

CURRICULUM VITAE

ETAN P. SUGARMAN, MD, FAAOS

SHOULDER, ELBOW, HIP, KNEE

HIP ARTHROSCOPY, PRESERVATION & RECONSTRUCTION

SPORTS MEDICINE & CARTILAGE RESTORATION

I. PERSONAL DATA

Education

<i>Medical School</i>	Albert Einstein College of Medicine Bronx, NY M.D., 2011 Honors in Research – Orthopaedic Surgery
<i>Undergraduate</i>	New York University New York, NY B.A., History, 2006 Magna Cum Laude – Draper Scholar Phi Alpha Theta – International History Honors Society

Internship and Residency

<i>Advanced training in Hip Arthroscopy, Preservation & Reconstruction</i>	American Hip Institute Dr. Benjamin Domb Chicago, IL
<i>Fellowship</i>	Kerlan-Jobe Orthopaedic Clinic Los Angeles, CA Orthopaedic Sports Medicine August 2016 – July 2017
<i>Chief Resident</i>	Montefiore Medical Center Bronx, NY Orthopaedic Surgery July 2015 – June 2016
<i>Residency</i>	Montefiore Medical Center Bronx, NY Orthopaedic Surgery

July 2012 – June 2015

Internship

Montefiore Medical Center
Bronx, NY
Orthopaedic Surgery
July 2011 – June 2012

Experience

UNIVERSITY APPOINTMENTS

CHICAGO, IL The American Hip Institute
2024 – Present ***Director, Joint Preservation***

New York, NY Lenox Hill Hospital
2017 – 2024 ***Assistant Professor Orthopaedic Surgery***

HOSPITAL APPOINTMENTS

2017-2024 *Lenox Hill Hospital*
New York, NY ***Attending Orthopaedic Surgery***

2017-2024 *Lenox Health Greenwich Village*
New York, NY ***Attending Orthopaedic Surgery***

Board Certification

2019 American Board of Orthopaedic Surgery – Diplomate
2021 Certificate of Added Qualification – Orthopaedic Sports Medicine

Licensure

California #142525
New York #289302
Illinois #336.124898
Wisconsin #83389-20
Indiana #01092396B

Societal Memberships

American Academy of Orthopaedic Surgeons (AAOS)
American Orthopaedic Association (AOA)
American Orthopaedic Society for Sports Medicine (AOSSM)
Arthroscopy Association of North America (AANA)

International Cartilage Regeneration and Joint Preservation Society (ICRS)
New York Cartilage Repair Society (NYCRS)
International Society of Hip Arthroscopy (ISHA)

II. HONORS/AWARDS/SCIENTIFIC RECOGNITION

- 2002 **NEW YORK UNIVERSITY DRAPER SCHOLAR - 2002 – 2006:** Monetary Scholarship based upon academic performance.
- 2003 **DEAN’S LIST:** New York University, New York, NY.
- 2004 **DEAN’S LIST:** New York University, New York, NY.
- 2005 **DEAN’S LIST:** New York University, New York, NY.
- 2005 **Phi Alpha Theta: International History Honors Society – Induction:** New York University, New York, NY.
- 2006 **FOUNDERS’ DAY SCHOLAR:** New York University, New York, NY.
- 2006 **DEAN’S LIST:** New York University, New York, NY.
- 2007 **SUMMER RESEARCH FELLOWSHIP:** The Albert Einstein College of Medicine, Bronx, NY.
- 2009 **SENIOR RESEARCH FELLOWSHIP:** The Albert Einstein College of Medicine, Bronx, NY.
- 2010 **HONORS IN RESEARCH – ORTHOPAEDIC SURGERY:** The Albert Einstein College of Medicine, Bronx, NY.
- 2010 **LOUIS GOLDSTEIN AWARD NOMINATION:** *Beyond the Learning Curve: Does the Accuracy of Pedicle Screw Placement Improve with Experience in AIS Patients - A CT-Based Analysis of 1356 Pedicle Screws.* Scoliosis Research Society, Kyoto, Japan 2010
- 2010 **OUTSTANDING ABSTRACT:** *Incidence, Distribution, and Surgical Relevance of Abnormal Pedicles in Normal and Deformed Spines: A CT Based Study of 6256 Pedicles.* North American Spine Society Annual Meeting, Orlando, 2010
- 2010 **BEST PAPER:** *Scoliosis Surgery in Patients with Adolescent Idiopathic Scoliosis Does Not Alter Lung Volume A Three Dimensional CT Based Study.* American College of Spine Surgery Annual Meeting Contemporary Concepts in Spine Surgery, Newport Beach, California, 2010
- 2010 **BEST PAPER:** *Perioperative differences between Hybrid and Pedicle Screw Instrumentation in Adolescent Idiopathic Scoliosis.* American College of Spine Surgery Annual meeting Contemporary Concepts in Spine Surgery, Newport Beach, California, 2010.
- 2011 **RICHARD D SELZNIK, MD AWARD – BEST PAPER:** *Beyond the Learning Curve: Does the Accuracy of Pedicle Screw Placement Improve with Experience in AIS Patients - A CT-Based Analysis of 2656 Pedicle Screws.* Albert Einstein College Of Medicine, Bronx, New York
- 2011 **BEST PAPER, POSTER CATEGORY:** *Defining the pre-vertebral safe zone for pedicle screw placement: A strategy to avoid vascular and visceral injuries.* North American Spine Society Annual meeting, October 2011, Chicago, Illinois
- 2011 **THOMAS WHITECLOUD AWARD: BEST PAPER - BASIC SCIENCE:** *Can monitoring spinal cord blood flow (SCBF) identify pre-injury state during surgery? A porcine study correlating MEP's with*

