



NeuroGen Brain & Spine Institute®

Comprehensive Clinical Care Centre For Neurological Disorders

ISO 9001:2015 Certified



Over 16500+ Patients
Treated from 113+ Countries



112+ Scientific Papers &
24+ Published Books

International Achievements

USA

“Doctor Julius Wayne Dudey Award”

by The Socio Economic Development Foundation of Boston Inc. USA
at **Boston, USA**
(May 2022)



“Inspirational Company”

by World Confederation of Business at St Thomas, **Virgin Islands, USA**
(July 2017)



Europe

“The Rose of Paracelsus Award”

by European Medical Association (EMA) and Socrates Nomination Committee
Cannes, France
(October 2016)



“European Award of Best Practices”

by European Society of Quality Research
at **Brussels, Belgium**
(May 2018)



UK

“Nelson Mandela Leadership Award”

Oxford, UK
(September 2023)



“Bharat Gaurav Award”

Given at the British Parliament
By the **British Member of Parliament Virendra Sharma**
London, UK
(July 2019)



Asia

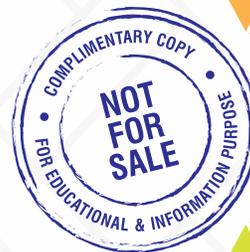
“Sino-Phil Asia Peace Award”

by the Sino-Phil Asia International Peace Awards Foundation Inc.
Manilla, Phillippines
(January 2023)



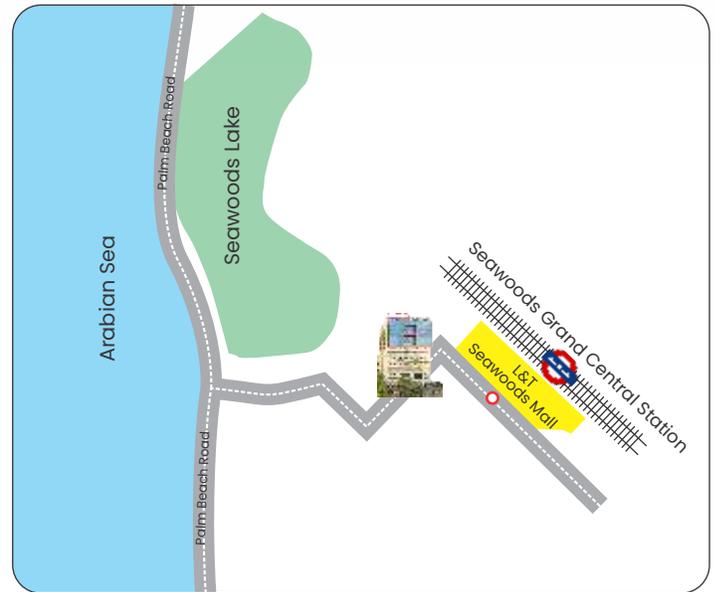
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About NeuroGen Brain & Spine Institute

NeuroGen Brain and Spine Institute is an eleven-floor building located in the serene surroundings of Seawoods, adjacent to a lake and the Arabian Sea. It is Located just off the prestigious Palm Beach road and next to India's largest railway station complex, The Seawoods Grand Central Station. It is easily accessible by road and local train services and is close to prestigious 5-star hotels such as Four Points by Sheraton, Marriott, IBIS and large shopping complexes such as D-Mart and Inorbit.



NeuroGen Brain & Spine Institute has been set up to help patients with incurable neurological disorders such as autism, cerebral palsy, mental retardation, muscular dystrophy, spinal cord injury, head injury, stroke, etc. We use a multidisciplinary approach to relieve the symptoms and improve quality of life of such patients.

We are pioneers in autologous bone marrow mononuclear cells grafting (ABMMCG) for neurological disorders. We have a holistic, comprehensive approach to treat our patients.

We use autologous bone marrow derived cells (from the

patient's own bone marrow), as they are the safest and most feasible type of cells. Since every patient is different, our treatment protocol is customized according to the patient's requirement.

Along with treating our patients, there is also a strong emphasis on research as we constantly endeavor to offer our patients the latest and the best medical treatment. The clinical results of our treatment are all published in peer reviewed medical journals and are easily accessible to both the medical fraternity as well as patients.

Actual View of the Arabian Sea and Lake from the Rooms in NeuroGen

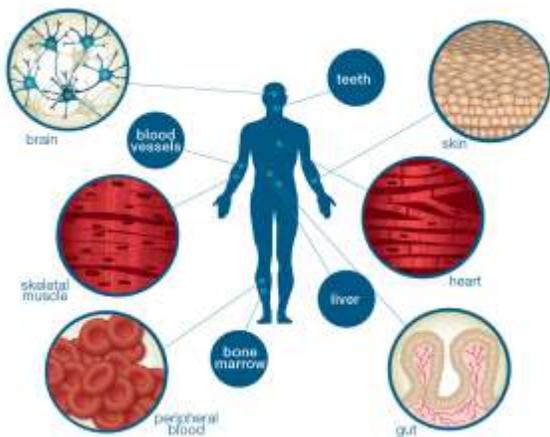


WHAT WE DO?



Our approach consists of using a combination of:

- 1 Autologous Bone Marrow Mononuclear Cells Grafting (ABMMCG)
- 2 Comprehensive clinical care
- 3 Integrative Therapy
- 4 Other Medical and Surgical treatment



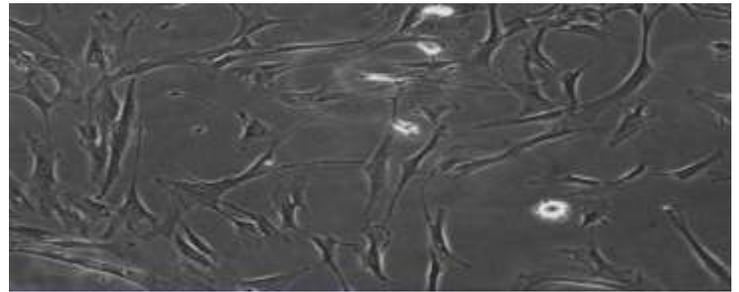
TYPES OF BONE MARROW MONONUCLEAR CELLS ?

There are two main types of bone marrow mononuclear cells :

a) Autologous Cells: These are the Cells derived from the patient's own body, such as bone marrow cells. Since these cells are obtained from the patients themselves they are absolutely safe and have no compatibility issue. Hence rejection is not a possibility. Also they are available in abundance and can be isolated easily. They are therefore the safest option.

b) Allogenic Cells: These are the bone marrow mononuclear cells taken from another person. The sources of these cells could be from the embryo, umbilical cord, placenta etc.

WHAT IS ABMMCG?



Cells are the building blocks of our body. These are very unique cells which have the property to multiply many times and form different types of cells and tissues within our body. Hence, these Cells can be used to regenerate & repair the damaged parts of our body. For e.g., these cells have been used to form neural cells in patients with brain disorder and muscle cells in muscular diseases, etc.

HOW DO BONE MARROW MONONUCLEAR CELLS WORK?

Bone marrow mononuclear cells work by following mechanisms:

1. They release growth factors which have healing and regenerative effects on damaged tissue.
2. They cause angio-genesis or increase in the blood supply to the damaged tissue there by helping in their repair process.
3. They convert into the tissue type of cells into which they are implanted, thereby replacing non-functioning tissue.



At NeuroGen Brain and Spine Institute we use patient's own bone marrow derived cells making it the safest cell type to use

Treatment Protocol at NeuroGen

The procedure for Autologous Bone Marrow Cell Transplantation is minimally invasive with extremely simple steps. However, it can be a highly effective treatment option for individuals and may offer patients a chance for a recovery or long-term remission. One of the significant advantages of using autologous BMMNCs is that they are derived from the patient's body, reducing the risk of rejection or adverse immune reactions.

What is Autologous Bone Marrow?

Autologous bone marrow-derived mononuclear cells are harvested from a patient's own bone marrow. They are composed of various cell types, including hematopoietic cells, mesenchymal cells, etc. These cells have been extensively studied for potential use in ABMMCG, particularly in treating neurodevelopmental conditions like Autism, Cerebral Palsy, Neurotraumatic conditions like Spinal Cord Injury and Head Injury, and neuromuscular disorders like Muscular Dystrophy and ALS. They have also been investigated for their ability to modulate the vascular system and potentially treat neurovascular conditions like stroke and dementia. Overall, autologous bone marrow cell transplantation is a promising treatment option for a variety of conditions.

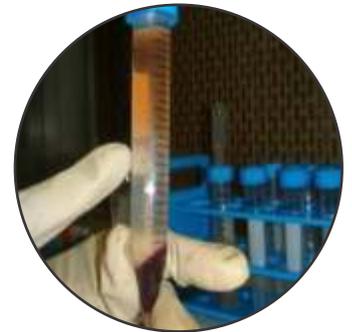
The Procedure is carried out in only 3 steps:



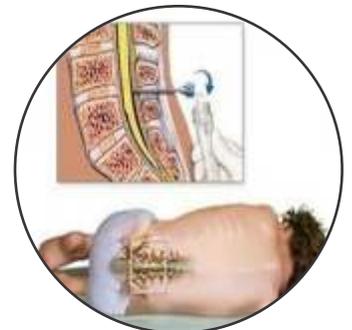
Bone Marrow Aspiration: In this procedure, a small amount of bone marrow is removed from the pelvic bone. This is done through a bone marrow aspiration needle, which is inserted into the pelvic bone. The procedure is usually done under local anesthesia. The entire time taken to do this is only 15 minutes. Between 80ml to 120ml of bone marrow is aspirated, depending on the weight of the patient. The patient is sent back to the room to rest for the next step of the procedure.



Separation of Mononuclear Cells: On the same day, the mononuclear cells are separated and purified in the Cell Laboratory by using a procedure referred to as density gradient centrifugation.



Cell Injection: Once cells are separated and purified, patient is taken back to the operation theatre. The cells are injected into the cerebrospinal fluid (the fluid that circulates around the spinal cord and brain) using a thin spinal needle. This is called as Intrathecal injection via a lumbar puncture.



What can be treated?

PEDIATRIC



Autism

Autism is a neurodevelopmental disorder characterized by impaired social interaction, verbal and non-verbal communication, and restricted and repetitive behavior. Parents usually notice signs in the first two years of their child's life. These signs often develop gradually, though some children with autism reach their developmental milestones at a normal pace and then regress.



Muscular Dystrophy

Muscular dystrophy (MD) is a genetic disorder that causes the muscles in the body to gradually weaken and eventually stop working. It is caused by incorrect or missing genetic information that prevents the body from correctly making the proteins needed to build and maintain healthy muscles. Over time, people with MD lose the ability to walk, sit upright, breathe easily, and move their arms and hands. Hence it is a progressively deteriorating disorder, which leads to death, sometimes, as early as 20 years of age.



Cerebral Palsy

Cerebral palsy, is a neurodevelopmental disorder, which is caused by any event leading to the damage to brain around the time of birth. The causes can range from nutritional factors, to physical trauma, hypoxia/lack of oxygen flow due to factors such as cord around the neck, birth asphyxia, etc. The impact ranges from mild physical disability to very severe disability along with comorbid mental retardation.



Intellectual Disability

Mental retardation/Intellectual disability (ID) is a generalized neurodevelopmental disorder characterized by significantly impaired intellectual and adaptive functioning. It is defined by an IQ score below 70 in addition to deficits in ability to perform activities of daily routine.

ADULT



Spinal Cord Injury

An injury to the spinal cord can happen due to trauma (such as road traffic accident, fall from a height, etc.) or due to non-traumatic conditions (spinal tumor or infection of the spine). Depending on the level of the injury, a person can be rendered paralyzed below the neck in a cervical cord injury (quadriplegia) or below chest/waist in a thoracic/dorsal cord injury (paraplegia) along with loss of bladder and bowel continence.



Stroke

Brain Stroke or Cerebrovascular accident is the most devastating condition of brain. Stroke is a leading cause of disability in the world. It causes permanent damage of the brain functions which might result in inability to move limbs, vision problem, speech problems, altered sensations or cognitive impairments. Stroke can be of two types, Ischemic or Hemorrhagic.



Traumatic Brain Injury / Head Injury

Brain damage sustained due to trauma can be very devastating, leading to physical disability, loss of function, amnesia, loss of cognitive function and understanding. This often leaves a permanent disability and renders a person completely dependent on his caretaker for all activities.



Motor Neuro Disease / Amyotrophic Lateral Sclerosis

A motor neuron disease (MND) is a neurological disorder that selectively affects motor neurons, the cells that control voluntary muscle activity including speaking, walking, swallowing, and general movement of the body. They are neurodegenerative in nature, and cause increasing disability and eventually, death.



Other Neurological Disorders

Cerebellar Ataxia, Cerebral Atrophy, Spino Cerebellar Ataxia, Multiple System Atrophy and Dementia.

