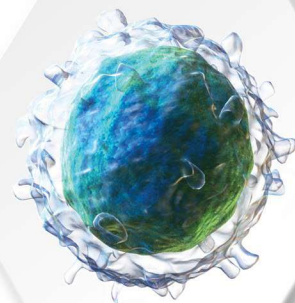


# Parkinson's Disorder





**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.

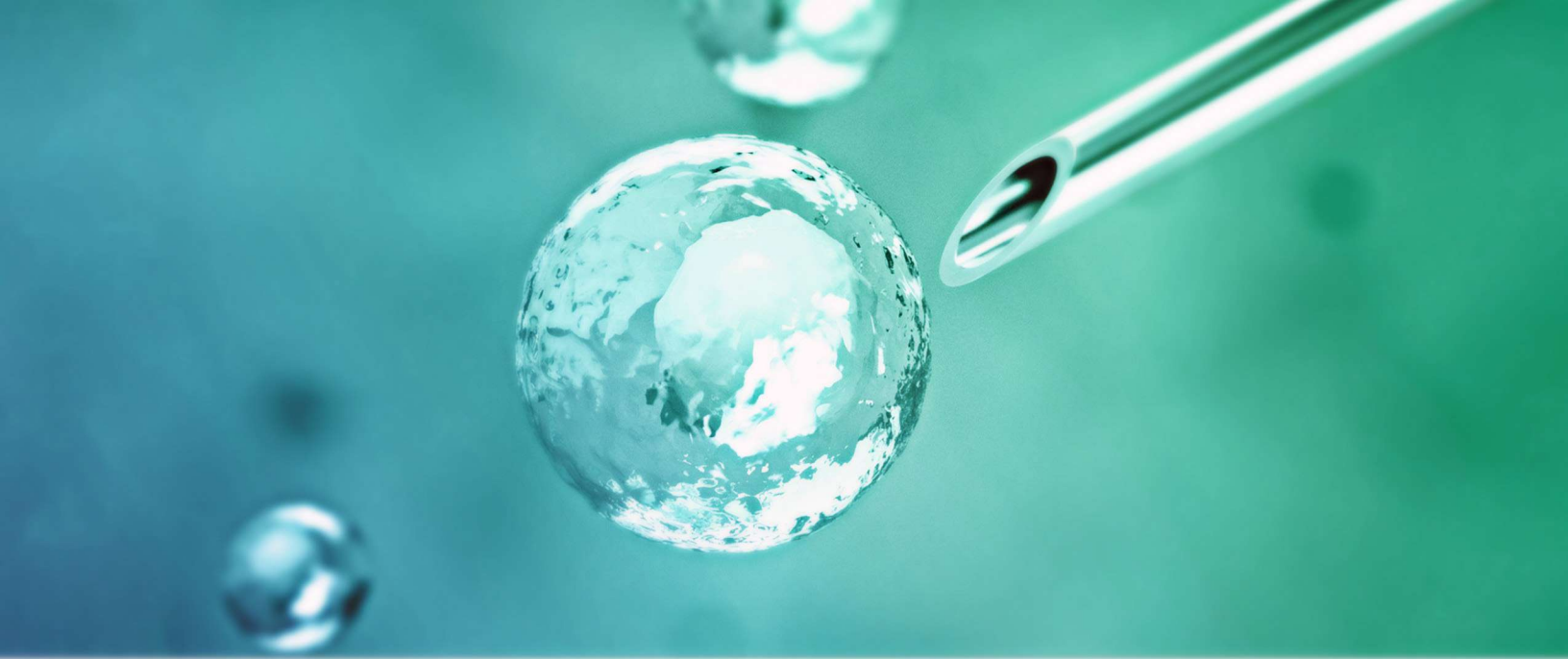
With the **CMO Asia Healthcare Excellence Award** and the **Healthcare and Lifescience Award** (Corporate LiveWire) adorning our achievements, we provide the best medical consultation with value to treatment aesthetics and patient consent. Besides patient-friendly therapeutics, we also aid efficient 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



