### **Exosome therapy**



Exosomes, which have attracted worldwide attention, are said to be effective in repairing aged or damaged cells, and are expected to be effective not only in skin aging care, but also in elbow and joint pain, AGA and cancer treatment.

Our group's exosomes use high-quality regenerative factors derived from dental pulp, and have a very high concentration of more than 10 times that of general exosomes.

Depending on the treatment time and the type of concern, they can be injected and dripped, as well as used in needle RF, dermapen, water injection and electroporation.



### Recommended for those who have the following concerns

I want painless anti-aging treatment

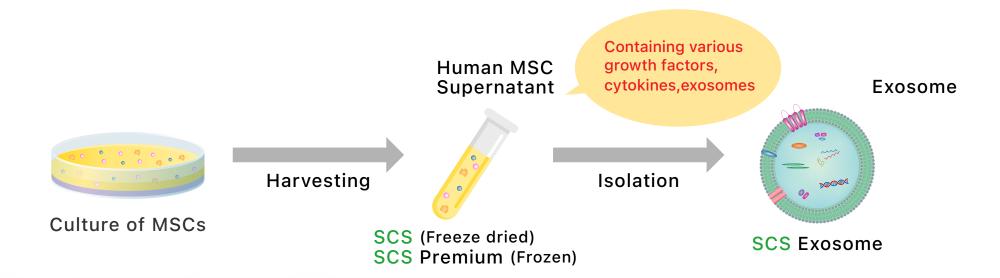
Improve your immune function

Promoting the repair and regeneration of skin and tissues

I want to receive high-profile treatment



# Our products: Supernatant from human mesenchymal stem cells culture SCS, SCS Premium, SCS Exosome



### SCS: Human Stem Cell Supernatant (Freeze dried)

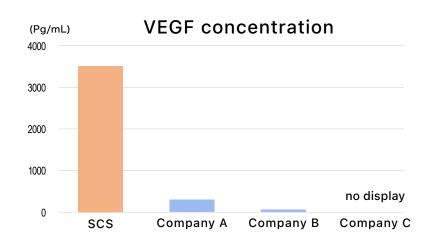
More than 500 kinds of growth factors and cytokines are included, freeze dried powder. The exosomes may not be functional, because the stability of the exosomes is not proved.

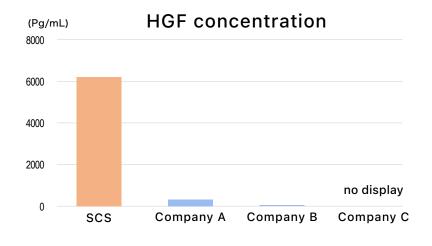
### SCS Premium: Human Stem Cell Supernatant (Frozen)

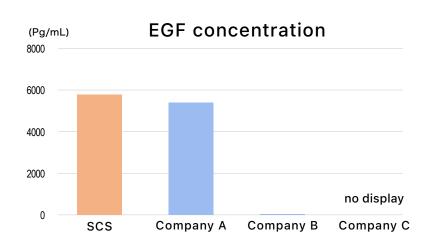
More than 500 kinds of growth factors and cytokines, and exosomes are included, frozen liquid. Therapeutic effects of exosomes are expected in addition to growth factors and cytokines.

SCS Exosome: (Isolated exosomes from human stem cell supernatant, Frozen) Isolated exosomes mainly for research purpose.

### SCS series comparison with other companies



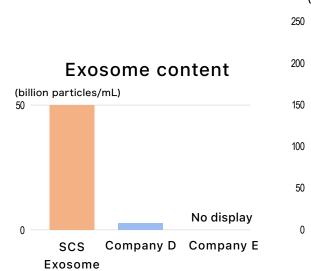


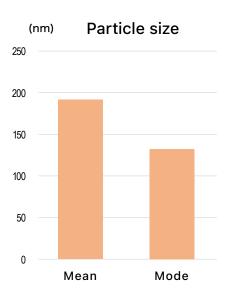


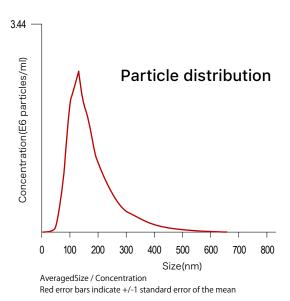


SCS culture supernatant contains extremely high concentrations of growth factors and cytokines. Proof of more than 1000 pg/mL of VEGF and HGF.

# SCS series comparison with other companies









Samples	Dilution of samples	Particle concentration	
		Unit 10 <sup>11</sup> particles/mL	
Sample1	200	1.03 +/- 0.04	

Samples	Dilution	Particle size	
		Mean	Mode
Sample1	200	192 +/- 4.4	133 +/- 3.3

# Exosome content of the sample : $100\,\mathrm{billion}$ particles/mL

SCS Exosome has an exosome cotent of 50 billion cells/mL as a guaranteed content, and contains ultra-high concentration of exosomes not found in other companies` products.

# Features of the SCS series (culture medium)

#### SCS medium (Elimination of toxic ingredients)

- In addition to the advantages of AOF medium, toxic substances such as heavy metals are eliminated.
- Several types of AOF medium are commercially available. but SCS medium is completely original and extremely safe.

#### AOF (Animal Origin Free) medium (Elimination of animal-derived ingredients)

- Uses human-type recombinant proteins
- Maximum elimination of pathogen infection risk. Lot-to-lot variation in performance is small.
- Contains toxic substances such as heavy metals.

