Date Prepared: 29 June 2017

Curriculum Vitae

Michael A. Zacchilli, MD, FAAOS The Orthopedic Institute at Lenox Hill Greenwich Village 200 West 13th Street, New York, NY 10011 Phone: (646) 665-6784

Personal Data

Milford, Massachusetts Citizenship: United States Marital Status: Married

Children: 3

Education

Year	Degree	Field	Institution
2007	M.D. (Alpha Omega	Medicine	University of
	Alpha)		Massachusetts Medical
			School
2003	A.B. (cum laude)	Earth & Planetary	Harvard College
		Sciences	

Postdoctoral Training

2017	Orthopedic Sports Medicine Fellowship- Laith M. Jazrawi, MD, NYU-Langone Hospital for Joint Diseases- New York, NY
2012	Orthopedic Surgery Residency- Dr. Philip J. Belmont, Jr. COL US Army (Ret.), William
	Beaumont Army Medical Center / Texas Tech University Health Sciences Center- El Paso,
	TX
2008	Orthopedic Surgery Internship- Dr. Philip J. Belmont, Jr. COL US Army (Retired), William
	Beaumont Army Medical Center / Texas Tech University Health Sciences Center- El Paso,
	TX
2008	Orthopedic Basic Science Summer Research Fellowship- Paul Fanning, PhD, University of
	Massachusetts Medical School- Worcester, MA
2008	Anatomy Summer Prosection Fellow- Anne Gilroy, Associate Professor of Clinical
	Anatomy, University of Massachusetts Medical School- Worcester, MA

Licensure and Certification

"Medicine and Surgery", University of the State of New York Education Department. (May 15, 2017 – April 30, 2019)

(July 24, 2014 – December 31, 2024)

Hospital Appointments

2017	Orthopedic	Surgeon	Lenox Hill Hospital, New York, NY
2017	Orthopedic	Surgeon	Lenox Hill- Greenwich Village, New York, NY
2015	Orthopedic	Surgeon	U.S. Army FSE, Erbil Intl Airport, Iraq
2015	Orthopedic	Surgeon	U.S. Navy EMF, Camp Lemonnier, Djibouti
2013	Orthopedic	Surgeon	28 th CSH, FOB Salerno, Khowst, Afghanistan
2012	Orthopedic	Surgeon	Womack Army Medical Center, Fort Bragg, NC

Other Professional Positions and Visiting Appointments

2016 Orthopedic Locums Regional West Medical Center, Scottsbluff, NE

Medical Awards and Honors

- Raymond J. Bagg, MD Award for Excellence in Residency Education, WBAMC/TTUHSC Orthopedic Residency Program, Annual award presented to the distinguished graduate of the orthopedic training program. (June 30, 2012).
- WBAMC Command Suite Scholarship, United States Army, Presented for exceptional academic achievement in residency training. (June 30, 2009; June 30, 2008).
- Best Research Poster, WBAMC and TTUHSC (2 awards), for "Epidemiology of Skiing and Snowboarding Injuries in the United States." Presented annually to the best research poster across all hospital divisions and residency training programs. (June 30, 2009).
- Best Research, WBAMC/TTUHSC Orthopedic Residency Program and WBAMC (2 awards), for "The Epidemiology of Shoulder Dislocations Presenting to U.S. Emergency Rooms." Presented annually to the best research project in the residency program and hospital at the Annual Thesis Day. (June 30, 2008).
- Alpha Omega Alpha Medical Honor Society, UMass Medical School, In recognition of "high academic standing, leadership, professionalism, a firm sense of ethics, and a commitment to service." (June 3, 2007)
- Massachusetts Medical Society (MMS) Scholars Award Finalist, MMS, One of 14 medical students state-wide nominated in recognition of academic excellence and community involvement. (June 3, 2007)
- Dr. Julius R. Tegelberg Award, Worcester District Medical Society, State-wide. Annual scholarship awarded for academic achievement and community service. (Dec. 1, 2006)

2

Final version October 15, 2003

[&]quot;Advanced Trauma Life Support", American College of Surgeons Committee on Trauma. (September 30, 2014 – September 30, 2018)

[&]quot;Diplomate", American Board of Orthopaedic Surgery.

