

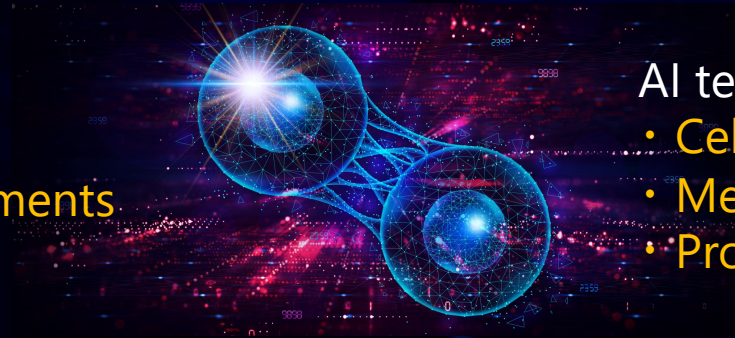


# SOLALLIS BIO

New era of mesenchymal stem cell (MSC) therapy pioneered by AI and culture medium

## Researcher

- Experience
- Steady experiments



## AI technology

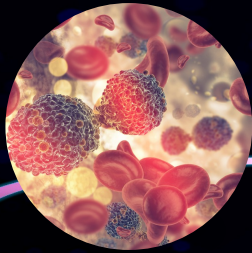
- Cell morphology
- Metabolic balance
- Proliferation rate

**4x faster development**  
**New formulation design**

## Providing innovative value for MSC culture media

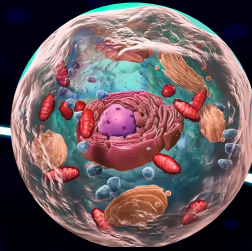
### SAFETY

Reducing infection risk from medium  
No animal ingredients



### EFFECT

Unique cell library using AI technology



### COST

Short time, less medium  
More cells, good cells

## AOF (Animal and human Origin Free) Platform

Being AOF is the basis for designing a "medium that produces good cells." AOF media has the following advantages compared to animal origin media such as serum or serum substitutes.