- LASER Doppler measurements*. International Meeting of Advanced Spine Techniques, July 2011, Copenhagen, Denmark
- 2013 **YOUNG INVESTIGATOR AWARD WINNING PAPER:** *Critical Events Before Spinal Cord Injury in a Porcine Compression Model*. American Academy of Pediatrics Annual Meeting – Orthopaedic Sessions, October 2013, Orlando, Florida.
- 2013 **RUSSELL A. HIBBS AWARD NOMINEE – BEST PAPER - BASIC SCIENCE:** *Critical Events Before Spinal Cord Injury in a Porcine Compression Model*. Scoliosis Research Society Annual Meeting, September 2013. Lyon, France.
- 2015 **RICHARD D SELZNIK, MD AWARD, BEST PAPER:** *Critical Events Before Spinal Cord Injury in a Porcine Compression Model*. Albert Einstein College Of Medicine, Bronx, New York
- 2015 **AMERICAN ORTHOPAEDIC ASSOCIATION – RESIDENT LEADERSHIP FORUM NOMINEE**
- 2015 **AMERICAN ORTHOPAEDIC ASSOCIATION – EMERGING LEADERS FORUM NOMINEE**
- 2019 **Reviewer – Orthopaedics Today**

III. PEER-REVIEWED PUBLICATIONS

1. **Sugarman EP**, Birns ME, Fishman M, Patel DN, Goldsmith L, Greene R, Banffy MB. Clinical Outcomes Comparing Capsular Repair vs. No Repair Following Hip Arthroscopy: A Prospective, Randomized, Control Study. *Orthop J Sports Med* 2021;9, 2325967120963110.
2. Kimura Y, **Sugarman E**, Walco G, Conte P, Schanberg L: Treatment of pain in Juvenile Idiopathic Arthritis: a survey of pediatric rheumatologists. *Arthritis Rheum.* 2004 50:S98.
3. Kimura Y, **Sugarman E**, Walco G, Conte P, Schanberg L. Treatment of pain in juvenile idiopathic arthritis: a survey of pediatric rheumatologists. *Arthritis Rheum.* 2006 Feb 15;55(1):81-5.
4. Ayello J, Satwani P, van de Ven C, Baxi L, Wapner R, **Sugarman E**, Cairo M. Enhanced Natural Killer (NK) and NK T Cell Activation, Expansion and Cytokine Protein Production following Ex-Vivo Engineering of Previously Cryopreserved Cord Blood (CB): Potential for CB NK and NK T Cells in Adoptive Cellular Immunotherapy (ACI). *Blood.* 2007 Nov 110(11):1206.
5. J. Ayello, **E. Sugarman**, N. Day, J. Hochberg, B. Mar, E. Cairo, C. van de Ven, M. Cairo. Enhanced Natural Killer (NK) and NK T Cell Activation, Expansion and Cytokine Protein Production following Ex-Vivo Engineering of Previously Cryopreserved Cord Blood (CB): Potential for CB NK and NK T Cells in Adoptive Cellular Immunotherapy (ACI). *Biology of Blood and Marrow Transplantation.* 2008 Feb Volume 14, Issue 2, Supp: Pages 42-43.

6. Wollowick A, **Sugarman E**, Nirenstein L, Amaral T, Thornhill B, Sarwahi V. Incidence, Distribution, and Surgical Relevance of Abnormal Pedicles in Normal and Deformed Spines: A CT-Based Study of 6256 Pedicles. *The Spine Journal*. 2010 Sept Volume 10, Issue 9, Supp: Pages S3-S4.
7. Sarwahi V, Wollowick AL, **Sugarman EP**, Horn JJ, Gambassi M, Amaral TD. Minimally invasive scoliosis surgery: an innovative technique in patients with adolescent idiopathic scoliosis. *Scoliosis*. 2011;6:16.
8. **Sugarman E**, Sarwahi V, Amaral T, Wollowick A, Gambassi M, Seimon L. Comparative Analysis of Perioperative Differences Between Hybrid Versus Pedicle Screw Instrumentation in Adolescent Idiopathic Scoliosis. *Journal of Spinal Disorders & Techniques*. Mar 15 2012.
9. Sarwahi, V, Wollowick A, **Sugarman E**, Amaral TD: Minimally Invasive Surgery in Patients with Adolescent Idiopathic Scoliosis: Is it Better than the Standard Approach? A Two Year Follow-Up Study. *Journal of Spinal Disorders and Techniques*.
10. Sarwahi V, **Sugarman E**, Wollowick A, Amaral T, Harmon E, Thornhill B. Scoliosis Surgery in Patients with Adolescent Idiopathic Scoliosis Does Not Alter Lung Volume: A Three-Dimensional CT Based Study. *SPINE*. 2014 March 15.
11. Sarwahi V, **Sugarman E**, Wollowick A, Amaral T, Lo Y, Thornhill B. Incidence, Distribution, and Surgical relevance of Abnormal Pedicles in Non-deformity and AIS Spines: A CT-based Study. *The Journal of Bone and Joint Surgery*. 2014 June 4.
12. Chhavi Katyal, Seth Grossman, Aviva Dworkin, Lewis Singer, Terry Amaral, **Etan Sugarman**, Adam Wollowick, Vishal Sarwahi. Increased Risk of Infection in Obese Adolescents After Pedicle Screw Instrumentation for Idiopathic Scoliosis. *Spine Deformity*, Vol. 3, Issue 2, p166–171. March 2015
13. Pawar, A; **Sugarman, E**; Legatt, A; Dworkin, A; Thornhill, B; Lo, Y; Wendolowski, S; Gecelter, R; Moguilevitch, M. Triggered EMG potentials in determining neuroanatomical safe zone for transpsoas lumbar approach: Are they reliable? *Spine*. 2016 June Vol 41(11) 647-653.
14. Sarwahi, V., Amaral, T., Wendolowski, S., Gecelter, R., **Sugarman, E.**, Lo, Y., Wang, D., Thornhill, B. MRIs Are Less Accurate Tools for the Most Critically Worrisome Pedicles Compared to CT Scans. *Spine Deformity*. 2016 Volume 4(6) p400 – 406.

IV. NON-PEER REVIEWED (INVITED) PUBLICATIONS

1. **Sugarman E**, Sarwahi V. Acute Pancreatitis after Scoliosis Surgery. *RTT Watch*. 19 Nov. 2009.

