



## **PERSONAL INFORMATION**

**Name:** Maryam Jowza

**Work Address:** N2198 UNC Hospitals, CB#7010, Chapel Hill, North Carolina 27599-7010

## **EDUCATION**

### **POST GRADUATE**

08/2010 – 08/2011

Massachusetts General Hospital  
Fellowship  
Boston, MA  
Department of Anesthesiology  
Chair: Janine Weiner Kronish, MD  
Director: Gary Brenner, MD

Pain Management

08/2007 – 08/2010

Massachusetts General Hospital  
Boston, MA  
Department of Anesthesiology  
Chair: Warren Zapol, MD  
Director: Keith Baker, MD

Anesthesiology Residency

06/2006 – 07/2007  
Medicine

Albert Einstein Medical Center  
Philadelphia, PA  
Department of Medicine  
Chair: Victor Navarro, MD  
Director: Glenn Eiger, MD

Intern in Preliminary

### **GRADUATE**

08/2002 - 05/2006

Rutgers- Robert Wood Johnson Medical School  
New Brunswick, NJ

Doctor of Medicine

### **UNDERGRADUATE**

08/1997- 06/2001

Bard College  
Annandale-on-Hudson, NY

Bachelor of Science, Chemistry

## **CERTIFICATIONS/LIENSURE**

Specialty Certification

American Board of Anesthesiology  
Pain Management

valid through 12/2022

valid through (12/2022)

Medical Licensure

North Carolina Medical Board

valid through 11/2023

## **PROFESSIONAL EXPERIENCE**

02/2021- current

Associate Professor  
Pain Management Division

University of North Carolina  
Department of Anesthesiology

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10/2015- 02/2021	Assistant Professor Pain Management Division	University of North Carolina Department of Anesthesiology
09/2013-06/2015	Assistant Professor Pain Management Division	Weil Cornell Medical College Department of Anesthesiology
09/2011-06/2013	Instructor Pain Management Division	Weil Cornell Medical College Department of Anesthesiology

## **HONORS**

06/2022	UNC Department of Anesthesiology Residency Education Faculty Honor Roll
09/2018	First Place Award for Poster Presentation, North Carolina Society of Anesthesiology, Greenville, NC. B Bowling, M Jowza. Clinical Presentation of Arachnoiditis Following Spinal Cord Stimulator. Pain Society of the Carolinas Annual Meeting 2018. Greenville, SC. 9/29/2018
05/2018	UNC Department of Anesthesiology Residency Education Faculty Honor Roll
05/2017	UNC Department of Anesthesiology Resident Education Faculty Honor Roll
04/2007	Partners In Excellence Award, Massachusetts General Hospital, Hospital-wide selection, recognition for clinical excellence

## **BIBLIOGRAPHY AND PRODUCTS OF SCHOLARSHIP**

### **BOOK CHAPTERS:**

**Jowza M**, Nagpal G, Viscomi CM, Rathmell JP. Pain in Pregnancy. In Chin ML, Fillingim RL, Ness TJ. Pain in Women. Oxford University Press, New York, 2013, pp. 122-134.

**Jowza M**, Minehart RD, Local Anesthetics. In Clinical Anesthesia Procedures of the Massachusetts General Hospital, Eighth Edition. Levine ed, Wolters-Kluwer, Philadelphia, 2010, pp. 208-216

### **BOOKS/CHAPTERS: IN PRESS/SUBMITTED**

Prem A, **Jowza M**, James D. Skeletal Muscle Relaxants, Antidepressants, Antiepileptics, and Gabapentinoids. In Kaye and Urman, Acute Pain Management Essentials: An Interdisciplinary Approach. Wolters-Kluwer, Philadelphia, 2022.

James D, **Jowza M**. Hormones and Antibodies. In Adb-Elsayed Basic Anesthesia Review. Oxford University Press. 4 Pages. Submitted 08/31/2020.

**Jowza M**, James D. Neurological Disorders. In Adb-Elsayed Advanced Anesthesia Review. Oxford University Press. 4 Pages. Submitted 07/30/2020.

James D, **Jowza M**. Epilepsy and Anesthesia. In Adb-Elsayed Advanced Anesthesia Review. Oxford University Press. 4 Pages. Submitted 05/25/2020.

