

Minimally Invasive Neurosurgery Department Fellowship Program 2024-2025

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Overview

- The Minimally invasive Neurosurgery fellowship at Medanta the Medicity in Gurugram, Haryana, India incorporates a comprehensive experience for fellows involving a wide spectrum of diseases affecting pediatric and adult age groups which are tackled specifically with endoscope and minimally invasive techniques.
- At the department we push the boundaries to do procedures via new techniques to maximize surgical outcome and minimize hospital stay with regards to being minimally invasive.
- The programs are designed to give exposure to main aspects of neurosurgery which includes functional neurosurgery, endoscopic and skull base neurosurgery, minimally invasive neurosurgery and complex spine surgery.

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- **As a fellow this program will provide you with a robust foundation for management of patients with a wide variety of pathologies which by the end you will be able to manage with help of the aspects mentioned above.**

 - **Along with surgical skills, there is allotted time for research work which will enhance your ability to foster academic interests to be a better leader in the field.**



Fellowship categories

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- **Neuro oncology** - 6months/ 1 year
 - **Minimally invasive Spine surgery**-3/6/12 months
 - **Endoscopic skull base** -6months/1 year
 - **Grand MINS fellowship**- 1year (includes all the above)

Certification

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- After successful completion of the program, a certificate of completion will be given to the candidate.





Application process

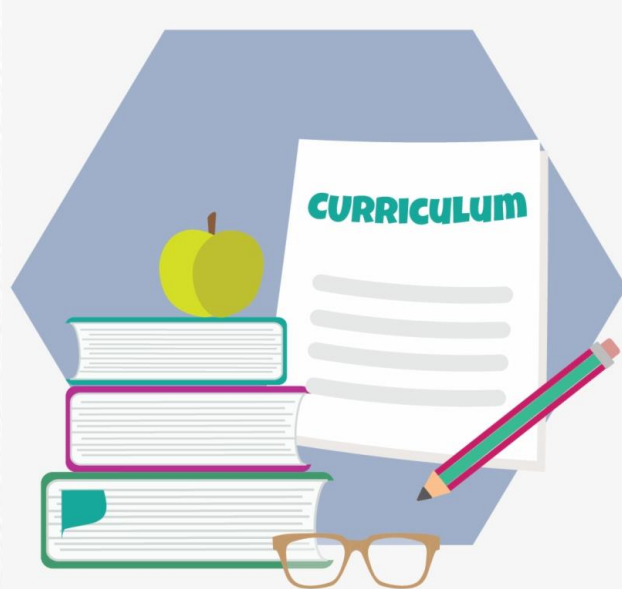
- Two position are available every 6-8 months.
- The candidate must have an MCh Neurosurgery degree or DNB or equivalent from the respective country.
- Interested candidate can send their resume to:
 - minssudhirdubey@gmail.com
 - drdeepubhangale@gmail.com
 - drsohet@gmail.com
- Along with a 250-word essay stating why we should pick you and about yourself.