Facilities at NeuroGen

Medical and Surgical Departments

- Operation Theater
- Cell Laboratory
- Diagnostic Center



Adult and Pediatric Comprehensive Clinical Care Department

- Physiotherapy Department
- Occupational Therapy Department
- Autism Child Development Center
- Speech Therapy
- Department of Psychology
- Applied Behavioural Analysis (ABA)
- Special Education
- Sensory Integration
- Aquatic Therapy



Patient Care at NeuroGen



Registration Desk

Registration Desk

- Once you reach NeuroGen our Patient Service team will help you with scheduling appointment with our doctors.
- Appointments for all the pre-operative tests will also be managed by us. (MRI, EEG, EMG, NCV, PET-SCAN, Blood test etc).



Suite Room

Accommodations

- At NeuroGen brain and spine institute we offer 4 types of accommodation. A variety of bed types are made available to suit the requirements of patients, keeping in mind their convenience and affordability.

Bed types range from Deluxe Suites to General ward as follows:-



Deluxe Room

Suite Room

Service includes: Big AC Room for patient, attached restroom, Refrigerator, Microwave, TV, Electric kettle, In-Phone Dial & Free Wi-Fi.



Semi Deluxe Room

Deluxe Room

Service includes: Single AC Room, 1 Bed for patient and small attendant bed, TV, Attached Restroom, Refrigerator, Electric kettle & Microwave.

Twin Sharing / Semi Deluxe Room

Service includes: 1 AC Room with 2 Patients bed per room, small attendant recliner bed, Shared TV & Attached Restroom to be shared by 2 patients.



General Ward

General Ward

Service includes: 1 Bed each for the patients and a small recliner bed for attendant, Common TV, AC & Common Restrooms.

Facilities at NeuroGen Annexe

Integrative Therapies at NeuroGen Annexe

Our state-of-the-art facility is built to provide pioneering technologies under one roof to boost your immunity. Oxygen therapies, including Hyperbaric Oxygen Therapy and Ozone Therapy boost your body's oxygen content, thus improving tissue function; Ozone Therapy also activates the body's natural antioxidant response. This in turn fine-tunes the body's immune response. IV Vitamin Therapy replenishes the body's essential vitamins and minerals; Gut Cleansing improves digestive health, further strengthening your immunity. Infrared Sauna uses heat to relax muscles and reduce pain; and Acupressure Tissue Mobilization provide targeted pain relief, revitalizing your body. These customized therapies work synergistically to supercharge your immunity on all fronts.

- Hyperbaric Oxygen Therapy
- Ozone Therapy
- Accupressure / Deep Tissue Mobilization
- IV Vitamin Therapy
- Gut Cleansing





Dr Alok Sharma

Dr Alok Sharma is a world renowned Neurosurgeon, Neuroscientist and Professor who brings with him extensive surgical expertise & experience in the areas of Neurosurgery, Neuroscience and ABMMCG. He is currently the Director of NeuroGen Brain and Spine Institute. He has over 30 years of experience in the field of Neurosurgery and has several awards and recognitions to his name.

Dr Nandini Gokulchandran

Dr Nandini Gokulchandran is the Deputy Director and Head of Medical Services at NeuroGen Brain and Spine Institute. She has worked for several years with the esteemed Tata Institute of Fundamental Research (TIFR) where she worked around subjects concerning ABMMCG and neuroregeneration. She brings to NeuroGen an astute amalgamation of medical / clinical backgrounds with deep faith and understanding of research in ABMMCG.



Dr Prerna Badhe

Dr Prerna Badhe is a Consultant Neuropathologist, Deputy Director and Head Cell Laboratory services at the NeuroGen Brain and Spine Institute. She has authored several research papers and most of her work has been published in journals of international repute. Trained at the National Institute of Health, NIH, Baltimore, John Hopkins, USA, in Neural Cells and at the Kentucky Spinal Cord and Injury Research Centre, KSCIRC, USA, in Molecular Neurobiology and Neuroregeneration, she set up the Cell Centre at the L.T.M. Medical college & L.T.M. General Hospital, Sion, Mumbai.

Dr Hemangi Sane

Dr Hemangi Sane is the Deputy Director and Head of Research and Development at NeuroGen Brain and Spine Institute. She is a trained physician with an MD in Internal Medicine from New York Medical College, USA. She is one of the leading physicians of the world and is committed towards finding treatment for neurological disorders through research. Along with her interest in medicine and academics, she is a deeply devoted socialist and runs her foundation "Asha Ek Hope" for patients diagnosed with ALS/MND.



NeuroGen Neuro Rehabilitation

Adult Rehabilitation

Rehabilitation Services

- Physiotherapy
- Occupational Therapy
- Neuro-psychological Intervention
- Neuro-pediatric Department
- Speech Therapy
- Diet Counseling
- Aquatic Therapy
- Pain and Spasticity Management
- Hand & Splinting Rehabilitation
- Yoga Therapy
- Electro Therapy

NDT (Neuro Developmental Therapy)

Internationally Recognized
"Walking Programme" for spinal
cord injury & other paralysed patients.

Regular Consultations

- Neuro Surgeon
- Neuro Physician
- Pediatrician
- Anesthetist

Special Consultations

- Urologist
- Andrologist
- Cardiologist
- Psychiatrist
- Orthopedic Surgeon
- Plastic Surgeon





Autism Child Development Centre

Autism Child Development Centre (ACDC) is a rehabilitation centre for children affected with autism and other neurodevelopmental disorders. We provide all-round holistic treatment in a comfortable and leisurely environment.

Therapies Available

- Applied Behaviour Analysis (ABA)
- Occupation Therapy
- Sensory Integration
- Psychological Intervention
- Speech Therapy
- Physiotherapy
- Diet & Nutrition
- Art Based Therapy
- Music Therapy
- Play Therapy
- Aquatic Therapy
- Special Education

NeuroGen Special Facilities



Aquatic Therapy



Sensory Integration Therapy



Dedicated Pediatric Comprehensive Clinical Care Facility



NeuroGen Experience - 1 Week Program

What is the treatment protocol comprised of?

The components of a treatment protocol can vary depending on the specific condition being treated and the type of treatment being used. At NeuroGen, we use a unique protocol termed as Autologous Bone Marrow Mononuclear Cells Grafting (ABMMCG).

The complete treatment involves ABMMCG using adult bone marrow derived cells, Neurological and other treatments using Neuroprotective and other medication, and rehabilitation which includes physiotherapy, occupational therapy, speech therapy, counseling, and creative visualization.

The treatment protocol may also include information on the frequency and duration of treatment. The total hospitalization period is 6 days. Extended stay options for longer rehabilitation are also available. It also includes necessary follow-up care or monitoring. All the complaints, problems, and symptoms are attended to by appropriate consultants, and suitable treatments are initiated.

Our comprehensive treatment involves a holistic approach towards the total well-being of the patient. An improvement in their neurological condition helps in making the quality of life better.

DAY 1-2

Complete evaluation - Neurological and functional assessment. Special investigations such as MRI, Pet scan EEG, etc. Also, Clinical assessments by other therapists are done.



Doctor's Consultation



Pre Operative Investigation



Complete Assessment

DAY 3

ABMMCG - ABMMCG is a type of medical treatment that involves the use of cells to prevent, treat, or cure.



Bone Marrow Aspiration



Separation



Injection

DAY 4-7

Extensive Neuro-Rehabilitation - These include both adult and pediatric rehabilitation followed by discharge procedures.



Adult Rehabilitation



Pediatric Rehabilitation



Psychological Counseling & Discharge

NeuroGen Experience - 2 Weeks Program

DAY 1-2

Complete evaluation - Neurological and functional assessment.
Special investigation such as MRI, PET scan, EEG etc.
Clinical assessment by other therapists are done.



Doctor's Consultation



Pre Operative Investigation



Complete Assessment

DAY 3

Autologous Bone Marrow Mononuclear Cells Grafting (ABMMCG)



Bone Marrow Aspiration



Separation



Injection

DAY 4-14

Extensive Comprehensive Clinical Care including both adult or pediatric rehabilitation and **Integrative Therapy** including Hyperbaric Oxygen Therapy, Ozone Therapy and Acupressure / Deep Tissue Mobilization. *Followed by transfer procedure to NeuroGen Annexe.*



Adult Rehabilitation



Pediatric Rehabilitation



Psychological Counseling & Discharge



Hyperbaric Oxygen Therapy



Ozone Therapy



Deep Tissue Mobilization



Autism

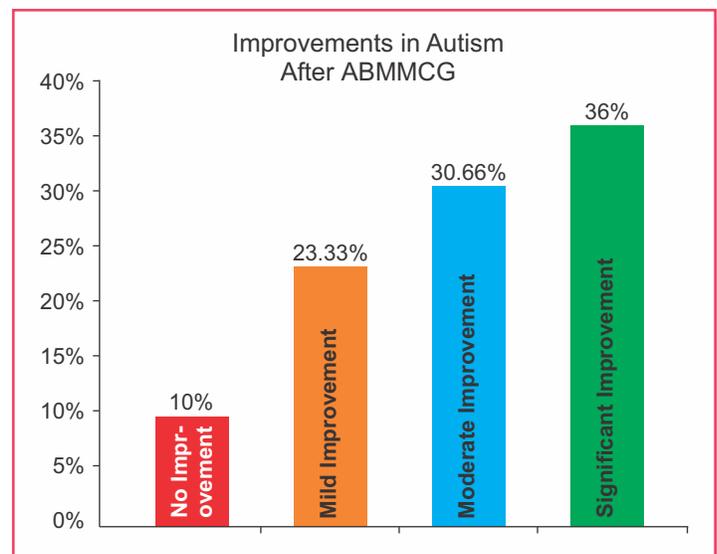
About Autism

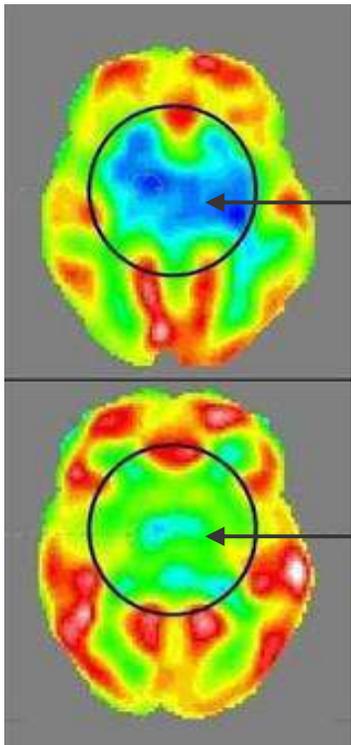
Autism is a neurodevelopmental disorder characterized by impaired social interaction, verbal and non-verbal communication, and restricted and repetitive behavior. Parents usually notice signs in the first two years of their child's life. These signs often develop gradually, though some children with autism reach their developmental milestones at a normal pace and then regress.

Improvements after ABMMCG

Following ABMMCG in children with autism, it is found that the child's hyperactivity reduces, eye contact improves, attention span improves, social awareness improves, interaction with peer improves, irrelevant speech decreases, response to commands improves, overall behaviour becomes more manageable. Fine motor activity becomes better and self stimulatory behaviour reduces. These changes are seen in about 91% of the children.

Also, communication of needs and opinions is achieved. In children with no speech, or limited speech we start noticing improvements. The above clinical improvements are also accompanied by objective improvements seen in the brain imaging such as PET-CT scan.





PET CT scan of the brain before ABMMCG shows blue areas that represent reduced brain activity due to the abnormality that occurs to the brain tissue in autism.

PET CT scan brain 6 months after ABMMCG shows that the blue areas have reduced, indicating that the abnormal tissues have been repaired, highlighting the positive effects of the ABMMCG.

Representative Case Report:

Master LV is a 11 years old child with autism from London, UK, who first came to India for ABMMCG 2 years back. LV was diagnosed to have autism, when he was 4 and a half years old. In the UK, he received the best treatment as well as rehabilitation therapies available. However, for almost 5 years, parents did not find any improvement in him.

He had the following symptoms - Poor social interaction, fleeting eye contact, inappropriate emotional responses like irrelevant laughing and crying without any reason, motor mannerisms like finger fidgeting, rocking etc. smelling objects, making unusual noises, fear of loud noises, weak fine motor skills, poor - fair perceptual and cognitive skills. After undergoing ABMMCG he has shown remarkable improvements in perceptual and cognitive skills like better eye contact, increased attention span and increase in general awareness. Improvement in sensory problems and motor mannerisms have reduced in public places. His social interaction and communications are better now. He has become more independent in activities of daily living. His learning and comprehension have improved tremendously, such that now he is able to solve a 100 piece puzzle in less than 5 minutes!! A child who had low tone and severe imbalance issues, can now skate like a professional!