James D, **Jowza M**. Ilioinguinal and Iliohypogastric Nerves Interventions. In: Souza D, Kohan L, Narouze S. Bedside Pain Interventions. Springer Nature. Submitted 11/2019. 7 Pages.

#### **REFEREED (PEER – REVIEWED) PUBLISHED PRODUCTS OF SCHOLARSHIP**

A Cook, S Ghanavatian, **M Jowza**. Spontaneous Spread of Limb Complex Regional Pain Syndrome to the Ipsilateral Face With Ultimate Corneal Abrasion: A Case Report. *A A Pract*. 2020;14(10):e01301. doi:10.1213/XAA.0000000000001301

E Stephenson, Z Farzal, **M Jowza**, T Hackman, A Zonation, E Du. Postoperative Analgesic Requirement and Pain Perceptions after Nonaerodigestive Head and Neck Surgery. *Otolaryngol Head Neck Surg*. 2019 Dec;161(6):970-977. doi: 10.1177/019459981987169

E Du, Z Farzal, E Stephenson, A Tanner, K Adams, D Farquhar, M Weissler, S Patel, J Blumberg, **M Jowza**, T Hackman, A Zanation. Multimodal Analgesia Protocol after Head and Neck Surgery: Effect on Opioid Use and Pain Control. *Otolaryngol Head Neck Surg*. 2019 Apr 9; doi: 10.1177/0194599819841885

D James and **M Jowza** . Treating opioid dependence: Pain Medicine Physiology of Tolerance and Addiction. *Clin Obstet Gynecol*. 2019 Mar;62(1):87-97. doi: 10.1097/GRF.0000000000000422.

D. James, **M Jowza**. "Pain in Burn Patients." *Clin Plast Surg*. 2017 Oct; 44(4):737-747. doi: 10.1016/j.cps.2017.05.005

J Guillory, **M Jowza**, MC Reid. Piloting a Text Message-Based Social Support Intervention for Patients with Chronic Pain. *Clin J Pain*. 2015 Jun;31(6) 548-56 doi: 10.1097/AJP.0000000000000193

**M Jowza**; S Sattar;R Olson. Modeling Chlorite-Iodide Reaction Dynamics Using a Chlorine Dioxide-Iodide Reaction Mechanism *J. Phys. Chem. A.*; Feb 2005; 109(9); 1873-1878 PMID: 16833519

#### **REFEREED( PEER-REVIEWED) OTHER PRODUCTS OF SCHOLARSHIP:**

**M Jowza**. Neck and Back Pain. Anesthesia Education. Toolbox: <https://www.anesthesiatoolbox.com/docs/DOC-3371> Published 2/12/2018

**M Jowza**. Clinical Application of Medications PBLD. Anesthesia Education. Toolbox: <https://www.anesthesiatoolbox.com/docs/DOC-2789>. Published 7/31/2017

**M Jowza**. Local Anesthetic PBLD. Anesthesia Education. Toolbox: <https://www.anesthesiatoolbox.com/docs/DOC-3195> Published 12/19/2017

#### **INVITED BUT NOT PEER-REVIEWED PRODUCTS OF SCHOLARSHIP:**

Jowza, Maryam Last Up-dated: Nov 1, 2022

**M Jowza**, Alston T. Literature Review: Nitrous Oxide and Perioperative Cardiac Morbidity (ENIGMA-II) Trial: Rationale and Design. Society of Cardiovascular Anesthesia Newsletter (www.scahq.com) June 2009; 8 (4)

**M Jowza**, Alston T. Literature Review: Stress Doses of Hydrocortisone in High-Risk Patients Undergoing Cardiac Surgery: Effects on Interleukin-6 to Interleukin-10 Ratio and Early Outcomes. Society of Cardiovascular Anesthesia Newsletter (www.scahq.com) June 2009, 8(3)

#### **PRODUCTS OF INTERDISCIPLINARY SCHOLARSHIP**

**M Jowza**, A Goetzinger, S Patidar. "Interdisciplinary Simulation Curriculum in Pain Management for Navigating Difficult Patient Encounters." Society of Behavioral Medicine Annual Meeting. San Francisco, CA. (04/02/2020 Cancelled due to Pandemic) (Invited)