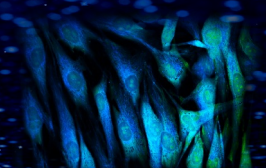
Easy to analyze with AI system



Flexible media formulation design



Excellent reproducibility



Good for exosome drug research

**NEW**

# MSC Culture Medium AF MSC Culture Medium XF PRIME



Strict raw material  
management



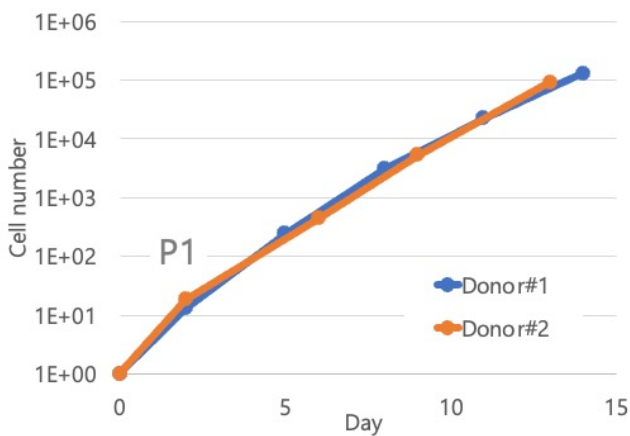
High Growth



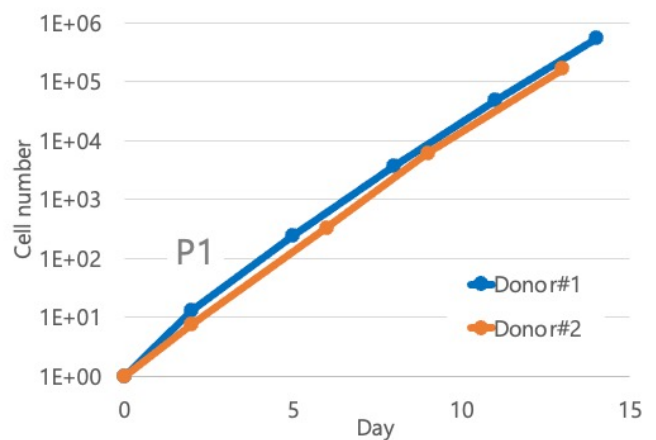
Low-cost

## Expansion

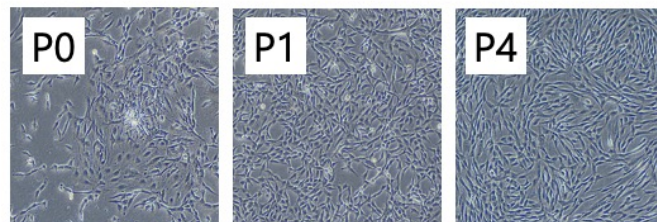
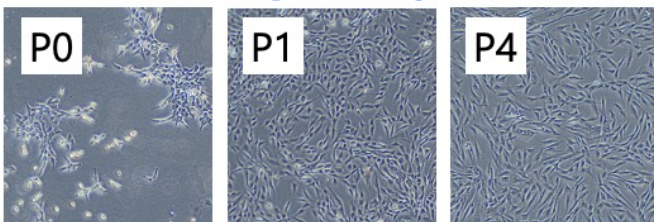
### MSC Culture Medium AF



### MSC Culture Medium XF

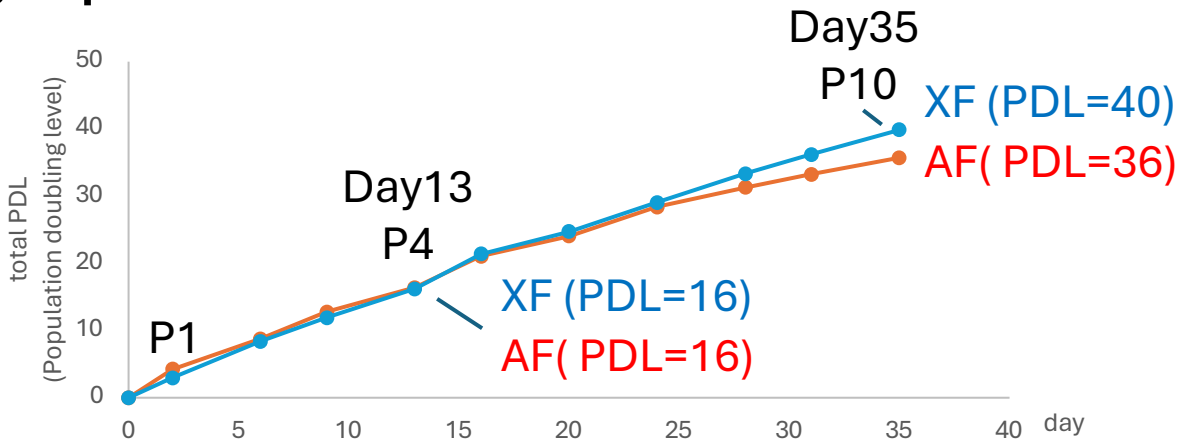


## Suitable for primary cell culture



[sb@inabata.com](mailto:sb@inabata.com)

## Long expansion test



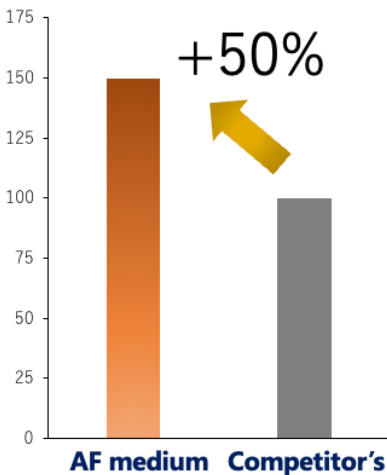
## High Growth, Low-cost

Your cell manufacturing costs may be reduced by changing our products

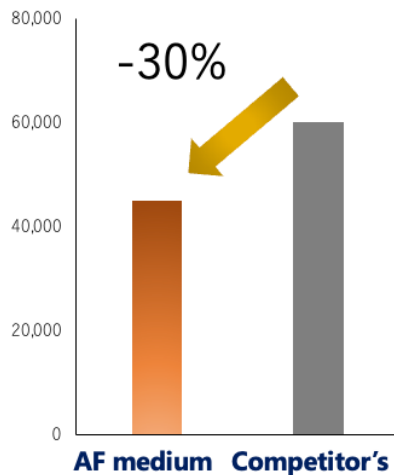
### An example of manufacturing cost calculation

