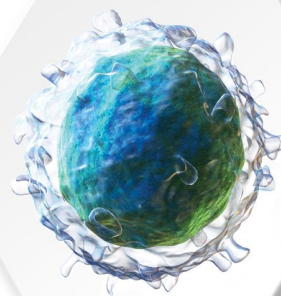


Multiple Sclerosis





Advancells Group believes in the vision of a cure-driven world. Established in 2013 by **Mr. Vipul Jain**, Advancells provides customized protocols for 360° management of diseases and conditions with regenerative medicine as a solution. We believe in promoting stem cell awareness to ensure that patients and caregivers, worldwide, know their role in the regeneration of damaged body tissues for neurodegenerative, musculoskeletal, organ-damage, and aging disorders.

With the **CMO Asia Healthcare Excellence Award** and the **Healthcare and Lifescience Award** (Corporate LiveWire) adorning our achievements, we provide the best medical consultation with value to treatment aesthetics and patient consent. Besides patient-friendly therapeutics, we also aid efficient biomedical research with our customized stem cells and primary cells, as it precedes every clinical translation that can help our future generation.

NEURODISORDERS FOR REGENERATIVE THERAPY

- ALZHEIMER'S DISORDER
- PARKINSON'S DISORDER
- AUTISM
- ALS
- **MULTIPLE SCLEROSIS**
- STROKE
- MUSCULAR DYSTROPHY
- CEREBRAL PALSY

WE ARE HERE TO HELP

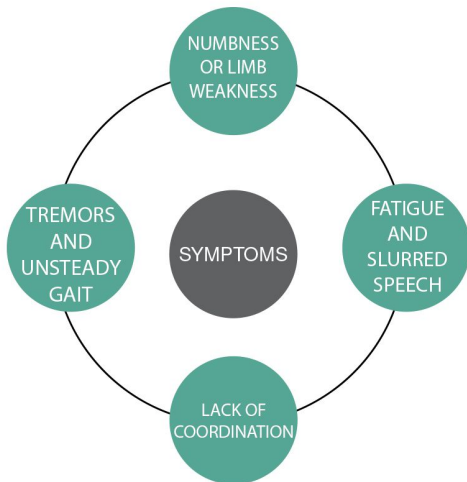
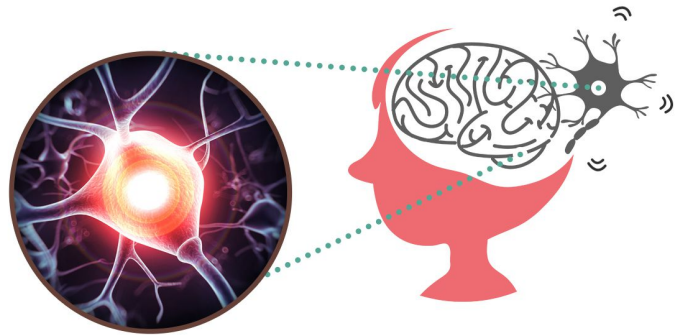
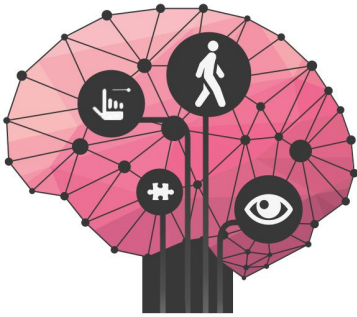


TABLE OF CONTENTS

01.	ABOUT MULTIPLE SCLEROSIS	03	02.	STEM CELL TREATMENT	04
03.	CELL THERAPY MANAGEMENT	05	04.	WHY SHOULD YOU CHOOSE ADVANCELLS?	06
05.	SPECIAL SERVICES FOR INTERNATIONAL PATIENTS	06	06.	EACH CASE IS SPECIAL FOR US	07
07.	TECHNOLOGY CALLING	08	08.	STEM CELL THERAPY SUCCESS RATE	08
09.	REHABILITATION PROCESS	09	10.	PATIENT TESTIMONIALS	10
11.	CERTIFICATES	10			

What is Multiple Sclerosis?