#### **REFEREED UNPUBLISHED ORAL PRESENTATIONS/ABSTRACTS**

##### **Oral Presentations**

E Costa, **M Jowza**. Delayed Hypersensitivity Reactions in Response to Long Term Pain Therapies. American Society of Regional Anesthesia Annual Pain Medicine Meeting. Orlando, Fla. November 17, 2022. (Solicited)

E Costa, **M Jowza**. Delayed Cutaneous Immune Reaction to Local Anesthetics. Pain Society of the Carolinas Meeting. Asheville, NC. September 23, 2022 (Solicited)

**Jowza M**. Neuropathic Pain Treatment. National Chordoma Foundation Virtual Meeting. April 7, 2021 (Invited)

P Carter, **M Jowza**, Navigating Patient Encounters in the Opioid Epidemic: A Pilot Multidisciplinary Simulation Curriculum for Difficult Encounters" Society for Education in Anesthesia Spring Annual Meeting, Philadelphia, Pennsylvania May 9, 2020 (Solicited)

P Carter, N Khathri, **M Jowza**. Intrathecal Pumps and Lawsuits: What Do You Do When All Else Fails? North American Neuromodulation Society Annual Meeting 2020. Caesars Palace, Las Vegas. January 23, 2020 (Solicited)

A Cook, M Ranahan M, **M Jowza**. Corneal Complication of Complex Regional Pain Syndrome. Pain Society of the Carolinas Annual Meeting 2019. Charleston, SC. December 6, 2019 (Solicited)

N Khatri, **M Jowza**. Identifying Implicit Bias of Pain Management Physicians Towards Certain Pain Conditions. American Society of Regional Anesthesia Annual Pain Medicine Meeting 2018. San Antonio, Tx. November 16, 2018 (Solicited)

B Bowling, **M Jowza**. Clinical Presentation of Arachnoiditis Following Spinal Cord Stimulator. Pain Society of the Carolinas Annual Meeting 2018. Greenville, SC. September 29, 2018 (Solicited)

C Tillson, L Sylvester, **M Jowza**. Persistent Genital Arousal Syndrome: A referral to Pain Specialist? Pain Society of the Carolinas Annual Meeting 2018. Greenville, SC. September 29, 2018 (Solicited)

E Du, MD, Z Farzal, MD, E Stephenson, A Tanner, K Adams, **M Jowza, MD**, S Patel, J Blumberg, A Zanation, MD. Postoperative Analgesic Requirement and Pain Perceptions after Minor Head and Neck Surgery. Triological Society 121st Annual Meeting 2018. National Harbor, MD. April 22, 2018 (Solicited)

Jowza, Maryam Last Up-dated: Nov 1, 2022

K Schott, D James, **M Jowza**, J Wang, SA Reddy, J Park, Improving Nursing Knowledge Regarding Epidural Catheter Care. American Society of Anesthesiology Annual Meeting 2017. Boston, MA October 22, 2017 (Solicited)

A. Reddy and **M. Jowza**. "Spinal cord Ischemia in setting of Indwelling Epidural Catheter. Abstract and Presentation at American Society of Regional Anesthesiology Meeting 2016. San Diego, CA November 19, 2017 (Solicited)

**Panels:**

**M. Jowza**. Speaker and Panel Member. Interventions in Cancer Pain at the 10<sup>th</sup> Annual Coping with Cancer Conference: Cancer Pain Management During the Opioid Epidemic. Carolina Inn. Chapel Hill, NC October 27, 2018(Invited)

**M Jowza** Host. Chronic Pain Panel at Post Graduate Assembly 68. New York, NY. December 14, 2014. (Invited)

**Posters:**

S Stookey, K Schott, **M Jowza**. Cluneal Nerve Stimulation for Cluneal Neuralgia. Pain Society of the Carolinas Annual Meeting 2019. Charleston, SC. December 06, 2019 (Solicited)

C Mokesky, **M Jowza**. Mishaps in Anticoagulation with Indwelling Epidural. Pain Society of the Carolinas Annual Meeting 2017. Charleston, SC. September 23, 2017 (Solicited)

AR Reddy, **M Jowza**. Slipped Rib Syndrome. American Society of Regional Anesthesiology Annual Meeting 2017. Orlando, FL November 16, 2017 (Solicited)