INVITED VISITS/LECTURES

1. Lecturer, All Things Orthopaedics Conference, New Hyde Park, NY 2024
2. Lecturer, All Things Orthopaedics Conference, New Hyde Park, NY 2023
3. Lecturer, All Things Orthopaedics Conference, New Hyde Park, NY 2022
4. Lecturer, All Things Orthopaedics Conference, New Hyde Park, NY 2021
5. Program Faculty, AAOS Advanced Knee Course, Chicago, IL 2022
6. Program Faculty, AAOS Advanced Fall Cartilage Course, Chicago, IL 2019
7. Program Faculty, AAOS Advanced Spring Cartilage Course, Chicago, IL 2019
8. Program Faculty, AAOS Advanced Fall Cartilage Course, Chicago, IL 2018

Journal Articles Submitted/In Progress

1. Sam Moghtaderi, MD; Vishal Sarwahi, MD; **Etan Sugarman, MD**; Adam Wollowick, Terry Amaral, Beverly Thornhill. The Usefulness and Limitations of Nash & Moe Rotational Grading Method in Predicting Vertebral Rotation. (*Submitted*)
2. Terry D. Amaral MD, Abhijit Y. Pawar, M.D Beverly Thornhill MD, Aviva G. Dworkin B.S, Adam L. Wollowick MD, **Etan P. Sugarman MD**, Vishal Sarwahi MD. CT-Based Evaluation of 8789 Pedicles: Curve Characteristics Associated with Abnormal Pedicle Morphology. (*Submitted*)
3. Grossman, Seth MD; **Sugarman, Etan P. MD**; Legatt, Alan D. MD, PhD; Keller, Christian MD; Wollowick, Adam MD; Amaral, Terry D. MD; Sarwahi, Vishal MD. Can Monitoring Spinal Cord Blood Flow Identify a Pre-Injury State During Surgery? A Porcine Pilot Study Correlating MEPs with LASER Doppler Measurements. (*Submitted*)
4. **Sugarman E**, DiFelice G. Multiligament reconstruction following knee dislocation in the aging population: A Case Report. (*In Progress*)

5. **Sugarman, E**, Feder, O, Gruson K. Radiographs of the Shoulder in Adult Patients with Non-Traumatic Pain. Are They Necessary? (*In Progress*)
6. **Sugarman EP**, Birns ME, Fishman M, Patel DN, Goldsmith L, Greene R, Banffy MB. Does Capsular Closure Affect Clinical Outcomes in Hip Arthroscopy?: A Prospective, Randomized, Control Trial. (*In Progress*)
7. Youth Pitching Mechanics Before and After Core Strengthening Program: A Randomized, Prospective Controlled Study. (*In Progress*)

V. BOOK CHAPTERS

1. Sarwahi V, Amaral T. (2009). *Manual of Pediatric Orthopaedics*. New York. Montefiore Medical Center.
2. *Under Revision*: **Sugarman E**, Banffy M. Biologic Therapy in Lateral Epicondylitis

VI. INTERNET

1. **Sugarman E**, Sarwahi V. Acute Pancreatitis after Scoliosis Surgery. *RTT Watch*. 19 Nov. 2009. Rett Syndrome Research Trust. 6 Jan. 2010. www.rsrt.org/rttwatch/2009/11-19.html

VII. NATIONAL/INTERNATIONAL SOCIETY PODIUM PRESENTATIONS

1. Wollowick, A. Intraoperative Judicious Fluid Management and Blood Conserving Techniques in Scoliosis Surgery. *North American Spine Society, San Francisco, CA 2009*.
2. Wollowick, A. Does Scoliosis Surgery Change Lung Volume or Lung Asymmetry in AIS Patients. *American Academy of Orthopaedic Surgeons, New Orleans, LA 2010*.
3. Amaral T, **Sugarman E**, Wollowick A, Thornhill B, Sarwahi V. Scoliosis Surgery in Patients with Adolescent Idiopathic Scoliosis Does Not Alter Lung Volume: A Three Dimensional CT Based Study. *International Meeting on Advanced Spine Techniques, Toronto, ON 2010*.
4. Sarwahi V, Wollowick A, **Sugarman E**, Gambassi M, Amaral T. Can Pedicle Screws Eliminate the Need for Hemivertebrae Excision? *International Meeting on Advanced Spine Techniques, Toronto, ON 2010*.
5. **Sugarman E**, Sarwahi V, Wollowick A, Gambassi M, Amaral T. Beyond the Learning Curve: Does the Accuracy of Pedicle Screw Placement Improve with Experience in AIS Patients - A CT-Based Analysis of 1356 Pedicle Screws. *International Meeting on Advanced Spine Techniques, Toronto, ON 2010*.