All this has been possible only after ABMMCG. LV'S life has changed for the better.



Cerebral Palsy

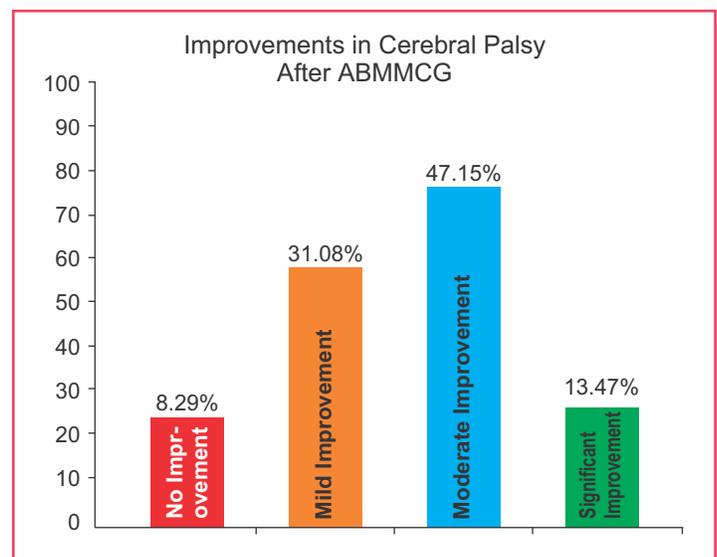
About Cerebral Palsy:

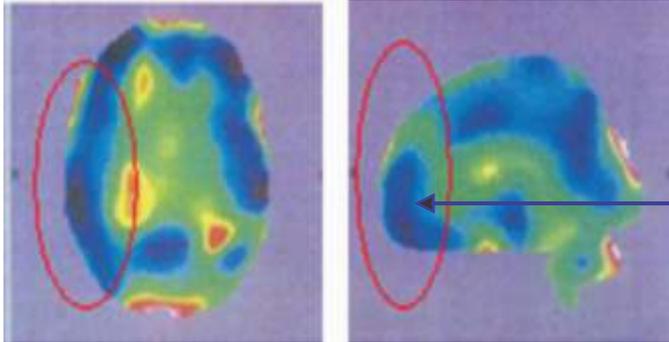
Cerebral palsy, is a non progressive neurodevelopmental disorder, which is caused by any event leading to damage to the brain around the time of birth. The causes can range from to nutritional factors, physical trauma, hypoxia / lack of oxygen flow due to factors such as cord around the neck, to birth asphyxia, etc. The impact ranges from mild physical disability to very severe disability along with comorbid mental retardation. Some children also have accompanied fits / seizures / convulsions, that complicate the prognosis.

Improvements after ABMMCG:

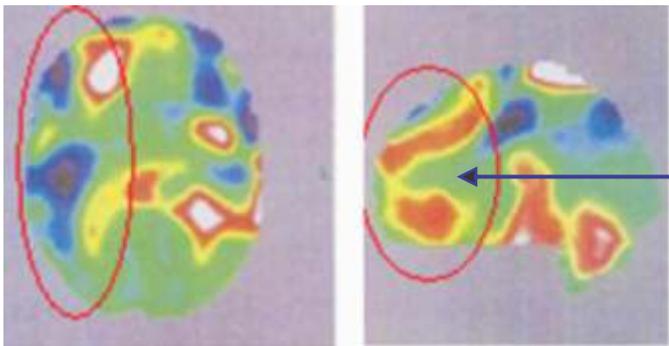
After ABMMCG, improvements are seen in oromotor or speech, balance, trunk activity, upper limb activity, lower limb activity, muscle tone and ambulation. In our experience, we find that, 92.6% of our patients improved after ABMMCG. The aim is to improve the milestone development in the children, such that a child can be helped to lead an independent life.

These functional changes that have been seen in our patients can be co-related with the improvements in the brain metabolism as well. This is observed in specialized brain scans such as, the PET-CT (Positron emission tomography-computerized tomography) scans of the patients.





PET CT scan of the brain before ABMMCG shows the blue areas that represent reduced brain activity due to the damage that occurs to the brain tissue in CP.



PET CT scan brain 6 months after ABMMCG shows that the blue areas have reduced indicating that the damaged tissues have been repaired highlighting the positive effects of the ABMMCG.

Representative Case Report:

Master SK is an 8 years old child with Cerebral Palsy and autistic features due to complications soon after birth. He had delayed development with imbalance in walking, vision problems and fine motor activities. He also had difficulty in academics along with epilepsy.

After ABMMCG, Master SK has shown progressive improvements in physical as well as cognitive aspects. His balance, coordination and posture has improved. This has in turn improved his walking and staircase climbing activities. He has started performing well in school. His vision has also improved and he is able to watch television from a longer distance than before. His autistic features have also improved, such as social interaction and interest in surroundings. His drooling has reduced and speech has become clearer. Most importantly, the durations of his fits / seizures has also reduced.

Hence, what Master SK had not achieved in 8 years, he was able to achieve in just 6 months after ABMMCG.



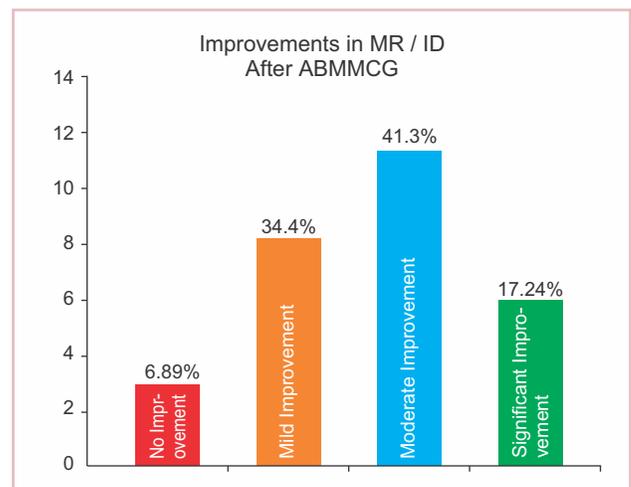
Intellectual Disability

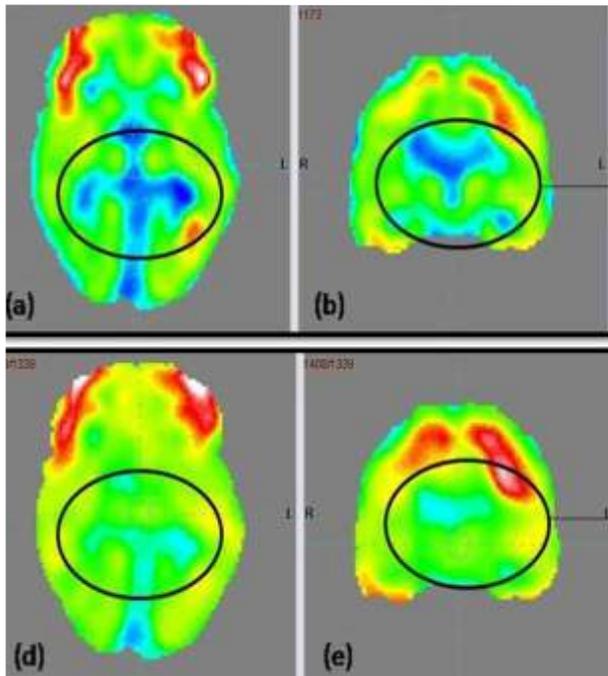
About Mental Retardation / Intellectual Disability

Mental retardation is a developmental disorder. It is manifested during the child's developmental years (0-18 years). Mental Retardation (MR) is now known as Intellectual Disability (ID). According to the World Health Organization (WHO) Intellectual Disability is defined as “a condition of arrested or incomplete development of the mind, which is especially characterized by impairment of skills which contribute to the overall level of intelligence”. Individuals with ID generally exhibit sub average functioning. They display difficulties in self adaptive areas such as communication, self-care, home-living, social skills, community use, self-direction, health and safety, academics, leisure, and work. According to the prevailing international classification system, ID can be classified into the following grades according to its severity, viz. mild, moderate, severe, and profound.

Improvements after ABMMCG

Following ABMMCG, patients with mental retardation show improvements in domains like cognition, social interaction, communication, self care, home living, learning, school performance, hence, the mental development starts to become age appropriate. Improved mental development shows improvement in IQ levels. This consequently, relieves the pressure of the care taker and the family.





PET CT scan of the brain before ABMMCG shows the blue areas that represent reduced brain activity due to the damage that occurs to the brain tissue in MR/ID.

PET CT scan brain 6 months after ABMMCG shows that the blue areas have reduced indicating that the damaged tissues have been repaired highlighting the positive effects of the ABMMCG.

Representative Case Report:

Miss SK, a 34 year old lady is a case of Intellectual Disability. All her developmental milestones were normal. She had her first episode of seizure at 11 months of age. When she was in kindergarten her parents and teachers noticed the fact that she does not even remember alphabets or numbers for a long time. Her cognition and problem solving was not age appropriate. This made them get a detailed check up done. She and her twin sister were diagnosed with Intellectual Disability at 3 years of age.

Miss SK underwent ABMMCG on 6th July 2015. Since then she gained new momentum and found herself in an all new direction. There are a lot visible improvements post ABMMCG. Her sitting tolerance improved the very next day; earlier she used to sit for maximum 15 minutes and stayed bedridden most of the time, but now she can sit for more than 8 to 9 hours. She has also started sitting without support. She started walking slowly and everyday there has been an increase in the number of steps she is able to take. Her walking posture has improved. Her speech is still mood dependent but is much clearer now. She converses in sentences now as opposed to her previous limited vocabulary. Her concentration has improved and she does not have any hallucinations anymore. Her picture recognition and color differentiation has come back. "Post ABMMCG she has started taking interest in regular household activities. She has become a little independent for her daily activities. Her social participation and interaction is still continuously improving.

Hence ABMMCG provides a hope to improve quality of life and function in children with Intellectual Disability.



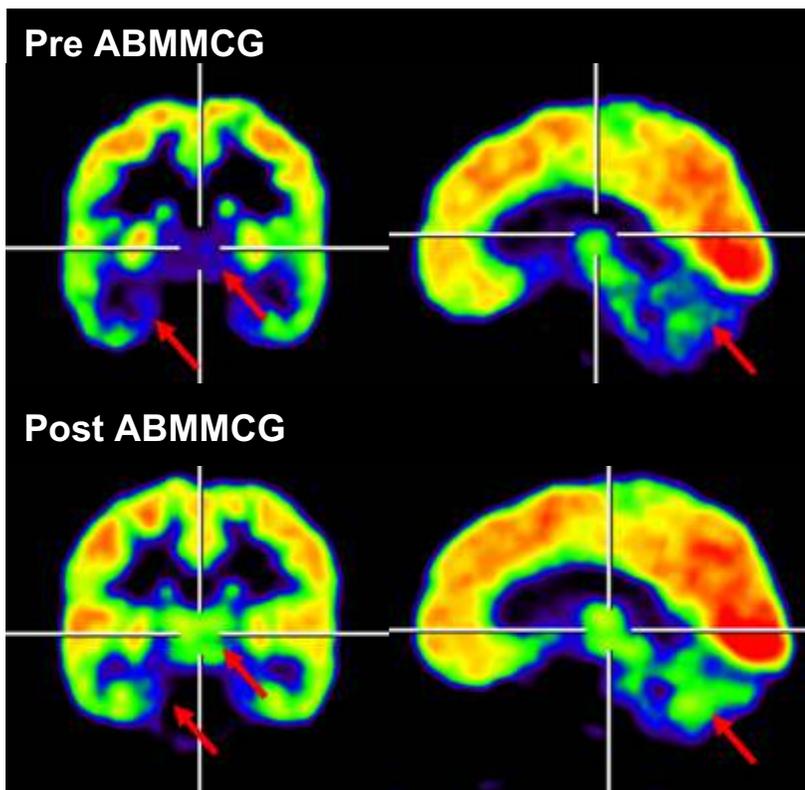
Down Syndrome

About Down's Syndrome

It is a genetic condition also known as 'Trisomy 21', as it is caused due to the presence of an extra copy of chromosome 21. It leads to delayed physical growth, facial dysmorphism, and affected cognitive and intellectual functions. Prenatal screening can be useful for the identification of Down's Syndrome. Conventional therapies such as Occupational Therapy, Physiotherapy, etc. Can be helpful, but ABMMCG helps in improving the intellectual functioning.

Improvements after ABMMCG

Improvements are noted in patients with Down's Syndrome after ABMMCG, in their posture while sitting, their cognition, understanding, command following, speech, language and communication, and activities of daily living. All the improvements are seen rapidly after administration of ABMMCG.