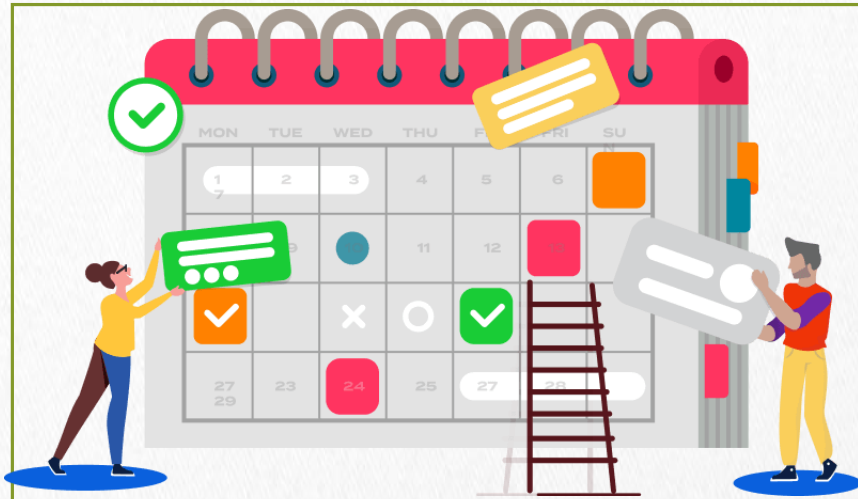
Aims and objectives

- Achieve clinical expertise in the diagnosis, management, and treatment of spinal disorders in adults and children.
- Assume progressive, graded responsibility in the surgical management of patients.
- Achieve clinical expertise in endoscopic surgeries and minimally invasive brain surgeries.
- Participate, and thereafter take the lead, in the operative management of patients
- Experience a broad exposure of clinical evaluation and appropriate patient selection for operative and non-operative management in both the inpatient and outpatient settings
- Develop research skills that will provide future groundwork for an academic practice
- Submission of one clinical paper to an international conference

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- Submission of two manuscripts for peer-review
 - Develop leadership qualities
 - To prepare individuals for a strong, competitive community private practice
 - The Fellowship emphasizes not only surgical skills, but also the clinical skills necessary to have successful surgical outcomes: precise diagnosis, appropriate conservative care prior to surgery, and proper judgment regarding patient selection.
 - Fellows will learn the practice “survival skills” critical to the management of a spine and brain surgery practice, including marketing, contracting, proper medical/legal documentation, billing & collections, and second opinion & medical/legal opinion skills



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- The duration of training is for 3/6/12 months with Mandatory two Research projects.
 - To attend and present in national and international conferences
 - To teach or conduct Classes for DNB residents
 - To observe and learn the proper Neurorehabilitation programs for better patient outcomes.
 - Cadaver lab for basic learning of MISS
 - Cadaver lab for basic learning of Endoscopic Skull base



Work schedule

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- Rounds begin sharp at 0800 hours daily.
 - AS a fellow you will have rotations between OT and Ward.
 - During OT week your focus will be on being in OT and scrubbing for cases.
 - During Ward week you are expected to know the patients in ward so that the art of postop management is not lost and we are able to train you not in just intra op but pre op and post op management as well. During this period the fellow will be on call.
 - Usually the rotation is one week ward with three weeks of OT.

Remuneration

- As per department policy
- **Subject to increment** based on fellow's skill and performance.

Surgical procedures

As a fellow you will be assisting and as time goes under supervision will be honing your skills in these categories as below:

1. Neurooncology : All spectrum of brain and spine tumors

2. Epilepsy & Function:

- MTS
- AMTR
- Endoscopic hemispherectomies
- Vagal nerve stimulation
- Lesionectomies
- DBS

3. Endoscopic skull base:

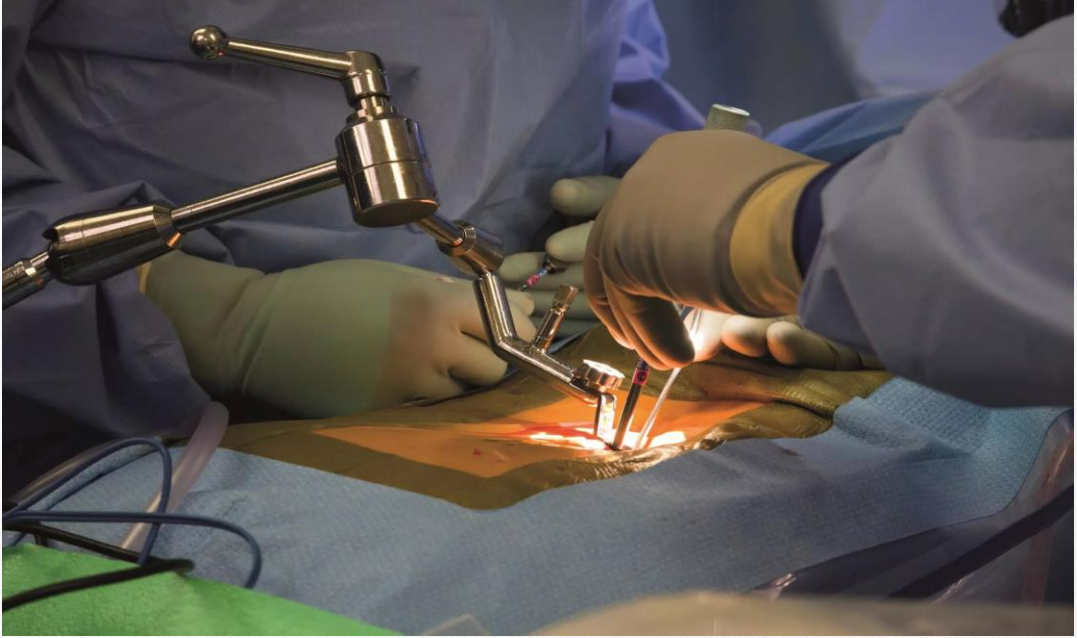
- Endoscopic pituitary surgery
- Endoscopic CSF leak repair
- Endoscopic sinus surgery
- Endoscopic clival chordoma
- Endoscopic odontoid excision
- Endoscopic optic nerve decompression



