# Seyed Amir Hossein Javadi



Birth: Tehran, Iran, 19.06.1977

#### Academic Degree

MD, Ph.D., Clinical Fellowship of Neuro-oncology & Skull base surgery Assistant professor, Imam Khomeini Hospital, Tehran University of medical sciences, Tehran, Iran Iranian Neuroscience Institute, Tehran University of medical sciences, Tehran, Iran Deputy of international collaboration, Neurosurgery group, 2017-2020

#### **Education**

Clinical fellowship of Neuro-oncology & Skull base, International Neuroscience Institute (INI) Hannover, Germany 2013-2015

Neurosurgery, September 2005-2010, Tehran University of Medical Sciences,

Dissertation title: A Randomized Controlled Trial Comparing the Outcome of Burr-Hole Irrigation with and without Drainage in the Treatment of Chronic Subdural Hematoma Advisor: Prof. A.Amirjamshidi, Prof.S.E.Ketabchi

Medical Doctor, 1995-2002, Shiraz University of Medical Sciences, Shiraz, Iran, Dissertation title: *clinical and pathological characteristics of 500 cases with lumbar disc herniation,* Advisor: Prof. M. Taghipoor

Tohid selective high school, 1991-1994, Shiraz, Iran

#### **Honors and Awards**

3<sup>rd</sup> prize at the first antismoking youth festival, Athens, Greece, 1994

The thesis of the year at Shiraz University of medicalsciences,MD, 2002

Resident of the year at Tehran University of medical sciences, 2008

Selected member of Iranian association of neurological surgeons for 14<sup>th</sup> WFNS Congress Grant, 2009, Boston, USA

Selected member of Iranian association of neurological surgeons for 15<sup>th</sup> WFNS Congress Grant, Seoul, South Korea, 2013

#### **Research projects**

1. The Safety Evaluation of Ex vivo Activated Haploidentical Natural Killer Cells

(NK) in Recurrent Glioblastoma Multiform patients (Clinical Trial Phase I)

- Assessment of relation between extent of resection in WHO grade 2-3 brain Gliomas and IDH1/2 mutation in neurosurgery of Imam Khomeini hospital from 2017 to 2019
- 3. Evaluation of motor fiber tracts neuroplasticity in brain tumor patients by diffusion tensor imaging (DTI)
- 4. Iranian clinical guideline for management and treatment of brain glioma
- 5. Assessment of frameless stereotactic biopsy (by needle) at neurosurgery department of Imam Khomeini hospital
- Comparison of amount and type of brain tumor patients' errors in visualmotor Bender-Gestalt and Wisconsin test before and after of neurosurgery operation
- 7. Comparison of the Results of Diffusion Tensor Imaging-Based Tractography before and after Surgery of Gliomas Adjacent to Highly Eloquent Brain Regions (Motor and Language Areas) and its correlation with Clinical Outcome and Neurophysiological findings during Surgery, Referred to Department of Neurosurgery, Imam Khomeini Hospital from November 2017 to February 2021
- Comparison of the therapeutic effects of laser-assisted intradiscal nucleoplasty with and without adjutant intradiscal ozone in patients with lumbar discopathy
- 9. Determination of memory and language laterality and precise eloquent areas in patients with brain tumors adjacent to eloquent areas
- 10.a Comparative evaluation of the 5-aminolevulinic acid in detection of the

high-grade Glioma using Magnetic Resonance Imaging

- 11.Role of DTI tractography in optic Glioma surgical planning & Outcome,2016
- 12.Localization related epilepsy determined with DTI images, 2016
- 13.IDH1 mutation in supratentorial Glioma; update classification, 2016
- 14.DTI tractography at brain glioma and epilepsy, NIAG, TUMS, Iran, 2015
- 15.Role of DTI tractography in resection of glioma tumors and comparison with subcortical stimulation, INI Hannover, Germany, 2013
- 16.IDH1 mutation in brain steam glioma, INI Hannover, Germany
- 17.Pattern of spine fractures at falling from Walnut tree, Kurdistan University of medical sciences. Iran, 2011-2012
- 18.Impact of surgical technique at Outcome of chronic subdural hematoma; A Systematic review, 2009
- 19.Use of intrathecal Fluorescein at endoscopic surgery of CSF Rhinorrhea Trauma research center, Sina hospital,2007-2010
- 20.Comparing Outcome of surgical and nonsurgical treatment at thoracolumbar burst fractures without neurological deficits, Sina hospital,2006-2010
- 21. Endoscopic repair of CSF leak, Sina hospital, TUMS, 2005-2008

