# Mostafa, Shahrezaee M.D.

Orthopedic Knee Surgeon

**Professor of University** Aja University of Medical Science Tehran, Tehran

<b>EDUCATION</b>		
1990/1998	Tehran University of Medical Science, Tehran, Tehran	
	General Medical Program	
2004/2008	Tehran University of Medical Science, Tehran, Tehran	
	Orthopedics	
POST DOCTORIAL WORK		
2011-Now	Aja University of Medical Science, Tehran, Tehran	
	Research Deputy of Medical faculty	
2010-Now	Aja University of Medical Science, Tehran, Tehran	
	Research Deputy of Surgery Group	
2013-Now	Aja University of Medical Science, Tehran, Tehran	
	Head of Orthopedic Department	
2013-Now	Research Institute of Technology, Aja University of Medical Science,	
	Tehran, Tehran	
	Head of Research and Technology Center of skeletal tissue	
	engineering	
2012- Now	Aja University of Medical Science, Tehran, Tehran	
	Educational and Research Deputy of Trauma and Surgery Center	
PROFESSIONAL APPOINTMENTS		
2012	Aja University of Medical Science, Tehran, Tehran	
	Workshop on Qualitative Research Methods	
2012	Aja University of Medical Science, Tehran, Tehran	
	Workshop on Educational Evaluation	
2012	Aja University of Medical Science, Tehran, Tehran	
	Workshop on new methods of educational evaluation (OSCP,MCO)	
2007	Tehran University of Medical Science, Iranian Tissue Bank and Research	
	Center (ITB), Tehran, Tehran	
Novelty in Bone Graft and its substitutions Seminar		
MEDICAL AND SCIENTIFIC	SOCIETIES	
1996-1997	Secretary of the Scientific Research Center of Tehran University of	
	Medical Sciences	
2006	Member of the Scientific Committee, 15th annual conference of	
	Orthopedic Surgery, Imam Khomeini International Conference Center	
2015	Member of Expert Panel Research and Technology and Healthcare, AJA	

Since establishment until now	Committee Member of Bone and Cartilage (Stem Cells), Technology
	Vice-Presidency
2015	Scientific Secretary of first International Sarcoma Symposium of Iran

#### **COMMITTEE APPOINTMENTS**

2009-Now	Aja University of Medical Science, Tehran, Tehran
	Internal Evaluation Committee member of Surgery Group
2011-Now	Aja University of Medical Science, Tehran, Tehran
	Research Council Member
2011-2012	Medical Faculty, Aja University of Medical Science, Tehran, Tehran
	Committee Member of Education Development Office
Since establishment until now	SID Tehran University of Medical Science, Tehran, Tehran
	President of sarcoma Society
2015-Now	Legal Medicine Organization of Iran, Tehran, Tehran
	Orthopedic Official Specialist

#### PUBLICATIONS

#### International Journals

- 1)E. Nematipour, M.R.Zahedpour Anaraki and M.Shahrezaee. A Study OF the Medical Staffs Performance and Attitude When Confronted with A Case of CPR. MEDICAL JOURNAL OF THE ISLAMIC REPABLIC OF IRAN.1997; 11(1016-1430).
- **2)M. Shahrezaee,** I. Navab, S. Keshtkari, A. Khatibi, A. Motaghi and A. Farrokhi. Efficacy of core decompression plus bone graft with minimal incision in 41 patients with osteonecrosis of the femoral head. International Journal of Rheumatic Diseases. 2008; 11: 274–278.
- **3)**S. Kordestani, **M. Shahrezaee**, M.N. Tahmasebi, H. Hajimahmodi, D. Haji Ghasemali, M.S, Abyaneh. A randomised controlled trial on the effectiveness of an advanced wound dressing used in Iran. J Wound Care. 2008 Jul;17(7):323-7.
- 4)M. Norouzi, M. Nasir Naderi, M. Hemmati Komasi, S. R. Sharifzadeh, M. Shahrezaei, A. Eajazi. Clinical results of using the proximal humeral internal locking system plate for internal fixation of displaced proximal humeral fractures. Am J Orthop (Belle Mead NJ). 2012 May;41(5): E64-8.
- 5)N. Nezafati, S. Hesaraki, M. Shahrezaee. Preparation and Physicochemical evaluation of paste-paste calcium hydroxide based dental cement and the effect of replacement of glycol disalicylate by methyl salicylate on its basic properties. Advanced Composites Letters, 2012; 21(3).
- 6) F. Ghaffarpasand1, M. Dehghankhalili, M. Shahrezaei. Platelet Rich Plasma for Traumatic Non-Union Fractures: A Novel butControversial Bone Regeneration Strategy. Bull Emerg Trauma 2013;1(3):99-101.
- **7)M. Shahrezaei**, J. Shahrouzi, S. Hesaraki, A. Zamanian. The Effect of α-TCP Particle Size on Mechanical and Setting Properties of Calcium Phosphate Bone Cements. Journal of Archives in Military Medicine. 2014; 2(2): e16516.
- **8)M. Shahrezaee**, M. Jabalameli, A. Noori, S. R. Sharifzadeh, M. Setareh, T. Mokhtari, F. Jafari. Accuracy of Lower Limb Alignment in Patients with Total Knee Arthroplasty in Fajr Hospital,