4. Endoscopic key hole surgery

5. Minimally invasive spine surgery

- Tubular port discectomy
- Endoscopic discectomy
- Foraminoscopy
- MISS TLIF
- MISS OLIF
- MISS thoracic approaches
- MISS lumbar corpectomy
- MISS sacroiliac fixation
- Vertebroplasty
- Balloon kyphoplasty
- Navigation guided biopsy
- MISS CV junction
- Posterior cervical foraminotomy
- Anterior cervical foraminotomy



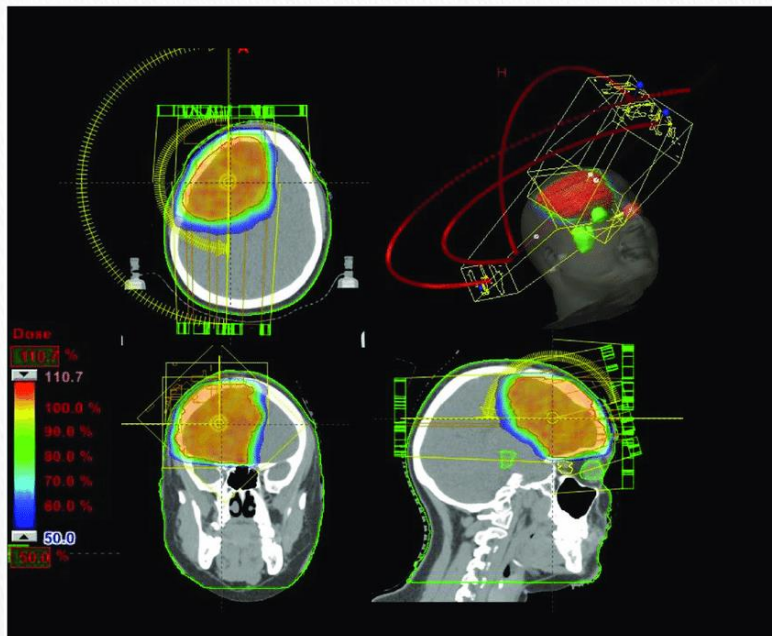
7. Complex spine surgery

- Anterior cervical deformity
- Posterior cervical deformity
- Early onset scoliosis
- Adolescent idiopathic scoliosis
- Degenerative deformity
- Kyphotic deformity
- AAD

8. Peripheral nerve surgery

- Brachial plexus repair
- Peripheral nerve tumors

9. Pain management



10. Neuromodulation

- Spinal cord stimulation
- Baclofen pump implantation
- Sacral nerve stimulation
- Morphine pump implantation

11. Paediatric neurosurgery

12. SRS Cyber Knife

Adjuncts in the department

Medtronic
Neuronavigation system

Brain lab Brain Suite
including intra-op MRI

O arm and 3D C arm

Intra op USG

Intra op state of the art
Neuromonitoring

Kinematics lab

Computational Artificial
intelligence and Machine
Learning LAB

History of fellows

Students trained under
mentorship of Dr. Sudhir Dubey

- Anurag Sharma
- Animesh Upadhyay
- Ankit Amar gupta
- Deepak Bhangale
- Gajendar
- Himanshu Champaneri
- Himanshu Gupta
- Jasmit sigh
- Manish Taori
- Michael Blessing
- Mohit Mohindra
- Monit singh
- Naomi Amuron
- Pavan Goyal
- Rahul Varshney
- Rajneesh Arora
- Ravi Thakkar
- Raymond Malinga
- S k Singh
- Sameep koshi
- Sandip Bhattacharya
- Sanjeev Srivastav
- Satyakam Baruah
- Shyam sunder
- Sohet Gogia
- Sourav Zambre
- Subash Lohani
- Suhag Bose
- Tanmay Trivedi
- Vivek Yadav