# <u>Articles</u>

 β2-Adrenergic Receptor Stimulation Upregulates Cx43 Expression on Glioblastoma Multiforme and Olfactory Ensheathing Cells. Journal of Molecular Neuroscience, 1-10

- Correlation of fiber tracts with speech outcome in brain glioma (1898). FN Behdani, SA Javadi, R Rahmani, S Morsal Aghili. Neurology 94 (15 Supplement), 2020
- Real Scientific Index (RSI): A Totally New Approach in Quantifying the Real Academic Value of an Author in the Contemporary Literature. M Nashibi, A Nashibi, SA Javadi, ZH Khan. Acta Medica Iranica, 2020
- In Reply to the Letter to the Editor Regarding" A Note About the Ancestral Origin of Abu Al Husain ibn Abdullah Ibn Sina, Avicenna (980-1037 CE)". ZH Khan, M Minagar, M Dehghan-Tezerjani, SAH Javadi. World Neurosurgery 136, 432, 2020
- A Note About the Ancestral Origin of Abu Al Husain ibn Abdullah Ibn Sina, Avicenna (980–1037 CE). ZH Khan, M Minagar, M Dehghan-Tezerjani, SAH Javadi. World Neurosurgery 135, 173-175,3, 2020
- 6. Ethical dilemma in glioma surgery; How to opt for the Holy Grail? SAH Javadi, ZH Khan. Asian Journal of Neurosurgery 15 (1), 2,2020
- An overview on the management of cerebral Glioma of highly eloquent areas. SA Javadi, ZH Khan. Journal of neurosurgical sciences 63 (2), 103,2,2019
- 8. Letter to the Editor. Nonfunctioning pituitary macroadenoma. SA Javadi, M Zeinalizadeh. Neurosurgical focus 45 (6), E19,2018
- Letter to the Editor. Posterior-only approach: an erroneous phraseology. ZH Khan, M Nashibi, SA Javadi. Journal of Neurosurgery: Pediatrics 22 (5), 598-599, 2018
- 10. Scientific index: a complementary scale for the h-index. ZH Khan, M Nashibi, SA Javadi. BMJ evidence-based medicine 23 (3), 118-118;3 2018

- 11.IDH1 mutation in brain stem glioma: Case report and review of literature. SA Javadi, C Hartmann, GF Walter, R Banan, A Samii. Asian journal of neurosurgery 13 (2), 414.1, 2018
- 12.A modified impact factor. Javadi S.A. J Neurosurg Sci. 61 (5), 562-563, 2017
- 13.In Reply: Evaluation of Diffusion Tensor Imaging-Based Tractography of the Corticospinal Tract: A Correlative Study With Intraoperative Magnetic Resonance Imaging and Direct ...JS Amirhossein, N Arya, G Mario, S Amir. Neurosurgery 81 (1), E9-E10, 2017
- 14. Tip of Peritoneal Catheter of Ventriculo-Peritoneal Shunt in Scrotum