6. Amaral T, **Sugarman E**, Wollowick A, Thornhill B, Sarwahi V. Scoliosis Surgery in A.I.S. Patients Does Not Alter Lung Volume: A Three-Dimensional CT-Based Study. *North American Spine Society, Orlando, FL 2010.*
7. Wollowick A, Thornhill B, Amaral T, **Sugarman E**, Sarwahi V. Pedicle Screws Adjacent to the Aorta: Is Prone CT Scan Helpful? *North American Spine Society, Orlando, FL 2010.*
8. Wollowick A, **Sugarman E**, Nirenstein L, Amaral T, Thornhill B, Sarwahi V. Incidence, Distribution, and Surgical Relevance of Abnormal Pedicles in Normal and Deformed Spines: A CT Based Study of 6,256 Pedicles. *North American Spine Society, Orlando, FL 2010.*
9. Amaral T, **Sugarman E**, Wollowick A, Thornhill B, Sarwahi V. Scoliosis Surgery in Patients with Adolescent Idiopathic Scoliosis Does Not Alter Lung Volume: A Three Dimensional CT Based Study. *Scoliosis Research Society, Kyoto, Japan 2010.*
10. Wollowick A, **Sugarman E**, Nirenstein L, Amaral T, Thornhill B, Sarwahi V. Incidence, Distribution, and Surgical Relevance of Abnormal Pedicles in Normal and Deformed Spines: A CT Based Study of 6,256 Pedicles. *Scoliosis Research Society, Kyoto, Japan 2010.*
11. Wollowick A, Thornhill B, Amaral T, Roghani R, **Sugarman E**; Gambassi M, Sarwahi, V. Aortic Pedicle Screw Impingement: The Diagnostic Accuracy of Supine CT-Scan. *Contemporary Concepts in Spine Surgery, Newport Beach, California. 2010.*
12. Farrelly E, Thornhill B, Amaral T, Wollowick A, **Sugarman E**, Sarwahi V. MRI is a reliable, accurate, and safe alternative to CT scan for evaluation of pedicle morphology. *Contemporary Concepts in Spine Surgery, Newport Beach, California. 2010.*
13. Roghani R, Sarwahi V, Wollowick A, **Sugarman E**, Gambassi M, Amaral T. Beyond the learning curve: does the accuracy of pedicle screw placement improve with experience in AIS patients. *Contemporary Concepts in Spine Surgery, Newport Beach, California. 2010.*
14. Wollowick A, **Sugarman E**, Nirenstein L, Amaral T, Thornhill B, Sarwahi V. Incidence, Distribution, and Surgical Relevance of Abnormal Pedicles in Normal and Deformed Spines: A CT Based Study of 6,256 Pedicles. *American Academy of Pediatrics - Annual Meeting, San Francisco, CA 2010.*
15. Beverly T, Amaral T, **Sugarman E**, Wollowick A, Sarwahi V. MRI Is a Reliable, Accurate, and Safe Alternative to CT Scan for Evaluation of Pedicle Morphology. *American Academy of Pediatrics - Annual Meeting, San Francisco, CA 2010.*

16. Wollowick A, Thornhill B, Amaral T, **Sugarman E**, Gambassi M, Sarwahi V. Aortic Pedicle Screw Impingement: The Diagnostic Accuracy of Supine CT-Scan. *American Academy of Pediatrics - Annual Meeting, San Francisco, CA 2010.*
17. **Sugarman E**, Sarwahi V, Wollowick A, Gambassi M, Amaral T. Beyond the Learning Curve: Does the Accuracy of Pedicle Screw Placement Improve with Experience in AIS Patients - A CT-Based Analysis of 1356 Pedicle Screws. *American Academy of Pediatrics - Annual Meeting, San Francisco, CA 2010.*
18. Sarwahi V, Wollowick A, **Sugarman E**, Gambassi M, Amaral T. Can Pedicle Screws Eliminate the Need for Hemivertebrae Excision? *American Academy of Pediatrics - Annual Meeting, San Francisco, CA 2010.*
19. Gambassi M, Wollowick A, **Sugarman E**, Amaral T, Sarwahi V. Perioperative Differences Between Hybrid and Pedicle Screw Instrumentation in Adolescent Idiopathic Scoliosis. *American Academy of Pediatrics - Annual Meeting, San Francisco, CA 2010.*
20. Grossman S, Wollowick A, **Sugarman E**, Katyal C, Gambassi M, Amaral T, Sarwahi V. Analysis of Perioperative Parameters in Obese and Non-Obese AIS Patients Undergoing Posterior Spinal Fusion with pedicle Screw Constructs. *American Academy of Pediatrics - Annual Meeting, San Francisco, CA 2010.*
21. Sarwahi V, Wollowick A, **Sugarman E**, Gambassi M, Amaral T. Minimally Invasive Scoliosis Surgery in Patients with Adolescent Idiopathic Scoliosis: One-Year Follow-Up Results. *Society for Minimally Invasive Spine Surgery Annual Meeting, Miami, FL 2010.*
22. Sarwahi V, Wollowick A, **Sugarman E**, Gambassi M, Amaral T. Trans-Foraminal Osteotomy (TFO) A Modified Ponte Type Osteotomy for Standard or MIS Scoliosis Surgery. *Society for Minimally Invasive Spine Surgery Annual Meeting, Miami, FL 2010.*
23. Wollowick A, Thornhill B, Amaral T, **Sugarman E**, Sarwahi V. MRI Is a Reliable, Accurate, and Safe Alternative to CT Scan for Evaluation of Pedicle Morphology. *American Academy of Orthopaedic Surgeons Annual Meeting, San Diego, CA 2011.*
24. Sarwahi V, Amaral T, Wollowick A, **Sugarman E**, Nirenstein L, Thornhill B. Incidence, Distribution, and Surgical Relevance of Abnormal Pedicles in Normal and Deformed Spines: A CT Based Study of 6354 Pedicles. *International Federation of the Paediatric Orthopaedic Societies Triennial Congress, Seoul, Korea 2010.*