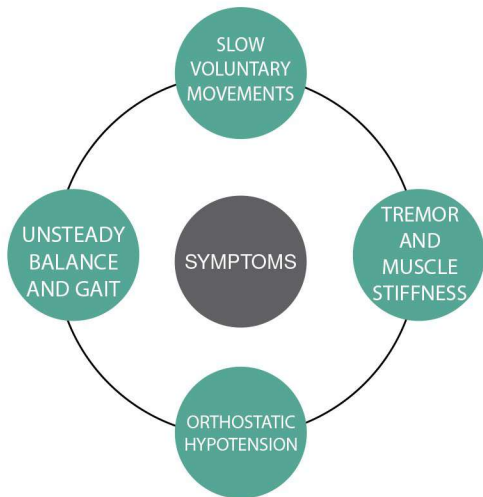
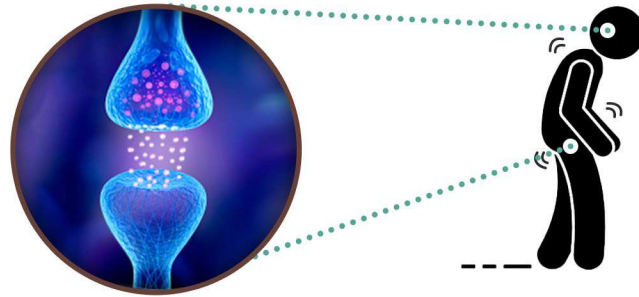
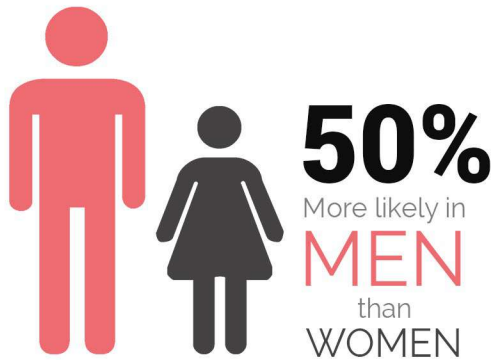


# TABLE OF CONTENTS

|     |   |    |     |                                     |    |
|-----|---|----|-----|-------------------------------------|----|
| 01. | ABOUT PARKINSON'S DISORDER                  | 03 | 02. | STEM CELL TREATMENT                 | 04 |
| 03. | CELL THERAPY MANAGEMENT                     | 05 | 04. | WHY SHOULD YOU CHOOSE ADVANCECELLS? | 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 Parkinson's Disorder?

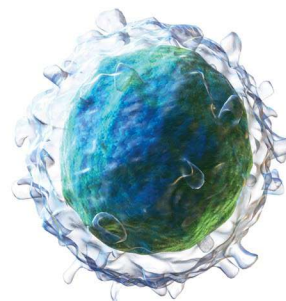
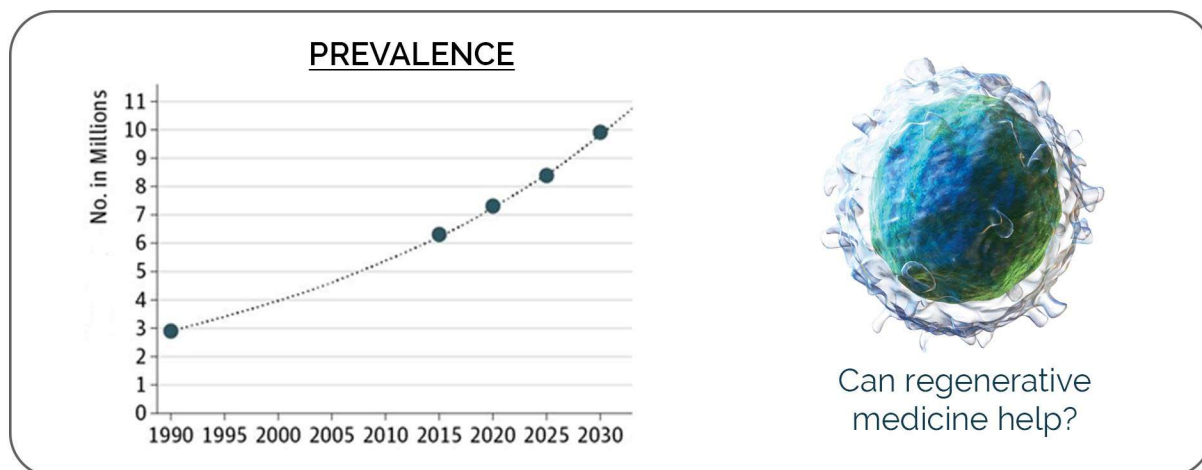
■ Neurodegenerative disorder affecting dopaminergic neurons in the brain