	AF Medium (45,000 JPY)	Competitor's (60,000 JPY)
Starting cell number	1.0 x 10 <sup>7</sup> cells	
Target cell number	1.0 x 10 <sup>9</sup> cells	
Doubling time	20 h	30 h
Culture day	<b>6 days</b>	9 days
Medium exchange	0	1~2 times
Medium amount	6.6 L	7,2~13,2 L
Total medium cost	<b>630 k JPY</b>	90-162 k JPY

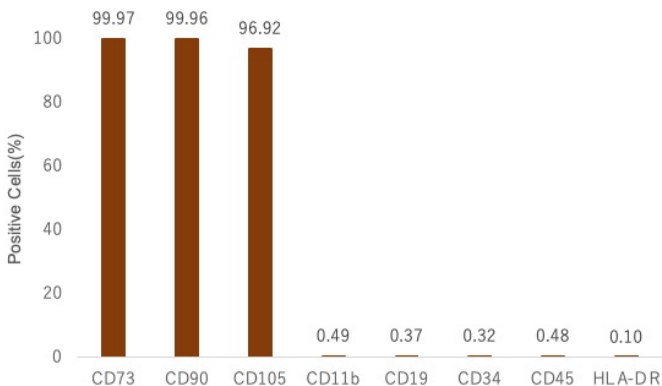
### Cell Growth



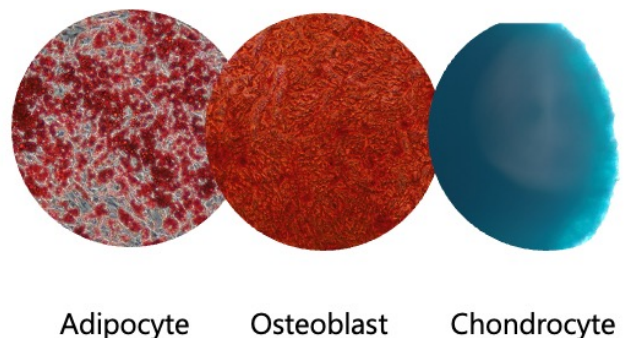
### Unit price



## MSC marker level



## Differentiation potential



# SOLALLIS BIO Stem Design™

Our formulations are specially designed for mesenchymal stem cells (MSC). Stem Design is a brand whose purpose is not to simply grow cells, but to manufacture (design) cells in better conditions as proposed by Solaris Bio.

## Product Lineup

- Designing all manufacturing processes with **Animal Origin Free**
- Formulations **optimized** for serum-free culture system
- Lineup aimed at **large scale cultivation**



### Expansion medium

- High Growth
- Low cost
- Uniquely developed basal medium



### Dissociating

- Optimizing trypsin etc. for serum-free system
- Improved expansion culture



### Cell banker

- Apply knowledge from medium development
- Suppresses freezing damage



### Collagenases

- Isolate MSCs in a short time
- Ready-to-use

Product code	Product name	Volume	JPY
M101-AF-500	MSC Culture Medium AF	500 mL	45,000
M103-XF-500	MSC Culture Medium XF PRIME	500 mL	50,000
D101-AF-500	Cell Dissociation Solution AF for Serum-Free Culture	500 mL	13,000
C101-AF-100	MSC Banker AF	100 mL	23,000
TD101-AF-100	Collagenase Solution AF for MSC Isolation	100 mL	55,000