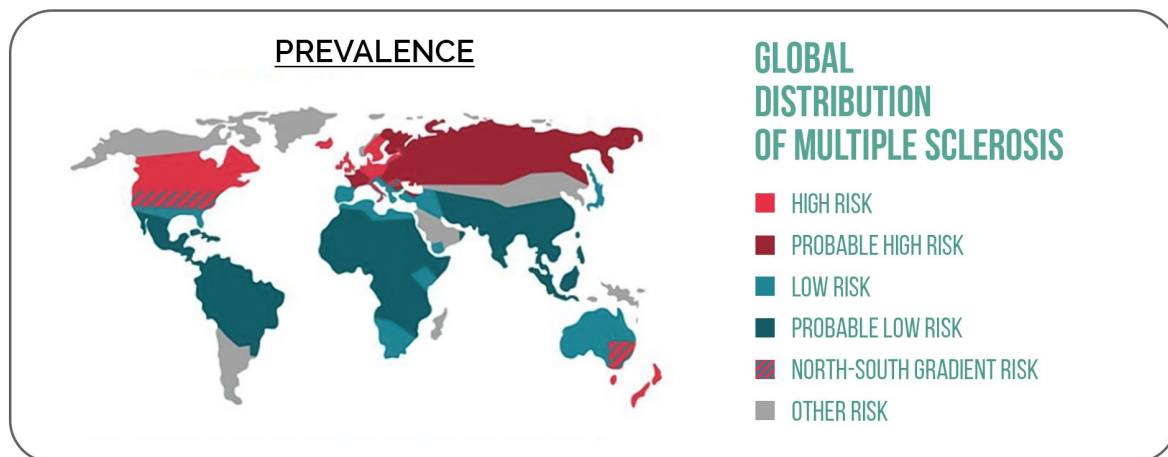
■ Neurodegenerative disorder affecting Central Nervous System



Multiple Sclerosis is a potentially disabling disease of the brain and spinal cord. the immune system attacks the protective sheath (myelin) that covers nerve fibers and causes communication problems between your brain and the rest of your body. Eventually, the disease can cause permanent damage or deterioration of the nerves.

With about 2.5 million people worldwide estimated to be affected with Multiple Sclerosis, more therapeutic research is urgently required to reduce this number significantly.

Although there is no specific medication for the neurological conditions of Multiple Sclerosis till date, the treatment regime is multimodal and often involves mental support, behavior therapy and prescribed drugs. With recent scientific advances and research in stem cell therapeutics, Multiple Sclerosis may have a new hope in the form of Regenerative Medicine.



* as per the demographics update

STEM CELL *Treatment for* **Multiple Sclerosis**

- Reduced agitation and depression.
- Reduced Fatigue and weakness.
- Improved memory, speech, and vision.
- Reduced pain and muscle spasm.
- Improved perception and thinking abilities.



Regenerative Medicine

Stem cells have the unique potential to undergo self-renewal as well as differentiate into cells of neuronal origin in the body upon natural.

What can you expect?

