

# LEONARDO M. CAVINATTO, MD, PHD

Orthopedic Sports Medicine & Adult Joint Reconstruction Surgery

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## 1. EDUCATION AND TRAINING

Aug. 2018 – July 2019	<b>Fellowship in Orthopedic Sports Medicine</b> <u>William Beaumont Hospital</u> , Royal Oak, MI
Aug. 2017 – July 2018	<b>Fellowship in Orthopedic Sports Medicine</b> <u>Jefferson Health Northeast</u> , Philadelphia, PA
Aug. 2016 – July 2017	<b>Fellowship in Adult Hip and Knee Reconstruction &amp; Joint Replacement</b> <u>Mount Sinai Hospital – Icahn School of Medicine at Mount Sinai</u> , New York, NY
Jun. 2011 – Feb. 2016	<b>PhD Program – Orthopaedic Basic Science</b> <u>University of Sao Paulo</u> , Sao Paulo, Brazil
Aug. 2011 – July 2012	<b>Research Fellowship in Orthopaedic Basic Science</b> <u>Washington University in St. Louis</u> , St. Louis, MO
Feb. 2010 – Jan. 2011	<b>Clinical Fellowship in Shoulder and Elbow Surgery</b> <u>University of Sao Paulo</u> , Sao Paulo, Brazil
Feb. 2007 – Jan. 2010	<b>Orthopedic Surgery Residency</b> <u>University of Sao Paulo</u> , Sao Paulo, Brazil
Feb. 2000 – Dec. 2005	<b>Medical School, MD degree</b> <u>University of Sao Paulo</u> , Sao Paulo, Brazil

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## 2. CERTIFICATION AND LICENSURE

### MEDICAL LICENSURE

Jun. 2017	Michigan State License
Jun. 2011	USMLE/ECFMG Certificate

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## 3. APPOINTMENTS AND POSITIONS

### ACADEMIC

Nov. 2015 – present	<b>Orthopaedic Basic Science Reviewer</b> Journal of Shoulder and Elbow Surgery Journal of Orthopaedic Research
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## MILITARY SERVICE

Jan. 2006 – Jan. 2007           Brazilian Navy  
Lieutenant – Primary Care Physician  
Sao Paulo, Brazil

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## 4. MEMBERSHIPS IN PROFESSIONAL AND SCIENTIFIC SOCIETIES

Feb. 2010                           Brazilian Society of Orthopaedics and Traumatology  
Jun. 2011                           American Academy of Orthopaedic Surgeons  
Mar. 2011                           Brazilian Society of Shoulder and Elbow Surgeons  
Jan. 2018                           ISAKOS – International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports  
Medicine  
Aug 2018                           AOSSM – American Orthopaedic Society for Sports Medicine  
Aug 2018                           AANA – Arthroscopy Association of North America

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## 5. HONORS AND AWARDS

2018                           **Thomas Jefferson University 2018 Provost's Pilot Clinical Research Award**  
"The Molecular Basis of Persistent Pain Following Total Knee Arthroplasty"  
Role: Co-Investigator. Total Annual Costs: US\$ 25.000

2016                           **Top 20 Most Cited Journal of Shoulder and Elbow Surgery Articles**  
"The role of mechanobiology in tendon healing." Volume 21, issue 2, February 2012

2011                           **CAPES Sandwich Doctorate Grant Award**  
CAPES - Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, Brazil  
Total Annual Costs: US\$ 20.000

2004                           **FAPESP Scientific Initiation Grant Award**  
FAPESP – Fundação de Amparo a Pesquisa do Estado de São Paulo, Brazil.  
Total Annual Costs: US\$ 5.000

2004                           **2004 Oswaldo Cruz Award**  
Best Paper in Surgery, University of São Paulo Faculty of Medicine, Sao Paulo, Brazil

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## 6. PERSONAL

<b>Birth Information</b>	April 12 <sup>th</sup> , 1980. Sao Paulo, Brazil
<b>Languages</b>	Portuguese (native), English (fluent), Spanish (intermediate)
<b>Hobbies</b>	Spending time with family, Running, Tennis, and Gastronomy & Wine

