

Updated - 8/29/07

1. Personal Data

Name: Muhammad A. Munir, M.D.
Office Address: 234 Goodman Ave.
P.O. Box 670764
Cincinnati, Ohio 45267-0764
513-584-0909

Work Email: munirma@ucmail.us.edu

Work Fax: 513-584-4003

2. Education

Undergraduate/Graduate

Year	Degree	Institution
1987-1989	Secondary School Certificate	Public School and College, Gilgit, Pakistan
1989-1991	Higher Secondary School Certificate	P.A.F. College, Murree, Pakistan
1991-1997	Bachelor of Medicine and Bachelor of Surgery	King Edward Medical College, University of Punjab, Lahore, Pakistan

Postgraduate Training

Year	Title	Specialty	Place of training
1997-1998	Intern	Department of Neurosurgery	Mayo Hospital, Lahore, Pakistan
1998	Research Assistant	Department of Anesthesiology	Yale University School of Medicine
1998-1999	Research Associate and Observer	Department of Anesthesiology	University of Arkansas for Medial Sciences
1999-2000	Intern	Department of Surgery	University of Arkansas for Medial Sciences
2000-2003	Resident	Department of Anesthesiology	University of Arkansas for Medial Sciences
2003-2004	Fellow	Department of Anesthesiology	Brigham and Women's Hospital, Harvard Medical School

Licensure and Certification

Type of License/Cert

- American Board of Anesthesiology, October 2004 #37480
- American Board of Anesthesiology, Subspecialty certification in Pain Management September 2004 #37480
- Missouri State Board of Healing Arts #2004007501
- Board of Registration in Medicine, Commonwealth of Massachusetts, 2003- present Certificate # 216758
- Re-certification, 2003
- Basic Life Support and Advanced Cardiac Life Support, 2005
- Education Commission for Foreign Medical Graduates Certificate, 1998
- Ohio Medical License #086980

3. Academic Appointments:

University

Year	Academic Title	Institution
November 2005	Assistant Professor of Anesthesiology, Program Director Pain Management Fellowship	University of Cincinnati College of Medicine, Cincinnati, OH
July 2004-October 2005	Clinical Instructor of Anesthesiology	Washington University in Saint Louis

Hospital and Affiliated Institution Appointments

Year	Title	Institution
2004-2005	Instructor	Department of Anesthesiology, Barnes Jewish Hospital, Washington University in St. Louis
2005	Assistant Professor of Anesthesiology, Program Director Pain Management Fellowship	University Hospital, Cincinnati, OH

Other Professional Positions

Year	Position/Title	Institution
2005	Director of Pain Management	University Hospital, Cincinnati, OH

4. Professional Societies:

Year	Society	Role (officer/committee assignment)
2004-Present	International Spine Injection Society	Member
2004-Present	North American Spine Society	Member
1999-2003	Arkansas Medical Society	Member
1999-2003	Arkansas Society of Anesthesiologists	Member
1999-Present	American Society of Anesthesiologists - 808412	Member
1999-Present	International Anesthesia Research Society	Member

	I-37355	
2001-Present	American Society of Regional Anesthesia and Pain Medicine - #8031426	Member
2001-Present	Southern Medical Association - #P15171	Member
2003-Present	American Pain Society	Member
2003-Present	Pakistan Association for the Study of Pain	Member
2005 – Present	Ohio Society of Anesthesiologists, Inc.	Member
2005-Present	Greater Cincinnati Pain Society	Member
2006-Present	International Association for Study of Pain – #38026	Member
2006-Present	North American Spine Society	Member

5. Service:

Committee Involvement

Date	Committee	Role
2003-2004	American Society of Anesthesiologists - Committee on Professional Liability	Member
2001-2002	American Society of Anesthesiologists - Committee on Research	Member
2001-2002	University of Arkansas for Medical Sciences – Quality Review Committee	Member
2000-2002	ASA Resident Component House of Delegates – Arkansas Society of Anesthesiologists	Member
2005-present	University Anesthesia Associates, Executive Committee	Member
2005-present	University Anesthesia Associates, Education Committee	Member
2005-present	University Anesthesia Associates, Clinical Competency Committee	Member

Participation in Department Recruitment Activities

Committee	Role
Pain Fellowship for 2006-2007	Lead

6. Teaching:

Percent of time per year spent in teaching medical student/graduate student/resident/fellows.