Parkinson's disorder is a progressive neurodegenerative disease of midbrain nerve cells that affects body movements. In Parkinson's nerve cells producing dopamine face degeneration and accordingly, neurotransmitters in the brain that control body movements, are hampered. The common risk factors of Parkinson's disorder are age, genetic inheritance, prior infections and other neurological disorders like Alzheimer's.

With more than 10 million people worldwide to be diagnosed with Parkinson's disorder by 2030, more therapeutic research on the conditions are urgently required to reduce this number significantly.

Although scientific research is ongoing to explore the underlying mechanisms for the neurological conditions of Parkinson's disorder, the multi-modal treatment regime involves mental support, speech & behavioral therapy, and dopamine-regulating drugs. With recent scientific advances and research in stem cell therapeutics, Parkinson's disease may have a new hope in the form of Regenerative Medicine.



Can regenerative medicine help?

\*as per the demographics update

# **STEM CELL** *Treatment for* **Parkinson's Disorder**

- Reduced tremors and improved gait.
- Improved speech development.
- Improved movements and agility.
- Reduced muscle stiffness and pain.
- Improved balance and posture.



## **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?**

Being a progressive degenerative disorder, symptoms of Parkinson's mostly start with a barely noticeable tremor in one's hands or head. With time, slurred speech and loss of facial expression show up in cases of Parkinson's diagnosis. Majority of the Parkinson's patients treated by us have shown signs of reduced muscle tremors and rigidity, with improvements in movement, reading and writing abilities. Further to that, the patients have also experienced very low incidence of other associated neurological disorders like dementia and Alzheimer's.

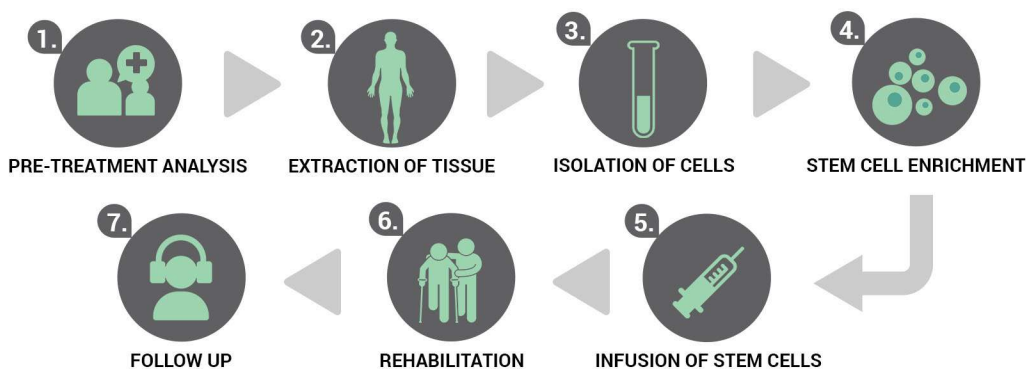
Although the type and extent of improvement is patient specific, some of the common benefits that you can expect after stem cells treatment for Parkinson's are:

- Improved muscle movements and involuntary actions like blinking, digesting, etc.
- Improved body posture and balance for orthostatic stability.
- Reduced muscle tremors and choreographic movements of the body.
- Improved speech and facial expressions for communication.
- 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 cull 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