Representative Brain FDG-PET Coronal and sagittal images of a patient with Downs syndrome. Before ABMMCG, hypometabolism is noted in the bilateral thalamus, medial temporal cortex and cerebellum. Following one year, after ABMMCG, improved brain activity is noted in the bilateral thalamus, medial temporal cortex and cerebellum.

Representative Case Report:

Master BM, a 13 year old male, known case of Down's syndrome, came with complaints of difficulty in speech, decreased understanding and clumsy fine motor performance.

He had a history of delayed motor and speech milestones. When he was taken to a pediatrician, on evaluation and investigation, he was diagnosed with Down's syndrome and Moderate Mental Retardation. He has been in a special school since 6 years of age.

He had generalized hypotonia, poor oromotor performances, and below age comprehension. He also had clumsy hand functions, and usually took a longer time to complete daily activities.

Immediately after ABMMCG, his sitting tolerance improved. He could follow simple commands. His hyperactivity reduced. He started enjoying drawing cartoons.

After 6 months, the following changes were noted: He started calling others by name. His attention and concentration improved. He could recollect things which were taught in school. His imitation skills improved. He could now follow 2 step commands. His problem solving skills improved. He became more alert. He started speaking in sentences. His pronunciation became clearer. Identification and thinking ability improved. He started expressing his needs. His physical activities, like climbing up and down the stairs were better than before. He could shop for 2 to 3 things when written and given to him. He could dispose his plate after eating, in the kitchen.

Therefore, it is seen, that ABMMCG helps improve functional independence, and thus, quality of life in children with Down's Syndrome.



Muscular Dystrophy

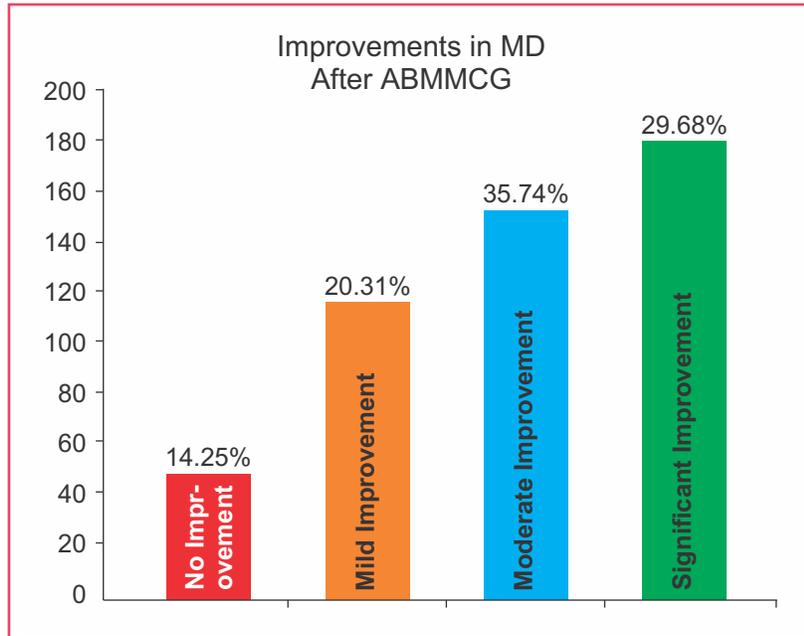
About Muscular Dystrophy

Muscular dystrophy (MD) is a genetic condition which causes the muscles in the body to gradually weaken and eventually stop working. It is caused by incorrect or missing genetic information that prevents the body from correctly making the proteins needed to build and maintain healthy muscles. Over time, people with MD lose the ability to walk, sit upright, breathe easily, and move their arms and hands. Hence it is a progressively deteriorating disorder, which leads to death, sometimes, as early as 20 years of age.

There are different types of MD; some start in infancy, others may not appear until early adulthood. Common types are Duchenne MD, Becker MD, Myotonic dystrophy, Limb-girdle MD and Facioscapulohumeral MD.

Improvements after ABMMCG

Since Muscular dystrophy is a progressive condition, where the problem continues to worsen, the main aim of ABMMCG is to stop the disease progression. In absence of any treatment, a patient who is walking, loses ambulation and becomes completely dependent for his daily routine activities. After ABMMCG, it has been observed that the increasing muscle weakness is halted in 86% of the patients. With proper physiotherapy after ABMMCG, the patients who have stopped walking, are now able to walk with gaiters. Improved balance, upper limb strength, lower limb strength and posture is observed in most of the patients, This helps them to regain their independence and to be functionally active for a longer time.



Representative Case Report:

Master OK is a 15 years old boy with Duchenne Muscular Dystrophy, one of the most fatal form of Muscular dystrophy. He was treated with ABMMCG 3 years back, when he had already stopped walking and had weakness in upper limbs also. With ABMMCG, Master OK's condition has stabilized. The curve in his spine, which had occurred due to muscle weakness has straightened out. He has more strength in his upper limbs, such that he is able to write on his own. He can now stand with support, which was not possible earlier because of weakness and deformities / contractures of the legs. Slowly and steadily, he is gaining strength and moving towards a positive outcome. This is big achievement in a condition, which otherwise, continues, albeit in the backward / reverse direction.

Hence, ABMMCG provides hope to improve the quality of life and function in children and adults with muscular dystrophy!



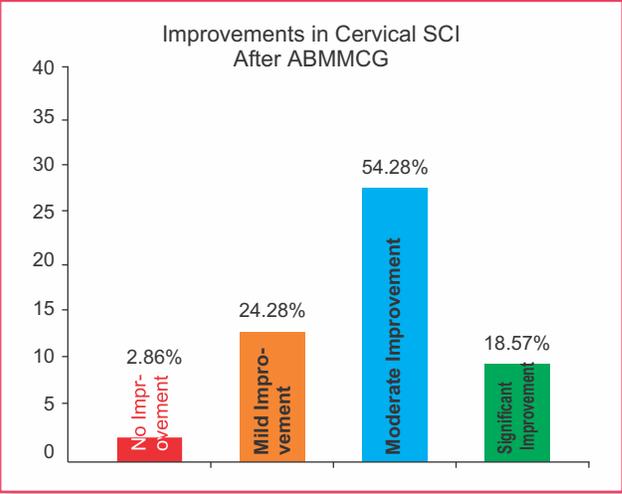
Spinal Cord Injury

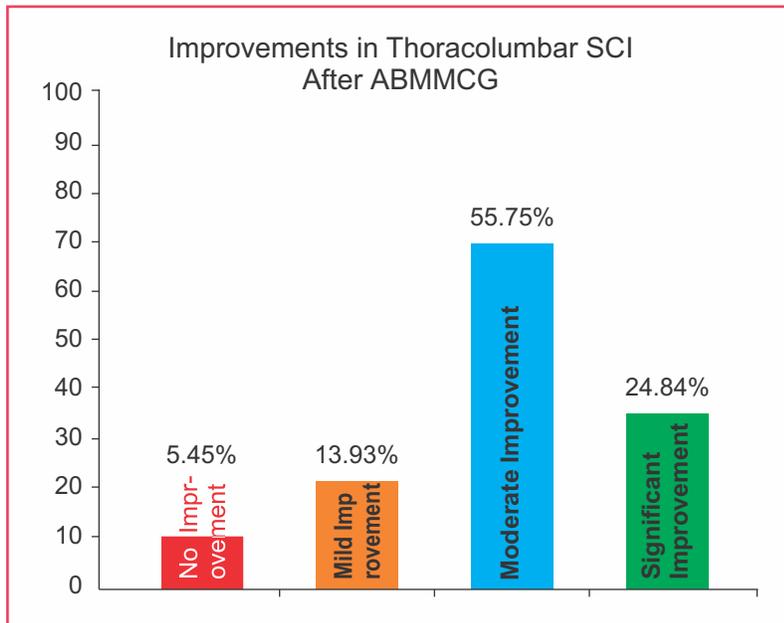
About Spinal Cord Injury

An injury to the spinal cord can occur due to trauma (such as road traffic accident, fall from a height, etc.) or due to non traumatic conditions (spinal tumor or infection of the spine). Depending on the level of the injury, a person can be rendered paralysed below that level (such as below the neck in a cervical cord injury, below chest / waist in a thoracic / dorsal cord injury) along with loss of bladder and bowel continence. The damage could be complete or incomplete. The damage is usually of a permanent nature, leaving the person dependent for his routine activities. Conventional therapies, such as physiotherapy, may help return of function to a certain extent. However, ABMMCG goes a long way in assisting return of function.

Improvements after ABMMCG

Following ABMMCG in patients with spinal cord injury, improvements are noticed in sitting balance, standing balance, walking with support, reduction in spasticity, sensation, bladder control and sexual function. All these improvements have been accelerated after ABMMCG, thereby, reducing the recovery time. Improvements, to varying degrees, are seen in over 90% of the patients.





Representative Case Report:

Young Captain MS, a 26 year old soldier, was rendered paralysed waist down in the year 2012.

Since then he was completely bedridden with no recovery for 2 years, inspite of best of rehabilitation. Before ABMMCG, he could not even sit on his own.

After he underwent ABMMCG, his overall stamina improved. In less than 6 months, he achieved independent sitting and standing. He became independent for lower body dressing. He could transfer himself from wheel chair to bed independent. Mobility in the bed improved. Over 1 year, he could walk with a walker and then progressed to crutches. This signified reduced base of support for ambulation. he has also started climbing stairs with support.

He has now been recruited back for training in rifle shooting. ABMMCG has helped this young soldier become independent and resume his duties.



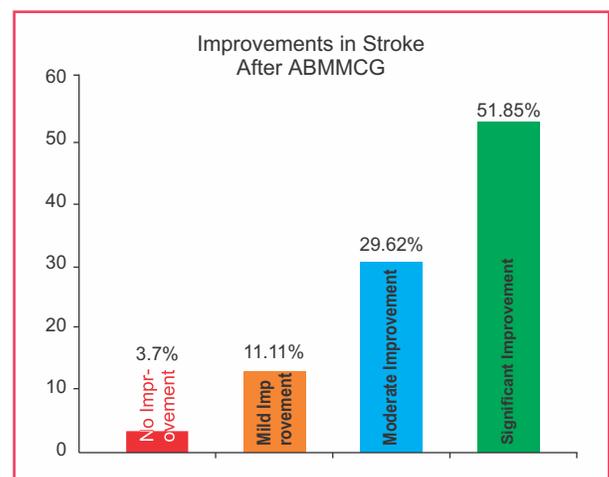
Stroke

About Brain Stroke

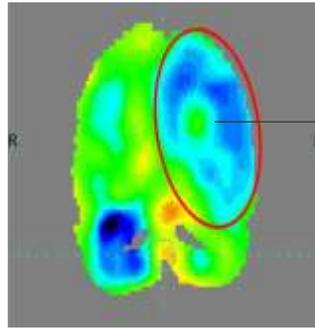
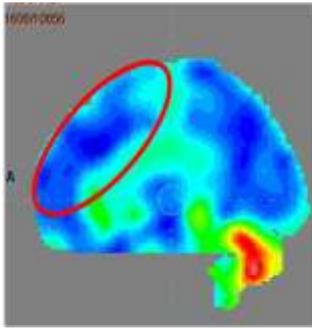
Brain Stroke or Cerebrovascular accident is the most devastating condition of brain. Stroke is a leading cause of disability in the world. It causes permanent damage of the brain functions which might result in inability to move limbs, vision problem, speech problems, altered sensations or cognitive impairments. Stroke can be of two types, Ischemic or Hemorrhagic.

Improvements after ABMMCG

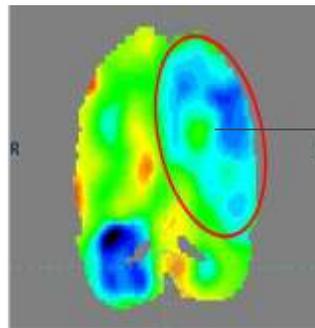
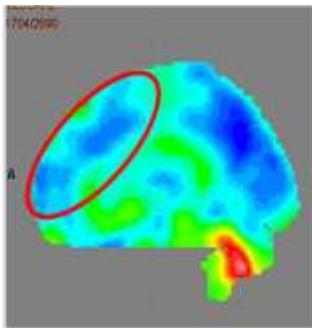
Following ABMMCG, it is found that spasticity or tightness on the paralysed side is reduced, so that voluntary control or movement at will can be executed. That means, a patient with inability to move the hand is able to easily move his hand and use it for activities, such as feeding / eating, wearing clothes, holding a stick / cane for walking. Tightness in the legs is also reduced, such that walking becomes easier. Speech becomes clearer and patients with cognitive / memory issues, become more alert.



Out of the patients treated in NeuroGen, improvements were seen in over 95% of the patients.



PET CT scan of the brain before ABMMCG shows the blue areas that represent reduced brain activity due to the damage that occurs to the brain tissue in Stroke.