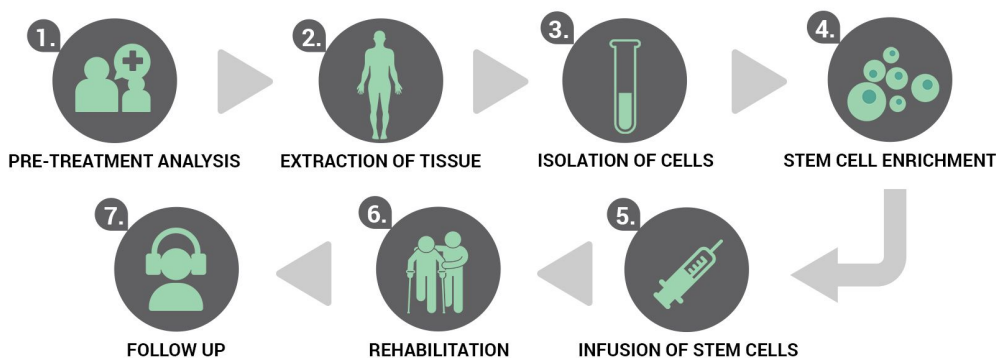
Majority of the patients treated by us have shown better focus and concentration in listening and understanding speech audios and videos. Multiple sclerosis patients have also experienced reduced body pain and muscle spasms. With reduced depression and fatigue, stem cell therapy has shown signs of stable behavior without aggression or depression in Multiple Sclerosis patients. Further to that, family members of the patients have remarked on the improvement of their gait and coordination.

Although type and extent of improvement is patient specific, some of the common benefits that you can expect after stem cells treatment for Multiple Sclerosis are:

- Reduced tremors, pain, muscle spasms and stiffness.
- Improved speech and vision with better memory and cognitive abilities.
- Reduced depression and anxiety, with better behavioral stability.
- Reduced fatigue, weakness and lack of coordination.
- Improved immunological and inflammatory functions based on pre-treatment and post-treatment marker analysis.

Cell Therapy Management

Establishment of day care procedure.



PRE-TREATMENT procedure

Complete assistance will be given to the patient in all pre treatment procedures such as consultation, hospitalization (If required), Assessment.

■ Eligibility Criteria

Pre-Treatment Assessment

- Routine Blood Test
- Routine Urine Analysis
- Infectious Disease Testing
- Physical Examination
- X-Ray

Pre-Op Procedure

- MRI
- CT Scan
- Neurophysiology
- Medical Neurological Reports
- Medical History

EXTRACTION of tissue sources

Generally the entire procedure takes around 7-8 hrs including 1-2 hrs of source aspiration, 2-3 hrs of stem cell isolation and another 1-2 hrs in injecting cells. The processing of sample is done in a state-of-the-art class 10000 clean room facility wherein we strictly adhere to maintain quality of standards. Wherein the extracted sources undergo minimum manipulation such as been spun in a centrifuge to pull out a stem cells.

TARGETED delivery

Once isolated, intensified and ready for reinstalling back into the body, we work out different mode of implantation: depending upon patient's health condition.

■ Intravenous Administration

Cells will be infused directly into the vein to be able to circulate in the vascular system. This may further help to induce immediate signaling pathways to direct cells to the site of injury.

■ Intra-thecal Administration

Intrathecal administration is the infusion of stem cells via injection into the spinal canal, most popularly known as **Lumbar Puncture**.

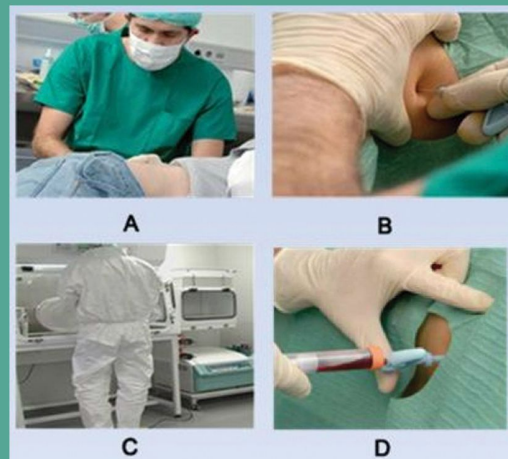
■ Intra-muscular Administration

Intra muscular injection is infusion of stem cells directly into the muscles. Clinical results have further indicated that a combination of intramuscular injections with more than one infusion protocol is much more beneficial in promoting the regeneration and functional recovery of musculoskeletal environment.