SA Javadi, F Naderi. Archives of Neuroscience 4 (3),1,2017

- 15.Evaluation of diffusion tensor imaging-based tractography of the corticospinal tract: a correlative study with intraoperative magnetic resonance imaging and direct electrical ...SA Javadi, A Nabavi, M Giordano, E Faghihzadeh, A Samii. Neurosurgery 80 (2), 287-299,20, 2017
- Correlation of DTI Based Tractography of Dentato-Rubrothalamic Tract and Posterior Fossa Mutism (P4. 257). F Behdani, SA Javadi. Neurology 86 (16 Supplement), P4. 257,2016
- 17.The optimal surgical approach for treatment of chronic subdural hematoma: questionnaire assessment of practice in Iran and review of literature. SAH Javadi, F Naderi, AM Javadi. Acta Medica Iranica, 617-621,1, 2015
- 18.The long-term efficacy of pedicular screw fixation at patients suffering from thoracolumbar burst fractures without neurological deficit. SA Javadi, F Naderi. Asian journal of neurosurgery 10 (4), 286,6,2015
- 19.Assessment of quantitative corticospinal tract diffusion changes in patients affected by subcortical gliomas using common available navigation

software. M Giordano, A Nabavi, VM Gerganov, AS Javadi, M Samii, R Fahlbusch, ...Clinical neurology and neurosurgery 136, 1-4,9,2015

- 20.Pattern of spine fractures after falling from walnut trees. SA Javadi, F Naderi. World neurosurgery 80 (5), e41-e436,2013,
- 21.The use of low-dose intrathecal fluorescein in endoscopic repair of cerebrospinal fluid rhinorrhea. SAH Javadi, H Samimi, F Naderi, M Shirani. Archives of Iranian medicine 16 (5), 264,24,2013
- 22.The efficacy of primidone in reducing severe cerebellar tremors in patients with multiple sclerosis. F Naderi, SA Javadi, M Motamedi, MA Sahraian. Clinical neuropharmacology 35 (5), 224-226,16,2012
- 23.A randomized controlled trial comparing the Outcome of burr-hole irrigation with and without drainage in the treatment of chronic subdural hematoma: a preliminary report. A Javadi, A Amirjamshidi, S Aran, SH Hosseini. World neurosurgery 75 (5-6), 731-736,64,2011
- 24.BLACK DISK DISEASE: MANAGEMENT AND ASSESSMENT OF EVIDENCES. AH JAVADI, H ROUZBEH, JA AMIR.IRANIAN JOURNAL OF SURGERY 17 (2), 1-9,2009
- 25.THE IMPACT OF VARIOUS KINDS OF SURGICAL INTERVENTION ON THE OUTCOME OF PATIENTS SUFFERING FROM CHRONIC SUBDURAL HEMATOMA: A SYSTEMATIC REVIEW AND POOLED ANALYSIS, SAH JAVADI, P TAJIK, SAM JAVADI, JA AMIR. IRANIAN JOURNAL OF SURGERY 16 (1), 12-27, 2008
- 26. The role of iMRI in surgical resection of low-grade Glioma (in preparation)
- 27. Problem cases of depicting fiber tracts with DTI tractography (in preparation)
- 28. Localization related epilepsy determined with DTI (in preparation)

# **Book authorship**

Qualitative and quantitative assessment of corticospinal tract: preoperative and intraoperative application. Chapter in: Visualization of brain and its pathologies; technical and neurosurgical aspects, 69-83. WFNS, DER ANDERE VERLAG, Germany, 2016

# Congress participation as speaker

- 1. 1<sup>st</sup> Europe-Middle East Spine congress; Abu Dhabi, 2007
- 2. Iran association of neurological surgeons, midterm congress, 2007
- 3. Iran association of neurological surgeons, midterm congress, 2008
- 4. 14<sup>th</sup> WFNS Congress, Boston, USA, 2009
- 5. Iran association of neurological surgeons, midterm congress, 2011
- 15<sup>th</sup> WFNS Congress, Seoul, South Korea, 2013; invited, moderator & free paper, 2013
- Correlation of intraoperative DTI based tractography of the cortical spinal tract and direct subcortical electrical stimulation in glioma surgery.
   Workshop "Diffusionsbildgebung für die computerassistierte Neurochirurgie", RWTH Aachen, Germany, 2014
- Evaluation of the clinical role of intraoperative DTI based tractography in resection of gliomas affecting the corticospinal tract - preliminary results.
   2<sup>nd</sup> General PhD-Meeting, Hannover Germany, 2014

