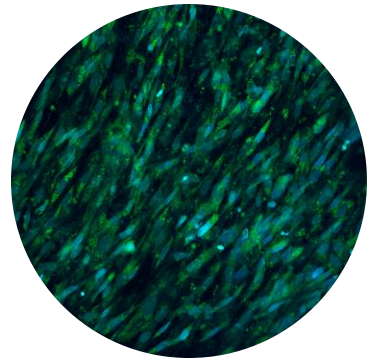
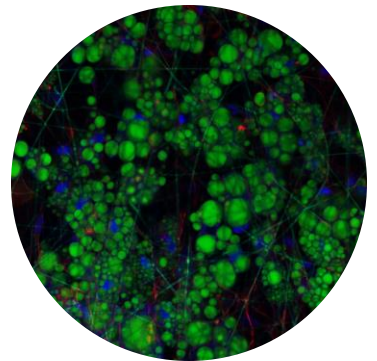
- Mesenchymal stromal/stem cells (MSC) from adipose and bone marrow
- Human umbilical vein endothelial cells (HUVEC)
- Stromal vascular fraction (SVF) – consists of multiple cell populations, including, endothelial progenitor cells, mesenchymal stem cells, and immune cells
- Endothelial progenitors (EP)
- Induced pluripotent stem cells (iPSC)
- Mesenchymal stem cells derived from iPSC (iMPC)
- Prostate cancer immortalized cell lines
- Breast cancer immortalized cell lines
- Lung cancer primary cells

## Applications

- Plastic coating on surfaces for cell expansion
- CD34+ CAR-T/NK expansion
- Spheroid and organoid development, expansion, propagation
- Organ-on-chip development
- Microfluidic cultures
- Vascularization tissue models
- Future directions: clinical grade products for wound healing applications

# 3D and 2D Cellular Systems for Adipose Tissue

- **ObaCell<sup>®</sup> ASC Kit**
- **ObaCell<sup>®</sup> SVF Kit**
- **ObaCell<sup>®</sup> 3D Live Plate**
- **ObaCell<sup>®</sup> 2D Live Plate**



# 3D and 2D Cellular Systems – Kits

**ObaCell® Kits are designed to provide users with all the components needed to establish the culture in their laboratory.**

## ObaCell® ASC Kit

A 3D cellular system kit consisting of ASC (1 million cells), ObaGel® (5 ml), ObaVate™ (15 ml), StromaQual3D™ (30 ml), AdipoQual3D™ (30 ml), and ObaZolve™ (30 ml).

Price	\$1,579
SKU	OS-305-01

## ObaCell® SVF Kit

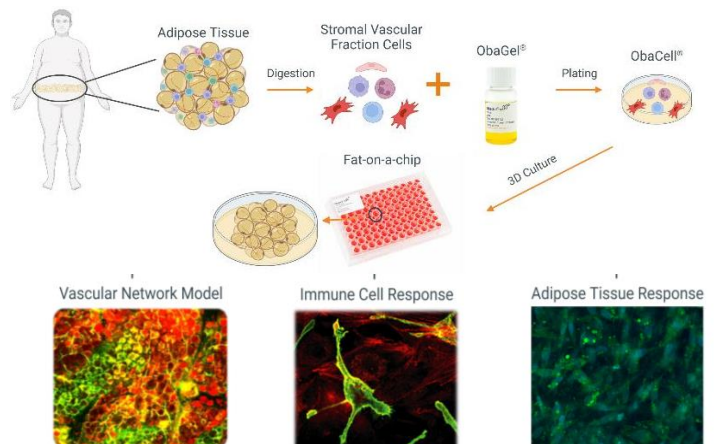
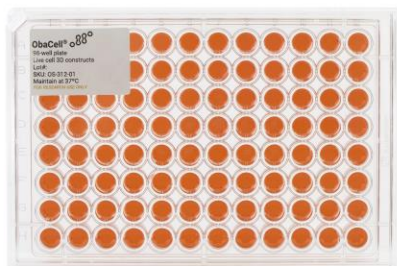
A 3D multicellular system containing multiple cell populations, including endothelial progenitor cells, mesenchymal stem cells, and immune cells. Kit includes SVF (5 million cells), ObaGel® (5 ml), ObaVate™ (15 ml), StromaQual3D™ (30 ml), AdipoQual3D™ (30 ml), and ObaZolve™ (30 ml).