[&]quot;Physician", State of Nebraska Department of Health and Human Services. (June 8, 2009 – October 1, 2018)

- Gerald F. Berlin Creative Writing Prize, UMass Medical School and The Berkshire Medical Journal, for "*Dialogue: An Empty Hospital Corridor*." A regional writing award presented annually for "original prose and poetry about what it means and how it feels to be a health care provider." (April 5, 2006)
- Jack A. Rauth Book Award, Worcester District Medical Society, State-wide. Annual award presented for scholastic achievement and community service. (Dec. 1, 2005)
- Harvard ROTC Alumni Association Award, ROTC Alumni Association. Awarded annually to the cadet distinguished graduate of the Harvard/MIT/Tufts/Wellesley Army ROTC training program (Paul Revere Battalion). (June 3, 2003)
- Harvard College Scholarship for Academic Achievement, Harvard College. Awarded annually to students maintaining a cumulative GPA in the top 10% of their class. (June 3, 2001)
- Varsity Letter- Men's Volleyball, Harvard College. (1999-2001)

Military Awards and Honors

- Joint Service Commendation Medal, United States Army- For exceptional service and achievement as an orthopedic surgeon for the Joint Special Operations Command. (June 30, 2016)
- Meritorious Service Medal, Womack Army Medical Center, "For exceptional leadership, selfless devotion to soldiers, and an unparalleled dedication to mission accomplishment." (January 19, 2016).
- Combat Medical Badge, Joint task Force, "For the provision of medical care to a ground combat arms unit engaged in active ground combat." (July 21, 2015)
- Bronze Star Medal, United States Army- Joint Task Force, "For exceptionally valorous achievement as an orthopedic surgeon during combat operations." (July 21, 2015).
- Army Commendation Medal- Bronze Oak Leaf Cluster, United States Army- 28th Combat Support Hospital, "For exceptionally meritorious service in support of Operation Enduring Freedom." (October 17, 2013).
- Army Commendation Medal- William Beaumont Army Medical Center, "For meritorious service while serving as the chief resident of orthopaedic surgery... instrumental in the education and training of junior residents and commended for his compassionate and expert medical care." (March 22, 2012).
- Complete list furnished upon request

Major Committee Assignments

New York University

Division of Sports Medicine Continuing Medical Education Program, Independent Reviewer, approximately 24 hrs/yr, Appointed Position, Evaluation of all Sports Medicine CME program presentations for content, scientific merit, and commercial bias including: 2nd Annual Hockey Sports Medicine Course, 1st Annual Fight Medicine Course, and 1st Annual Sports Medicine Alumni Program. (January 1, 2014, Dec 31, 2014)

3

Final version October 15, 2003

Womack Army Medical Center

Surgical Care Line Committee, Surgeon Representative, approximately 48 hrs/yr, Appointed Position, Provided continuous oversight and evaluation of all hospital surgical care operations, implemented a recyclable items cost savings initiative, developed a novel preoperative clearance process to optimize patient flow, and managed JCAHO preparation and site visit. (January 1, 2014, Dec 31, 2014)

Inpatient Care Line Committee, Physician Representative, approximately 48 hrs/yr, Appointed Position, Provided oversight and evaluation of inpatient care, implemented protocols to improve CAI and SSI quality measures, and managed JCAHO preparation and site visit. (January 1, 2014, Dec 31, 2014)

William Beaumont Army Medical Center

Graduate Medical Education Committee, Orthopedic Resident Representative, approximately 48 hrs/yr, Appointed Position, Monitored and advised on all aspects of hospital graduate medical education as required by the ACGME including: residency program structure and compliance as well as resident education, evaluation and corrective actions. (July 1, 2011, June 5, 2012)

University of Massachusetts Medical School

Curriculum Review Committee (CRC), Medical Student Representative, approximately 68 hrs/yr, Elected Position, Oversaw activation of the CCIP plan, evaluated student response and obtained feedback in real time. Provided recommendations for additional curriculum modifications. (July 1, 2006, June 5, 2007).