Teaching: 5%

Academic courses, lectures, grand rounds, professor rounds

Dates	Activity	Location
2000	“Awareness during Anesthesia”	University of Arkansas for Medical Sciences
2001	“Effects of Inspiratory and Expiratory Valve Dysfunction on Capnogram”	University of Arkansas for Medical Sciences
2001	“Postoperative Electrocardiogram Changes” Post-Anesthesia Care Nursing Lecture	University of Arkansas for Medical Sciences
2003	“Setting up for Regional Anesthesia” Anesthesia Technicians continuing education lecture	University of Arkansas for Medical Sciences
2003	“Evaluation of Chronic Pain Patient” Resident Curriculum	Harvard Medical School
2003	“Diagnosis of CRPS” Fellow Curriculum	Harvard Medical School

2003	“Interventional Pain Management Decision Framework” Fellow Curriculum	Harvard Medical School
2003	“Treatment of Chronic Low Back Pain” Fellow Curriculum	Harvard Medical School
2003	“Opioid Pharmacology” Fellow Curriculum	Harvard Medical School
2003	“Cox-2 inhibitors and their role in pain management”	Pfizer Speakers Bureau Lecture
2004	“Imaging of Lumbar Spine” Fellow Curriculum	Harvard Medical School
2004	“Central Pain: Mechanisms and Treatment”	Harvard Medical School
2004	“Interventional Spine Procedures”	Washington University in St. Louis
2004	“Imaging of Lumbar Spine”	Washington University in St. Louis
2004	“Interventional Pain Management Decision Framework”, Department of Anesthesiology, Pain Management Lecture	Washington University in St. Louis
2005	“Cancer Pain Management”	Washington University in St. Louis
2005	“Pain Management in Elderly”	Washington University in St. Louis
2005	“Opioid Pharmacology”	Washington University in St. Louis
2005	“Techniques in Interventional Pain”	University of Cincinnati, Medical College, Department of Anesthesia
2005	“Cadaver Workshop” Upper and lower extremity anatomy review, Brachial Plexus block techniques, Lower extremity block technique	University of Cincinnati, Medical College, Department of Anesthesia
2006	“Evaluation of Chronic Pain Patient” Resident Curriculum	University of Cincinnati, Medical College, Department of Anesthesia
2006	“Neural Blockage in Acute Pain Management” Resident Curriculum	University of Cincinnati, Medical College, Department of Anesthesia
2006	“Low Back Pain” Resident Curriculum	University of Cincinnati, Medical College, Department of Anesthesia
2006	“Neurologic Basis of Pain” Resident Curriculum	University of Cincinnati, Medical College, Department of Anesthesia
2006	“Pharmacology of Acute Pain Management” Resident Curriculum	University of Cincinnati, Medical College, Department of Anesthesia
2006	Invited lecturer and Course Instructor for interventional pain management.	Society for Treatment and Study of Pain, Pakistan
2006	“Cadaver Workshop” Intervention Pain Technique Cadaver Workshop 1 of 6	University of Cincinnati, Medical College, Department of Anesthesia
2006	“Cadaver Workshop” Intervention Pain Technique Cadaver Workshop - 2 of 6	University of Cincinnati, Medical College, Department of Anesthesia

2006	Grand Rounds Presentation “Principles and Practice of Pain Management”	University of Cincinnati, Medical College, Internal Medicine
2006	Grand Rounds Presentation “Beyond Epidurals - Future of Pain Medicine”	University of Cincinnati, Medical College, Department of Anesthesia
2006	“Central pain” Fellow Curriculum	University of Cincinnati, Medical College, Department of Anesthesia
2006	“Opioid Pharmacology” Fellow Curriculum	University of Cincinnati, Medical College, Department of Anesthesia
2006	“Non-operative treatment of Low Back Pain” Fellow Curriculum	University of Cincinnati, Medical College, Department of Anesthesia
2006	“Pain Management in Elderly” Fellow Curriculum	University of Cincinnati, Medical College, Department of Anesthesia
2007	2007 Midwest Implant Workshop Speaker “Fluoroscopic Anatomy”	University of Cincinnati, Medical College, Department of Anesthesia
2007	“Cadaver Workshop” Intervention Pain Technique Cadaver Workshop	University of Cincinnati, Medical College, Department of Anesthesia
2007	Grand Rounds Presentation “Perioperative Pain/PCA/Epidurals”	University of Cincinnati, Medical College, Urology

7. Grants and Contracts:

Research related – peer reviewed, non-peer reviewed.