25. Sarwahi V, Wollowick A, **Sugarman E**, Gambassi M, Amaral T. Can Pedicle Screws Eliminate the Need for Hemivertebrae Excision? *The 5th Triennial Congress of the International Federation of the Pediatric Orthopaedic Societies 2010, Seoul, Korea.*
26. Sarwahi V, Wollowick A, **Sugarman E**, Gambassi M, Amaral T. Can Pedicle Screws Eliminate the Need for Hemivertebrae Excision? *International Federation of the Paediatric Orthopaedic Societies Triennial Congress, Seoul, Korea 2010.*
27. Wollowick A, Thornhill B, Amaral T, **Sugarman E**, Gambassi M, Sarwahi V. Aortic Pedicle Screw Impingement: The Diagnostic Accuracy of Supine CT-Scan. *The Pediatric Orthopaedic Society of North American Annual Meeting, Montreal, Canada 2011.*
28. Sarwahi, V, Wollowick A, Grossman S, Amaral T, Kabaei F, **Sugarman E**, Keller C, Legatt A. The effect of lidocaine, volume expansion, pressors, and decompression on spinal cord blood flow & signal changes (MEPs): Do they really work? A porcine study. *International Meeting on Advanced Spine Techniques, Copenhagen, Denmark 2011.*
29. Wollowick A, Amaral T, Horn J, **Sugarman E**, Gambassi M, Sarwahi V. Minimally invasive surgery in patients with adolescent idiopathic scoliosis: Is it any better than the standard approach? *The Scoliosis Research Society 46th Annual Meeting, Louisville, Kentucky 2011.*
30. Amaral T, Wollowick A, Kulkarni P, Thornhill B Suggs W, **Sugarman E**, Horn J, Sarwahi V. How commonly are pedicle screws adjacent to the great vessels or viscera? A study of 2295 pedicle screws. *The Scoliosis Research Society 46th Annual Meeting, Louisville, Kentucky 2011.*
31. Wollowick A, Amaral T, Horn J, **Sugarman E**, Gambassi M, Kulkarni P, Sarwahi V. Minimally Invasive Surgery In Patients with Adolescent Idiopathic Scoliosis: Is It Any Better Than the Standard Approach? *American Academy of Pediatrics Annual Meeting, Boston, MA, 2011.*
32. Sarwahi V, Wollowick A, **Sugarman E**, Gambassi M, Amaral T. Can Pedicle Screws Eliminate the Need for Hemivertebrae Excision. *American Academy of Pediatrics Annual Meeting, Boston, MA, 2011.*
33. Wollowick A, Grossman S, Amaral T, **Sugarman E**, Keller C, Legatt A. Can Monitoring Spinal Cord Blood Flow (SCBF) Identify Pre-Injury State During Surgery? A Porcine Study Correlating Mep's with LASER Doppler Measurements. *American Academy of Pediatrics Annual Meeting, Boston, MA, 2011.*
34. Amaral T, Wollowick A, Kulkarni P, Thornhill B, **Sugarman E**, Horn J, Sarwahi V. How Commonly Are Pedicle Screws Adjacent to the Great Vessels or Viscera? A Study of 2295 Pedicle Screws. *American Academy of Pediatrics Annual Meeting, Boston, MA, 2011.*

35. Thornhill B, Amaral T, **Sugarman E**, Horn J, Kulkarni P, Sarwahi V. The Usefulness and Limitation of MRI As An Imaging Modality for Evaluation of Pedicle Morphology and Apical Rotation. *American Academy of Pediatrics Annual Meeting, Boston, MA, 2011.*
36. Wollowick A, Thornhill B, Horn J, **Sugarman E**, Kulkarni P, Gambassi M, Sarwahi V. CT-Based Evaluation of 8661 Pedicles: What Patient and Curve Characteristics Are Associated with Abnormal Morphology In Adolescent Spinal Deformity Patients? *American Academy of Pediatrics Annual Meeting, Boston, MA, 2011.*
37. Wollowick A, Grossman S, Amaral T, **Sugarman E**, Keller C, Legatt A. Can Monitoring Spinal Cord Blood Flow (SCBF) Identify Pre-Injury State During Surgery? A Porcine Study Correlating Mep's with LASER Doppler Measurements. *International Meeting on Advanced Spine Techniques, Copenhagen, Denmark 2011.*
38. Wollowick A, Thornhill B, Amaral T, **Sugarman E**, Gambassi M, Sarwahi V. Aortic Pedicle Screw Impingement: The Diagnostic Accuracy of Supine CT-Scan. *Pediatric Orthopaedic Society of North America, 2011. Montreal, Quebec.*
39. Sarwahi V, Dworkin A, Legatt A, **Sugarman E**, Moguilevitch M, Amaral T, Thornhill B. Neuroanatomical Safe Zone for Transpsaos Lumbar Approach: A Porcine Study. *North American Spine Society Annual Meeting, October 2013, New Orleans, Louisiana.*
40. Sarwahi V, **Sugarman E**, Dworkin A, Pawar A, Moguilevitch M, Amaral T, Thornhill B, Wollowick A, Legatt A. Critical Events Before Spinal Cord Injury in a Porcine Compression Model. *North American Spine Society Annual Meeting, October 2013, New Orleans, Louisiana.*
41. Sarwahi V, Dworkin A, Legatt A, **Sugarman E**, Moguilevitch M, Amaral T, Thornhill B. Neuroanatomical Safe Zone for Transpsaos Lumbar Approach: A Porcine Study. *American Academy of Pediatrics Annual Meeting, October 2013, Orlando, Florida.*
42. Sarwahi V, **Sugarman E**, Dworkin A, Pawar A, Moguilevitch M, Amaral T, Thornhill B, Wollowick A, Legatt A. Critical Events Before Spinal Cord Injury in a Porcine Compression Model. *American Academy of Pediatrics Annual Meeting, October 2013, Orlando, Florida.*
43. Sarwahi V, **Sugarman E**, Dworkin A, Pawar A, Moguilevitch M, Amaral T, Thornhill B, Wollowick A, Legatt A. Critical Events Before Spinal Cord Injury in a Porcine Compression Model. *Scoliosis Research Society Annual Meeting. September 2013. Lyon, France.*
44. Vishal Sarwahi, Saankritya Ayan, **Etan Sugarman**, Terry Amaral, Adam Wollowick. Choosing fusion levels in Adult idiopathic scoliosis with significant degeneration and kyphosis. *The Scoliosis Research Society 49th Annual Meeting. September 2014 Anchorage, Alaska.*

45. Sarwahi V, **Sugarman E**, Moguilevitch M, Amaral T, Thornhill B, Wollowick A, Legatt A. Critical Events Before Spinal Cord Injury in a Porcine Compression Model. *American Academy of Orthopaedic Surgeons Annual Meeting, March 2017, San Diego, California*
46. **Sugarman EP**, Birns ME, Fishman M, Patel DN, Goldsmith L, Greene R, Banffy MB. Clinical Outcomes Comparing Capsular Repair vs. No Repair Following Hip Arthroscopy: A Prospective, Randomized, Control Study. *The Kerlan-Jobe Orthopaedic Foundation Annual Meeting, Toronto, Canada 2017.*
47. **Sugarman EP**, DeGiacomo A, Greene RS, Banffy MB. Does Gender Effect Outcomes after Hip Arthroscopy? *The Kerlan-Jobe Orthopaedic Foundation Annual Meeting, Toronto, Canada 2017.*