Tehran, 2008-2013. BIOSCIENCES BIOTECHNOLOGY RESEARCH ASIA. 2014; 11(2), 807-813.

- 9)M Sahebalzamani, E. Biazar, M. Shahrezaei, H. Hosseinkazemi, H. Rahiminavaie. Surface Modification of PHBV Nanofibrous Mat by Laminin Protein and Its Cellular Study. International Journal of Polymeric Materials and Polymeric Biomaterials. 2015; 64(3), 149-154.
- 10) S. Solgi, M. Shahrezaee, A. Zamanian, T.S. Jafarzadeh Kashi, M. Raz, K. Khoshroo, M. Tahriri. Sol-gel synthesis and characterization of Sio2-Cao-P2O5-Sro bioactive glass: in vitro study. key engineering materials. 2015; 631,30-35.
- 11) A. Moshiri, A. Oryan, M. Shahrezaee. An Overview on Bone Tissue Engineering and Regenerative Medicine: Current Challenges, Future Directions and Strategies. Sports Medicine & Doping Studies. 2015; 5(2).
- A. Moshiri, A. Oryan, M. Shahrezaie. Osteochondral Regenerative Medicine: Classic Strategies, Current Challenges, and Future Modalities. Sports Medicine & Doping Studies. 2015; 5(2).
- 13) A. Moshiri, M. Shahrezaee, B. Shekarchi, A. Oryan, K. Azma. Three-Dimensional Porous Gelapin-Simvastatin Scaffolds Promoted Bone Defect Healing in Rabbits. Calcif Tissue Int. 2015 Jun;96(6):552-64.
- A. Oryan, A. Kamali, A. Moshiri, M. Shahrezaie. Current Options and Future Directions for Managing Osteoporosis: An update. Journal of Sports Medicine and Doping Studies. 2015, 5: S2.
- **15)** M. Pourhaghgouy, A. Zamania, **M. Shahrezaee**, M.P. Masouleh. Physicochemical properties and bioactivity of freeze-cast chitosan nanocomposite scaffolds reinforced with bioactive glass. Mater Sci Eng C Mater Biol Appl. 2016 Jan 1; 58:180-6.
- 16) M. Shahrezaee, M. Raz, M. Sanati, A. Sadeghi, F. Tondnevis, M. M. Abolhasani, F. Moztarzadeh. An Evaluation of Bioactive Glass/Calcium Phosphate Cement Composite, Synthesized via Sol-Gel Method. Key Engineering Materials. 2016; 720: 162-166.
- 17) F. Ghaffarpasand, M. Shahrezaei, M. Dehghankhalili. Effects of Platelet Rich Plasma on Healing Rate of Long Bone Non-union Fractures: A Randomized Double-Blind Placebo Controlled Clinical Trial. Bull Emerg Trauma. 2016; 4(3): 134–140.
- 18) M. Shahrezaie, R. Nassiri, B. Nazari, H. Hassania, F. Hosseini, H. Mahbudi, M. Eftekhary, M. Kehtari, A. Veshkini, A. Ahmadi Vasemehjani, S H. Enderami. Improved stem cell therapy of spinal cord injury using GDNF-overexpressed bone marrow stem cells in a rat model. Biologicals. 2017; 50:73-80.
- 19) M. Shahrezaie, A. Moshiri, B. Shekarchi, A. Oryan, N. Maffulli, J. Parvizi. Effectiveness of tissue engineered three-dimensional bioactive graft on bone healing and regeneration: an in vivo study with significant clinical value. Tissue engineering and regeneration medicine. 2017.
- **20)** M. Safikhani, A. Zamani, F. Ghorbani, A. Asfenejad, **M. Shahrezaie**. Bi-layered electrospun nanofibrous polyurethane-gelatin scaffold with targeted heparin release profiles for tissue engineering applications. Journal of Polymer Engineering. 2017; 37 (9): 933-941.
- 21) S R.Sharifzadeh, M. Shahrezaee, M. Okhovatpour, M. Banasiri. Studying the effect of medial open wedge high tibial osteotomy on the posterior slope of tibia among patients with Genu varum. Australasian medical journal. 2017; 10(9): 821-825.

