

Perry Ross Altman, MD

Employment

Michigan Orthopaedic Surgeons, Southeast Michigan <i>Hand & Upper Extremity Surgeon</i>	2020 – present
Clinical Instructor, Beaumont Orthopaedic Surgery Residency, Southeast Michigan <i>Oakland University William Beaumont School of Medicine</i>	2019 – present
Beaumont Medical Group, Southeast Michigan <i>Hand & Upper Extremity Surgeon</i>	2018 – 2019

Education

The Ohio State University Wexner Medical Center, Columbus, Ohio <i>Fellowship in Orthopaedic Hand & Upper Extremity Surgery</i>	2017 – 2018
William Beaumont Hospital, Royal Oak, Michigan <i>Residency in Orthopaedic Surgery</i>	2012 – 2017
University of Toledo College of Medicine, Toledo, Ohio <i>Doctor of Medicine</i>	2008 – 2012
Washington University in St. Louis, St. Louis, Missouri <i>Bachelor of Arts in Anthropology, Minor in Biology</i>	2002 – 2006

Certification and Licensure

American Board of Orthopaedic Surgery (ABOS), Board Certified	2020 – present
State of Michigan Medical License	2018 – present
Advanced Cardiovascular Life Support (ACLS), American Heart Association	2017
Basic Life Support (BLS), American Heart Association	2017

Honors and Awards

Orthopaedic Knowledge Award, William Beaumont Hospital <i>Awarded for attaining the residency's top OITE score for the year</i>	2016
ASSH/AFSH Annual Meeting Scholarship <i>Granted to attend the ASSH Residents/Fellows Conference & Annual Meeting</i>	2015
Orthopaedic Knowledge Award, William Beaumont Hospital <i>Awarded for attaining the residency's top OITE score for the year</i>	2014
Alpha Omega Alpha, Honor Medical Society (Elected in Junior Year) <i>Recognizing academic excellence in the medical school curriculum</i>	2011
William A Blank MD Scholarship, University of Toledo College of Medicine <i>Recognizing excellence in the field of surgery during medical school</i>	2011
George Isaac Scholarship, University of Toledo College of Medicine <i>Recognizing academic excellence and USMLE Step 1 performance</i>	2010
George Haidet Memorial Scholarship, University of Toledo College of Medicine <i>Recognizing leadership and service to peers in medical school</i>	2009
Academic Excellence Scholarship, University of Toledo College of Medicine <i>Recognizing all Honors in the first-year medical school curriculum</i>	2009

Honors and Awards (continued)

Lambda Alpha, National Collegiate Honors Society for Anthropology <i>Recognizing academic excellence in the anthropology curriculum</i>	2006
Dean's List, Washington University in St. Louis <i>Recognizing exceptional performance in undergraduate education</i>	2005, 2006
Eliot Scholarship, Washington University in St. Louis <i>Recognizing academic excellence in undergraduate education</i>	2004
Alfred and Marie Zelenty Scholarship, Washington University in St. Louis <i>Recognizing academic excellence in undergraduate education</i>	2003
National Merit Scholarship, Washington University in St. Louis <i>Recognizing academic excellence in high school and PSAT performance</i>	2002

Research Experience

<i>Fellow Investigator</i> Division of Hand and Upper Extremity, Department of Orthopaedic Surgery, The Ohio State University, Columbus, Ohio Investigating flexor tendon repairs in relation to the digital pulley system. Developed guidelines for intra-operative treatment of flexor tendon injuries.	2017 – 2018
<i>Resident Investigator</i> Orthopaedic Research Laboratory, Department of Orthopaedic Surgery, Oakland University William Beaumont School of Medicine, Royal Oak, Michigan Investigated the acute and chronic biologic response following noninvasive ACL rupture compared to surgical transection on a rat model to study post-traumatic osteoarthritis. Investigated stem cell mobilization and chemokine-directed intra-articular migration of stem cells following ACL rupture. Performed surgical ACL transections on a rat model. Developed protocol for rat knee joint arthrocentesis.	2013 – 2017
<i>Research Coordinator</i> Alison D. Schecter Laboratory, Cardiovascular Research Center, Department of Cardiology, Mount Sinai School of Medicine, New York, New York Investigated the effects of myocardial chemokines on repair of injured myocardium. Performed microsurgical induction of survival myocardial infarction in mice and rats. Performed microsurgical isolation and primary culture of adult and neonatal murine cardiac myocytes. Performed MRI and echocardiographic studies of murine cardiovascular function in vivo. Performed immunohistochemical and basic molecular biologic techniques.	2006 – 2008
<i>Research Consultant</i> Hina W. Chaudhry Laboratory, Cardiovascular Research Center, Department of Cardiology, Mount Sinai School of Medicine, New York, New York Investigated the transplacental homing of fetal stem cells to injured maternal myocardium. Performed microsurgical induction of survival myocardial infarction in gravid mice. Performed microsurgical isolation and primary culture of adult and neonatal murine cardiac myocytes.	2009 – 2010