VIII. SCIENTIFIC EXHIBITS/POSTERS

1. Weiss, J.E. Henrickson M, Walco G, **Sugarman E**, Feinstein A, Kimura, Y. Combination therapy with anakinra and anti-TNF agent in refractory systemic JIA (SJIA): treatment, clinical features and outcome. *American College of Rheumatology 2005. Annual Scientific Meeting, San Diego California November 14, 2005.*
2. Janet Ayello, Prakash Satwani, Carmella van de Ven, Laxmi Baxi, Ronald Wapner, **Etan Sugarman** and Mitchell Cairo. Enhanced Natural Killer and NK T Cell Activation, Expansion and Cytokine Protein Production Following Ex-vivo Engineering of Cryopreserved Cord Blood: Potential Role of CB NK and NKT Cells in Adoptive Cellular Immunotherapy. *American Society of Hematology 2007. Annual Conference, Atlanta Georgia, December 8, 2007.*
3. Wollowick, A. Direct Vertebral Rotation Provides Better Three-Dimensional Correction of the Apical Vertebrae than Rod Translation in Adolescent Idiopathic Scoliosis. *North American Spine Society, San Francisco, CA 2009.*
4. **Sugarman E**, Grossman S, Amaral T, Wollowick A, Gambassi M, Sarwahi V. Comparison of Perioperative Outcomes in Obese and Non-Obese Patients with Adolescent Idiopathic Scoliosis Undergoing Posterior Spinal Fusion. *Albert Einstein College of Medicine Annual Symposium, Bronx, NY 2010.*
5. Wollowick A, Thornhill B, Amaral T, **Sugarman E**, Gambassi M, Sarwahi V. Aortic Pedicle Screw Impingement: The Diagnostic Accuracy of Supine CT-Scan. *International Meeting on Advanced Spine Techniques, Toronto, ON 2010.*

6. Amaral T, **Sugarman E**, Thornhill B, Wollowick A, Sarwahi V. Apical Vertebral Rotation Does Not Correlate with Improvement in Thoracic Torsion and Thoracic Cage Asymmetry in Adolescent Idiopathic Scoliosis. *International Meeting on Advanced Spine Techniques, Toronto, ON 2010.*
7. Sarwahi V, Wollowick A, **Sugarman E**, Gambassi M, Amaral T. Minimally Invasive Scoliosis Surgery in Patients with Adolescent Idiopathic Scoliosis: One –Year Follow-Up Results. *International Meeting on Advanced Spine Techniques, Toronto, ON 2010.*
8. Grossman S, Wollowick A, **Sugarman E**, Katyal C, Gambassi M, Amaral T, Sarwahi V. Analysis of Perioperative Parameters in Obese and Non-Obese AIS Patients Undergoing Posterior Spinal Fusion with pedicle Screw Constructs. *International Meeting on Advanced Spine Techniques, Toronto, ON 2010.*
9. Gambassi M, Wollowick A, **Sugarman E**, Amaral T, Sarwahi V. Perioperative Differences Between Hybrid and Pedicle Screw Instrumentation in Adolescent Idiopathic Scoliosis. *International Meeting on Advanced Spine Techniques, Toronto, ON 2010.*
10. Beverly T, Amaral T, **Sugarman E**, Wollowick A, Sarwahi V. MRI Is a Reliable, Accurate, and Safe Alternative to CT Scan for Evaluation of Pedicle Morphology. *International Meeting on Advanced Spine Techniques, Toronto, ON 2010.*
11. **Sugarman E**, Sarwahi V, Wollowick A, Gambassi M, Amaral T. Beyond the Learning Curve: Does the Accuracy of Pedicle Screw Placement Improve with Experience in AIS Patients - A CT-Based Analysis of 1356 Pedicle Screws. *Scoliosis Research Society, Kyoto, Japan 2010.*
12. Sarwahi V, Wollowick A, Farrelly E, **Sugarman E**, Gambassi M, Amaral T. Minimally Invasive Scoliosis Surgery in Patients with Adolescent Idiopathic Scoliosis One-Year Follow-Up Results. *Contemporary Concepts in Spine Surgery, Newport Beach, California 2010.*
13. Amaral T, Wollowick A, Thornhill B, Roghani R, **Sugarman E**, Sarwahi V. Scoliosis Surgery in Patients with Adolescent Idiopathic Scoliosis Does Not Alter Lung Volume A Three Dimensional CT Based Study. *Contemporary Concepts in Spine Surgery, Newport Beach, California. 2010.*
14. Amaral T; Wollowick A, Roghani R, **Sugarman E**, Gambassi M, Sarwahi V. Perioperative Differences Between Hybrid and Pedicle Screw Instrumentation in Adolescent Idiopathic Scoliosis. *Contemporary Concepts in Spine Surgery, Newport Beach, California 2010.*
15. Beverly T, Amaral T, **Sugarman E**, Wollowick A, Sarwahi V. MRI Is a Reliable, Accurate, and Safe Alternative to CT Scan for Evaluation of Pedicle Morphology. *International Congress on Early Onset Scoliosis and Growing Spine, Toronto, Canada 2010.*