Curriculum Competencies Implementation Project (CCIP), Medical Student Representative, approximately 68 hrs/yr, Elected Representative, The committee evaluated and redesigned the medical school curriculum with a focus on clinical competencies. Major components of the revised curriculum included: a transitional clinical training phase incorporated throughout the preclinical years, increased scheduling flexibility, earlier availability for subspecialty rotations, a renewed focus on musculoskeletal disease, and the introduction of a simulation training and assessment program (now the Interprofessional Center for Experiential Learning). (July 1, 2005, June 30, 2006).

Memberships, Offices, and Committee Assignments in Professional Societies

Professional Memberships

Arthroscopy Association of North America, AANA, International (July 1, 2009 - Present).

American Academy of Orthopaedic Surgery, AAOS, Fellow, National (July 1, 2007 - Present).

American Orthopaedic Society for Sports Medicine, AOSSM, National (July 1, 2016 - Present).

Society of Military Orthopaedic Surgeons, SOMOS, National (July 1, 2007 - June 30, 2013).

Mid-America Orthopaedic Association, MAOA, Regional. (July 1, 2008 - June 30, 2012)

Western Orthopaedic Association, WOA, State. (July 1, 2007 - June 30, 2012)

Texas Orthopaedic Association, TOA, State. (July 1, 2007 - June 30, 2012)

Massachusetts Medical Society, MMS, State. (July 1, 2003 - June 30, 2007)

Worcester District Medical Society, Local. (July 1, 2003 - June 30, 2007)

Professional Service

AANA Task Force on Media-Based Education, Member, Rosemont, IL, USA, 48 hrs/yr, Appointed, Pro Bono, AANA Membership, Evaluated national meeting content and leveraged content to establish a content-focused online continuing medical education and self-assessments. (July 1, 2015 – Present)

Editorial Positions

2015	The Journal of Special Operations Medicine (Editor)
2016	Journal of the International Society of Arthroscopy: Knee
	Surgery and Orthopedic Sports Medicine (Reviewer)
2015	Medicine & Science in Sports & Exercise (Reviewer)
2014	Arthroscopy: The Journal of Arthroscopy and Related
	Surgery (Reviewer)

Principal Clinical and Hospital Service Responsibilities

2013 Manager- Orthopedic Consults, Womack Army Medical Center Department of Orthopaedics and Rehabilitation

Major Administrative Responsibilities

2012 Academic Chief Resident, WBAMC/TTUHS Orthopedic Surgery Residency

Teaching Experience

2016	Associate Master Instructor- AANA / Orthopaedic Learning Center Master's Experience: Shoulder; Lecture & Lab Course 512; 21.5 hrs.
2012-16	Attending Orthopedic Surgeon- Womack Army Medical Center Podiatry Residency and Interservice Physician Assistant Program; Clinical

Instruction; 364 hrs/yr

5

Final version October 15, 2003

2016	Lecturer and Table Instructor- Orthopedic Emergencies and Damage Control Surgery, Joint Task Force and International Coalition elements, Iraq; 48 hrs.
2015	Orthopedic Instructor- U.S. Army Medical Command Operational Trauma Course; Lecture, Cadaver, and Live Tissue Lab; 12 hrs.
2015	Instructor- Orthopedic Emergencies and Damage Control Surgery, Lecturer and Table Instructor, Personnel Recovery Task Force, 82 nd EQRS Combat Search and Rescue, and Expeditionary Medical Facility, Camp Lemonnier, Djibouti; 48 hrs.
2013	Instructor- Orthopedic Emergencies and Damage Control Surgery, Lecturer and Scenario Lead, 28 th CSH and 101 st Airborne Division; 96 hrs.
2012	Academic Chief Resident- William Beaumont Army Medical Center Orthopedic Residency Program, Lecturer and clinical instructor for both orthopedic physician and physician assistant training programs; Approximately 200 hrs lecture, 80 hrs/week clinical education.