REHABILITATION

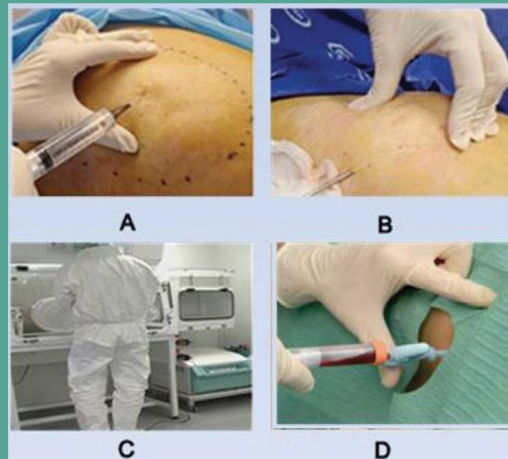
Post treatment care involves multiple reclamation therapies for accelerated recovery. Advancells is recommending range of therapies as discussed later.

Bone Marrow Extraction



- A. Application of local anesthesia.
B. Bone Marrow collection by needle insertion in the hip bone.
C. Isolation of Stem Cells in the clean room.
D. Intra-thecal Injection of stem cells.

Adipose Tissue Extraction



- A. Application of tumescent anesthesia.
B. Adipose Tissue collection by lipoaspiration.
C. Isolation of Stem Cells in the clean room.
D. Intra-thecal Injection of stem cells.

Why Should YOU choose Advancells?

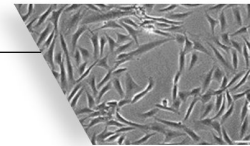
01 AUTOMATED and CLOSED System

At Advancells, stem cell therapy is performed under the supervision of medical experts in a multi speciality hospital and cells are processed in the state-of-the-art GMP compliant laboratory i.e. fully functional with automated equipments.



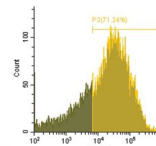
02 HIGH Quality of Cells

At Advancells, we ensure that cells are of best quality; and hence we perform a thorough **Quality Assessment** by experienced scientists. We provide a detailed certificate of analysis to each patient further authenticating the cell quantity and viability.



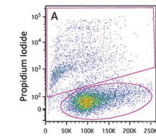
03 Disease-Specific MARKER Analysis

Our clinical research scientists do a thorough disease-specific marker analysis both **pre and post-treatment** to ensure subjective reduced expression levels of the same, thus showing evidence based assesment of improvement in each case. Reports are shared to confirm physiological improvement.



04 HIGH Concentration Enriched with MULTIPLE Cell Population

The treatment procedure is performed using a high concentration of viable cells with multiple cell population, created from a very small portion of the tissue.



05 SAFE Treatment Procedure

The procedure is completely safe and has not detected any adverse events throughout the globe.



06 PATIENT SATISFACTION Assurance

Our medical team assures you treatment aesthetics and formal consent for your stem cell therapy. We prioritize patient follow-ups to ensure that your health improvements ascend with our therapeutic solutions.



07 Globally Recognized HEALTHCARE

Advancells Regenerative Medicine solutions have been globally recognized with the CMO Asia Healthcare Award for the Best Product Innovation and Quality Initiative. We were also privileged to host His Royal Highness, the king of Kuwait, for regenerative therapy during his 2017 visit.



Special services for International Patient

- Assistance in Visa and planning travel itinerary.
- Assistance in getting comfortable accommodation in nearby location.
- Travel Assistance for sight seeing.
- Assisting with your interpretation services.
- Assisting with multiple payment options.
- Expedite arrival with fast track registration.



Each Case is Special For Us,

Therefore Every Cell has to pass through a Stringent Quality Control Parameter.