- 1) July 2002 “Local Anesthetics and Sympathetically Maintained Neuropathic Pain” \$7,500. **Carl Koller Memorial Research Award and Grant.** PI Muhammad A. Munir, MD; Junming Zhang, MD as Co-Investigator.
- 2) March 2003. “**Educational Scholarship** for Principles and Practice of Pain Medicine Course” in Chicago, IL
- 3) June 2003 “**Chairman’s Academic Achievement Award.** In recognition of outstanding academic achievement as an Anesthesiology resident at the University of Arkansas for Medical Sciences.
- 4) November, 2003. “**Pain Fellow Fall Meeting Scholarship**” \$1000 Educational Scholarship Awarded to Five Pain Fellows from all over the country to facilitate attendance for research poster presentation at the Annual American Society of Regional Anesthesia and Pain Medicine Meeting.
- 5) July 2004 “Identification of CRPS subtypes and effective treatments”. \$50,000 **Reflex Sympathetic Dystrophy Syndrome Association of America Grant.** PI **Muhammad A. Munir, MD;** Edgar Ross, MD and Junming Zhang, MD as Co-Investigator

8. Poster Presentations:

- 1) "Alkalinization and Precipitation Characteristics of Lebobupvacaine", November 2003, ASRA Annual Meeting
- 2) "Levobupivacaine Blocks Lumbar Ganglion Compression-Induced Mechanical Hyperalgesia and Allodynia beyond Its Duration of Action", October 2003 ASA Annual Meeting
- 3) "Alkalinization of Local Anesthetic Mixtures with 8.4% Sodium Bicarbonate". October 2003 ASA Annual Meeting
- 4) "Rofecoxib Reduces Non-incisional Pain and Patient Controlled Epidural Analgesia Requirements after Thoracotomy". March 2003. IARS 77th Clinical and Scientific Congress.
- 5) "A Retrospective Review of Safety of Anesthesia for Surgical Ligation of Patent Ductus Arteriosus in Neonatal Intensive Care Unit". March 2002. IARS 76th Clinical and Scientific Congress.
- 6) "Effects of Topical Cold Applications on Cutaneous Pain Induced by Needle Insertion and Local Anesthetic administration". March 2002. IARS 76th Clinical and Scientific Congress.
- 7) "Comparison of Incidence of Non-Positional Headache Induced by Preservative-Free and Preservative-Containing Epidural Steroids", October 2001. ASA Annual Meeting.
- 8) "Serum Biological Markers of a Non-contained Disc Herniation with Radiculopathy" March 2001. IARS 75th Clinical and Scientific Congress.
- 9) "The Effect of Needle Gauge on the Cephalad Spread of Epidural Steroid Injection". October 2000. ASA Annual Meeting.
- 10) "A Modified Technique for the Ganglion Impar Block", October 1999. ASA Annual Meeting.
- 11) "Fluoroscopic Imaging of Epidural Intravascular Contrast Spread in a Cadaveric Specimen". April 2007. ASRA Annual Meeting, Vancouver, BC.