16. Thornhill B, Amaral T, **Sugarman E**, Wollowick A, Sarwahi V. MRI Is a Reliable, Accurate, and Safe Alternative to CT Scan for Evaluation of Pedicle Morphology. *Society for Minimally Invasive Spine Surgery Annual Meeting, Miami, FL 2010.*
17. Sarwahi V, Wollowick A, Amaral T, **Sugarman E**, Nirenstein L, Grossman J, Thornhill B. Incidence, Distribution, and Surgical Relevance of Abnormal Pedicles in Normal and AIS Spines: A CT Based Study of 6370 Pedicles. *Society for Minimally Invasive Spine Surgery Annual Meeting, Miami, FL 2010.*
18. Grossman S, Wollowick A, **Sugarman E**, Katyal C, Gambassi M, Amaral T, Grossman J, Sarwahi V. Analysis of Perioperative Parameters in Obese and Non-Obese AIS Patients Undergoing Posterior Spinal Fusion with Pedicle Screw Constructs. *Society for Minimally Invasive Spine Surgery Annual Meeting, Miami, FL 2010.*
19. **Sugarman E**, Amaral T, Thornhill B, Wollowick A, Sarwahi V. Apical Vertebral Rotation Does Not Correlate with Improvement in Thoracic Torsion and Thoracic Cage Asymmetry in Adolescent Idiopathic Scoliosis. *Society for Minimally Invasive Spine Surgery Annual Meeting, Miami, FL 2010.*
20. Wollowick A, Thornhill B, Amaral T, **Sugarman E**, Gambassi M, Sarwahi V. Aortic Pedicle Screw Impingement: The Diagnostic Accuracy of Supine CT-Scan. *International Federation of the Paediatric Orthopaedic Societies Triennial Congress, Seoul, Korea 2010.*
21. Thornhill B, Amaral T, **Sugarman E**, Wollowick A, Sarwahi V. MRI Is a Reliable, Accurate, and Safe Alternative to CT Scan for Evaluation of Pedicle Morphology. *International Federation of the Paediatric Orthopaedic Societies Triennial Congress, Seoul, Korea 2010.*
22. Amaral T, **Sugarman E**, Wollowick A, Thornhill B, Sarwahi V. Scoliosis Surgery in Patients with Adolescent Idiopathic Scoliosis Does Not Alter Lung Volume: A Three Dimensional CT Based Study. *International Federation of the Paediatric Orthopaedic Societies Triennial Congress, Seoul, Korea 2010.*
23. **Sugarman E**, Sarwahi V, Wollowick A, Gambassi M, Amaral T. Beyond the Learning Curve: Does the Accuracy of Pedicle Screw Placement Improve with Experience in AIS Patients: A CT-based Analysis of 1356 Pedicle Screws. *International Federation of the Paediatric Orthopaedic Societies Triennial Congress, Seoul, Korea 2010.*
24. Amaral T, **Sugarman E**, Thornhill B, Wollowick A, Sarwahi V. Apical Vertebral Rotation Does Not Correlate with Improvement in Thoracic Torsion and Thoracic Cage Asymmetry in Adolescent Idiopathic Scoliosis. *International Federation of the Paediatric Orthopaedic Societies Triennial Congress, Seoul, Korea 2010.*

25. Thornhill B, Amaral T, **Sugarman E**, Wollowick A, Sarwahi V. MRI Is a Reliable, Accurate, and Safe Alternative to CT Scan for Evaluation of Pedicle Morphology. *International Congress Early Onset Scoliosis, Toronto, On 2010.*
26. Sarwahi V, Amaral T, **Sugarman E**, Nirenstein L, Grossman J, Thornhill B, Wollowick A. Incidence and Distribution of Abnormal Pedicles in Normal and AIS Spines: A Study of 6,370 Pedicles. *American Academy of Orthopaedic Surgeons Annual Meeting, San Diego, Ca 2011.*
27. **Sugarman E**, Sarwahi V, Wollowick A, Gambassi M, Amaral T. Beyond the Learning Curve: Does the Accuracy of Pedicle Screw Placement Improve with Experience in AIS Patients - A CT-Based Analysis of 1356 Pedicle Screws. *Scoliosis Research Society, Kyoto, Japan 2010.*
28. Sarwahi V, Wollowick A, **Sugarman E**, Nirenstein L, Amaral T, Thornhill B. Incidence, Distribution, and Surgical Relevance of Abnormal Pedicles in Normal and AIS Spines: A CT Based Study of 6624 Pedicles. *The Pediatric Orthopaedic Society of North American Annual Meeting, Montreal, Canada 2011.*
29. Grossman S, Wollowick A, **Sugarman E**, Katyal C, Gambassi M, Amaral T, Sarwahi V. Analysis of Perioperative Parameters in Obese and Non-Obese AIS Patients Undergoing Posterior Spinal Fusion with Pedicle Screw Constructs. *The Pediatric Orthopaedic Society of North American Annual Meeting, Montreal, Canada 2011.*
30. Amaral T, Thornhill B, Wollowick A, Horn J, **Sugarman E**, Kulkarni P, Sarwahi V. Is the rate of pedicle screw misplacement higher in AIS or Non-AIS deformity patients?: A CT-based study of 2176 pedicle screws. *International Meeting on Advanced Spine Techniques, Copenhagen, Denmark 2011*
31. Amaral T, Thornhill B, Wollowick A, Grossman J, Horn J, **Sugarman E**, Kulkarni P, Sarwahi V. CT-Based Evaluation of 8661 Pedicles: What Patient and Curve Characteristics are Associated with Abnormal Morphology? *International Meeting on Advanced Spine Techniques, Copenhagen, Denmark 2011*
32. Amaral T, Thornhill B, Shulman E, Wollowick A, Horn J, **Sugarman E**, Kulkarni P, Sarwahi V. Does Pedicle Morphology Change with Age - A Study of 8042 Pedicles in Normal Subjects. *International Meeting on Advanced Spine Techniques, Copenhagen, Denmark 2011.*
33. Amaral, Terry D; Thornhill, Beverly; Wollowick, Adam L; Horn, Jonathan J; **Sugarman, Etan P**; Kulkarni, Preethi M; Sarwahi, Vishal: Is the rate of pedicle screw misplacement higher in AIS or Non-AIS deformity patients? A CT-based study of 2176 pedicle screws. *International Meeting on Advanced Spine Techniques, July 2011, Copenhagen, Denmark.*