■ Clinical Definition of Stem Cells

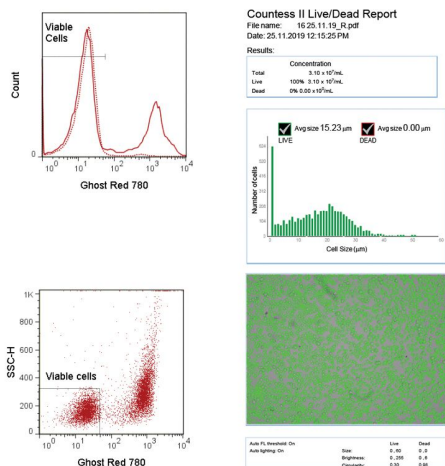
- Stem Cells are the mother cells of our body.
- They can divide unlimited times.
- Can differentiate into any cell type.
- Can be exploited to treat diseased condition.

At Advancells, we provide a high concentration of viable stem cells with enhanced differentiation potential for our treatment procedure. The patient derived stem cells are checked for mycoplasma and endotoxin contamination after isolation from the patient's body.

The stem cell suspension are checked for both gram-positive and gram-negative bacterial load during procedure for preventing any bacterial infection upon re-injecting them to the patient's body.

1.

Characteristics of Stem Cells



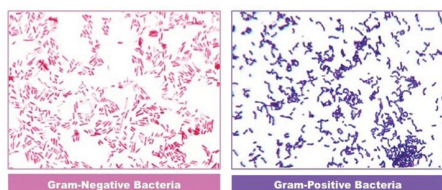
2.

Mycoplasma Detection



3.

Detection of bacterial containment



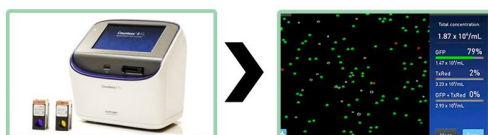
4.

Endotoxin Analysis



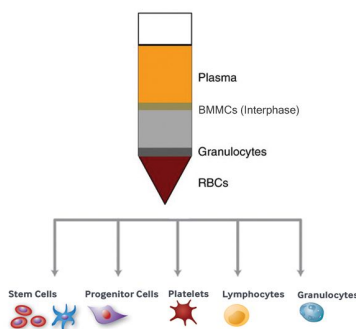
5.

Viable Cell Count & Analysis through Automated cell counter



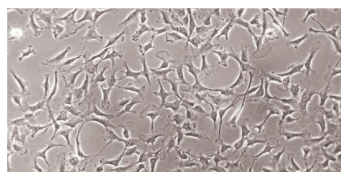
Analysis report		
Viable cell count at the time of dispatch: x * x ^x cells		
Mycoplasma : Negative		Endotoxin : Negative (Qualitative Test > 0.2EU/ml)
Marker Analysis (Reference Document No: 0024GI001552):		
Markers Detected	Interpretation	Percentage
xx	Positive/ Negative	xx%
xx	Positive/ Negative	xx%
xx	Positive/ Negative	xx%

Technology Calling...



Bone Marrow derived mononuclear cells

Neutrophil	72.3%
Eosinophil	1.8%
Lymphocyte	12.1%
Monocyte	2.8%
Nucleated Erythrocyte	8.9%
Blast Cells	1.6%

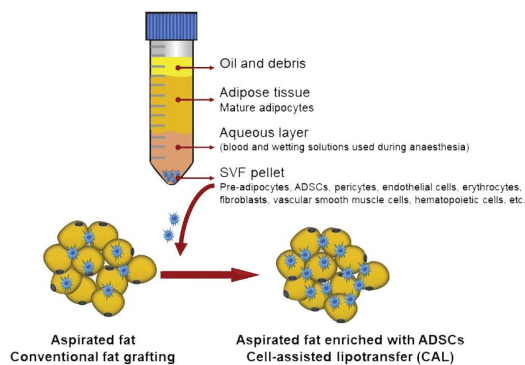


Bone Marrow Stem Cells promote vasculogenesis and differentiation to enhance blood circulation.

★ Wide Range of other cell types such as Mesenchymal Stem Cell are available for therapeutic operations.