P. Pessantes and **M. Jowza**. "Malignant Hyperthermia Masked by Alcohol Withdrawal?" Medically Challenging Case Presentation. American Society of Anesthesiology Annual Meeting 2016. Chicago, IL. October 24, 2016 (Solicited)

V Bhasin and **M Jowza**. Two Cases of Cutaneous CSF Leak After CSE Treated with Conservative Management. American Society of Regional Anesthesiology Meeting. May 2015. Las Vegas, NV May 24, 2015 (Solicited)

G Kaur and **M Jowza**. Chronic Pain in Survivors of Torture. Poster at Post Graduate Assembly. Dec 2014. New York, NY December 13, 2014 (Solicited)

**Problem Based Learning Discussions:**

"PBLD: Perioperative management of patients on partial opioid agonist and antagonist therapy " 33<sup>rd</sup> Annual Carolina Refresher Course, Kiawah Island, SC June 15, 2022

"PBLD: MY Next Patient is on Opioids: The good, bad, and ugly" 10<sup>th</sup> Annual Duke-Wake Forest Pediatric Anesthesiology Conference. Friday Center, Chapel Hill, NC October 23, 2017 (Invited)

**DIGITAL AND OTHER NOVEL FORMS OF SCHOLARSHIP**

Department of Anesthesiology Multidisciplinary Pain Fellowship Education Series:

**M Jowza**. Suicidal Cancer Pain Patient. University of North Carolina. 5/09/2016

**M Jowza**. Narcissistic Patient with a Complication. University of North Carolina. 5/09/2016

D James, **M Jowza**. Sexually Inappropriate Patient. University of North Carolina. 5/9/2016

**M Jowza**. Stellate High Spinal. University of North Carolina. 11/02/2015

**M Jowza**. Intercostal Block Pneumothorax. University of North Carolina. 11/02/2015

D James D, **M Jowza**. Belligerent Patient: To Injection or not to inject? University of North Carolina. 11/02/2015

## **TEACHING ACTIVITIES**

### **Course Director:**

Course director  
8/2021- Current School of Medicine, MD/PHD Longitudinal Advanced Clinical Selective (ACS 499)

11/22/2019- current School of Medicine, Pain Management Elective (Anesthesia 409) for senior medical students.

### Clinical Teaching

01/2019- current Liaison for Chronic Pain elective for the UNC Department of Physical Medicine and Rehabilitation

01/2019- current Liaison for Chronic Pain elective for the UNC Department of Palliative Care

01/2019- 2022 Liaison for Chronic Pain elective for the UNC Department of Neuroradiology

01/2017- current Liaison for Chronic Pain elective for the UNC Department of Psychiatry

01/2017- 06/2020 Rotation director for Anesthesiology residents on the Acute Pain Service

01/2017- 2020 Rotation director for Anesthesiology residents on Chronic Pain Service

01/2017- 2020 Rotation director for Anesthesiology residents on Advanced Chronic Pain Elective

## **LECTURES**

### **LECTURES TO MEDICAL STUDENTS:**

#### **University of North Carolina School of Medicine** To Medical Students

Monthly 05/26/2021 - current "Pain Management Basics"

04/29/2021 "Tools for Pain Control," "High Yield Pain"

Monthly 12/2019 – 04/2020 "Introduction to Chronic Pain" University of North Carolina Spine and Imaging Center.

Monthly 12/2019 – 04/2020 "Treatment Options in Chronic Pain" University of North Carolina Spine and Imaging Center.

Monthly 12/2019 – 04/2020 "Basics of Opioids" University of North Carolina Spine and Imaging Center.

08/08/2017 "Opioid Case Studies" Patient Centered Care Group Speaker. University of North Carolina School of Medicine.

Annually 2017-2021 "Pain Management" Anesthesia Boot Camp Course University of North Carolina School of Medicine.

Annually 2017-2021 "Multimodal Analgesia" Anesthesia Boot Camp Course, University of North Carolina School of Medicine.