Research Experience (continued)

Research Assistant 2006

Gordon M. Keller Laboratory, Department of Gene and Cell Medicine, Mount Sinai School of Medicine, New York New York

Investigated the viability and functional outcomes of embryonic stem cell-derived cardiovascular progenitor cells injected into murine myocardium. Tracked these cells using Cy3-labeled Gadofluorine M via in vivo MRI.

Volunteer Research Associate 2005

Pediatric Emergency Medicine Research Associates Program, St. Louis Children's Hospital, Washington University School of Medicine in St. Louis, St. Louis, Missouri

Participated in the Pediatric Emergency Medicine Research Associates Program. Quantified patient stress and pain levels during procedures. Gathered data on responses to ketamine exposure in pediatric patients.

Research Assistant 2004

Scott J. Hultgren Laboratory, Department of Molecular Microbiology, Washington University School of Medicine in St. Louis, St. Louis, Missouri

Investigated mechanisms of stem cell proliferation in the repair of murine bladder uroepithelium following infection with uropathogenic *E. coli*; created timeline of stem cell-mediated bladder uroepithelium regeneration. Performed immunohistochemical staining, confocal microscopy, whole-mount staining, and quantitative real-time PCR.

Research Grants

American Orthopaedic Society for Sports Medicine Young Investigator Grant 2014

Awarded \$40,000 to study "Stem Cell Mobilization and Chemokine-Directed Intra-Articular Migration of Native Marrow-Derived Stem Cells: Acute Phase Treatment to Mitigate Post-Traumatic Osteoarthritis Following ACL Rupture".

Publications

- Altman PR**, Fisher MWA, Goyal KS. Zone 2 Flexor Tendon Repair Location and Risk of Catching on the A2 Pulley. *J Hand Surg Am.* 2020 Aug;45(8):775.e1-775.e7.
- Maerz T, Fleischer M, Newton M, Davidson A, Salisbury M, **Altman P**, Kurdziel M, Anderson K, Bedi A, Baker K. Acute Mobilization and Migration of Bone Marrow-Derived Stem Cells Following Anterior Cruciate Ligament Rupture. *Osteoarthritis Cartilage.* 2017 Aug;25(8):1335-1344.
- Maerz T, Newton MD, Kurdziel MD, **Altman P**, Anderson K, Matthew HW, Baker KC. Articular Cartilage Degeneration Following Anterior Cruciate Ligament Injury: A Comparison of Surgical Transection and Noninvasive Rupture as Preclinical Models of Post-Traumatic Osteoarthritis. *Osteoarthritis Cartilage.* 2016 Nov;24(11):1918-1927.
- Maerz T, Kurdziel M, Newton MD, **Altman P**, Anderson K, Matthew HW, Baker KC. Subchondral and Epiphyseal Bone Remodeling following Surgical Transection and Noninvasive Rupture of the Anterior Cruciate Ligament as Models of Post-Traumatic Osteoarthritis. *Osteoarthritis Cartilage.* 2016 Apr;24(4):698-708.

Publications (continued)