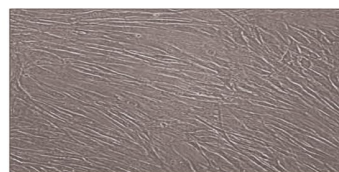
Stem Cell Therapy Success Rate

Symptoms	Percentage Improvement
Social Interaction	67.30
Eye Contact	81.06
Attention/ Concentration	83.41
Stereotypical behaviour	54.30
Aggressiveness	59.04
Hyperactivity	66.49
Self-Injurious Behaviour	61.33
Sitting Tolerance	87.93
Command Following	85.43
Speech	60.48
Communication	61.27
ISAA	94.23
CARS	95.67



Stromal Vascular Fraction

Endothelial Cells	25%
Myeloid Cells	22%
Monocyte	20%
cKit ⁺ Progenitor Cells	5%
CXCR4 ⁺ Multipotent Cells	2.5%
PDGFR-β ⁺ Perivascular Cells	20%



Pre-Adipocytes are known to produce cells of neuronal origin and regularise inflammatory immune responses.

FACILITY & EXPERTISE



Rehab is *important*

Post stem cell therapy :

- Physiotherapy
- Speech Therapy
- Hyperbaric Oxygen Therapy
- Neurofeedback
- Chelation
- Occupational Therapy
- Diet
- Counselling
- Medical Management

How should I choose a good center for stem cell therapy?

The following criteria should be kept in mind:

- A Center with all types of regulatory compliance & certifications.
- Specialized in offering safe & viable stem cells which is further certified through CoA.
- A centre with good technical expertise & good infrastructure.



People suffering from Multiple Sclerosis require long-term medical management, understanding, and care. Besides seeking treatment from an experienced neurologist, the multi-modal treatment array might include a variety of therapies based on physio and HBOT to improve their rate of potential cure and cognition.

- Reduced pain and stiffness.
- Reduce abnormal behavioral instability.
- Improve cognition and motor skills.
- Improve focus and concentration in daily activities.

Let's Hear it from the Patients..

■MR. RAHUL GUPTA, 35 YRS

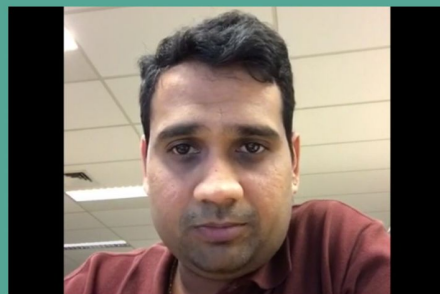
Mr. Gupta noticed significant improvements in his walking and balance within 2-3 months. He also reported that activities like showering, buttoning a shirt, and cutting nails became easier over the course of time with stem cell therapy.

■MRS. ALISON FRENCH, 35 YRS

Mrs. French was diagnosed with relapse-remitting MS and tried various drugs and changed several doctors. With stem cell therapy to her rescue, Mrs. French saw great improvements in her posture, weight, pain, and muscle spasms. She also reported that with stem cell therapy and rehabilitation therapies, she was better focused and less anxious than before.

■MR. DAVID KANNENBERG, 54 YRS

After 1-2 months, Mr. Kannenberg reported improvements in his posture, mobility and pain symptoms. He also witnessed reduced stiffness and numbness in his limbs with stem cell therapy. Mr. Kannenberg required a second stem cell therapy appointment as his conditions were reverting back but one year after the second treatment, his wife reported that his balance has improved to 80% and his spatial memory has also improved.



Certifications





Advancells

G R O U P

Shaping the Future




A-102, Sector 5, Noida, India - 201301

+91-96543 21400 +91 120 425 0694

info@advancells.com

 www.advancells.com

 www.advancellsgroup.com

 +91-96543 21400

 +91-96543 21400

 /advancells

 /advancells

 @advancells

 /company/advancells/