#### Serum-free medium (General commercially available medium)

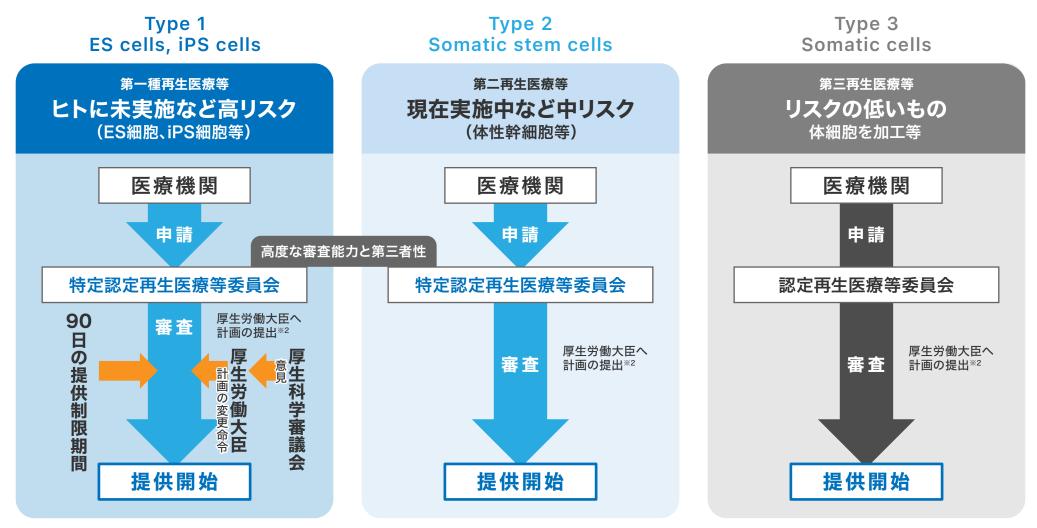
- Some contain serum-derived
- Currently, serum is added because it cannot be cultured in a completely serum-free environment. (TSE/BSE risk)
- Lot-to-lot variation is large
- Contains toxic substances such as heavy metals.

#### **Serum medium** Risk of immune response to foreign antigens.

- Risk of immune response to foreign antigens.
- Contains toxic substances such as heavy metals, There is a risk of infection due to contamination with pathogens (TSE/BSE risk)
- Lot-to-lot variation is large

# Safety Highly safe Medium component Completely eliminates dangerous ingredients registered under GHS\* and banned ingredients for cosmetics \*GHS: Global rules for expressing and classifying the hazards and hazards of chemical substances Purified products of animal origin excluded Purified animal products Serum-derived albumin, etc. Serum Less safe

# Regulation by laws in Japan



According to the Regenerative Medicine Safety Act, Type 2 notification is required for mesenchymal stem cell treatment, but there is currently no law regarding stem cell supernatant liquid. Our company manufactures supernatant liquid with safety standards that comply with the above laws and regulations.

# Features of the SCS series (quality tests)

### **Donor screening items**

- HIV (antigen antibody method CLIA method)
- HCV antibody (CLEIA method)
- HBs antigen (CLIA method)
- HBe antigen (CLIA method)
- HTLV-I antibody (CLEIA method)
- Syphilis (RPR method)
- Syphilis (TPHA method)
- Herpes simplex (CF method)
- Mycoplasma (PA method)
- Parvovirus B19 (IgM antibody)

### **Quality control test items**

- Mycoplasma
- · Endotoxin
- · Sterility test
- · Human immunodeficiency virus type 1 (HIV1)
- · Human immunodeficiency virus type 2 (HIV2)
- Human T cell leukemia virus type 1 (HILV2)
- · Human T cell leukemia virus type 2 (HILV2)
- Hepatitis C virus (HCV)
- Hepatitis B virus (HBV)
- · Cytomegalovirus (CMV)

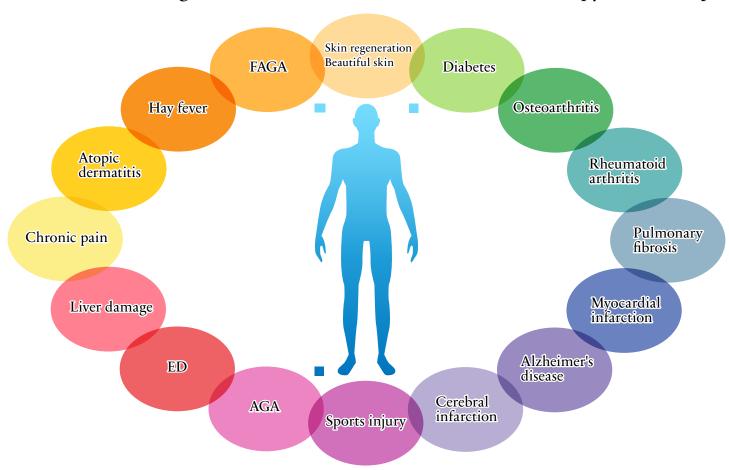
Human parvovirus B19 (B19)

SCS is produced in a clean room environment controlled by class1000 and class 10000. By following the same quality inspection procedures as for stem cell therapy and requesting inspections from a third-party organization, we are confirming safety with stricter standards.



### Regenerative medicine treatment

Diseases that can be treated with regenerative medicine (cultured stem cell therapy, culture supernatant, exosomes)



In regenerative medicine, in addition to diseases such as Alzheimer's disease, diabetes, cerebral infarction, cerebrovascular disease, chronic pain, liver damage, atopic dermatitis, skin regeneration, AGA (thinning hair), ED (erectile dysfunction),

It is expected to treat sports injuries and arthrosis of the elbow, knee, and hip joints.