Mentoring of Graduate Students, Residents, Post-Doctoral Fellows in Research

Dai, Amos	Medical Student-	Aug 1, 2016 –	Presented at 2017
	Research	July 31, 2017	AAOS Annual Meeting
	mentoring, study		(2), Published online
	design and writing.		(2), Accepted, with
			editor (2)
Jejurikar, Neha	Medical Student-	Aug 1, 2016 –	Presented at 2017
	Research	July 31, 2017	AAOS Annual Meeting
	mentoring, study		(2), Published online
	design and writing.		(1), submitted.
Pham, Hien	Medical Student-	Aug 1, 2016 –	Presented at 2017
	Research	July 31, 2017	AAOS Annual Meeting
	mentoring, study		(2), Accepted for
	design and writing.		presentation (EOA
			2017), submitted.
Yagnotovsky,	Medical Student-	Aug 1, 2016 –	Presented at 2017
Michelle	Research	July 31, 2017	AAOS Annual Meeting
	mentoring, study		(2), Editing for
	design and writing.		submission.

Teaching Awards Received

Journal of Orthopedic Trauma Best Orthopedic Teaching Resident Award- Elected recognition awarded to the best resident educator in the WBAMC/TTUHSC orthopedic residency program. (June 1, 2010)

Award for Excellence in Student Surgical Education, UMass Medical School and the UMass Surgical Society Alumni Association- Elected recognition for excellence in teaching and mentoring of medical student peers. (June 3, 2007).

Major Research Interests

I have a deep interest in cartilage health, pathology, and surgical reconstruction. The impact of mechanical loads on cartilage health are mediated by biochemical mediators. The mechanical insult of traumatic injuries (e.g. shoulder dislocation, patellofemoral instability, and knee subluxations/dislocations) and chronic overload (e.g. patellar malalignment) can activate these proinflammatory and mechanostransduction signaling cascades, resulting in cartilage matrix catabolism and chondrocyte apoptosis. Careful observations of synovial biomarker trends in acute injuries are improving our understanding of these signaling cascades. Early bench findings suggest that clinically available orthobiologics could be harnessed to inhibit these processes, but clinical studies to date have shown mixed results and are often limited by significant methodological flaws. I hope to evaluate the potential of orthobiologics to inhibit the downstream effects of acute musculoskeletal trauma, and using this information, to optimize their application as surgical adjuncts, particularly in the setting of cartilage restoration.

Contracts, Grants and Sponsored Research

Zacchilli, MA and Scher D, Co-Writers, Residency Program Educational Grant, Funding for a curriculum redesign project to foster and expand the role of cadaver labs and simulation-based training in a military orthopedic residency program, Orthopaedic Research and Education Foundation, \$10,000, Completed. (expsub: July 30, 2009, sub: July 30, 2009, start: October 1, 2009, end: June 30, 2010).

Military Service

Major, Joint Special Operations Command- Joint Medical Augmentation Unit. FT Bragg, NC. (May 1, 2014 – July 1, 2016)

Major, Operation Inherent Resolve, Erbil, Iraq. (December 10, 2015 – March 14, 2016)

Major, Operation Freedom's Sentinel, Djibouti, Africa. (March 17, 2015– June 12, 2015)

Major, Operation Enduring Freedom, 28th Combat Support Hospital Forward Surgical Element, Khowst, Afghanistan. (May 24, 2013 – October 23, 2013)

Major, Womack Army Medical Center. FT Bragg, NC. (July 1, 2012 – July 1, 2016) Captain, William Beaumont Army Medical Center, El Paso, TX. (July 1, 2007 – June 30, 2012)

Second Lieutenant, United States Army Individual Ready Reserve (June 5, 2003 – June 30, 2007)