Dr. Mayank Mathur Current Fellow

- He completed his MBBS from Kasturba Medical College, Manipal in 2013, following a one-year internship at Safdarjung Hospital, New Delhi.
- He then served as a Junior resident in CMC, Vellore for one and a half years in Neurosurgery and Neuro-critical care.
- He then went on to complete his MCh Neurosurgery 6-year course from the same institution CMC, Vellore, and joined as Assistant Professor in CMC, Vellore for one year.
- He has a combined Neurosurgery experience of more than 9 years. He operated and assisted in at least 900 cases and saw around 25,000 people in outpatient clinics. He is pursuing a Minimally Invasive Neurosurgery(MINS) fellowship in Medanta, The Medicity in Gurugram. His keen areas of interest are skull base, vascular, trauma, minimally invasive spine surgery, and epilepsy surgeries.



Meet the faculty

Dr Sudhir Dubey Chairman

- Dr Sudhir Dubey graduated from King George's Medical College with "Sir Rupkishan Das Gold Medal" for final year MBBS class in 1995.
- He received his basic neurosurgical training from National Institute of Mental Health and Neurosciences, Bangalore.
- His cutting edge work on "brain tumor" was awarded internationally at Sydney, Australia in 2001.
- He received "Silver Jubilee Award" for best outgoing student in Neurosurgery, NIMHANS.
- He is first and till now the only person from India to be awarded "Young Neurosurgeon's Award" conferred by World Federation of Neurosurgical Societies.



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- **His interest in Endoneurosurgery started in 1998 and he has developed these techniques for brain, skull base and spine.**
 - **He has been trained at UPMC Pittsburgh, USA for endoscopic skull base procedures.**
 - **His passion to develop minimally invasive neurosurgery has taken him to various centers in North America and South Korea.**
 - **He has also undergone training for Cyber-Knife in San Francisco California.**
 - **His strong commitment to community service, values and responsibility has made him work for victims of Bhopal Gas tragedy at Bhopal Memorial Hospital and Research Centre.**



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- He has conducted live operative surgeries, Cadaver skull base surgery courses, Cadaver Minimally invasive spine surgery courses, Spine courses in saw bone models.
 - He has trained more than 500 surgeons.
 - He conducts regular free health camps for public and conducts disease awareness and treatment lectures for general practitioners across the length and width of the country
 - He is an executive editor of Journal of Cranio-Maxillary surgery.
 - He has reviewed various articles in journals. He has more than 100 publications in Journals, Chapters in Books and Presentations.
 - Presently he is working as Chairman and Head Endoportal Minimally Invasive Neurosurgery at Medanta The Medicity Hospital Gurgaon and performs more than 500 procedures and sees more than 6000 patients annually.



Dr. Deepak Bhangale (Ascc. Director)

- **Dr. Deepak Bhangale is a neurosurgeon, Earlier he was working in neurosurgery department GTB hospital and UCMS DELHI.**
- **He received his basic neurosurgical training from Ahmedabad and finished with Gold Medal in 2014.**
- **He has been awarded Best Paper Presentation Award by Fujita University, Japan in 2020.**
- **He received "Torrent Young Scholar Award " in Neurosurgery year 2014. (TYSA) He also got "Young Neurosurgery Scholarship" for presenting his work in ACNS NEPAL & ACNS SURABAYA.**
- **He also got "young neurosurgery scholarship" for presenting paper on Role of intraoperative MRI IN ENDOSCOPIC PITUITARY SURGERY; WFNS ISTANBUL 2017**



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- He has been working as Consultant Neurosurgeon at Medanta-The Medicity from last six years in department of minimally invasive spine and neurosurgery
 - He brings with him his rich experience in dealing with a wide array of diverse neurosurgical disorders including neurotrauma, Image guided neurosurgery, neuro oncology minimally invasive spine surgery.
 - He has made publications in acclaimed international and national journals and text book as well as invited speaker /presenter in many national and international conferences and he has a keen interest in Minimal invasive spine surgery, Intraoperative Neuromonitoring, Intraoperative Imaging and minimally invasive neurosurgery
 - He also got “B Braun Scholarship” and Ethicon Biosurgery Scholarship IN 2010 (General surgery).