PET CT scan 6-5 months after ABMMCG showing improved metabolism in frontal lobe, occipital lobe and basal ganglia on the left side as indicated by the circles.

Representative Case Report:

A 38 year old patient, who had developed left sided hemiplegia, following a brainstroke 2 years back, underwent ABMMCG at NeuroGen. Over 2 years the patient has had remarkable recovery of function in his hand and leg, such that now he is able to dress himself on his own. Gradually walking has become easier. He is independent in his daily life and has resume work. The most important achievement is that he is able to ride a bike / two wheeler on his own!!

ABMMCG has afforded him a new lease of life!



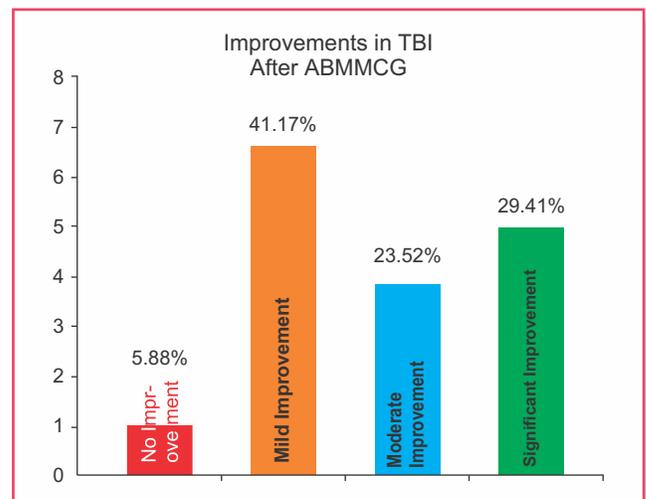
Head Injury

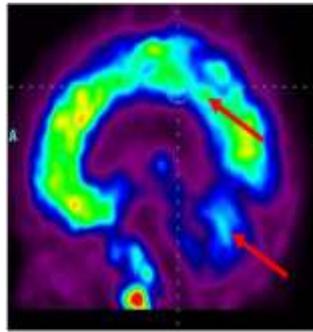
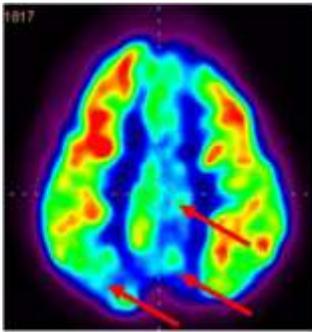
About Head Injury

Traumatic brain injury / head injury Brain damage sustained due to trauma can be very devastating, leading to physical disability, loss of function, amnesia, loss of cognitive function and understanding. This often leaves a permanent disability and renders a person completely dependent on his caretaker for all activities.

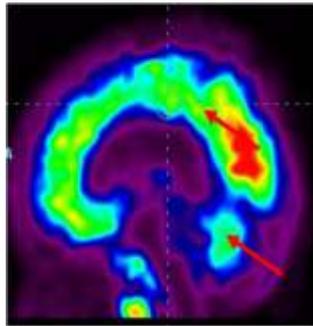
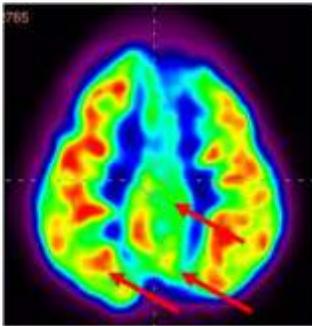
Improvements after ABMMCG

In patients with head injury, especially those who are young, ABMMCG has helped to ameliorate aggressiveness, improve understanding and cognition, which is not possible by conventional rehabilitation. Recovery of brain function in concert with active rehabilitation helps reduce spasticity / tightness in the limbs, that occurs due to the brain damage. Overall, balance, coordination speech, communication also improves. Improvement in patients with neurodeficit after head injury is seen in over 85% percent of patients.





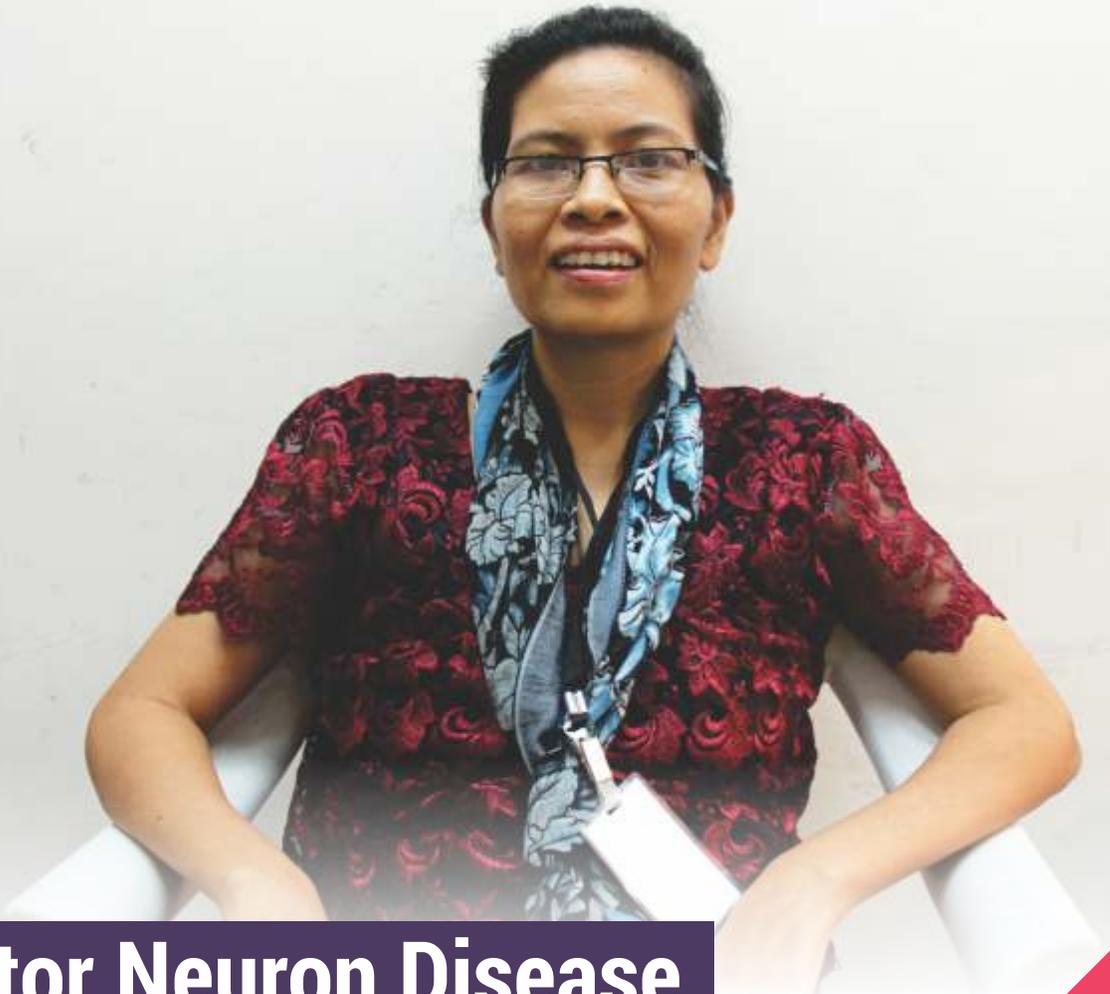
PET/CT scan, before ABMMCG shows reduced metabolism in the left posterior cingulate Cortex, left precuneus, left superior parietal cortex and cerebellum.



PET/CT scan 6 months after ABMMCG shows reduced metabolism in the left posterior cingulate Cortex, left precuneus, left superior parietal cortex and cerebellum.

Representative Case Report:

Mr. NY, a 34 years old professional male, working in a reputed lift company, met with an accident and sustained a severe head injury. This left him comatose for a long time and finally when he gained consciousness, he was paralysed on the right side. He also had memory loss and loss of higher executive functions and was the only earning member of his family. This head injury had left him unfit for resuming work. ABMMCG has helped him not only to regain function in his right hand and leg, but has also improved his speech, cognition, decision making abilities and confidence. Now, he has resumed work, is earning and supporting his family, traveling alone to work and living a normal family life!



Motor Neuron Disease

About MND

A motor neuron disease (MND) is a neurological disorder that selectively affects motor neurons, the cells that control voluntary muscle activity including speaking, walking, swallowing, and general movement of the body. They are neurodegenerative in nature, and cause increasing disability and eventually, death.

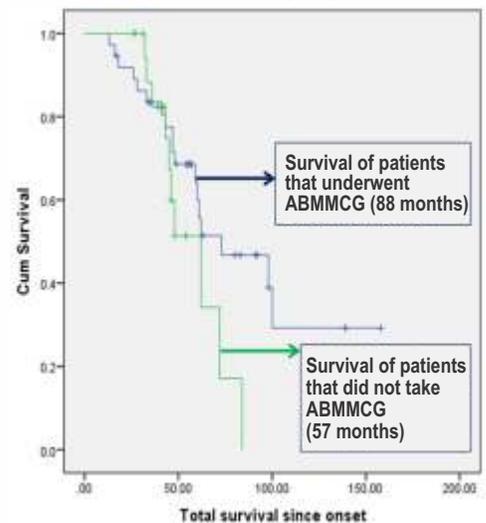
Improvement after ABMMCG

We evaluated the period of survival of the motor neuron disease patients treated with intrathecal Autologous Bone Marrow Cell transplantation. We conducted a research through Kaplan-Meier survival analysis. It revealed that the chance of the survival period of the patients treated with intrathecal Autologous Bone Marrow Cell transplantation was better compared with those patients who did not undergo the treatment.

► Symptoms that improve are

- Reduced choking
- Improved swallowing
- Reduced saliva drooling
- Increase respiratory capacity
- Better neck control
- Better limb function
- Improvement in the lower extremity function
- Improved Ambulation
- Improved Fine Motor Activities
- Static and dynamic standing and sitting balance.

Increased survival duration of motor neuron disease patients undergoing ABMMCG





Cerebellar Ataxia

About Cerebellar Ataxia

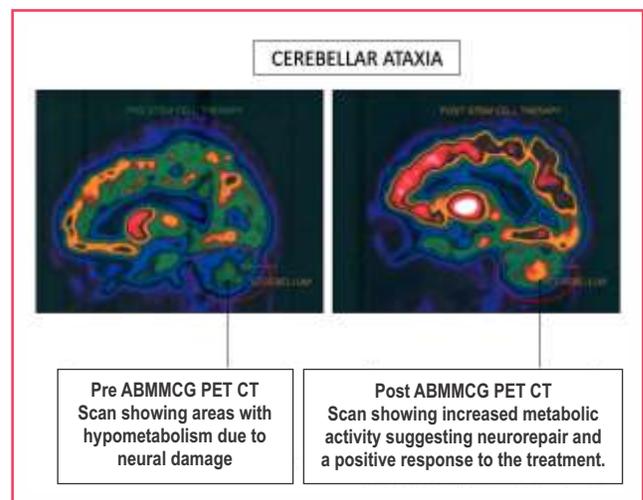
Cerebellar Ataxia is a clinical syndrome of in-coordination caused due to lesions of cerebellum and its afferent and efferent connections. Cerebellar Ataxia is distinguished into a group of hereditary and non-hereditary disorders. Symptoms of Cerebellar Ataxia include gait/ postural abnormalities, balance issues, incoordination and involuntary movements, poor fine motor skills, visual abnormalities, increased fatigue, cognitive and mood problems, speech and swallowing difficulties. Thereby difficulties in performing daily activities like self care, locomotion, transfers.

Improvement after ABMMCG

It has been observed that there is improvement in the neurological function following ABMMCG. Bone Marrow Cells work by enhancing angiogenesis and contributing to neovascularisation by producing signalling molecules such as vascular endothelial growth factor (VEGF) and fibroblast growth factor (FGF2). They also provide the advantage of minimizing immune reactions because cells can be derived from the respective patient. ABMMCG is a safe and feasible form of complimentary treatment that slows down or halts the progression of the disease. Thus, in this progressively deteriorating condition ABMMCG offers a new promise as an interventional modality.

► Symptoms that improve are

- Speech Improves
- Sitting Balance Improves
- Standing Balance Improves
- Walking Improves
- Cerebellar Signs Improves



FAQs



What examinations and investigations are to be performed before the therapy?

The patient is subjected to basic routine tests for medical fitness and some special imaging - PET CT, MRI, EEG and other tests, based on the condition.



Is the treatment painful?

The therapy is done under local anesthesia and a mild sedation. There is no significant pain or discomfort during or after the procedure.



When do I go home?

On the seventh day by evening, you would be handed over the discharge summary along with an exercise link. An extended stay option for rehabilitation therapy is also available.