9. Publications:

- 1) Saberski LR, Ahmad M, **Munir MA**, Brull SJ. Identification of a New Therapeutic Approach for Iliac Crest Donor Site Chronic Pain: A Case Report: *Anesthesia & Analgesia* 1999; 89:1538-40
- 2) Saberski LR, Ahmad M, **Munir MA**, Brull SJ. Identification of a New Therapeutic Approach for prolonged pain relief in Chronic Iliac Crest Donor Site Pain: A Case Report: *The Pain Clinic* 2000; 2:37-41
- 3) Saberski LR, Ahmad M, **Munir MA**, Brull SJ. Identification of a New Therapeutic Approach for prolonged pain relief in Chronic Iliac Crest Donor Site Pain: A Case Report: *Surgical Physician Assistant* 2000; 6: 43-47
- 4) Ahmad M, **Munir MA**, Ackerman WE. Multidisciplinary Approach to the Management of Post-herpetic Neuralgia. *The Pain Clinic* 2000;2;17-23
- 5) **Munir MA**, Saleem M, Zhang JM, Mancino AK. Aberrant Placement of Central Venous Catheter in a Thymic Vein. *The Journal of the Arkansas Medical Society* 2001: 98(4):112-114
- 6) Ahmad M, Ackerman WE, **Munir MA**, Saleem M. NMDA Receptor Antagonists: Recent Advances in Chronic Pain. *The Pain Clinic* 2001 3:25-31
- 7) **Munir MA**, Chien SQ. In Situ Technique to Retrieve Entrapped J-Tip Guidewire from an Inferior Vena Cava Filter. *Anesthesia & Analgesia*. 2002;95:308-309.
- 8) **Munir MA**, Jaffar M, Arshad M, Akhter MS, Zhang JM. Reduced Duration of Muscle Relaxation with Rocuronium in a Normocalcemic Hyperparathyroid Patient. *Canadian Journal of Anesthesia* 2003;50:6:558-561
- 9) Zhang, J.-M., Li, H. and **Munir, MA**. Decreasing sympathetic sprouting in pathologic sensory ganglia: a new mechanism for treating neuropathic pain using lidocaine. *Pain*, 109: 143-149, 2004

- 10) **Munir MA**, Zhang JM, Ahmad M. A Modified Needle-inside-Needle Technique for the Ganglion Impar Block. *Canadian Journal of Anesthesia* 2004 51: 915-917.
- 11) Ackerman WE, **Munir MA**, Zhang JM, Ghaleb A. Are Diagnostic Lumbar Facet Injections Influenced by Pain of Muscular Origin? *Pain Practice* 2004; 4: 286-291
- 12) Zhang JM, Ghaleb A, **Munir MA**, Smith H, Brull SJ. Cancer-Related Neuropathic Pain: Mechanism and Therapy. *Journal of Neuropathic Pain and Symptom Palliation*. 2005; 1:55-67
- 13) **Munir MA**. Krishnan S. Ahmad M. A simple technique to reduce preservative/excipient related neurotoxicity of intrathecal (spinal) drugs. *Anesthesia & Analgesia*. 2000;90(3):767-8
- 14) **Munir MA**, Chien SQ. In Response: In-situ technique to retrieve entrapped guidewire. *Anesthesia & Analgesia*. 2002;95(2):308-9.
- 15) **Munir MA**, Albataineh JI, Jaffar M. An Alternative Way to use Fogarty Balloon Catheter for Perioperative Lung Isolation. *Anesthesiology* 2003;99:240
- 16) **Munir MA**, Jaffar M. A Further Consideration on Unsolicited Paresthesias with Nerve Stimulator. *Anesthesia & Analgesia*. 2003;96(5):1529
- 17) **Munir, MA** "Drugs for Pain" Editor Howard S Smith, MD 1st ed -May 2002 - ISBN 1560535113 - Hanley & Belfus. *Journal of Neuropathic Pain and Symptom Palliation*. 2005; 1:103-105
- 18) Ghaleb A. **Munir MA**. Management of intractable chronic pelvic pain. *Journal of the Arkansas Medical Society*. 102(5):138-41, 2005 Nov.
- 19) Jun-Ming Zhang MSc, MD, Ahmed H. Ghaleb MD, **Munir MA.**, Howard S Smith MD, Sorin J. Brull MD. Cancer-Related Neuropathic Pain Mechanism and Therapy. *Journal of Neuropathic Pain & Symptom Palliation* 1(1): 55-67, 2005
- 20) Ackerman W, Zhang J.-M, **Munir MA**. Assessment of laser Doppler imaging for the diagnosis of complex regional pain syndrome. *J. Neuropathic Pain & Symptom Palliation*, 2006 1(4): 13-20.
- 21) **Munir MA.**; Rastogi, Rahul MD; Nedeljkovic, Srdjan MD, "Fluoroscopy and Safety of Spinal Interventional Procedures" *Anesthesia & Analgesia*, 2006:102(5); 1586
- 22) **Munir MA.**; Enany, Nasr MD; Jun-Ming Zhang, MSc, MD, "Nonopioid Analgesics" *Medical Clinics of North America*, 2007:Vol 91:1:97