Dr. Sohet Gogia (Consultant, Fellowship program Director)

- Following his training at the esteemed Christian Medical College, Vellore, Dr. Sohet Gogia pursued a fellowship in Neuro-oncology (for both adults and pediatrics) at the prestigious Tata Memorial Hospital in Mumbai. He then furthered his expertise with extensive fellowship training in Minimally Invasive and Endoscopic Neurosurgery at Medanta, the Medicity.
- Subsequently he contributed his skills to Lady Hardinge Medical College and Dr. RML Hospital, two prominent institutions in Delhi.
- He is recognized as a pioneer in refining Neurosurgery outpatient and in-patient consultation services at Lady Hardinge Medical College (being the only neurosurgeon there).



- With a wealth of experience spanning over 13 years and more than 5000 cases, he places utmost importance on the quality of patient care.
- His areas of specialization encompass pituitary surgeries, awake surgeries for brain tumors utilizing intraoperative ultrasound extensively, along with neuromonitoring to ensure safe and thorough tumor removal.
- Additionally, he possesses significant proficiency in functional neurosurgery, including procedures such as Deep Brain Stimulation (For Parkinsonism), Spinal Cord Stimulation, and Intrathecal Baclofen Pump Implantation.
- His expertise extends to epilepsy surgeries, including disconnection procedures like hemispherotomy.
- He also has special interest in children with spinal dysraphisms (lipomyelomeningocele, tethered cord etc.)



Dr. Tanmay Trivedi Assc. Consultant

- **Dr. Trivedi completed his Undergraduate medical education from Netaji Subhash Chandra Bose Govt medical college Jabalpur.**
- **He further pursued Post-graduate medical education in Neurosurgery from Sir Gangaram Hospital New Delhi.**
- **He developed interest in endoscopic pituitary surgery and minimally invasive endoportalspine surgeries during initial years of training.**
- **He pursued fellowship in minimally invasive neurosurgery at Medanta the Medicity, Gurugram.**
- **He has 8 years of experience of operating all types of complex brain and spine cases with special interest in minimal invasive spine surgery, endoscopic brain surgeries, DBS and brachial plexus surgeries.**



**Dr. Mohit
Mohindra
Assc.
Consultant**

- **Dr. Mohit Mohindra received his basic neurosurgical training from Medanta hospital, Gurugram.**
- **After completing his degree in Neurosurgery he joined fellowship program in Minimally invasive and endoscopic neurosurgery in Medanta itself and along with that he also completed fellowship under MISSAB (Minimally Invasive Spine Surgeons of Bharat) Association.**
- **He has acquired substantial proficiency in minimally invasive Neurosurgery, specializing in procedures for both the brain and spine.**



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- He has been working as Associate Consultant Neurosurgeon at Medanta-The Medicity in department of minimally invasive spine and neurosurgery.
 - Having accumulated over 8 years of extensive experience, Dr. Mohit Mohindra's career has encompassed various roles in both private and government healthcare sectors.
 - He has various publications and paper presentations to his name.
 - He brings with him his rich experience in dealing with a wide array of diverse neurosurgical disorders including Neuro-trauma, Image guided and Functional Neurosurgery (Deep Brain stimulation, Epilepsy surgery), Neuro- Oncology (Brain and spine tumors of Adults and Paediatrics) , Minimally invasive spine surgery, Paediatric Neurosurgery , Endoscopic skull base surgery (Endoscopic Pituitary surgery) and Peripheral nerve surgery (Brachial plexus , Cervical rib) etc.

Administration team



Miss Geetika



Mr. Manish

Mr Vikas



Mr. Manoj