- **22)** S R. Sharifzadeh, **M. Shahrezaee**, M. Okhovatpour, S. Asadi Boroujeni, M. Banasiri. Comparison of the effectiveness of femoral fixation techniques (Aperfix and Endobutton) in anterior cruciate ligament surgery: A clinical trial in men with complete anterior cruciate ligament rupture. Australasian medical journal pty ltd. 2017; 10(9): 816-820.
- 23) S. Solgi, M. Khakbiz, M. Shahrezaee, A. Zamanian, M. Tahriri, S. Keshtkari, M. Raz, K. Khoshroo, S. Moghadas, A. Rajabnejad. Synthesis, Characterization and In Vitro Biological Evaluation of Sol-gel Derived Sr-containing Nano Bioactive Glass. Silicon. 2017, 9(4): 535-542.
- 24) M. Shahrezaee, A. Oryan, F. Bastami, S. Hosseinpour, MH. Shahrezaee, A. Kamali. Comparative impact of systemic delivery of atorvastatin, simvastatin, and lovastatin on bone mineral density of the ovariectomized rats. Endocrine. 2018; 60(1): 138-150.
- **25) M. Shahrezaee**, MA. Okhovatpour, M. Banasiri, SR Sharizadeh. Studying the effects of primary arthroplasty on post-treatment results among elderly patients with pertrochanteric fracture. Clin Pract. 2018; 8(1): 1055.
- **26) M. Shahrezaee**, M. Raz, Sh. Shishehbor, F. Moztarzadeh. F. Baghbani, A. Sadeghi,K. Bajelani, F. Tondnevis. Synthesis of Magnesium Doped Amorphous Calcium Phosphate as a Bioceramic for Biomedical Application: In Vitro Study. Silicon. 2018; 10(3): 1171-1179.
- 27) <u>M Shahrezaee, M Salehi, S Keshtkari, A Oryan, A Kamali, B Shekarchi. In vitro and in vivo investigation of PLA/PCL scaffold coated with metformin-loaded gelatin nanocarriers in regeneration of critical-sized bone defects</u> Nanomedicine: Nanotechnology, Biology and Medicine 2018; 14 (7), 2061-2073
- 28) M Mousaei Ghasroldasht, A Moayednia, M Shahrezaee Effectiveness of platelet-rich plasma based on gene expression in Knee Osteoarthritis The Archives of Bone and Joint Surgery;2019
- 29 MH Shahrezaee, M Shahrezaee, A Oryan, SA Kamali, S Sajadi, . The Effect of Systemic Delivery of Bisphosphonates on Trabecular and Cortical Bone Mass of Ovariectomized Rats. Annals of Military and Health Sciences Research 16 (4) Annals of Military and Health Sciences Research 16 (4)