7

Other

Certificate in Quality and Patient Safety Leadership, Institute for Healthcare Improvement (November 1, 2016)

Certificate in Operational Trauma, U.S. Army Medical Command (October 24, 2014)

Certificate in Medical Management of Chemical and Biological Casualties, U.S. Army Medical Command. (January 23, 2015)

Certificate in Joint Forces Combat Trauma Management, U.S. Army Medical Command . (April 26, 2013)

Bibliography

Peer-Reviewed Original Reports

- 1. **Zacchilli MA**, Fowler JT, and Owens BD. "Allograft reconstruction of chronic pectoralis major tendon ruptures." J Surg Orthop Adv 2013; 22(1): 95-102.
- 2. Belmont PJ Jr, Thomas D, Goodman GP, Schoenfeld AJ, **Zacchilli MA**, Burks R, and Owens BD. "Combat musculoskeletal wounds in a U.S. Army Brigade Combat Team during Operation Iraqi Freedom." J Trauma 2011; 71(1): E1-7.
- 3. Waterman BR, Owens BD, Davey S, **Zacchilli MA**, and Belmont PJ Jr. "The epidemiology of ankle sprains in the United States." J Bone Joint Surg Am 2010; 92(13): 2279-84.
- 4. **Zacchilli MA** and Owens BD. "Epidemiology of shoulder dislocations presenting to emergency departments in the United States." J Bone Joint Surg Am 2010; 92(3): 542-9.
- 5. Belmont PJ Jr, Goodman GP, **Zacchilli MA**, Posner M, Evans C, and Owens BD. "Incidence and epidemiology of combat injuries sustained during "the surge" portion of Operation Iraqi Freedom by a U.S. Army Brigade Combat Team." J Trauma 2010; 68(1): 204-10.
- 6. Plesch A, Shaw JH, Benson C et al. (contributor) "Community fault model for southern California. Bulletin of the Seismological Society of America 2007; 97(6): 1793–1802.

Non Peer-Reviewed Reviews, Books and Book Chapters

- 1. **Zacchilli MA** and Haley CA. "Pectoralis Major Injuries: Evaluation and Treatment." Clinics in Sports Medicine 2014; 33(4): 739-56. 2.
- 2. Owens BD, Tucker CJ, and **Zacchilli MA**. "Surgical management of posterior shoulder instability." Review. Current Orthopaedic Practice 2011; 22(6): 474-82.

Educationally Relevant Publications

- 1. **Zacchilli MA**, Dai A, Sherman O, Jejurikar N (April 1, 2017). "Femoral and Tibial Tunnel Bone Grafting for Stage 1 Revision ACL Reconstruction." VuMedi. https://www.vumedi.com/video/femoral-and-tibial-tunnel-bonegrafting-for-stage-1-revision-acl-reconstruction/
- 2. **Zacchilli MA**, Jazrawi LM, Dai A (April 1, 2017). "Isolated Medial Patellofemoral Ligament Reconstruction." VuMedi. https://www.vumedi.com/video/femoral-and-tibial-tunnel-bone-grafting-for-stage-1-revision-aclreconstruction/