- Clinical role of intraoperative DTI based tractography in resection of gliomas affecting the corticospinal tract. 6th International Congress of Neurosurgery, Tehran, Iran, 2014
- 10.Correlation of intraoperative DTI tractography and direct electrical subcortical stimulation of the corticospinal tract during glioma resection;
  65<sup>th</sup> annual meeting of the German society of neurosurgery (DGNC),
  Dresden, 2014
- 11.Microsurgical posterior cervical foraminotomy in the semi-sitting position for treatment of degenerative cervical disc disease a series of 100 cases;
  15th Congress of the European Association of Neurosurgical Societies (EANS), Prague, Czech Republic, 2014
- 12.Fluorescence image-guided surgery of high-grade gliomas in the brain using intraoperative visualization technologies and electrical stimulation.
  15th Congress of the European Association of Neurosurgical Societies (EANS), Prague, Czech Republic, 2014
- 13.Quantitative assessment of intraoperative DTI-based Tractography of the CST in recurrent glioma surgery with application of multimodality visualization method; 21st annual meeting of Neurobionic research institute, INI Hannover, Germany, 2015; Representative of TUMS-INI Clinical Fellowship-PhD candidates
- 14.Course of Brain mapping in Glioma surgery, Iranian association of neurological surgeons, Kasra hospital, Iran, 2015
- 15.Problem cases of depicting fiber tracts in DTI tractography, Hamedan, Iran,2015.

- 16.DTI tractography in Neuroncolgy, Espinas Hotel, Tehran, 2016.
- 17.Instructor in workshop of DTI tractography, Imam Khomeini hospital, Tehran, 2016.
- Hearing preservation in surgery of acoustic neurinoma, International Congress of skull base surgery, Tehran, 2016.
- 19.Multimodality resection of Glioma: the role of DTI tractography, FIGS and iMR, fif<sup>th</sup> symposium of WFNS, Tehran, 2016
- 20. Fluorescent image-guided surgery in brain tumors, the Iranian association of neurological surgeons, Tehran, 2016
- 21.European Spine meeting, Dublin, Ireland, 2017 Sep.
- 22.Surgical resection of optic Glioma, 3<sup>rd</sup> Skull base congress, Iran, 2017
- 23.Lower cranial nerve schwannoma; surgical approach, 4rth skull base congress, 2018
- 24.Shunt catheter in scrotum, 4<sup>th</sup> annual Neuroendoscopy congress, 2017
- 25. Invited lecture, International Neuro-urology congress, Iran, 2016
- 26.Oral presentation, 2<sup>nd</sup> Annual meeting, Kish, Iran
- 27.4<sup>th</sup> Pituitary & Skull base surgery congress, Iran, 2018

# Poster presentations

- 1- Severe hyperostotic canal stenosis; WFNS World Congress of neurosurgery, Seoul, Republic of Korea, 2013
- 2- Tip of shunt catheter on scrotum: case report. American Association of Neurosurgery (AANS), San Francisco, 2014

- 3- Dentate-rubro-thalamic tractography in cerebral mutism, AAN, Vancouver, April 2016
- 4- Correlation of fiber tracts with speech outcome in brain glioma (1898).
   AAN, Vancouver, May 2020

# Further active participation in congresses and workshops

- Workshop of "Skull base Surgery", International Neuroscience Institute, Hannover, Germany, 2013.
- Hands -on-courses "Cerebrovascular neurosurgery", "Top gun endovascular treatment, trigeminal rhizotomy, image-guided pedicular screw" and "3D-Anatomy"; American Association of Neurological Surgeons, San Francisco, USA, 2014
- 3. Instructor, diffusion imaging workshop, Aachen University, Germany, 2014
- Instructor, diffusion imaging workshop, Marburg University, Germany, 2014
- 5. Workshop of peripheral nerve surgery & brachial plexus, INI, Hannover, Germany, 2015
- 6. Endoscopic Transnasal Approaches to the skull base; Trier, Germany, 2015
- 7. Instructor, DTI tractography workshop, Imam Khomeini hospital, Iran, 2016
- 8. Neurosurgery update course, Berlin, Germany, 2016
- 9. Advanced Spine course, spine deformity, Paris, France, 2019
- 10.Endoscopic spine surgery workshop, Dusseldorf, Germany, 2019
- 11. Minimal invasive spine workshop, Cologne, Germany, 2018
- 12.Scientific secretary & Instructor, 1<sup>st</sup> Advanced Applied Anatomy,