Price	\$6,845
SKU	OS-306-01

## 2D Adipose Kit

A ready to use kit consisting of ASC (1 million cells), StromaQual™ (100 ml), and AdipoQual™ (100 ml).

Price	\$1,100
SKU	OS-401-01



# 3D and 2D Cellular Systems – Live Plates

**ObaCell® Live Plates are cultured by Obatala Sciences and can be delivered to the customer.**

## ObaCell® 3D Live Plate

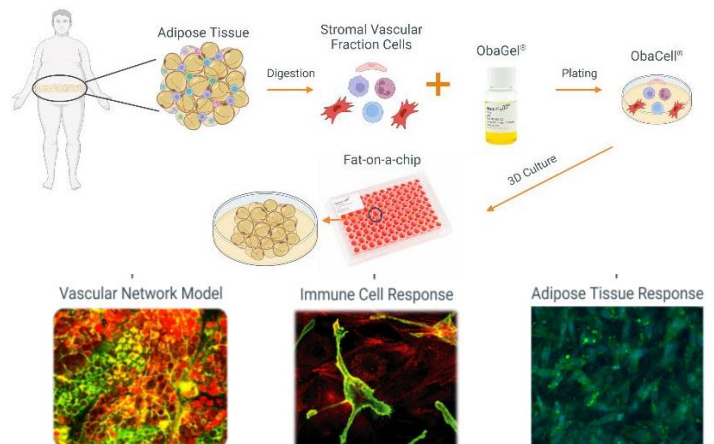
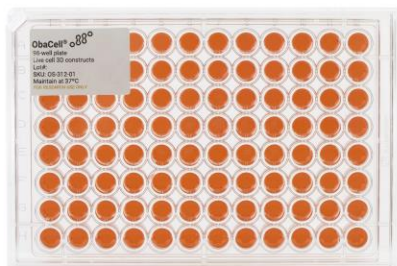
Ready to use 3D culture in a 96-well plate format consisting of ASCs embedded in ObaGel® + ObaVate™ hydrogel and differentiated into pre-adipocytes for 2 weeks.

Size	1 Donor	2 Donors	3 Donors	4 Donors
Price	\$4,840	\$5,324	\$6,655	\$7,986
SKU	OS-312-01	OS-312-02	OS-312-03	OS-312-04

## ObaCell® 2D Live Plate

Ready to use 96-well plate consisting of ASCs differentiated into pre-adipocytes for 2 weeks.

Size	1 Donor	2 Donors	3 Donors	4 Donors
Price	\$4,200	\$5,000	\$5,800	\$6,600
SKU	OS-318-01	OS-318-02	OS-318-03	OS-318-04

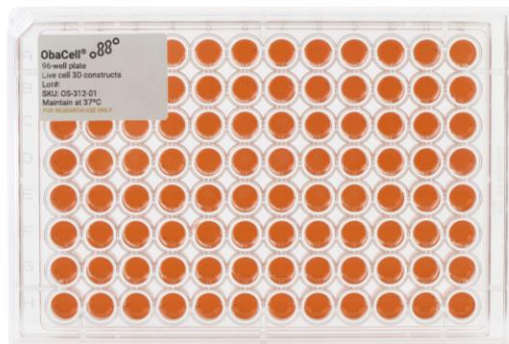


# Service Contracts: Drug Development Against Obesity and Metabolic Disorders

- **Drug Screening Using ObaCell® Fat-on-a-Chip**
- **Drug Screening Using ObaCell® Obesity-on-a-Chip**
- **Drug Screening Using ObaCell® 2D Live Plate**
- **Customized Cell Isolation and Cell Culture**
- **Quality Control for External Stem Cells and Biomaterials**