Proceedings of Meetings

- 1. Waterman B, Zarkadis N, **Zacchilli MA**, Holland C, Kinsler A, Todd M, Belmont PJ, Pallis M. Second Generation Autologous Chondrocyte Implantation in the Patella: Short-Term Pain Relief and Functional Outcomes among U.S. Army Service members. *Arthroscopy* 2017; 33(6): e30– e31
- 2. Arroyo W, **Zacchilli MA**, Waterman BR. Septic arthritis after ACL reconstruction: does graft retention portend increased risk of surgical revision? Arthroscopy 2016; 32(6): e8.
- 3. **Zacchilli MA** et al. "The Impact of Socioeconomic Factors on Outcomes Following Anterior Cruciate Ligament Reconstruction" (Poster) Arthroscopy Association of North America 2017 Annual Meeting, Denver, CO.
- 4. Alaia MJ, Campbell KA, Jazrawi LM, Onuoha KO, Pham H, Strauss EJ, Weinberg M, **Zacchilli MA**. "Scientific Exhibit SE6: The role of orthobiologics in soft tissue injury." 2017 American Academy of Orthopaedic Surgery Annual Meeting- Denver, CO.
- 5. Alaia MJ, Campbell KA, Dai A, Jazrawi LM, Pham H, Strauss EJ, **Zacchilli MA**, Wolfson TS. "Scientific Exhibit SE6: Filling the Void in Sports Medicine: Synthetic Bone Graft Substitutes in 2017." 2017 American Academy of Orthopaedic Surgery Annual Meeting- Denver, CO.
- 6. Alaia MJ, **Zacchilli MA**, Campbell KA, Dai A, Jazrawi LM, Pham H, Strauss EJ, Wolfson TS. "Scientific Exhibit SE6: How the Patella Got Her Groove Back: Patella Stabilization Options in 2017." 2017 American Academy of Orthopaedic Surgery Annual Meeting- Denver, CO.
- 7. Alaia MJ, Campbell KA, Dai A, Jazrawi LM, Pham H, Roach R, Strauss EJ, Weinberg M, **Zacchilli MA**. "Scientific Exhibit SE7: The Failed Rotator Cuff Repair: From Arthroscopic Repair to 9. Superior Capsular Reconstruction." 2017 American Academy of Orthopaedic Surgery Annual Meeting- Denver, CO.
- 8. Garcia M, Owens BD, **Zacchilli MA**. "Anterior Cruciate Ligament Reconstructions in the U.S. Military: A Retrospective Case Series." Mid-America Orthopaedic Association 2012 Annual Meeting-Bonita Springs, FL.
- 9. Garcia M, Owens BD, **Zacchilli MA**. "Anterior Cruciate Ligament Reconstructions in the U.S. Military: A Retrospective Case Series." 2011 Society of Military Orthopaedic Surgeons Annual Meeting- San Diego, CA.
- 10. Scher D, Cruz MP, **Zacchilli MA**. "Fixation of Distal Radius Fractures with a Radial Locking Plate." 2010 Mid-America Orthopaedic Association Annual Meeting- Bastrop, TX
- 11. **Zacchilli MA** and Owens BD. "Alpine Skiing and Snowboarding Injuries in the United States." 2009 Western Orthopaedic Association Annual Meeting- Seattle, WA
- 12. **Zacchilli MA**, Scheller C, Fanning P. "Static Compressive Loads Activate MAPK Pathways and Regulate Expression of MMPs in Articular Cartilage." 2006 The Arthritis Foundation Annual Meeting-Atlanta, GA

Presentations

- 1. **Zacchilli MA** (Presenter), Kaplan DJ, Cuellar VG, Jazrawi LM, Strauss EJ (Coinvestigators). 2017 West Point Sports Medicine Research Symposium. "Synovial Biomarkers: Understanding Knee Injuries at the Molecular Level." United States Army, West Point, NY (June 8, 2017).
- 2. Strauss EJ (Presenter) and **Zacchilli MA** (Co-author). Instructional Course Lecture. 2017 American Academy of Orthopaedic Surgery Annual Meeting. "ICL 209: Everything Pectoralis Major: From Repair to Transfer," AAOS, Denver, CO, (Mar 18, 2017).

Literary Publications

- 1. **Zacchilli MA**. "Dialogue: An Empty Hospital Corridor." Worcester Medicine and the Berkshire Medical Journal. 2006.
- 2. Zacchilli MA. "Broken Heart." The Legible Script. TLS Publishing, 2006.
- 3. Zacchilli MA. "Autumn's Passing." The Legible Script. TLS Publishing, 2005.
- 4. Milton J. Paradise Lost: An Authoritative Text, Sources and Backgrounds, Criticism. A Norton Critical Edition. Teskey G, Ed. W. W. Norton, 2005.