Cervical Spine, Hands-on-Cadaver workshop; WFNS registered course, 2018

- 13.Scientific secretary & Instructor, 2<sup>nd</sup> Advanced Applied Anatomy, Thoracic Spine, Hands-on-Cadaver workshop; WFNS registered course, 2019
- 14.Scientific secretary & Instructor, 3<sup>rd</sup> Advanced Applied Anatomy, lumbar Spine, Hands-on-Cadaver workshop; WFNS registered course, 2019
- 15.Scientific secretary & Instructor, 4<sup>th</sup> Advanced Applied Anatomy, Brachial Plexus, Hands-on-Cadaver workshop; WFNS registered course, 2019

# **Fields of interest**

Neuro-oncology

Brain mapping

Vascular surgery

Technology in neurosurgery

Epilepsy surgery

Spine surgery

Skull base surgery

#### **Teaching activities**

1- Course of neurosurgery, students of medicine, Tehran University of

Medical sciences, 2006-2009

- 2- Course of neurosurgery, students of medicine, Kurdistan University of Medical Sciences, 2010-2012
- 3- Monthly journal club/tumor board, INI Hannover, 2013-2015
- 4- Weekly Neurosurgery course, Imam Khomeini hospital, 2016-2020
- 5- Weekly Journal Club, Imam Khomeini hospital, 2016-2020
- 6- Five courses of AAA Hands-on Cadaver workshop; registered in WFNS, seasonal course, 2018-2020
- 7- Neurosurgery skill lab, Tehran school of medicine, 2018-2020
- 8- Instructor in ATLS courses for residents, 2018-2020
- 9- Educational committee of Iranian Society of Neurosurgeons, 2015 2020

# **Supervision**

# M.D.Thesis

- Correlation of brain Glioma grade and location with extent of resection in patients of neurosurgery ward of Imam Khomeini hospital from 2016 since 2019
- Comparison of pre- & postoperative neurocognitive deficits assessed by FAB (frontal assessment battery) test in patients with frontal or temporal brain tumor admitted in Imam Khomeini hospital at 2019\_2020

#### **Residency thesis**

Comparison of the Results of Diffusion Tensor Imaging-Based Tractography before and after Surgery of Gliomas Adjacent to Highly Eloquent Brain Regions (Motor and Language Areas) and its correlation with Clinical Outcome and Neurophysiological findings during Surgery, Referred to Department of Neurosurgery, Imam Khomeini Hospital from 2020

#### Ph.D. thesis

Evaluation of motor fiber tracts neuroplasticity in brain tumor patients by diffusion tensor imaging (DTI)

#### Journal activity

Editorial Board, Archives of Neuroscience, TUMS, Iran, 2014-2020

Reviewer (Referee), Asian J Neurosurgery, 2013-2020

Reviewer (Referee), Archives of Neuroscience, TUMS, Iran, 2014-2020

Reviewer (Referee), J Neurosurgical Sciences, 2012-2020

Reviewer (Referee), Neuroimage, 2015-2020

#### Language skills

Persian Fluent (Mother language)

Azerbaijani Good

English Excellent

TOEFL iBT: 90 (equal to IELTS 7)

(Reading 25, listening 21, speaking 22, writing 22)

German B2 certificate; C1 education

# <u>Membership</u>

Iranian association of neurological surgeons

Iranian Medical Council

American association of neurological surgeons (AANS)

European Association of Neurosurgery (EANS)

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- Publons: <u>https://publons.com/researcher/1420388/seyed-amirhossein-javadi</u>