10. Abstracts

- 1) Devaparsadam RJ, Reddy A, Stout RG, Shaheen Y, Gangadharappa R, Tantawy H, Almouzayn M, Ferneini EM, **Munir MA**, Silverman DG: Identification of Neuro Micro-Vascular Etiology to Reactive Hyperemia: *Anesthesia & Analgesia* 1999;88:S273
- 2) Ahmad M, **Munir MA**, Saberski LR, Brull SJ: Sensory Nerve Localization using Medtronic Screener 3625 device: *Anesthesia & Analgesia* 1999;88:S408
- 3) Ahmad M, **Munir MA**, Ackerman WE, Roberts W, Saberski LR: A New technique to Reduce Preservative Related Neurotoxicity in Epidural Corticosteroid injections: *Anesthesia & Analgesia* 1999;88:S269
- 4) Ackerman WE, Ahmad M, **Munir MA**: Effect of Position at the Time of Needle Placement on Pain Intensity Scores Following Lumbar Epidural Steroid Injection in Patients with Herniated L5-S1 Disc. *Regional Anesthesia and Pain Medicine* 1999;24:3:63
- 5) Ahmad M, Kazal BR, **Munir MA**, Ackerman WE: A Modified Technique for the Ganglion Impar Block: *Anesthesiology* 1999;91:A965
- 6) **Munir MA**, Ackerman WE, Ahmad M, Zhang JM: The Effect of Needle Gauge on the Cephalad Spread of Epidural Steroid Injection. *Anesthesiology* 2000;91:A933

- 7) Ackerman WE, **Munir MA**, Ahmad M, Saleem M, Zhang JM: Use of Stimuplex Needle for Diagnosis of Facet Arthropathy. *Anesthesia & Analgesia* 2001; 92;S247
- 8) **Munir MA**, Ackerman WE, Ahmad M, Saleem M: Serum Biological Markers of a Non-contained Disc Herniation with Radiculopathy. *Anesthesia & Analgesia* 2001; 92;S265
- 9) Ackerman WE, **Munir MA**, Saleem M: Role of Contralateral Stellate Ganglion Block for Treatment of Complex Regional Pain Syndrome. *Anesthesia & Analgesia* 2001; 92;S248
- 10) Ackerman WE, Ahmad M, **Munir MA**, Zhang JM, Saleem M: A Comparison of SPECT Scanning with Physical Examination Alone for the Diagnosis of Facet Joint Arthropathic Pain. *Regional Anesthesia & Pain Medicine* 2001;26;16
- 11) Ahmad M, Ackerman WE, **Munir MA**, Saleem M: Safety and Efficacy of Epidurally Administered Ketamine in Patients with Chronic Radiculopathic Low Back Pain. *Regional Anesthesia & Pain Medicine* 2001;26;18
- 12) **Munir MA**, Ackerman WE, Ahmad M, Saleem M: Lack of Hematological Markers in Patients with Disc Herniation. *Regional Anesthesia & Pain Medicine* 2001;26;96
- 13) Ackerman WE, **Munir MA**, Ahmad M, Saleem M, Zhang JM: The Effect of needle Gauge on the Anterior Spread of Epidural Steroid Injection. *Regional anesthesia & Pain Medicine* 2001;26;98
- 14) Ackerman WE, Ahmad M, **Munir MA**, Zhang JM: Comparison of Incidence of Non-Positional Headache Induced by Preservative-Free and Preservative-Containing Epidural Steroids. *Anesthesiology* 2001;95;A815
- 15) **Munir MA**, Ackerman WE, Ahmad M, Zhang JM: Effects of Topical Cold Applications on Cutaneous Pain Induced by Needle Insertion and Local Anesthetic administration. *Anesthesia & Analgesia* 2002; 94;S209
- 16) Ackerman WE, **Munir MA**, Ahmad M, Zhang JM: Efficacy of Stellate Ganglion Blockade as a Function of Onset of Symptoms. *Anesthesia & Analgesia* 2002; 94;S235
- 17) Ackerman WE, **Munir MA**, Ahmad M, Zhang JM Lack of Efficacy of Lumbar Epidural Steroid Injections for the Treatment of Atherosclerotic Low Back Pain Patients. *Anesthesia & Analgesia* 2002; 94;S230
- 18) **Munir MA**, Schmitz ML, Drumond-Webb JJ, Chipman C, Siddiqui MS, Saleem M: A Retrospective Review of Safety of Anesthesia for Surgical Ligation of Patent Ductus Arteriosus in Neonatal Intensive Care Unit. *Anesthesia & Analgesia* 2002; 94;S260
- 19) Ackerman WE, Zhang JM, **Munir MA**, Ahmad M, Ackerman C: Efficacy of Laser Doppler Fluxmetry for the Diagnosis of CRPS I. *Regional Anesthesia & Pain Medicine*; 2002;27;37
- 20) **Munir MA**, Jaffar M, Pablo CS, Zhang JM. Rofecoxib Reduces Non-incisional Pain and Patient Controlled Epidural Analgesia Requirements after Thoracotomy. *Anesthesia & Analgesia* 2003; 96;S196
- 21) **Munir MA**, Li H, Jaffar M, Ghaleb A, Zhang J-M. Levobupivacaine Blocks Lumbar Ganglion Compression-Induced Mechanical Hyperalgesia and Allodynia beyond Its Duration of Action. *Anesthesiology* 2003;99; A-919
- 22) **Munir MA**, Chien SQ, Li C, Ghafoor AU. Alkalinization of Local Anesthetic Mixtures with 8.4% Sodium Bicarbonate. *Anesthesiology* 2003; 99;A-1055
- 23) Ackerman WE, **Munir MA**, Zhang JM, Ahmad M. Diagnostic Lumbar Facet Injections: Are They Reliable? *Anesthesiology* 2003;99; A-1110