## Iranian Journals (In Persian)

- 1. M.T. Tahmasebi, **M. Shahrezaee**, M.H. Kaseb, A. Motaghi. Reconstruction of ACL Ligament rupture: results of 96 operations. Tehran Univ Med J. 2009; 67 (1) :76-82.
- 2. M.T. Tahmasebi, A. Motaghi, M. Sharezaee. Total knee arthroplasty in patients with osteoarthritis: Results of 34 operations. Tehran Univ Med J 2009, 67(2): 146-150
- R. Sh. Kamrani, M. Firuzi, M.H. Nabian, L. Oriadi Zanjani, M. Shahrezaee. Perpheral Nerve Graft Severe Scar Tissue (Comparison of one stage and two-stage nerve graft). Iranian Journal of Orthopedic Surgery, 2006, 4 (4): 1-7.
- M. Pooranaraki, E. Neamatipoor, M. Shahrezaie. Assessment of Knowledge of Medical Staff about Cardiopulmonary Ressucitation (CPR). Tehran Univ Med J. 1998; 56 (1) :99-102
- E. Navab Shekholeslam, S. R. Hajzargar Bashi, M. Sharezaee, M. Tbatabaee. Total Hip Arthroplasty Infection (Review Article). Journal of Medical Council of Islamic Republic of Iran. 2009, 27 (3): 349-361.

- M. J. Zehtab, A. R. Mirbolook, B. Syavashi, M. Shahrezayi, M. Mirmostafa. Risk of infection after open leg fractures: a survey in 66 patients. Tehran Univ Med J. 2010; 67 (10) :743-747
- 7. M. Shahrezaie, M. H. Lashgari, B. Dormanesh, M. Hafezi, M. A. Saheb Zamani. Modern Methods to Repair Orthopedic Injuries through Stem Cells Approach in Bone Tissue Engineering. Ann Mil Health Sci Res. 2013; 11 (1) :66-75
- M. Shahrezayee, F. Hashemi, S. R. Sharifzadeh, E. Fallah, F. Khodabandehloo. Study of outcomes after reconstruction of knee's anterior cruciate ligament (ACL) using Hamstringtendon autografts from Septamber 2010 to March 2012: 64 cases. J Army Univ Med Sci. 2013 October; 11 (3): 180-187

### Published in International Congress

- M. Shahrezae, Navab. Efficancy of core decompression and Bone grafting in MIS Technique in 41 patients with the AVN of the femoral Head. Giamos (Great Surgeon Small Incision). 23-24 March 2007. Düsseldorf.
- Dariush Gouran Savadkoohi, Alireza Amin Javaheri, M. Shahrezee, Mohammad Gouran Savadkoohi, (iran). Analysis of early result discharge pattern of resurfacing metal on metal total hip arthroplasty. (Iran). SICOT/SIROT 2008. 24-28 August 2008. Hong Kong.
- Dariush Gouran Savadkoohi, Mohammad Gouran Savadkoohi, Alireza Amin Javaheri, M. Shahrezee (iran). A comparative study of efficacy of curettage and bone grafting with ENBLOCK resection and reconstruction in giant cell tumor of bone. SICOT/SIROT 2008. 24-28 August 2008. Hong Kong.
- M.H. Taherian, M. Jafari-Sabet, M.H. Fathi, M. shahrezaee, J. Moradian. Preparation and Anti-bacerial Evaluation of Sol-Gel Derived Silver-Doped Mesoporous Bioglass; International Congress on Nanoscience & Nanotechnology (ICNN2012) 8-10 September 2012, kashan, I.R.Iran.

### Published in Iranian Journals (In Persian)

- 1) I. Navab, **M. Shahrezaee**. Infection After Hip Arthroplasty Surgery (5 Cases). 14<sup>th</sup> annual congress of orthopedic surgeons of Iran. 2006, Tehran. Iran.
- 2) M. Shahrezaee, I. Navab sheykholeslam, S. M. Jafari. Determination of Bone Grafting Effectiveness by Press Fit with Core decompression and Minimal incision in 41 patients with Osteonecrosis of the femoral head. 15<sup>th</sup> annual congress of orthopedic surgeons of Iran. 2007, Tehran. Iran.
- **3) M. Shahrezaee**, S. Salahshour Kordestani, M. N. Tahmasebi. Comparison study of bioactive wet bandage efficacy for the treatment of chronic wounds. 15th annual congress of orthopedic surgeons of Iran. 2007, Tehran. Iran.
- **4)** M. M. Sadat, **M. Shahrezaee**, Experience of using the rib bone for spinal fusion. Novelty in Bone Graft and its substitutions Seminar. 2007, Tehran. Iran.
- 5) I, Navab Sheikh Eslami, **M. Shahrezaee**. Overview of common treatment of acetabular fracture and introduction of number of them. 2006, 15th annual conference of Orthopedic Surgery, Imam Khomeini International Conference Center.
- 6) M. Shahrezaee. Prevention and treatment of pressure ulcers in Orthopedic patients (and cases report). 2006, 15<sup>th</sup> annual conference of Orthopedic Surgery, Imam Khomeini International Conference Center.