## Drug Screening using ObaCell® Obesity-on-a-Chip

A 3D cellular system. Adipose-derived stromal/stem cells differentiated into adipocytes characterized with large lipid droplets. This model is highly metabolically active and responsive to GLP-1 drugs. This model is suitable for lipolysis and glucose uptake readouts, imaging, cytokine profiles, and RNA and protein expression.



## ObaCell® ASC Fat-on-a-Chip

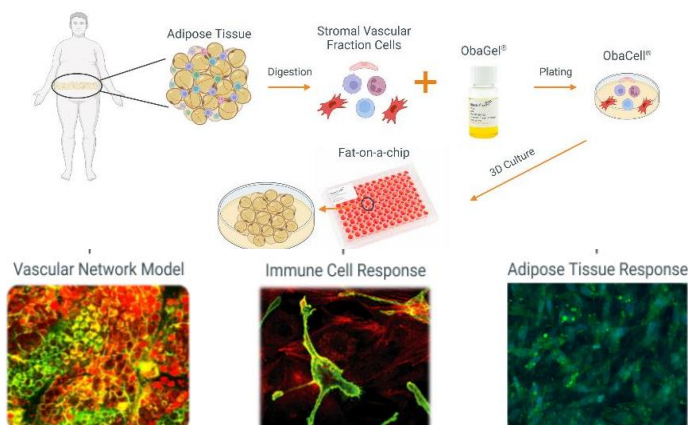
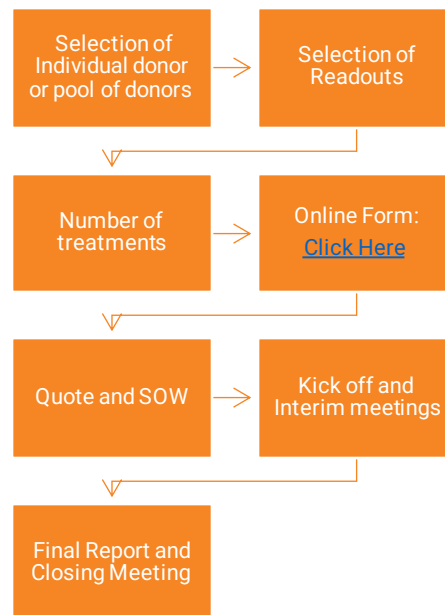
A 3D cellular system. Adipose-derived stromal/stem cells cultured in ObaGel + ObaVate constructs and differentiated with AdipoQual3D™. This model is suitable for imaging, cytokine profiles, and RNA and protein expression.

## ObaCell® SVF Fat-on-a-Chip

A 3D multicellular system. Stromal vascular fraction including multiple cell populations, such as endothelial progenitor cells, mesenchymal stem cells, and immune cells, cultured in ObaGel® + ObaVate constructs and maintained in StromaQual3D. This model is suitable for studies involving immune cell responses, vascular network formation, adipocyte differentiation (using AdipoQual3D™ differentiation media), cytokine release, and image analysis.

## ObaCell® 2D Live Plate

Ready to use 96-well plate consisting of ASCs differentiated into pre-adipocytes for 2 weeks for preliminary drug screening, RNA and protein expression, and image analysis.





## ASCs Pool Customization

Preparation of ASC pools for specific donor demographics

## Tissue Procurement and Cell Isolation

Customized isolation of Stromal Vascular Fraction, ASCs, BMSCs, Dermal Fibroblasts, and any other cell type from human or animal tissue.