FAQs



Does the treatment have any side effects?

The treatment is minimally invasive and reasonably safe. Some minor side effects, such as headache (spinal headache) lasting 3-4 days which is generally self limiting, neck / back pain, vomiting, some mild rash or pain at the site of bone marrow aspiration / cell injection may occur. These can be managed during the stay at the hospital itself.



How long will it take me to know that I have benefitted from the treatment?

Maximal improvements are seen around 3-6 months after the treatment. However, in many patients there are slow progressive improvements that continue for several months / years later. Most patients do show some immediate improvements also i.e before the discharge, in some of their symptoms.



If I go for the treatment, are there chances of me getting in a worse condition?

No. We have not observed any neurological deterioration in any of our patients. Patients with pre existing medical problems such as diabetes, hypertension, cardiac, respiratory, renal or hepatic problems may have a possibility of deterioration.



FAQs



Is any special diet required?

We have special dietitian / nutritionist, who will help chart out a diet plan to suit the disease, the patient and the process of Neuroregeneration.



Is ABMMCG done once or more than once?

The decision to do the therapy a second time is taken after seeing the progress / improvements after the first therapy. If the patients show some encouraging improvement, then the case is reviewed by the entire medical and rehabilitation team and a second treatment may be recommended. This may be done anytime between 3-6 months of the first therapy.



Can other treatment be taken at the same time?

We will review other medications the patient is already on. In most cases we do not discontinue any already on going treatment. However this is decided on a case by case basis. Blood thinners like aspirin, clopidrogel, warfarin, etc needs to be stopped. Please inform us about any medications you are taking beforehand.



Landmark Achievements of NeuroGen's Patients



**(American Patient of Cerebellar Ataxia)
wins bronze in the Special Olympics**

**Patient of Duchenne Muscular Dystrophy
Gets invited to meet president Obama**

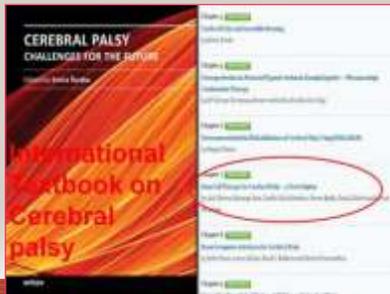
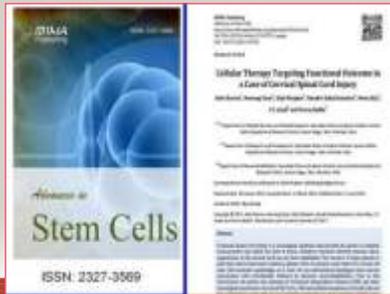


**Patient of Transverse Myelitis Wins
First Runner-up as Miss Wheelchair India 2014**

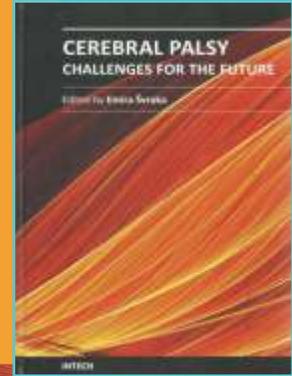
**Patient of Spinal Cord Injury
wins the Wheelchair Marathon**



**Patient of Spinal Cord Injury wins a bronze
medal in National Games for
Pistol Shooting and Shaurya Chakra (Bravery)
award by the hands of President of India**



Chapter on “Stem Cell Therapy for Cerebral Palsy” written from NeuroGen, published in an international book - “Cerebral Palsy Challenges for the Future” (Publisher - Intech)



Cerebral Palsy Challenges for the Future

Chapter 7

Stem Cell Therapy for Cerebral Palsy – A Novel Option

Alok Sharma, Hemangi Sane,
Nandini Gokulchandran, Prerna Badhe,
Pooja Kulkarni and Amruta Paranjape

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/57152>

1. Introduction

Discovery of stem cells by James Till and Ernest McCulloch in 1961, stands as one of the most remarkable medical-research achievements of the 20th century. This discovery provided a foundation for further breakthroughs in the field of stem cells. Sir Martin J. Evans along with Mario R. Capecchi, and Oliver Smithies were jointly awarded a Nobel Prize in 2007 for their contribution in introducing specific gene modifications in mice by the use of embryonic stem cells. Later in 2012, John B. Gurdon and Shinya Yamanaka were also jointly awarded a Nobel Prize for discovering that mature cells can be reprogrammed to become pluripotent cells. [1]

Ramon y Cajal in 1926 stated “Once the development was ended, the founts of growth and regeneration of the axons and dendrites dried up irrevocably. In the adult centers, the nerve paths are something fixed, ended, and immutable. Everything may die, nothing may be regenerated. It is for the science of the future to change, if possible, this harsh decree.” [2]. It was a long-standing belief that cells of the central nervous system once damaged cannot be regenerated. The medical science of stem cells has finally made restoration of CNS possible which has changed the old concept of medicine. Not too long ago, this therapy was hamstrung by various controversies, ethical and moral issues. But, tremendous progress of research in this field has finally led to its translation from laboratory to innovative cellular therapies.

A variety of cells including embryonic stem cells, adult stem cells, umbilical cord blood cells and induced pluripotent stem cells have been explored as a therapeutic alternative for treating a broad spectrum of neurologic disorders including stroke, Alzheimer’s, Parkinson’s, spinal cord injury, cerebral palsy etc. amongst others. It is essential to select suitable cells depending on the nature and status of neurological dysfunctions to achieve optimal therapeutic efficacy. Along with the selection of cells, the route of administration also plays an important role to

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World's 1st Published Clinical Paper on ABMMCG in Autism

A) AUTISM:

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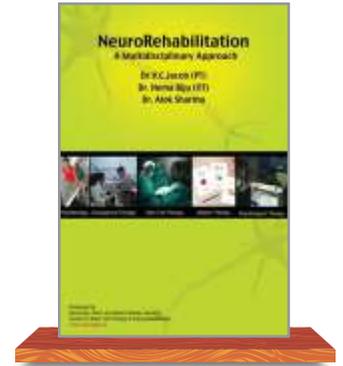
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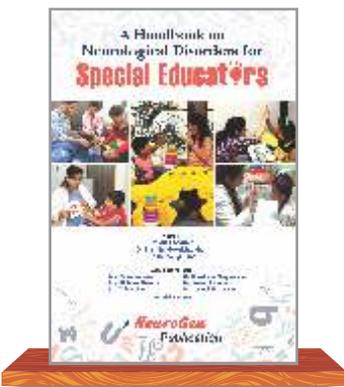
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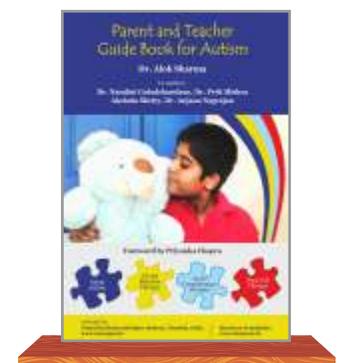


Mr. K. N. Singh, DCGI (Drug controller General of India) releasing the 1st issue of Indian Journal of Cell Therapy in **New Delhi** on occasion of the 2nd Annual Conference at Stem Cell Society Dr Nandini Gokulchandran from NeuroGen Brain & Spine Institute is the founder editor of this journal.

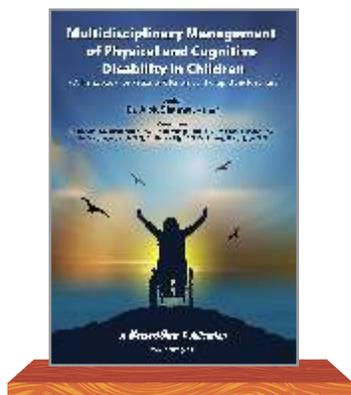


Hon'ble Minister of Government of India **Dr. Thawar Chand Gehlot (Minister of Social Justice and Empowerment)** Inaugurated NeuroGen's Book "A Handbook on Neurological Disorders for Special Educators" in Delhi

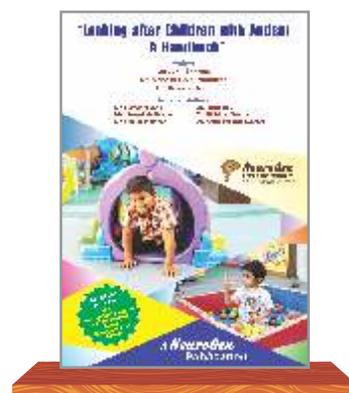
Bollywood Singer Shankar Mahadevan releasing NeuroGen's Book on "Autism"



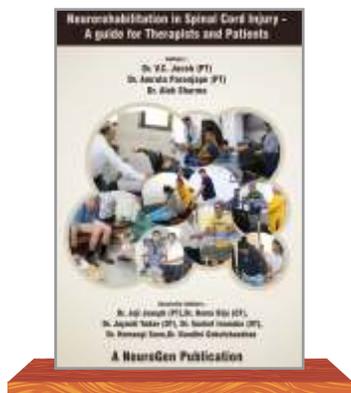
Book Written By Neurogen Team Inaugurated By Various Eminent National & International Personalities



Hon'ble Shri. Rajkumar Badole Cabinet Minister for Social Justice Special Assistance, Maharashtra State releasing NeuroGen's Book "Multidisciplinary Management of Physical & Cognitive Disability in Children"



Mr Ganesh Naik (Minister in the Maharashtra Government) releasing NeuroGen's Book "Looking after children with Autism" - A Handbook, on the occasion of World Autism Day.

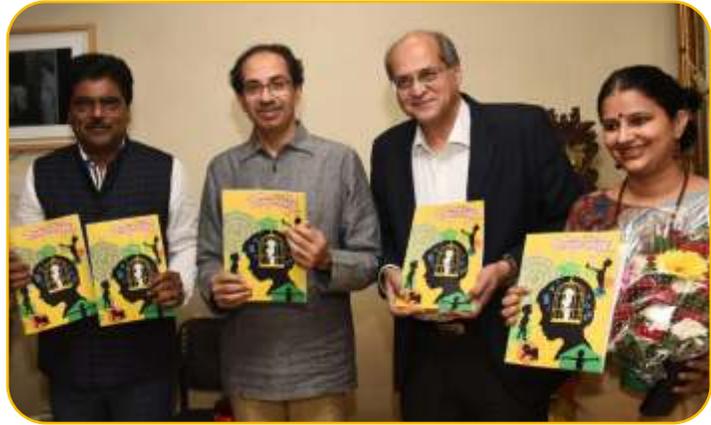


Dr. Wise Young (America) releasing NeuroGen's Book "Neurorehabilitation in Spinal Cord Injury - A Guidebook for Therapist and Patient"

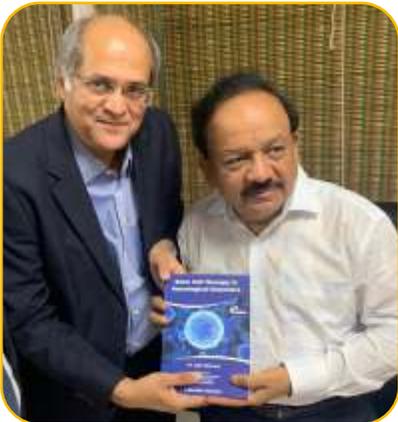
NeuroGen Publications being Released By Various Eminent National Dignitaries



Presenting NeuroGen Book to
**Hon'ble Prime Minister
Shri. Narendra Modi**



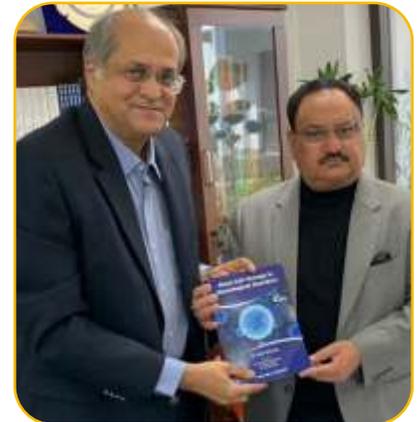
**Hon'ble Chief Minister of Maharashtra
Shri. Uddhav Thackeray** releasing
Arogya Deep Book created by NeuroGen



Presenting the NeuroGen
book to **Dr. Harsh Vardhan**
Health Minister of India



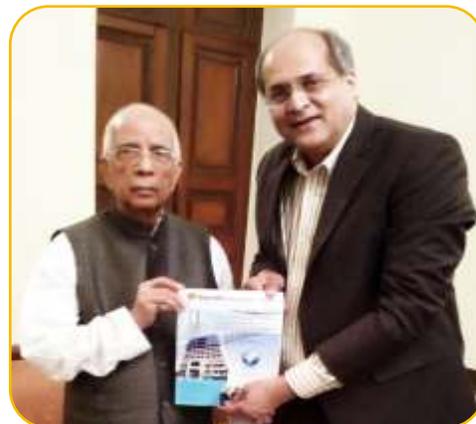
Presenting the NeuroGen
book to **Hon'ble Vice President
of India M. Venkaiah Naidu**