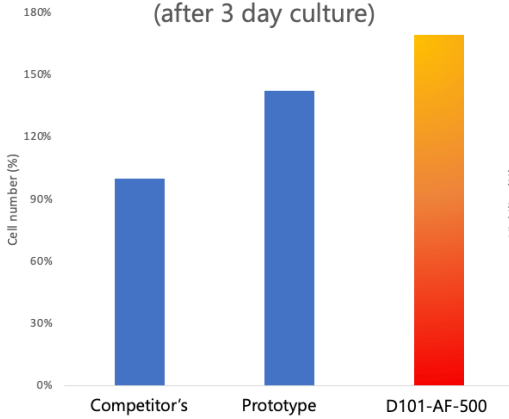


# SOLALLIS BIO Stem Design™

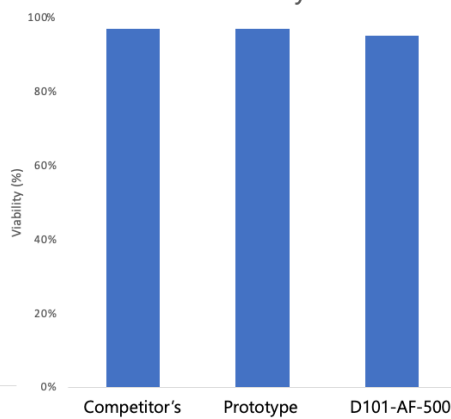
Our formulations are specially designed for mesenchymal stem cells (MSC). Stem Design is a brand whose purpose is not to simply grow cells, but to manufacture (design) cells in better conditions as proposed by Solaris Bio.

## Dissociation Solution AF for Serum-Free Culture

Cell number  
(after 3 day culture)



Cell Viability



### Issue with conventional products

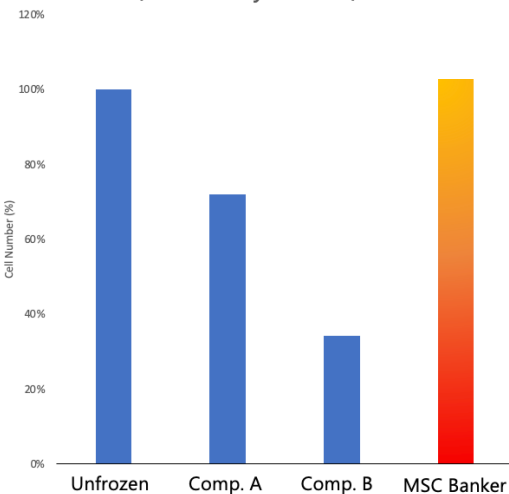
- Serum-free culture media don't contain trypsin inhibitors that exist in serum, so residue of dissociation solution sometimes interfere with cell culture

### Features of this product

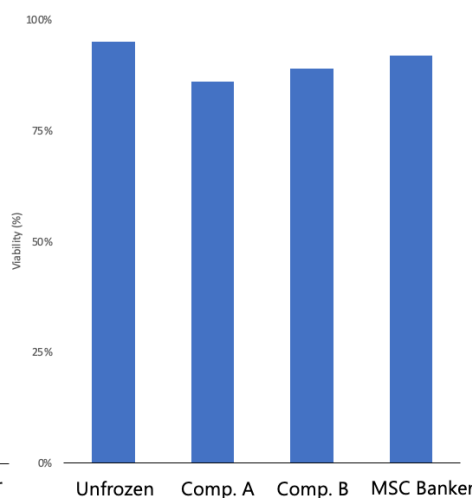
- Formulation was redesigned to achieve a serum-free culture system
- Contains no animal-derived materials

## MSC Banker AF

Cell number  
(after 3 day culture)



Cell Viability



### Issue with conventional products

- During the large scale cell culture, the cells begin to die because they are in contact with the preservation solution for a long time.

### Features of this product

- Less cell damage due to freezing process
- Contains no animal-derived materials



# SOLALLIS BIO

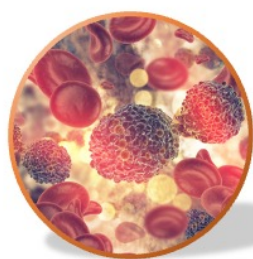
# Stem Design™

## Custom



## Why choose custom media?

Your cell issues may be solved with our culture medium technology.