34. Wollowick A, Thornhill B, Amaral T, **Sugarman E**, Grossman J, Horn J, Sarwahi V. The Usefulness and Limitation of MRI as an Imaging Modality for Evaluation of Pedicle Morphology and Apical Rotation. *International Meeting on Advanced Spine Techniques, Copenhagen, Denmark 2011.*
35. Sarwahi, Vishal; Wollowick, Adam L; Grossman, Seth A; Amaral, Terry D; Kabaei, Farzin; **Sugarman, Etan P**; Keller, Christian; Legatt, Alan : The effect of lidocaine, volume expansion, pressors, and decompression on spinal cord blood flow & signal changes (MEPs): Do they really work? A porcine study. *International Meeting on Advanced Spine Techniques, July 2011, Copenhagen, Denmark.*
36. Sarwahi V, Wollowick A, Grossman S, Amaral T, Kabaei F, **Sugarman E**, Keller C, Legatt A. Can monitoring spinal cord blood flow (SCBF) identify pre-injury state during surgery? *International Meeting on Advanced Spine Techniques, Copenhagen, Denmark 2011.*
37. Amaral, Terry D; Thornhill, Beverly; Wollowick, Adam L; Grossman, Joshua; Horn, Jonathan J; **Sugarman, Etan P**; Kulkarni, Preethi M; Sarwahi, Vishal. CT-Based Evaluation of 8661 Pedicles: What Patient and Curve Characteristics are Associated with Abnormal Morphology? *North American Spine Society, Chicago, November 2011.*
38. Sarwahi, Vishal, **Etan P. Sugarman**, Aviva Dworkin, Abhijit Y. Pawar, Marina Moguilevitch, Terry D. Amaral, Beverly Thornhill, Adam L. Wollowick, Christian Keller, Alan D. Legatt: Critical Events Before Sprinal Cord Injury in a Porcine Compression Model . *Pediatric Orthopedic Society of North America Annual Meeting 2014*
39. Sarwahi V, Pawar A, Dworkin AG, **Sugarman EP**, Moguilevitch M, Amaral TD, Thornhill B, Wollowick AL, Legatt AD. Neuroanatomical safe zone for transpoas lumbar approach: a porcine study. *International Meeting on Advanced Spine Techniques, Valencia, Spain 2014.*
40. **Sugarman EP**, Birns ME, Fishman M, Patel DN, Goldsmith L, Greene R, Banffy MB. Clinical Outcomes Comparing Capsular Repair vs. No Repair Following Hip Arthroscopy: A Prospective, Randomized, Control Study. *American Orthopaedic Society for Sports Medicine Annual Meeting, Toronto, Canada 2017.*

IX. PUBLISHED ABSTRACTS

1. Kimura Y, **Sugarman E**, Walco G, Conte P, Schanberg L: Treatment of pain in Juvenile Idiopathic Arthritis: a survey of pediatric rheumatologists. *Arthritis Rheum.* 2004 50:S98.

X. ATHLETIC TEAM COVERAGE EXPERIENCE

2020	The Ursuline School	Team Physician
2019	PGA Tour – US Open	Assistant Physician
2017	Major League Soccer Player Combine	Assistant Team Physician
2016-2017	Los Angeles Rams	Assistant Team Physician
2016-2017	Los Angeles Dodgers	Assistant Team Physician
2016-2017	Anaheim Ducks	Assistant Team Physician
2016-2017	Los Angeles Kings	Assistant Team Physician
2016-2017	Los Angeles Sparks	Assistant Team Physician
2016-2017	USC Football	Assistant Team Physician
2016-2017	Fullerton College	Assistant Team Physician
2016-2017	West Los Angeles College	Assistant Team Physician
2016-2017	Carson High School	Team Physician
2013-2016	Lehman College	Assistant Team Physician
2013-2016	Lehman High School	Assistant Team Physician
2013-2016	Truman High School	Assistant Team Physician
2013-2016	Community Board Athletic Leadership League	Assistant Team Physician
2014	New York Gauchos: King of the Rock Basketball Classic	Team Physician

XI. LOCAL AND NATIONAL SERVICE

2017	Team HEAL – Providing underserves communities with team physicians for local high school teams in the Southern California Area
2015	Executive Resident – Planned orthopaedics sports medicine and trauma mission to the Dominican Republic – Hospital Jose Maria Cabral y Baez. Santiago, Dominican Republic.
2015	Executive Resident – Coordinated observership for senior and chief residents from the Dominican Republic at Montefiore Medical Center (Sports Medicine) and Jacobi Medical Center (Orthopaedic Traumatology).

XII. SPORTS RELATED MEETINGS, CONVENTIONS AND SYMPOSIA ATTENDED

1. American Orthopaedic Society for Sports Medicine Annual Meeting, San Diego, CA 2017
2. AAOS Advanced Spring Cartilage Course, Chicago, IL 2019
3. Arthroscopy Association of North America Annual Meeting, Orlando, FL 2019
4. American Orthopaedic Society for Sports Medicine Annual Meeting, Boston, MA 2019
5. Minnesota anatomic complex knee international symposium, Minneapolis, MN 2019

6. AAOS Advanced Fall Cartilage Course, Chicago, IL 2019
7. Vail Hip Symposium, Vail, CO 2020
8. Minnesota anatomic complex knee international symposium, Minneapolis, MN 2020
9. Arthrex Hip Horizons Annual Meeting – Naples, FL 2021
10. AOSSM/ANNA Annual Meeting, Nashville, TN 2021
11. American Hip Institute Annual Alumni Meeting, Chicago, IL 2022
12. AAOS Annual Meeting, Chicago, IL 2022
13. Arthrex Hip Horizons Annual Meeting – Naples, FL 2022
14. Arthrex Orthopedic Technology and Innovations Forum – Naples, FL 2023

XIII. Course Instruction

1. AAOS Advanced Spring Cartilage Course, Chicago, IL 2019
2. AAOS Advanced Fall Cartilage Course, Chicago, IL 2019
3. AAOS Advanced Fall Cartilage Course, Chicago, IL 2022

XIV. Consulting / Disclosures

1. CartiHeal, Inc: Consultant
2. Arcuro Medical, Ltd.: Consultant & Senior Advisory Board Member

SUMMARY

Peer-Reviewed Publications (<i>includes accepted</i>)	14
Non Peer-Reviewed Publications	9
Book Chapters	1
Societal Podium Presentations	45
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