Presenting the NeuroGen
book to **Shri. J. P. Nadda**
Health Minister of India



**Maharashtra Governor Shri. Chennamaneni
Vidyasagar Rao** with Dr Alok Sharma of
NeuroGen at Raj Bhavan



**Governor of West Bengal Shri Kesharinath
Tripathi** being presented with NeuroGen
brochure in **Kolkata**

NeuroGen Publications being Released By Various Eminent National Dignitaries

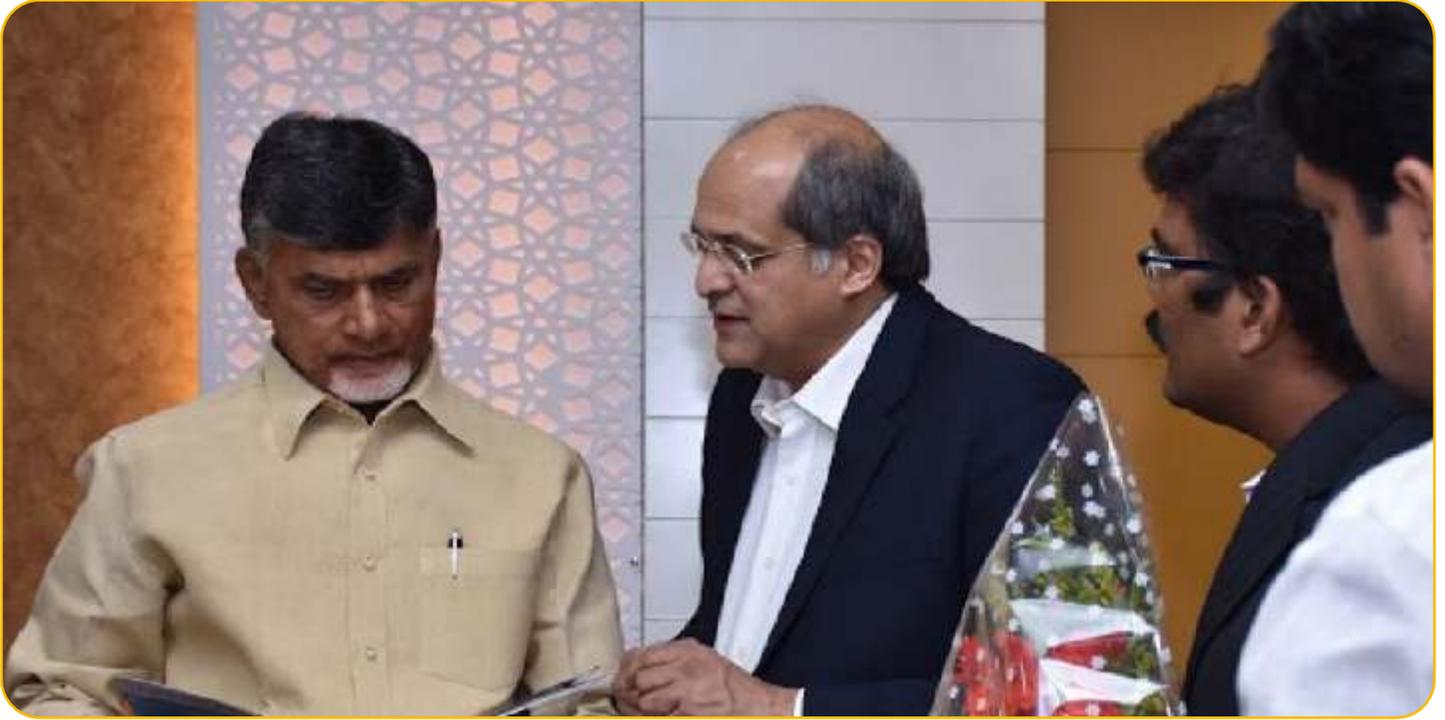


His Highness Sheikh Faisal Bin Khalid Al Qasimi (Sharjah) being presented with the NeuroGen's book on Stem Cell Therapy in Neurological Disorders



His Excellency Khaled Al Kamda (Dubai) being presented with the 1st copy of the Arabic brochure

Special Recognition of NeuroGen at Andhra Pradesh



Andhra Pradesh Chief Minister Shri. Chandrababu Naidu with Dr. Alok Sharma discussing advance treatment options for incurable neurological disorders.



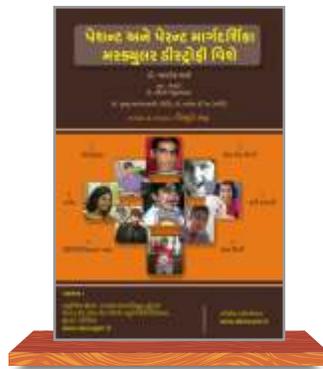
Health Minister of Andhra Pradesh Shree Kamineni Srinivas releasing NeuroGen's Telugu Brochure in **Vijayawada**

Important Visitors to NeuroGen



Bollywood actor **Hrithik Roshan** visits NeuroGen

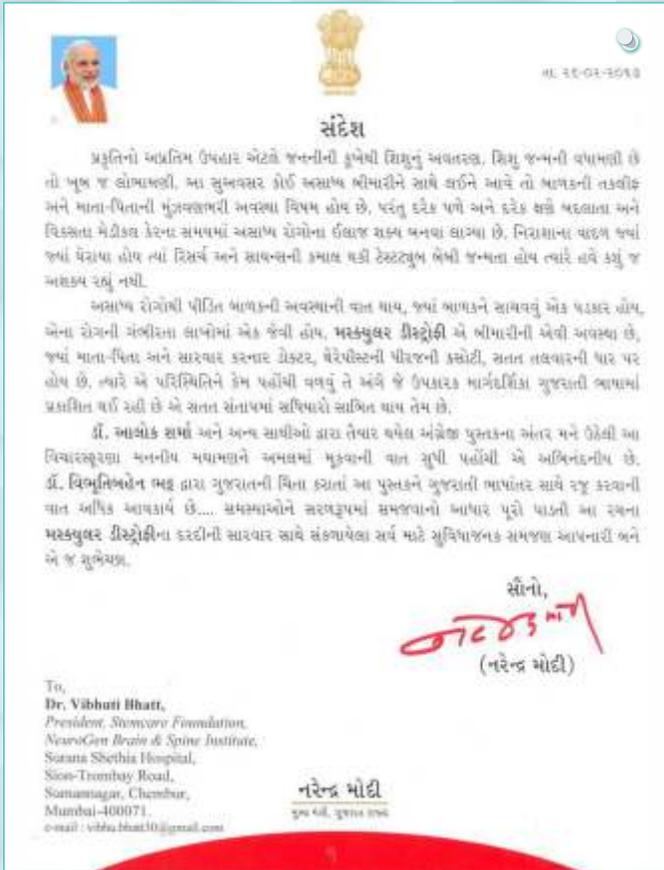
Mumbai Mayor Shobha Raul releasing NeuroGen's book on "Muscular Dystrophy"



Shri K L Prasad, Commissioner of Police, Navi Mumbai visited NeuroGen on the occasion of **World Autism Day** (2nd April 2015)



A Foreword by Shri. Narendra Modi



For the “Patient & Parent Guide Book for Muscular Dystrophy” (Gujarati Edition) - A NeuroGen Publication

This is a translations of the Gujarati foreword given by Mr. Narendra Modi

Date : 26-02-2013

One of the most valuable gifts that nature can bestow on a woman is the gift of a child. A new born child brings immeasurable happiness to a parent but when the child suffers from an incurable disease at birth this happens quickly turns into a nightmare. Today in the fast paced, ever evolving field of medicine it has become possible to treat such incurable diseases. Science & research has made it possible to develop test-tube babies and this proves that the possibilities are endless.

One of the most challenging task is to take care of the children suffering from such diseases and catering to their special needs. Muscular Dystrophy is one such disease that challenges the patience of the parents, treating doctors and the therapists and often keeps it on the edge. In such a situation a Guidebook on care for such patients in Gujarati proves to be an invaluable resource.

Dr Alok Sharma and his team have done a commendable job in the development of this book in English. Mrs Vibhuti Bhatt has translated this book in Gujarati keeping in mind the plight of the people of Gujarat suffering from such incurable diseases and this is an even more praise worthy endeavor. This book plays a vital role in reaching out to the common man by presenting concepts in a simple and easy to understand language. My best wishes that this book serves as a focal point for all the people associated in the treatment of Muscular Disease facilitates their work.

(Narendra Modi)

NeuroGen Publications being Released By Health Minister of Maharashtra Dr. Deepak Sawant



For the “Looking After Children with Autism - A Handbook” (Marathi Edition)

A Foreword by Dr. Deepak Sawant

स्वममता म्हणजेच Autism या आजारासंबंधी “Looking after Children with Autism” या पुस्तकाद्वारे अतिशय विस्तृत व परीपूर्ण माहिती देण्याचा प्रामाणिक प्रयत्न आहे.

डॉ. आलोक शर्मा हे प्रख्यात न्युरोसर्जन व प्रतिष्ठित वैद्यकीय व्यावसायिक असून त्यांनी व त्यांच्या सहकाऱ्यांनी सामाजिक बांधिलकीची जाणीव ठेवून स्वममन मुलांच्या पालकांसाठी लिहिलेली माहिती पुस्तिका आहे. विशेषतः संवादाच्या व वर्तनाच्या समस्या आणि आहारारोगी नियंत्रीत दैनंदिन उपचोगाची माहिती पुस्तिका आहे. विशेष करून या आजारामुळे उद्भवणाऱ्या रोजच्या अडथळांवर मात करण्यासाठी समुपदेशनाच्या माध्यमातून दिलेली मार्गदर्शक तत्वेच आहेत.

हा सर्व प्रयत्न कौतुकास्पद असून स्वममता या आजारावर अधिक संशोधनात्मक काम करून उत्तीवर्ती प्रत्यारोपण (Stem Cell Therapy) या विषयी माहिती देण्यात आली आहे.

डॉ. आलोक शर्मा व त्यांच्या सहकाऱ्यांना पुढील वाटचालीसाठी खूप खूप शुभेच्छा.

(Dr. Deepak Sawant)

**Minister of
Public Health and Family Welfare**
Government of Maharashtra
Mantralaya, Mumbai 400032
www.maharashtra.gov.in

“Looking after Children with Autism” is a book which has made an honest attempt to comprehensively and holistically give information about autism.

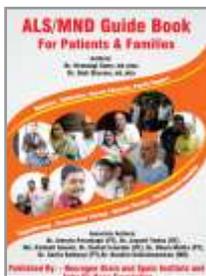
Dr. Alok Sharma a renowned neurosurgeon and eminent medical professional, along with his colleagues, has written this informative book for the parents of children with autism, out of their unconditional affection for them.

This book specifically, covers information regarding speech, communication, behavioral issues and nutrition for children with autism. More importantly it covers inputs for handling the daily challenges faced by the parents of an autistic child.

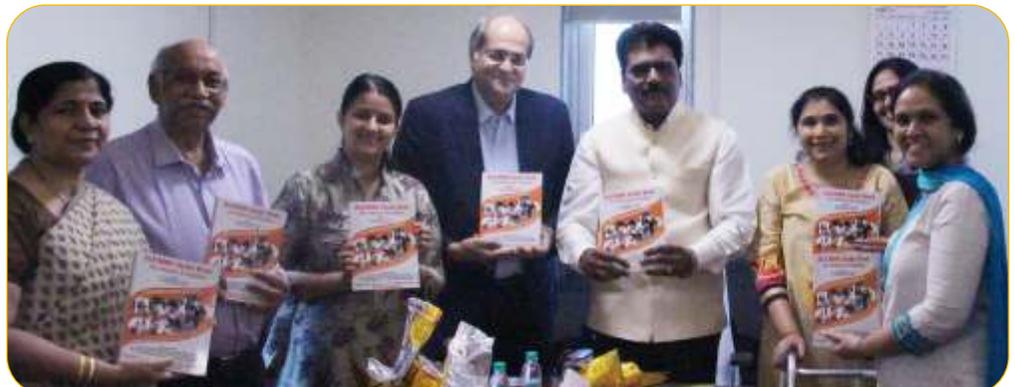
This attempt is indeed appreciable. Worth acknowledging, is their research on “Cell Therapy for autism”, about which they have given more information in this handbook.

I would like to extend my best wishes to Dr. Alok Sharma and his team for their future journey.