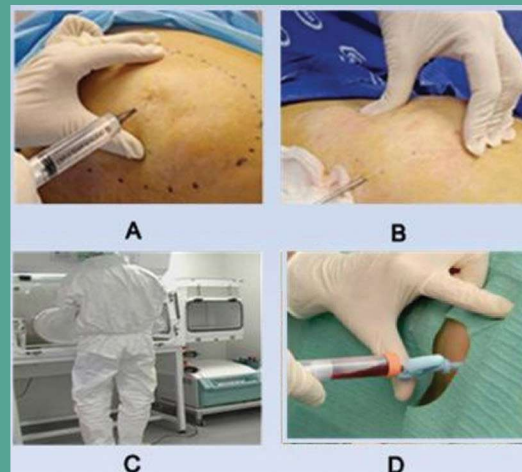
Post treatment care involves multiple reclamation therapies for accelerated recovery. Advancells is recommending range of therapies as discussed later.

## 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?

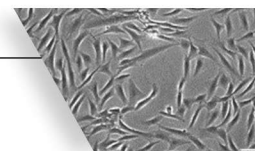
## 01 AUTOMATED and CLOSED System

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.



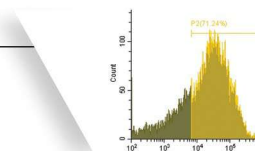
## 02 HIGH Quality of Cells

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.



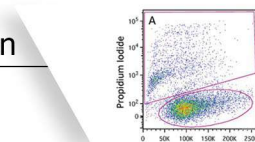
## 03 Disease-Specific MARKER Analysis

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

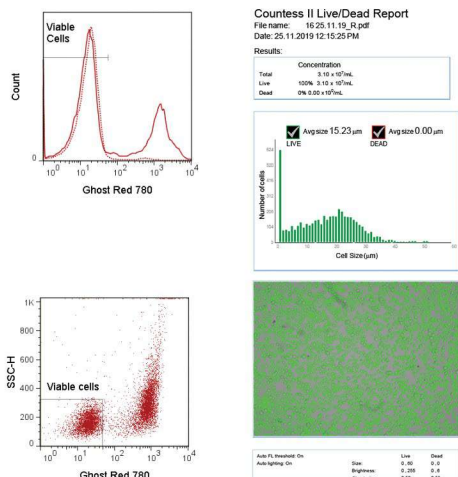
- Stem Cells are the mother cells of our body.
- They can divide unlimited times.
- Can differentiate into any cell type.
- Can be exploited to treat diseased condition.

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



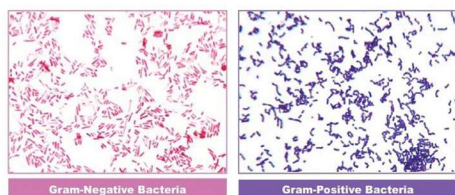
### 2.

#### Mycoplasma Detection



### 3.

#### Detection of bacterial containment



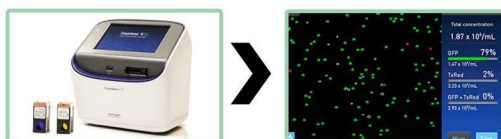
### 4.

#### Endotoxin Analysis



### 5.

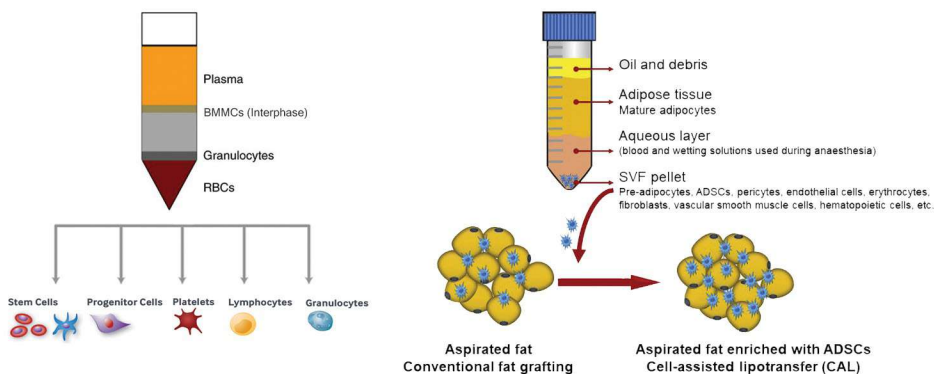
#### Viable Cell Count & Analysis through Automated cell counter



| Analysis report  |  |            |
|--|--|------------|
| Viable cell count at the time of dispatch: x *x <sup>6</sup> 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%        |