- Kara RJ, Bolli P, Matsunaga I, Tanweer O, **Altman P**, Chaudhry HW. A mouse model for fetal maternal stem cell transfer during ischemic cardiac injury. *Clin Transl Sci*. 2012 Aug;5(4):321-8.
- Kara RJ, Bolli P, Karakikes I, Matsunaga I, Tripodi J, Tanweer O, **Altman P**, Shachter NS, Nakano A, Najfeld V, Chaudhry HW. Fetal Cells Traffic to Injured Maternal Myocardium and Undergo Cardiac Differentiation. *Circ Res*. 2012 Jan 6;110(1):82-93.
- LaRocca TJ, Schwarzkopf M, **Altman P**, Zhang S, Gupta A, Gomes I, Alvin Z, Champion HC, Haddad G, Hajjar RJ, Devi LA, Schechter AD, Tarzami ST. β 2-Adrenergic receptor signaling in the cardiac myocyte is modulated by interactions with CXCR4. *J Cardiovasc Pharmacol*. 2010 Nov;56(5):548-59.
- Chen J, Chemaly E, Liang L, Kho C, Lee A, Park J, **Altman P**, Schechter AD, Hajjar RJ, Tarzami ST. Effects of CXCR4 gene transfer on cardiac function after ischemia-reperfusion injury. *Am J Pathol*. 2010 Apr;176(4):1705-15.
- Adler ED, Bystrup A, Briley-Saebo KC, Mani V, Young W, Giovanonne S, **Altman P**, Kattman SJ, Frank JA, Weinmann HJ, Keller GM, Fayad ZA. In vivo detection of embryonic stem cell-derived cardiovascular progenitor cells using Cy3-labeled Gadofluorine M in murine myocardium. *JACC Cardiovasc Imaging*. 2009 Sep;2(9):1114-22.

Presentations

- Newton MD, Hartner SE, Fleischer MM, Salisbury M, Bush C, Luczak SB, **Altman P**, Gellci K, Anoni R, Kambhampati S, Rangaramanujam K, Bedi A, Maerz T, Baker K. Mobilization and Recruitment of Endogenous Marrow-Derived Stem Cells to Combat Post-Traumatic Osteoarthritis Following ACL Rupture. Paper 7: Orthopaedic Research Society 2019 Annual Meeting; 2019 Feb 2-5; Austin, TX.
- Hartner SE, Fleischer MM, Newton MD, Acker WB, Bush C, Luczak SB, **Altman P**, Salisbury M, Rangaramanujam K, Kambhampati S, Bedi A, Maerz T, Baker K. Modulation of the Acute Post-ACL Rupture Intra-Articular Environment via Recruitment of Marrow-Derived Stem Cells to Promote Bone Tunnel Healing in ACL Reconstruction. Poster 1593: Orthopaedic Research Society 2019 Annual Meeting; 2019 Feb 2-5; Austin, TX.
- Altman P**, Fisher M, Goyal KS. Zone 2 Flexor Tendon Repair Location and Risk of Catching on the A2 Pulley. iPoster: American Society for Surgery of the Hand 2018 Annual Meeting; 2018 Sep 13-15; Boston, MA.
- Altman P**, Fisher M, Goyal KS. Zone 2 Flexor Tendon Repair Location and Risk of Catching on the A2 Pulley. Abstract presented at: The Ohio State University Hand & Upper Extremity Symposium; 2018 May 11; Columbus, OH.
- Fleischer M, Newton MD, Hartner SE, Salisbury MS, Bush CJ, **Altman P**, Bedi A, Maerz T, Baker K. Enhanced Intra-Articular Recruitment of Endogenous Marrow-Derived Mesenchymal Stem Cells after ACL Rupture via CXCR4 Antagonism. Poster: 2018 AAOS/OTA/SOMOS/ORS Extremity War Injuries XIII; 2018 Jan 21-23; Washington, DC.
- Fleischer M, Newton MD, Hartner SE, Salisbury MS, Bush CJ, **Altman P**, Luczak SB, Bedi A, Maerz T, Baker K. ACL Rupture-Induced Intra-Articular Recruitment of Peripheral Blood Mobilized Stem Cells is CXCR4 Dependent. Paper 263: Orthopaedic Research Society 2018 Annual Meeting; 2018 Mar 6-10; New Orleans, LA.

Presentations (continued)