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## 7. PUBLICATIONS

### PEER-REVIEWED PUBLICATIONS

1. Gupta S, Bartolozzi AR, Anyangwe V, Miller LS, Morgan C, **Cavinatto L** – Pre Operative Estimated Width of the Patellar Tendon for Anterior Cruciate Ligament Reconstruction. *J Knee Surg* 2019 [Epub Ahead of Print]
2. **Cavinatto L**, Hinckel BB, Tomlinson RE, Gupta S, Farr J, Bartolozzi AR – The role of Bone Marrow Aspirate Concentrate (BMAC) for the Treatment of Focal Chondral Lesions of the Knee: a Systematic Review and Critical Analysis of Animal and Clinical Studies. *Arthroscopy* 2019 March 11
3. **Cavinatto L**, Chen DD, Bronson MJ, Moucha CS. Robotic-assisted versus Standard Unicompartmental Knee Arthroplasty – Evaluation of Manuscript Conflict of Interests, Funding and Bibliometrics. *Intl Orthop* 2018 Oct 5
4. **Cavinatto L**, Morgan C, Bartolozzi AR. Value of Preoperative MRI and Examination under Anesthesia in differentiating complete from partial tears of the Anterior Cruciate Ligament. *J Knee Surg* 2018 Jul 10.
5. de Cesar Netto C, Godoy-Santos AL, Pontin PA, **Cavinatto L**, Schon L, Fernandes TD. Novel Animal Model for Achilles Tendinopathy: Controlled Experimental Study of Serial Injections of Collagenase in Rabbits. *PLoS ONE*. 2018 Feb.
6. **Cavinatto L**, Malavolta EA, Pereira CAM, Mattar Junior R, Ferreira Neto AA. Early versus Late Repair of Rotator Cuff Tears in Rats. *J Shoulder Elbow Surg.* 2018 Apr; 27(4): 606-613
7. Shaw SA, Kormpakis J, **Cavinatto L**, Killian ML, Thomopoulos S, Galatz LM. Rotator cuff muscle degeneration and tear severity correlate to myogenic, adipogenic, and atrophy genes in muscle. *J Orthop Res.* 2017 Dec; 35(12): 2808-2814
8. Lipner J, Shen H, **Cavinatto L**, Liu X, Havlioglu N, Ward, Galatz LM, Thomopoulos S. In Vivo Evaluation of Adipose-Derived Stromal Cells Delivered with a Nanofiber Scaffold for Tendon-to-Bone Repair. *Tissue Eng Part A.* 2015 Oct; 21(21-22): 2766-74.
9. Killian ML, **Cavinatto L**, Ward SR, Havlioglu N, Thomopoulos S, Galatz LM. Chronic Degeneration Leads to Poor Healing of Repaired Massive Rotator Cuff Tears in Rats. *Am J Sports Med.* 2015 Oct;43(10)2401-10.
10. Killian ML, **Cavinatto L**, Shaw SA, Sato EJ, Ward SR, Havlioglu N, Galatz LM, Thomopoulos S. The Effects of Chronic Unloading and Gap Formation on Tendon-to-bone Healing of a Rat Model of Massive Rotator Cuff Tears. *J Orthop Res.* 2014 Mar;32(3):439-47.
11. Killian ML, **Cavinatto L**, Galatz LM, Thomopoulos S. The Role of Mechanobiology in Tendon Healing. *J Shoulder Elbow Surg.* (2012) 21, 228-237.
12. Killian ML, **Cavinatto L**, Galatz LM, Thomopoulos S. Recent Advances in Shoulder Surgery. *Arthritis Res Ther.* (2012) 15(3) 214.
13. **Cavinatto L**, Iwashita RA, Ferreira Neto AA, Benegas E, Malavolta EA, Gracitelli MEC, Silva FBA. Arthroscopic Treatment of Acromioclavicular Joint Dislocation Using Suture Anchors. *Acta Orthop Bras.* (2011) 19, 141- 4.

14. **Cavinatto L**, Iwashita RA, Ferreira Neto AA, Benegas E, Malavolta EA, Gracitelli MEC, Silva FBA. Tratamento Cirúrgico da Luxação da Articulação Acromioclavicular com Âncoras. *Acta Orthop Bras.* (2011).

#### MULTIMEDIA

15. **Cavinatto L**, Miller Lawrence. American Academy of Orthopedic Surgeons – AAOS Orthopedic Video Theater – Two-Camera Technique for Articular-Sided Partial Thickness Rotator Cuff Repair
16. Wiater JM, **Cavinatto L**, Khatib O – VUMEDI Video – Bilateral Simultaneous Total Shoulder Arthroplasty

#### BOOK CHAPTER

1. **Cavinatto L**, Galatz LM. Experimental Models in Shoulder Research. In: Giuseppe Milano; Andrea Grasso. (Org.). *Shoulder Arthroscopy*. 1ed.London: Springer, 2014, v. I, p. 575-584.