- **7) M Shahrezayee**, S Salahshur, M Tahmasebi. A Comparative RCT study of efficacy and cost effectiveness of using moist bioactive dressings for the treatment of chronic wounds. The third annual conference in complications of upper and lower limb fractures and injuries, 2007, Orthopedic Traumatology society of Iran. Tehran. Iran.
- 8) **M Shahrezayee**, S Salahshur, M Tahmasebi. A Comparative RCT study of efficacy and cost effectiveness of using moist bioactive dressings for the treatment of chronic wounds .
- 9) M. Shahrezaee, H. Nazarian, S. Hesaraki, A. Zamanian. Studying the differentiation of mesenchymal stem cells from bone marrow of rat to osteoblast on Nano Carbonate-Hydroxyapatite Scaffold (In Vitro). 2011, 19<sup>th</sup> Congress of Iranian Orthopedic Association. Tehran. Iran.
- 10) I. Navab, M. Shahrezaee, Lotfi. Studying the results of using processed allografts from Imam Khomeini Bone Banks in hip arthroplasty surgery performed in Shariati, Sajjad, and Aban Hospitals from 2001 to 2010. 19th Congress of Iranian Orthopedic Association. Tehran. Iran.
- 11) M. Sharezaee, S. R. Sharifzadeh, M. M. Hemmati. The primary arthroplasty results in 48 patients with Peri-trochanteric fractures. 2011, 20<sup>th</sup> Congress of children and adults Orthopedics (variance and Confectionery). Tehran University of Medical Science. Tehran, Iran.
- 12) M. Shahrezaee, A. Moshiri, A. Orian, K. Azma, M. Parvizi, B. Shekarchi, K. Majidzadeh, S. Shirzadi. Studying the in vitro properties of 3-dimentional Nano Gelatin Bio-implant of Hydroxyapatite-Simvastatin and its role in repair and restoration of experimental bone defect in rabbit radius: A new study with significant clinical value. 2013. 22<sup>th</sup> Congress of Iranian Orthopedic Association. Tehran. Iran
- 13) Ali Moshiri, Ahmad Oryan, Abdolhamid Meimandi-Parizi and Mostafa shahrezaee. Novel application of bovine synovial embedded three-dimensional collagen based nano-micro-structured collagen implant in experimental tendon injury and its role on healing and regeneration: an in vivo investigation in rabbits with high value in translational medicine. 22<sup>th</sup> Annual Meeting of the Iranian Orthopaedic Association
- 14) M. Sharezaee. The status of Allograft and Autografts' bone bank in treatment of defects after resection of MSK sarcoma defects. (Oral Presentation), 2014, The first International Sarcoma Symposium of Iran. Tehran, Iran.

### Authorship and Translated books (In Persian)

- 1) Learning MEDLINE, Authorship, 1995. Publisher: Tehran University of Medical Science
- **2)** Emergency in Family 1: What should be done in sunstroke and chilblain. Authorship, 1995. Publisher: Rastan
- Emergency in Family 2: Cardiopulmonary resuscitation (CPR). Authorship, 1995. Publisher: Rastan
- Emergency in Family 3: Bleeding and Shock. Authorship, 1996. Publisher: Teymourzade
- 5) Emergency in Family 4: Burn Injuries. Authorship, 1996. Publisher: Teymourzade
- 6) 300 questions with descriptive answers (Pre-Board and Surgery Board exams), Compliation. 1996, Publisher: Teymourzade
- **7)** Five minus one new topics in residency exam, Translation, 2002. Publisher: Teymourzade