- Maerz T, Kurdziel M, Newton M, **Altman P**, Anderson K, Baker K. Stem Cell Mobilization and Changes in Articular Cartilage Morphology following Anterior Cruciate Ligament Rupture. Abstract presented at: Michigan Orthopaedic Society 2016 Annual Scientific Meeting; 2016 Jun 17-19; Mackinac Island, MI.
- Maerz T, Davidson A, Newton M, Salisbury M, Fleischer M, **Altman P**, Kurdziel M, Baker K. Systemic Mesenchymal Stem Cell Mobilization and Migration following Anterior Cruciate Ligament (ACL) Rupture. Paper 2156: Orthopaedic Research Society 2016 Annual Meeting; 2016 Mar 5-8; Orlando, FL.
- Maerz T, Kurdziel M, Newton M, **Altman P**, Anderson K, Matthew H, Baker K. Subchondral and Epiphyseal Bone Remodeling following Anterior Cruciate Ligament Rupture. Paper 025: American Academy of Orthopaedic Surgeons 2016 Annual Meeting; 2016 Mar 1-5; Orlando, FL.
- Maerz T, Kurdziel M, Newton M, **Altman P**, Anderson K, Matthew H, Baker K. Stem Cell Mobilization and Changes in Articular Cartilage Morphology following Anterior Cruciate Ligament Rupture. Paper 029: American Academy of Orthopaedic Surgeons 2016 Annual Meeting; 2016 Mar 1-5; Orlando, FL.
- Maerz T, **Altman P**, Kurdziel M, Newton M, Anderson K, Baker K, Matthew H. The Acute and Chronic Biologic Response following Noninvasive Anterior Cruciate Ligament Rupture compared to Surgical Transection as Models for Post-Traumatic Osteoarthritis (PTOA). Abstract presented at: Michigan Orthopaedic Society 2015 Annual Scientific Meeting; 2015 Jun 19-21; Mackinac Island, MI.
- Maerz T, **Altman P**, Kurdziel M, Newton M, Anderson K, Baker K, Matthew H. The Acute and Chronic Biologic Response following Noninvasive Anterior Cruciate Ligament Rupture compared to Surgical Transection as Models for Post-Traumatic Osteoarthritis (PTOA). Abstract presented at: Southeast Michigan Center for Medical Education Research Forum 2015 Annual Meeting; 2015 May 27; Rochester, MI.
- Maerz T, **Altman P**, Kurdziel M, Newton M, Anderson K, Baker K, Matthew H. The Acute and Chronic Biologic Response following Noninvasive Anterior Cruciate Ligament Rupture compared to Surgical Transection as Models for Post-Traumatic Osteoarthritis (PTOA). Abstract presented at: William Beaumont Hospital Annual Residents and Fellows Research Forum; 2015 Jun 2; Royal Oak, MI.
- Maerz T, **Altman P**, Kurdziel M, Newton M, Anderson K, Baker K, Matthew H. The Acute and Chronic Biologic Response Following Noninvasive Anterior Cruciate Ligament Rupture Compared to Surgical Transection as Models for Post-Traumatic Osteoarthritis (PTOA). Poster 1996 at: Orthopaedic Research Society 2015 Annual Meeting; 2015 Mar 28-31; Las Vegas, NV.
- Altman P**. Negligence of Fomite Usage in the Medical Profession. Paper presented at: University of Toledo College of Medicine 2010 Ethics Project Showcase; 2010 Apr 19; Toledo, OH.

Continuing Education

<i>35th Adrian E. Flatt Residents and Fellows Conference and 72th Annual Meeting</i> American Society for Surgery of the Hand, San Francisco, California	2017
<i>2016 Annual Scientific Meeting</i> Michigan Orthopaedic Society, Mackinac Island, Michigan	2016
<i>33rd Adrian E. Flatt Residents and Fellows Conference and 70th Annual Meeting</i> American Society for Surgery of the Hand, Seattle, Washington	2015
<i>2015 Annual Scientific Meeting</i> Michigan Orthopaedic Society, Mackinac Island, Michigan	2015
<i>Basic Principles and Techniques of Operative Fracture Management Course</i> AO North America, San Francisco, California	2013
<i>AO Techniques Conference</i> Western Michigan University, Kalamazoo, Michigan	2013

Leadership & Extracurricular Activities

<i>Functional Orthopaedic Anatomy Course</i> Oakland University William Beaumont School of Medicine, Rochester, Michigan Volunteered to perform cadaveric prosections and lecture for MS2 students.	2017
<i>AOA Resident Leadership Forum</i> American Orthopaedic Association, Seattle, Washington Nominated by the residency Program Director to attend the 2016 meeting.	2016
<i>South Tower Operating Room Committee</i> William Beaumont Hospital, Royal Oak, Michigan Served as resident liaison for the operating room committee.	2015

Professional Organizations

American Society for Surgery of the Hand	2015 – present
American Academy of Orthopaedic Surgeons	2012 – present
American Medical Association	2008 – present