- 24) **Munir, MA**, Ross EL, Bowen T, Zhang JM. Alkalinization and Precipitation Characteristics of Levobupivacaine. *Regional Anesthesia & Pain Medicine* 2003;28;35
- 25) **Munir, MA**, Mohajer, P, Hamouda MN, Ross EL. Fluoroscopically-guided Transforaminal Lumbar Epidural Steroid Injection: A New Needle-inside-Needle Technique. *Regional Anesthesia & Pain Medicine* 2004;29;23
- 26) Agarwal S, **Munir, MA**, “Topical Doxepin for the Management of Hyperhidrosis in Post-herpetic Neuralgia”. November 16-19 2006. American Society of Regional Anesthesia & Pain Medicine annual fall meeting.
- 27) **Munir, MA**, Agarwal S, Madhipatla V. “A Novel Continuum of Pain Relief Approach for the Treatment of Non-terminal Pain”. November 16-19 2006. American Society of Regional Anesthesia & Pain Medicine annual fall meeting.
- 28) Agarwal S, **Munir, MA**, Sohal A, Weiss L. “Post Thoracotomy Pain Following Endoscopic Sympathectomy for Hyperhidrosis: A Case Report”. November 16-19 2006. American Society of Regional Anesthesia & Pain Medicine Annual fall meeting.
- 29) [Agarwal S](#), **Munir, MA**, “Tarlov Cyst: a Minimally Invasive Treatment Option”. February 7-10 2007. American Academy of Pain Medicine Annual meeting.
- 30) Cianciolo E, Agarwal S, Zweikoft S, **Munir, MA**, Dual epidural technique for pain control in trauma patients. ASRA Annual Meeting, 2007, Vancouver, British Columbia.
- 31) Stewart Zweikoft, M.D., Sanjeev Agarwal, M.D., Eli Cianciolo, M.D., **Munir, MA**, Fluoroscopic Imaging of Epidural Intravascular Contrast Spread in a Cadaveric Specimen.

11. Distribution of Effort:

Clinical: 85% Administration: 10% Teaching: 5%