#### BOOK AUTHOR

1. **Cavinatto L**. Reparo Precoce versus Tardio do Manguito Rotador em Ratos. [Portuguese] 1ed. Riga, Latvia: SIA OmniScriptum Publishing. ISBN 978-3-330-76691-4

#### PODIUM PRESENTATIONS

1. **Cavinatto LM**, Ferreira Neto AA. Early Versus Late Repair of Massive Rotator Cuff Tears in Rats. 2016. (Brazilian Shoulder and Elbow Society Annual Meeting, Florianopolis, Brazil).
2. **Cavinatto LM**, Gracitelli MEC, Ferreira Neto AA, Mattar R, Galatz LM, Thomopoulos S. 2014 Early Versus Late Repair of Massive Rotator Cuff Tears in Rats. (Brazilian Shoulder and Elbow Society Biannual Meeting, Fortaleza, Brazil).
3. Killian M, **Cavinatto L**, Ward S, Thomopoulos S, Galatz LM. The Effect of Chronic Unloading on Tendon-to-bone Healing in a Rat Model of Massive Rotator Cuff Tears. 2013. (Orthopaedic Research Society Annual Meeting, San Antonio, TX).
4. Galatz LM, Killan ML, **Cavinatto L**, Shaw SA, Thomopoulos S. The Effect of Chronic Unloading on Tendon-to-bone Healing in a Rat Model of Massive Rotator Cuff Tears. 2013 (International Congress of Shoulder and Elbow Surgery, Nagoya, Japan).
5. Galatz LM, Sato EJ, Killian ML, **Cavinatto LM**, Thomopoulos S, Ward S, Lee KS. Skeletal Muscle Passive Mechanical Properties Change after Rotator Cuff Injury and Repair in a Rat Model. 2013 (International Congress of Shoulder and Elbow Surgery, Nagoya, Japan).
6. **Cavinatto LM**; Ferreira Neto, A.A.; Mattar R ; Galatz LM, Thomopoulos S. A Influência do Reparo Tardio do Manguito Rotador sobre a Cicatrização do Tendão no Osso e da Morfometria Óssea em Ratos. 2013. (Brazilian Orthopaedic Society Annual Meeting, Curitiba, Parana, Brazil).
7. Ferreira Neto AA, **Cavinatto LM**, Benegas E, Malavolta EA, Gracitelli MEC, Silva, FBA, Assunção JH. Arthroscopic Treatment of Acute Acromioclavicular Joint Dislocation Using Suture Anchors. 2011. (ISAKOS Annual Meeting, Sao Paulo, Brazil).
8. Godoy AL, Delia CO, **Cavinatto LM**, Ortiz RT, Neto RB, Fernandez TD. Biomechanics Study of the Tarsometatarsal articulation. 2005. (Brazilian Orthopaedic Society Annual Meeting, Vitoria, Espirito Santo, Brazil).