**8)** Orthopedics of children (answers to common questions). Authorship, 2009. Publisher: Noandishan Arya

### Patents

- M. Sharezaee, M. R. Badrmohammadi. Construction of biphasic bio-ceramic composite of Calcium Phosphate/ bioactive Nano-glass particles containing magnesium. Registration No. and Date: 82289. March, 2, 2014
- 2) M. A. Sahebzamani, M. Sharezaee. Construction of Poly-Caprolactone Nano-fibrous scaffolds with Stem Cells for tissue engineering use. Registration No. and Date: 80436. Sept, 3, 2013
- M. Pour Hagh Gouy, M. Shahrezaee. Chitosan Nano-composite/Bio-active glass Scaffold manufacture by freeze casting technique. Registration No. and Date: 86985. Oct, 21, 2015

## RESEARCH PROJECTS

## (Thesis Supervising and Advising)

- The effect of hemi arthroplasty on the post treatment outcomes in elderly patients with per-trochanteric fractures in the army hospitals (2010-2011). [Supervisor] Amir Shakibaee, 2011
- 2) Studying the effect of internal open wedge of tibia in posterior tibial slop in Genu varum patients admitted to Imam Reza, Khanevadeh, and Fajr hospitals during 2010-2012. [Supervisor] Hossein Mahmoudian, 2012
- 3) Examination of factors associated qith anterior cruciate ligament (ACL) operated by Hamstring-Autograft technique in patients admitted to Fajr and 501 hospitals during 2010-2011. [Supervisor]Farzan Hashemi, 2011
- **4)** Determination of knee ligament injury in patients admitted to Imam Reza Hospital in 2012-2013. [Advisor] Hossein Kamyab, 2013
- 5) Evaluation of medical student dissertation of AJA University of medical science in the years 2000-2013. [Supervisor] Masoud Bahoush, 2013
- 6) Comparison of onset of analgesia by Lidocaine and bicarbonate combination with Lidocaine alone in patients with acute trauma of upper limb admitted to Besat Hospital during 2013-2014. [Supervisor] Ali Damavandi, 2014
- 7) Studying the effectiveness of Minimal Incision Technique with local anesthesia and mild sedative in patients with Carpal Tunnel Syndrome admitted to Fajr hospital from 2009 to 2012. [Supervisor] Mohammad Khaksar, 2012
- 8) Studying the knee trochlear dysplasia and its association with interior elements knee injuries in MRI results of patients admitted to imaging center. [Advisor] Ashkan Karami, 2015
- 9) Evaluation of Vitamin -C infusion on ischemic-reperfusion effects of tourniquet during ACL(Anterior Cruciate Ligament) surgery in Imam Reza hospital in 1394. [Advisor] Sanaz Samin,2015.

**10)** Diagnostic accuracy of comparison ultrasonography and MRI for diagnosis of thumb ulnar collateral ligament injury following trauma in Besat hospital in 2014. [Advisor] Mohammadreza Mokhdanzadeh Dashti.

### Executive Position and Records:

- Secretary of Scientific Research Center of Tehran University of Medical Sciences, 76-75
- 2) Vice chancellor for research, Aja Faculty of Medical Sciences, 2011-2017
- 3) Vice chancellor for research, Aja University of Medical Sciences, 2017-2019
- 4) Head of Orthopedic Department of Army Medical University, 2013 So far
- 5) Member of the Scientific Committee, 15th Annual Orthopedic Conference, Imam Khomeini International Conference
- 6) Member of the Scientific Committee, 10th International Hip Arthroplasty Congress Tehran ,Iran 2017
- 7) Member of the Scientific Committee, 11th International Hip Arthroplasty Congress, Tehran, Iran 2019
- 8) Secretary of the First Annual Sarcoma Symposium, February 2015
- Official orthopedic expert in Forensic Medicine Organization in Tehran, Iran since 2015
- 10) Member of Specialized Research and Technology Working Group of

Bone and Cartilage (Stem Cells) Vice President of Technology, Technology Vice President.

- 11) Establishment of Cardiopulmonary Resuscitation (CPR) training Workshop -Tehran University of Medical Sciences, 1994
- 12) Establishment of Article Writing Courses for Academic Staff in Research Department of Tehran University of Medical Sciences,1995
- 13) Lecturer of Research Methodology Workshops at Tehran University of Medical Sciences Students Research Center1994-1998