Improving the MSC efficacy



Differentiation of cell character from competitors



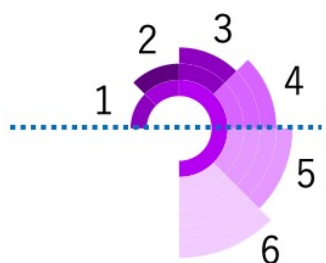
Change to serum-free medium



Adaptation to unique culture systems

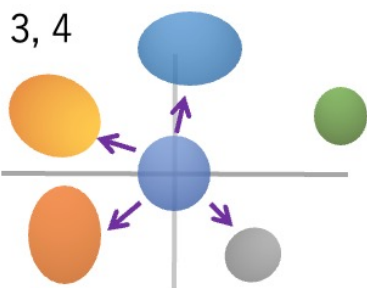
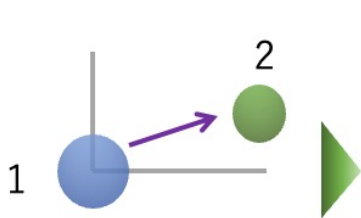
## Unique technology to find optimal cells or culture media

### Library construction



1. Cells under normal culture conditions are set as the zero point.
2. Using AI to create cells in a different state from zero.
3. Create cells in different states compared to step 1,2.
4. Repeat steps 1-3 to create cell libraries each with different characteristics.
5. Conduct pharmacological evaluation related to target disease and screen for hit cells.
6. Optimize focusing on cells hit in step 5.

### Optimization



Screening



Optimization



SOLALLIS BIO

# Stem Design™

Custom



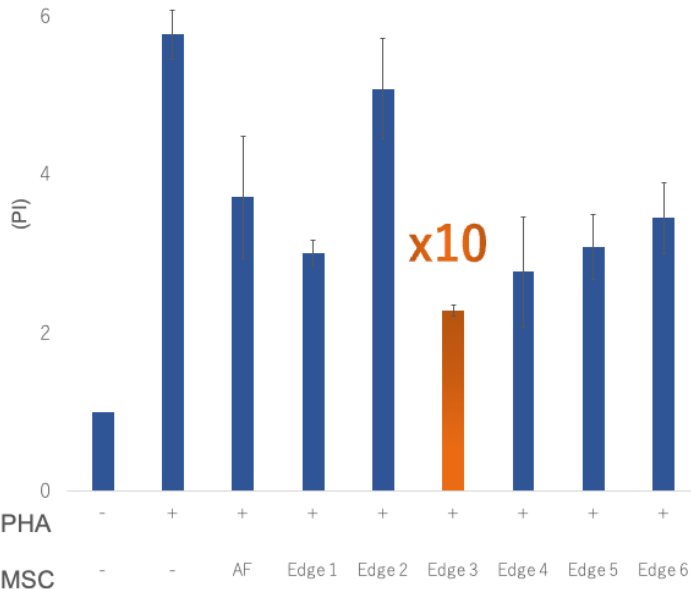
## Development example

Optimize media formulation for your purpose

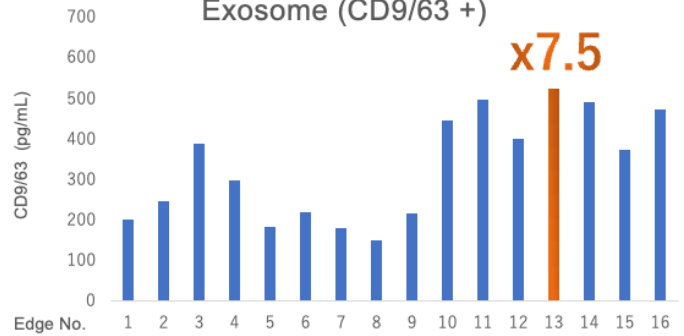


- 1 Build an MSC library with AI
- 2 Screening with *in vitro* tests
- 3 Optimization, Manufacturing, Formulation disclosure

Immunosuppressive effect (MLR test)



Exosome (CD9/63 +)



VEGF