## POSTER PRESENTATIONS

1. **Cavinatto L**, Malavolta EA, Pereira CAM, Mattar Junior R, Ferreira Neto AA. Early versus Late Repair of Rotator Cuff Tears in Rats. 2018. (American Academy of Orthopaedic Surgeons - 2018 AAOS Annual Meeting, New Orleans, LA)
2. **Cavinatto L**, Chen DD, Bronson MJ, Moucha CS. Robotic-assisted versus Standard Unicompartmental Knee Arthroplasty – Evaluation of Manuscript Conflict of Interests, Funding and Bibliometrics. 2018. (American Academy of Orthopaedic Surgeons - 2018 AAOS Annual Meeting, New Orleans, LA)
3. **Cavinatto L**, Chen DD, Bronson MJ, Moucha CS. Robotic-assisted versus Standard Unicompartmental Knee Arthroplasty – Evaluation of Manuscript Conflict of Interests, Funding and Bibliometrics. 2017. (American Association of Hip and Knee Surgeons - 2017 AAHKS Annual Meeting, Dallas, TX)
4. Killian M, **Cavinatto L**, Ward S, Thomopoulos S, Galatz LM. The Role Of Rotator Cuff Degeneration On The Healing Capacity Of Massive Rotator Cuff Tears. 2014. (Orthopaedic Research Society - ORS Annual Meeting, New Orleans, LA).
5. Lipner JH, **Cavinatto L**, Liu W, Galatz LM, Xia Y, Thomopoulos S. The Effect of ASCs and BMP2 on Rotator Cuf Healing in a Rat Model. 2014. (ORS Annual Meeting, New Orleans, LA).
6. **Cavinatto L**, Teixeira-Neto N, Grillo VA, Surjan RCT, Ferreira MC. Burn Victims in Clinics Hospital - a five years study. 2004. (XXIII Academic Medical Congress, University of Sao Paulo Faculty of Medicine, Sao Paulo, Sao Paulo, Brazil).
7. **Cavinatto L**, Teixeira-Neto N, Grillo VA, Surjan RCT, Sturtz GP, Ferreira MC. Normal Cutaneous Infraorbital Nerve Sensibility. 2004 (XXIII Academic Medical Congress, University of Sao Paulo Faculty of Medicine, Sao Paulo, Sao Paulo, Brazil)
8. **Cavinatto L**, Teixeira-Neto N, Grillo VA, Surjan RCT, Margarido NF. Stomach Total Necrosis Associated with jejunum total necrosis – case report. 2004 (XXIII Academic Medical Congress, University of Sao Paulo Faculty of Medicine, Sao Paulo, Sao Paulo, Brazil).
9. **Cavinatto L**, Teixeira-Neto N, Grillo VA, Surjan RCT, Ferreira MC. Burn Victims in Clinics Hospital - a five years study. 2004. (XIII Academic Medical Congress, University of Campinas Medical School Campinas, Sao Paulo, Brazil).
10. Teixeira-Neto N, Herrera MVS, **Cavinatto L**, Nakamoto HA, Pelarin L, Netto EAL, Ferreira MC. Intra-abdominal Hypertension and Compartimental Syndrome in Burn Patients. 2003. (11<sup>o</sup> International Symposium of Scientific Initiation of the University of Sao Paulo. Ribeirao Preto, Sao Paulo, Brazil).
11. Teixeira-Neto N, Valler CS, **Cavinatto L**, Netto EAL, Ferreira MC. Burn Unit Experience of the Clinics Hospital in Sao Paulo. 2003. (11<sup>o</sup> International Symposium of Scientific Initiation of the University of Sao Paulo. Ribeirao Preto, Sao Paulo, Brazil).
12. **Cavinatto L**, Teixeira-Neto N, Valler CS, Netto EAL, Ferreira MC. Analysis of Children Admitted in the HCFMUSP Burn Unit. 2003. (11<sup>o</sup> International Symposium of Scientific Initiation of the University of Sao Paulo. Ribeirao Preto, Sao Paulo, Brazil).
13. **Cavinatto L**, Teixeira-Neto N, Valer CS, Netto EAL, Silva JCF, Ferreira MC. Intensive Care Unit in Burn Patients. 2003. (XXII Academic Medical Congress, University of Sao Paulo Faculty of Medicine, Sao Paulo, Sao Paulo, Brazil).
14. **Cavinatto L**, Teixeira-Neto N, Herrera MVS, Netto EAL, Silva JCF, Ferreira MC. Pediatric Burn Victims: patients general profile. 2003. (XXII Academic Medical Congress, University of Sao Paulo Faculty of Medicine, Sao Paulo, Sao Paulo, Brazil).
15. **Cavinatto L**, Teixeira-Neto N, Valler CS, Netto EAL, Silva JCF, Ferreira MC. Burn Unit Experience of HCFMUSP Hospital. 2003. (XXII Academic Medical Congress, University of Sao Paulo Faculty of Medicine, Sao Paulo, Sao Paulo, Brazil).

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## 8. PROFESSIONAL ACTIVITIES

### MONITORING AND COURSES AS FACULTY

1. Monitoring of Anatomy Course, during the second year of graduation of Medicine, helping first-year students in learning Anatomy- Faculty of Medicine, University of Sao Paulo, Brazil. February – September, 2001.
2. Monitoring Surgical Technique Course, during the fourth year of graduation of Medicine, helping third-year students in learning surgical techniques- Faculty of Medicine, University of Sao Paulo, Brazil. July – September, 2003.
3. Monitoring the "Advanced Course in Shoulder Arthroscopy", Institute of Orthopedics and Traumatology, Hospital das Clinicas, Faculty of Medicine, University of São Paulo. March 19, 2010.
4. Monitoring the "Advanced Course in Shoulder Arthroscopy", Institute of Orthopedics and Traumatology, Hospital das Clinicas, Faculty of Medicine, University of São Paulo. May 05, 2010.
5. Monitoring the "Advanced Course in Shoulder Arthroscopy", Institute of Orthopedics and Traumatology, Hospital das Clinicas, Faculty of Medicine, University of São Paulo. August 06, 2010.
6. Monitoring the "Advanced Course in Shoulder Arthroscopy", Institute of Orthopedics and Traumatology, Hospital das Clinicas, Faculty of Medicine, University of São Paulo. October 1, 2010.
7. Faculty in the Zimmer/Biomet Revision Hip and Knee Master Class. New York, New York, USA. December 2-3, 2016.

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## 9. VOLUNTARY ACTIVITIES

1. Rheumatic Fever Disease Prevention and Treatment Group – Patient Ambulatory Care during the year of 2002. Faculty of Medicine, University of Sao Paulo, Brazil.
2. Brazilian National Campaign for Visual Recovery – Cataract Project. May 2003. Faculty of Medicine, University of Sao Paulo, Brazil.
3. Brazilian National Campaign for Visual Recovery – Cataract Project. October 2003. Faculty of Medicine, University of Sao Paulo, Brazil.
4. Vaccination Campaign for Children against Meningococcus C virus in the Paraisópolis Community. March 2006. São Paulo, Brazil.