**Joint lectures to residents and fellows:  
Department of Anesthesiology, University of North Carolina**

04/26/2022	“The link between obesity and pain.” Virtual Lecture
03/01/2022	“Anticonvulsants, Neuropathics, NSAIDS for Pain Boards” Virtual Lecture
08/18/2021	“Procedure Pitfalls”, Virtual Lecture
07/19/2021	“Fluoroscopy in Spine Procedures: Virtual Lecture
04/06/2021	“Pain Alphabet Soup: AED’s, NSAID, MISC”, Virtual Lecture
08/11/2020	“Imaging in Spine Procedures”
07/23/2019	“Introduction to Lumbar Procedures”
07/30/2019	“Introduction to Anatomy and Fluoroscopy for Cervical and Thoracic Procedures”
06/04/2019	“Intrathecal Pumps
10/23/2018	“Pharmacology for Boards (USMLE, Anesthesiology and Pain)
07/24/2018	“Introduction to interventional procedures cervical and thoracic region”
08/22/2017	“Opioids History of Abuse”
10/17/2017	“Anticonvulsants, NSAIDs and Antipyretics”
11/14/2017	“Pain of Spinal Origin Including Radicular Pain, Zygapophysial Joint Disease”
10/03/2017	“Anatomy, Physiology and Pharmacology of Pain Transmission & Modulation”
12/23/2016	“Ins and Outs of Pain Signaling”
12/13/2016	“Pharmacology of Neuropathic Agents Center
05/12/2015	“Neuropathic Pain Medications: Board Review”

**LECTURES TO RESIDENTS:  
Department of Surgery, University of North Carolina**

08/01/2018	“Pain and Anesthesia—Primer for Surgeons”
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**LECTURES TO HOSPITAL NURSING AND ANCILLARY STAFF  
University of North Carolina Hospitals**

12/15/2016	“Opioids, Controversy, Conversion, etc.” Adult Pain Resource Nurse Conference. Department of Nursing at UNC Chapel Hill. Adult Pain Resource Nurse Course.
12/15/2016	“Cancer Pain.”. Adult Pain Resource Nurse Conference Department of Nursing at UNC Chapel Hill. Adult Pain Resource Nurse Course.

**GRAND ROUNDS (UNC)**

- 09/14/2022 "Non-Invasive Treatment for Lumbar Spinal Stenosis", Department of Physical Medicine and Rehabilitation. UNC, Chapel Hill.
- 06/08/2022 "An Update on Cannabis for pain," Dept of Anesthesiology, UNC, Chapel Hill
- 05/12/2022 "Pain Management in Diabetic Peripheral Neuropathy." Department of Medicine Grand Rounds. UNC Chapel Hill.
- 08/30/2021 "Interventional Cancer Pain Management." Palliative Care Grand Rounds. UNC Chapel Hill. Virtual Talk.
- 03/04/2021 "Minimally Invasive Lumbar Decompression" Spine Center Multidisciplinary Conference. Virtual Talk
- 03/14/2018 "Medical Marijuana Pros and Cons." Department of Anesthesiology. UNC Chapel Hill. Bondurant G100.
- 03/15/2017 "Opioids in Acute Pain." Department of Ear Nose and Throat. UNC Chapel Hill. Physician's Office Building.
- 02/16/2017 "Opioid Use and Misuse." Department Internal Medicine. UNC Chapel Hill. Old Clinic Auditorium.
- 02/01/2017 "Analgesia First? The Rise and Fall of Preemptive Analgesia." Department of Anesthesiology. UNC Chapel Hill. Bondurant G100.

**GRAND ROUNDS (OUTSIDE UNC)**

- 09/16/2020 "Tired, Fat and in Pain: The Link Between Obesity and Pain." Massachusetts General Hospital Multidisciplinary Pain Grand Rounds.
- 05/12/2014 "Acute Pain Management in Opioid Tolerant Patient." Weill Cornell Department of Anesthesia Grand Rounds.
- 02/13/2012 "Interventional Options for Cancer Pain Management" Department of Geriatrics and Palliative Care Grand Rounds, Weill Cornell Medical College: Continuing Education Lecture

**CONTINUING EDUCATION LECTURES (OUTSIDE UNC):**

- 06/15/2022 Cannabis for acute and chronic pain. Carolina Refresher Course. Kiawah, SC
- 12/04/2021 "Pro Con Debate: Opioids for Musculoskeletal Pain." Pain Society of the Carolinas. Charleston, SC