## Quality Control:

### Stem Cells Characterization

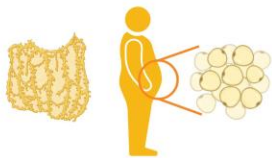
Proliferation, Differentiation, and CFU characterization for stem cells.

## Quality Control: Biomaterials

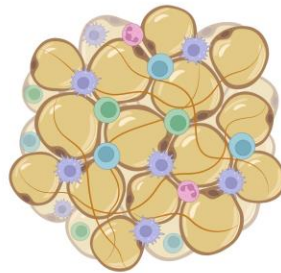
Assessment of MSC behavior in customer-supplied biomaterials.

## Customized Human-Derived Biomaterials

Customized manufacturing of biomaterials from human tissue sources.



Differences in Depots  
(visceral vs. subcutaneous)



Adipose Tissue Diversity



Racial and Ethnic  
Differences



Male vs. Female  
Differences



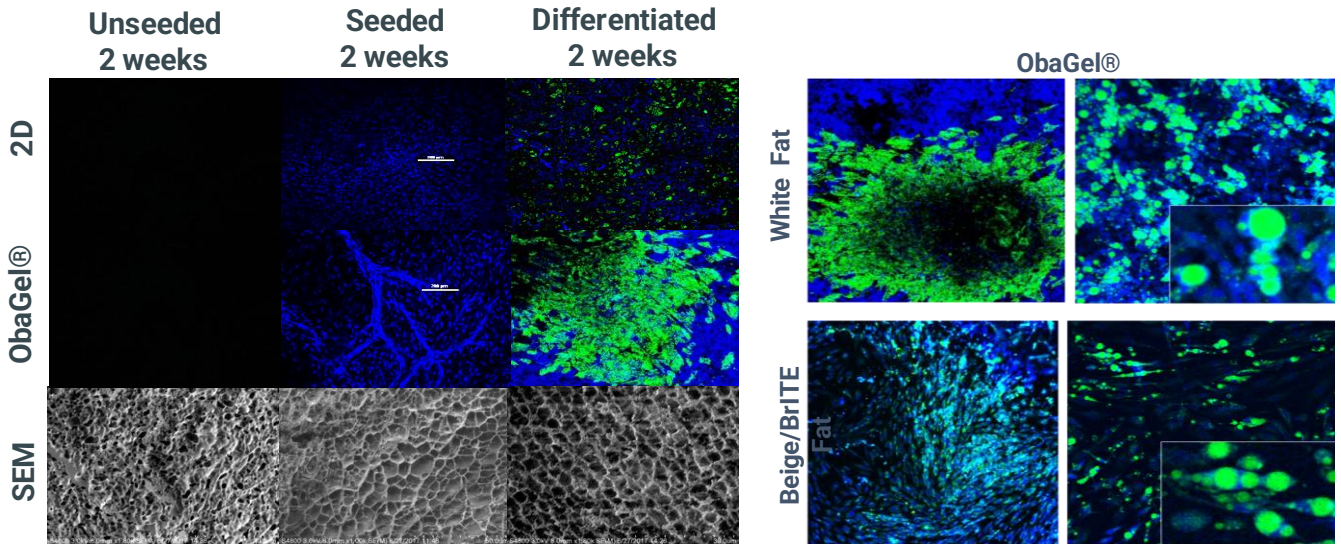
BMI Differences



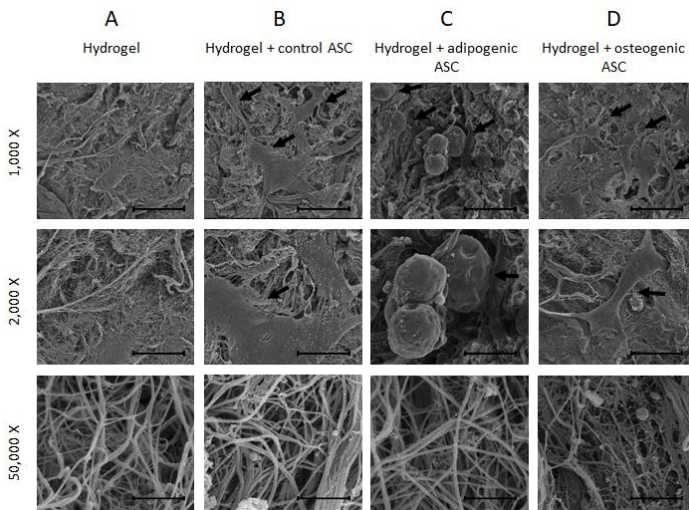
Aging Differences

# Appendix

## ObaGel® + ObaVate™



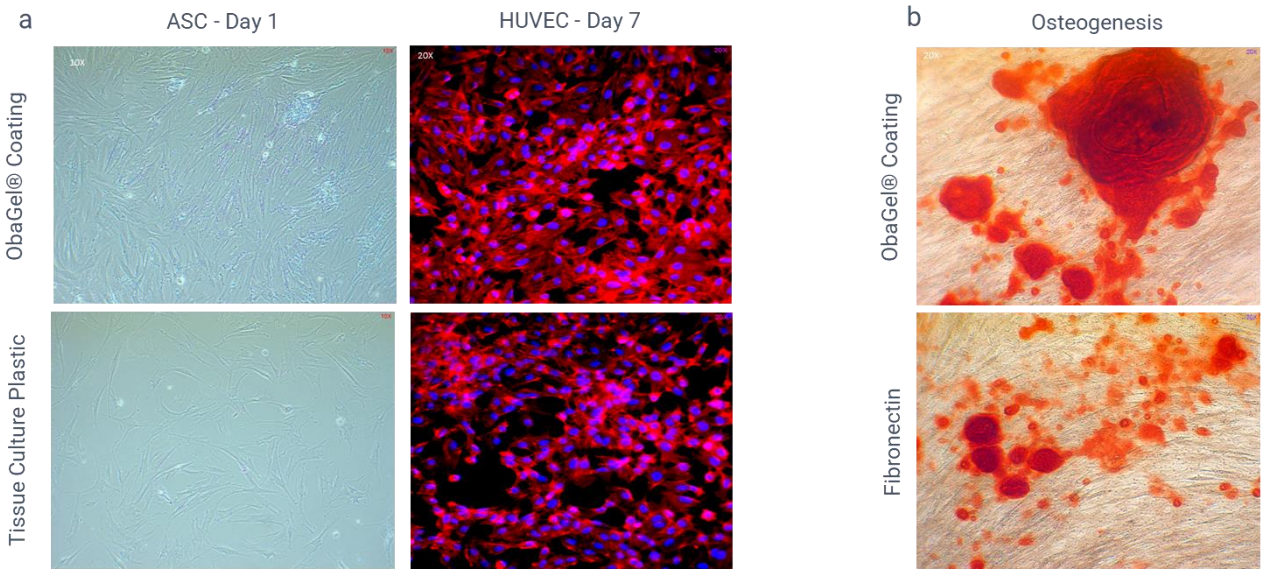
Bender, R et. Al., Human Adipose Derived Cells in Two- and Three-Dimensional Cultures: Functional Validation of an In Vitro Fat Construct Stem Cells International, 2020.



(A-D) SEM images



## ObaGel® Coating



**Figure 1. Cell Expansion and Differentiation on ObaGel® Coating.** **1a.** (left) Adipose-derived stem/stromal cells (ASC) seeded at 25,000 cells per well of a 24-well plate (at 24 h). (right) Human umbilical vein endothelial cells (HUVEC) cultured on ObaGel® coating and tissue culture plastic, stained with Alexa Fluor Phalloidin and Hoechst 33342 on day 7. **1b.** Osteogenic differentiation of ASC on ObaGel® Coating versus Fibronectin (13 d).

## ObaCell® Obesity on-a-chip