(Dr Deepak Sawant)



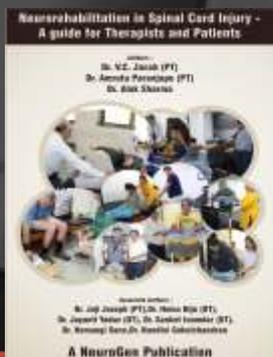
For the “ALS/MND Guide Book For Patients & Families”



A Foreword by Hrithik Roshan



**A FOREWORD BY
HRITHIK
ROSHAN
FOR
“NEUROREHABILITATION
IN SPINAL CORD
INJURY - A GUIDEBOOK
FOR THERAPISTS
AND PATIENTS”
A NEUROGEN
PUBLICATION**



To the therapists looking after patients of spinal cord injury and the patients themselves:-

Writing a foreword for this book takes me back in time when I was preparing for my role in Guzaarish. In the movie, I portrayed a man with quadriplegia and his fight to earn his own death. Euthanasia, the subject of the movie was grave and it portrayed one of the grim fates of people who suffer from quadriplegia. It took me a while to understand, comprehend and most importantly accept the way of living of a quadriplegic.

I met a lot of quadriplegic people in the process and I felt that death is not the solution. One of them was John- a wheelchair bound quadriplegic, who had a road accident. The hopelessness that I had portrayed in the movie was whisked away by real life experiences with John. John in the coming time underwent stem cell transplantation and rigorous rehabilitation at NeuroGen Brain and Spine Institute and looking at the way he improved I felt that there is hope for patients with spinal cord injury. I also understood the importance of rehabilitation in the lives of quadriplegics and paraplegics. Rehabilitation is a tool that can help them maximize their potential and far beyond that.

This book is unique and special in its pictorial depiction of step wise rehabilitation for the patients with spinal cord injury. It will help numerous patients who have lost all hopes of living an independent life. There was much need for a guidebook for patients suffering from spinal cord injury and I am happy that such initiative has been taken.

Unlike the hopelessness and helplessness that I felt while I was portraying 'Ethan Mascarenhas' in reality the quadriplegics live with a great dignity and unyielding spirit. If this book had been available before I played the role of 'Ethan' it would have been a great help to me.

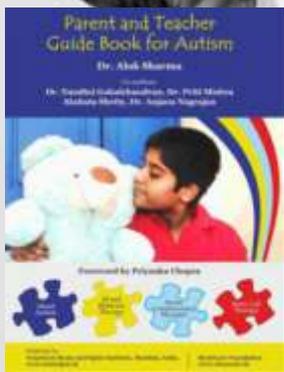
I thank the authors for putting together this much needed book as well as for asking me to write this introduction. My best wishes are with all the therapists and patients who read this book. I want all the therapists to know that your hard work helps makes a big difference to the lives of Spinal cord injury patients and I wish to tell all the patients who read this book to not give up on themselves since as long as there is life there is always hope.

Hrithik Roshan

A Foreword by Priyanka Chopra

A foreword by
Priyanka Chopra
for the "Parent and Teacher
Guide Book for Autism"
2nd Edition -
A NeuroGen
Publication

Priyanka portrayed
the endearing
character of
**Jhilmil
Chatterjee**,
who has autism, in
the movie "Barfi".



Priyanka Chopra

Date: 24th January, 2013.

To,

The parents & Teacher of Children with Autism.

Recently I played the character of Jhilmil who was a character that suffered from autism. When we were researching what we wanted Jhilmil to be and how she would be, she turned into that person by meeting and speaking to a lot of people. That is how she emerged. There is no real reference point to how Jhilmil was. We have not derived her from any reference of any character.

Because autism's range and the range of symptoms are so huge, it can be anything. That is what exactly she is. She has an incredible childlike innocent quality to her.

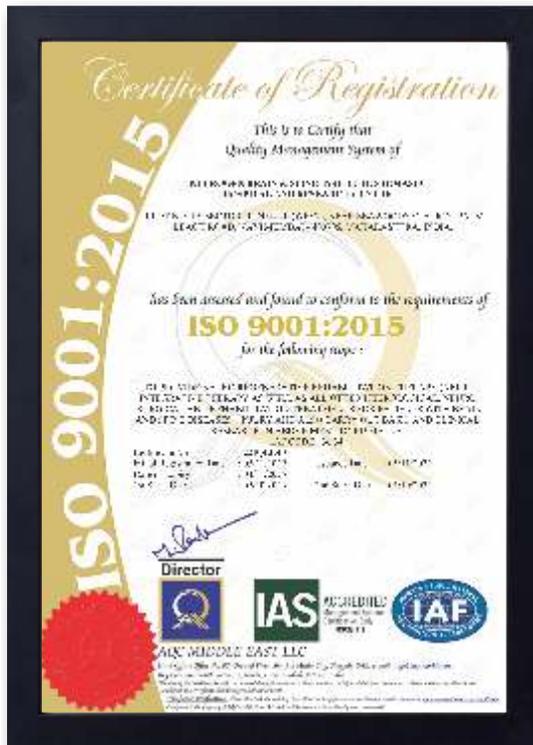
Did you know that a child with high functioning autism may have a normal or high I.Q., be able to attend a regular school and hold a job later in life. However, this person may have difficulty expressing himself and may not know how to mix with other people.

Children with autism are creators, they live in their own world which is very different from ours, yet they seem so self sufficient whereas we struggle to grapple with our own surroundings. This is what interested me and got me to read and learn more about them.

This book is a step in that direction. We as parents need to understand what our child is going through and help nurture his interest by trying to understand their worlds. Its an effort to bridge the gap by helping us decipher them and help them to become a part of our society. A guidebook like this is invaluable for all the people and especially parents who deal with autism on a regular basis. I only wish that had such a book been available earlier, Jhilmil would have been understood a whole lot better.

Priyanka Chopra

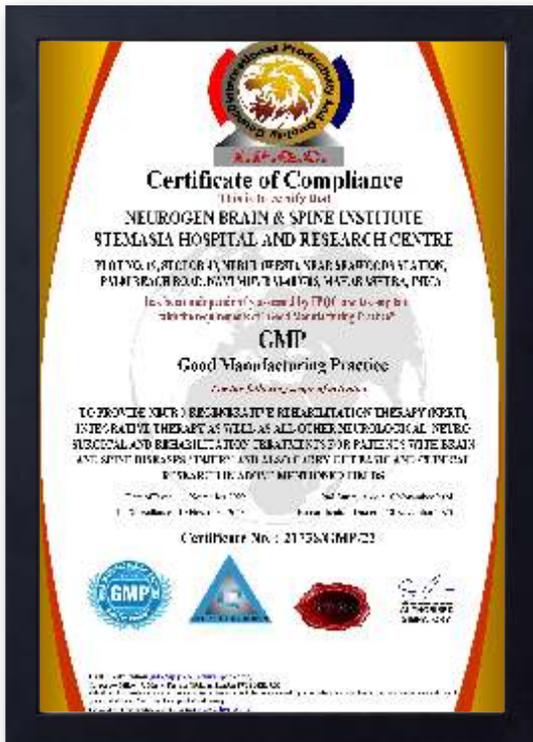
403, Karan Apts., Behind Green Acres, Lokhandwala Complex, Andheri (W), Mumbai - 400 053.



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Good Laboratory Practice



Good Manufacturing Practice

Stem Cell Therapy
In Pediatric
Neurological Disorders
(2nd Edition)



Stem Cell Therapy
in Neurological
Disorders
(5th Edition)



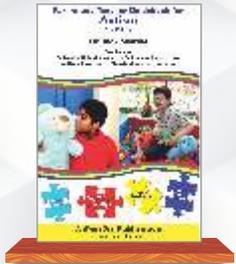
Stem Cell Therapy
& Other Recent
Advances in
Muscular Dystrophy



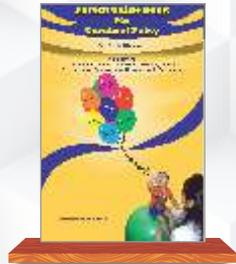
Neurological Disorders
A Handbook for
Family Physicians
(2nd Edition)



Parent & Teacher
Guide Book for Autism
(2nd Edition)



Patient Guide
Book for
Cerebral Palsy



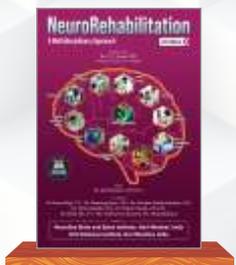
Patient & Parent
Guidebook on
Muscular Dystrophy
(2nd Edition)



પેશન્ટ અને પેરન્ટ
માર્ગદર્શિકા
મસ્ક્યુલર ડિસ્ટ્રોફી વિશે



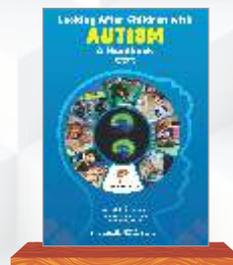
NeuroRehabilitation-
A Multidisciplinary
Approach
(3rd Edition)



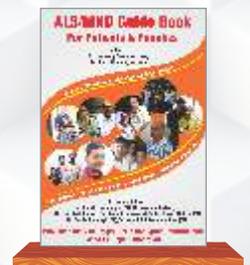
Neurorehabilitation
in Spinal Cord Injury
A guide for Therapists
and Patients



Looking after children
with autism -
A handbook
(3rd Edition)



ALS / MND
Guide Book
For Patients &
Families



A Handbook on
Neurological
Disorders For
Special Educators



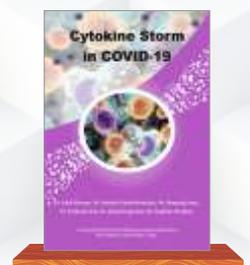
Multidisciplinary
Management of
Physical & Cognitive
Disability in Children



Management of
COVID-19



Cytokine Storm
in COVID-19



Over 16500+ Patients from Over 113+ Countries



America



Afghanistan



Albania



Algeria



Australia



Bahrain



Bangladesh



Botswana



Brazil



Bulgaria



Belgium



Burundi



Canada



Denmark



England



Ecuador



Ethiopia



Egypt



Germany



Hungary



India



Indonesia



Iraq



Italy



Iran



Kenya



Korea



Kuwait



Lebanon



Malaysia



Madagascar



Mauritius



Mozambique



Maldives



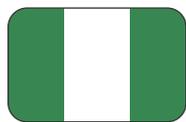
Morocco



Nepal



New Zealand



Nigeria



Norway



Netherlands



North Korea



Oman



Pakistan



Philippines



Qatar



Russia



Rwanda



Romania



Saudi Arabia



Singapore



Somalia



South Africa



Sri Lanka



Sudan



Syria



South Sudan



Turkey



UAE



Uganda



Vietnam



Venezuela



West Indies



Zimbabwe



Zambia

National Achievements

“Best Stem Cell Therapy Centre in Maharashtra”

by Navbharat Health Care Excellence Award, Mumbai at the hands of **Shri Devendra Fadnavis, Hon'ble Chief Minister of Maharashtra** (June 2017)



“Champions of Change Award, Maharashtra”

by Interactive Forum on Indian Economy (IFIE) **Hon'ble Justice KG Balakrishnan** **Hon'ble Justice Gyansudha Misra** (January 2024)



“Swasthya Bharat Samman 2024 Roadmap of Viksit Bharat 2047”

award by Union Minister of Health & Family Welfare and Chemicals & Fertilizers **Shri J.P. Nadda** and Minister of State for Health and Family Welfare of India **Smt. Anupriya Patel** (September 2024)



NeuroGen received yet another award “**Best Institute of Stem Cells and Research Center in India**” at the hands of **Hon'ble Minister of State for Health and Family Welfare, Government of India** (November 2018)



“Excellence in Stem Cell Therapy in Maharashtra”

by India Today Excellence Health Care Award at Mumbai by **Dr. Deepak Sawant Maharashtra Health Minister** (June 2018)



“**International Excellence Award for Service to Disabilities**” by **Hon'ble Minister of Government of India Minister of Social Justice and Empowerment, Delhi** (August 2017)



“Emerging Stem Cell and Neurology Centre of the year (India)”

by Healthcare Excellence Awards, Delhi (Dec 2016)



“**Best Stem Cell Therapy Centre**” in India by National Healthcare Excellence Award at New Delhi (Sept 2016)



Dr Alok Sharma receiving “**Times Health Excellence Award**” for Excellence in Services in Stem Cell Therapy” by India's senior-most & highly respected Oncologist, **Dr. Suresh Advani**



“**Best Hospital for Regenerative Medicine in Maharashtra**” by Navabharat Healthcare Award, Mumbai at the hands of **Dilip Walse-Patil Cabinet Minister of Co-operation, Maharashtra** (Sept. 2023)





NeuroGen Brain & Spine Institute®

Comprehensive Clinical Care Centre For Neurological Disorders

ISO 9001:2015 Certified



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Off Palm Beach Road, Nerul (W), Navi Mumbai - 400706, India

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