- 09/25/2021 "Complications in Interventional Pain: What do I do?" Midwest Pain Society. Chicago, IL.
- 04/02/2020 "Interdisciplinary Simulation Curriculum in Pain Management for Navigating Difficult Patient Encounters." Society of Behavioral Medicine Annual Meeting. San Francisco, CA.
- 10/27/2018 "Interventions in Cancer Pain." 10<sup>th</sup> Annual Coping with Cancer Conference: Cancer Pain Management During the Opioid Epidemic. Carolina Inn. Chapel Hill, NC
- 03/24/2018 "Medical Marijuana: Pro Con Debate" Pain addiction and the Law Conference. Friday Center. Chapel Hill, NC
- 05/24/2014 "Pain of Spinal Origin." New York Presbyterian Multidisciplinary Evaluation and Treatment of Pain. CME Conference. Weill Cornell Medical Auditorium, New York, NY
- 12/10/2013 "Cancer Pain Management" Pain Management Symposium. Weill Cornell Medical College. Weill Cornell Conference Center, New York, NY

#### **MENTORSHIP EXPERIENCES:**

##### **Department of Anesthesiology, University of North Carolina**

###### Resident/Fellow Preceptorships

07/2020- current Faculty Mentor to Resident: [REDACTED],

08/2020- 07/2020 Faculty Mentor for Pain Fellowship Fellows- [REDACTED]  
[REDACTED]

07/2019- 07/2020 Faculty Mentor for Pain Fellowship Fellows – [REDACTED]  
[REDACTED]

07/2019 - 07/2020 Faculty Mentor to Residents: [REDACTED]

07/2018 – 07/2019 Faculty Mentor for Pain Fellowship Fellows – [REDACTED]  
[REDACTED]

###### Student Preceptorship:

08/2021-8/2022 Faculty mentor to MD/PHD student: [REDACTED]

##### **Attending on Clinical Service**

###### Department of Anesthesiology, University of North Carolina

- 2015 – current Attending physician for Inpatient Acute Pain Service
- 2015 – current Attending physician for Inpatient Chronic Pain Service
- 2015 – current Attending physician for Outpatient Pain Clinic

## **RESEARCH PROJECTS AND GRANTS**

2022	Sequenced Strategy for Improving Outcomes in People with Knee Osteoarthritis Pain TRIAL Co-I.
2020	Boston Scientific Fellowship Educational Grant – Neuromodulation, Role: Co-Investigator, amount requested \$7, 000, 0% effort
2019	Boston Scientific Fellowship Educational Grant – Neuromodulation, Role: Co-Investigator, amount requested \$20, 000, 0% effort

## **PROFESSIONAL SERVICE**

### **To Discipline:**

02/2020- current	Peer Reviewer Trials
06/2019- current	Food and Drug Administration (FDA) Advisory Committee for Analgesics and Anesthetics
06/2017- current	Peer Reviewer: The Toolbox Project
06/2016- 06/2017	Steering committee for pain fellowship curriculum development, The Toolbox Project
04/2016 - current	Expert Reviewer: North Carolina Medical Board
02/2014-10/2015	Steering Committee Member for the Acute Pain Curriculum. The Anesthesia Toolbox Project
07/2014- current	Peer Reviewer: Pain Practice Journal

### **Within University of North Carolina, Chapel Hill:**

2018-current	Associate Director of Pain Management Fellowship, UNC, Chapel Hill
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### **UNC Department of Anesthesiology Committees**

#### Committees

07/2018- current	Chair, Fellowship Clinical Competency Committee
07/2018- current	Program Evaluation Committee- Pain Fellowship
10/2018- current	Residency Interviewing Committee
5/2018- 5/2021	Program Evaluation Committee
05/2016- current	Fellowship Selection Committee

### **UNC Department of Anesthesiology: Other Administrative Activities**

2015- current	Semi-Annual Resident Mock Oral Examinations, Faculty Examiner
2015 - current	OSCE evaluator

## **Diversity, Equity and Inclusion Activities:**

Participation in yearly DEI training:

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- Unconscious bias and implicit bias education as part of UNC Department of Anesthesiology Grand Rounds.