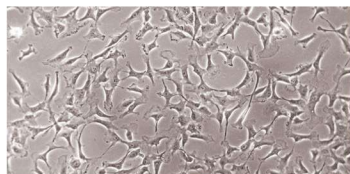


## Technology Calling...



### Bone Marrow derived mononuclear cells

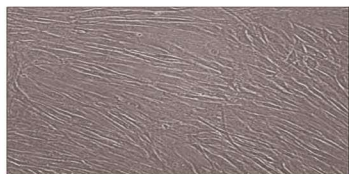
|                       |       |
|-----------------------|-------|
| Neutrophil            | 72.3% |
| Eosinophil            | 1.8%  |
| Lymphocyte            | 12.1% |
| Monocyte              | 2.8%  |
| Nucleated Erythrocyte | 8.9%  |
| Blast Cells           | 1.6%  |



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

### Stromal Vascular Fraction

|   |      |
|---|------|
| Endothelial Cells                       | 25%  |
| Myeloid Cells                           | 22%  |
| Monocyte                                | 20%  |
| cKit <sup>+</sup> Progenitor Cells      | 5%   |
| CXCR4 <sup>+</sup> Multipotent Cells    | 2.5% |
| PDGFR-β <sup>+</sup> Perivascular Cells | 20%  |



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

★ 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                  |

## FACILITY & EXPERTISE



## Let's Hear it from the Patients..

### ■ MRS. LAWRENCE LINDSEY, 68 YRS

6 months after treatment, Mrs. Lindsey's family noticed significant improvements in stamina and walking ability. She also gained better balance and could do exercise longer than before. Although her Parkinson's have not been cured, Mrs. Lawrence is hopeful with positive changes.

### ■ MRS. GILDA BERTRAN, 54 YRS

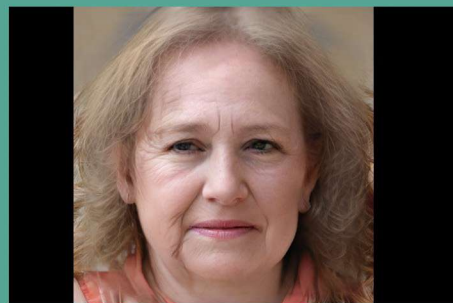
According to Mrs. Gilda, post-stem cell therapy, she experienced less mood swings and better body posture. Stem cell therapy also helped her reduce the tremors in hands. Mrs. Gilda is happy to be more emotionally stable as compared to before therapy.

### ■ MR. HERMAN E, 70 YRS

Mr. Herman's wife reported that his Parkinson's symptoms were much reduced and he could walk better with very few falling incidents. She also reported his posture to be in an improved state than before the therapy.

### ■ MR. BOB RANSLEY, 68 YRS

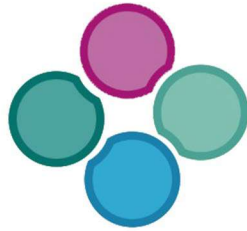
As he was not sure of going for brain surgery, Mr. Bob chose stem cell therapy as an alternative for his Parkinson's conditions. After his treatment for Parkinson's, Mr. Bob saw effective improvements in his walking, posture, cognition, and sleeping.



## 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](http://www.advancells.com)

 [www.advancellsgroup.com](http://www.advancellsgroup.com)

 +91-96543 21400

 +91-96543 21400

 /advancells

 /advancells

 @advancells

 /company/advancells/