

Christopher Erik Birch, M.D.

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EDUCATION

Indiana University School of Medicine; Indiana University Health

R. Michael Meneghini, MD, Fellowship Director

Adult Lower Extremity Reconstruction Fellowship

2017-2018

University of Vermont College of Medicine; University of Vermont Medical Center

Claude Nichols, MD, Chairman

S Elizabeth Ames, MD, Program Director

Orthopaedic Surgery Residency

2013-2017

General Surgery Internship

2012-2013

University of California, San Diego School of Medicine

Doctor of Medicine

2008-2012

Boston College

International Studies, Chemistry, Pre-medical Studies

Senior Thesis: Moral language, human rights, and the Global Fund to Fight AIDS, TB, & Malaria

Study Abroad: School for International Training, Kenya/Uganda

2001-2005

WORK EXPERIENCE

Alta Orthopaedics

Orthopaedic Surgeon

2018- Present

Adult Reconstruction; Hip and Knee Arthroplasty

Orthopaedic Trauma Surgery

Richard L Roudebush Veterans Affairs Medical Center, Indianapolis IN

2017-2018

Fee Basis Consultant, Orthopaedic Surgery

University of Vermont College of Medicine

Clinical Instructor, Orthopaedic Surgery

2012-2017

Harvard Center for AIDS Research/Massachusetts General Hospital

2006-2008

Clinical Research Coordinator

Internships

*Boston College Peer Ministry (Boston), Partners In Health (Boston), Haley House Soup Kitchen (Boston),
Nyumbani Children's HIV/AIDS Orphanage (Kenya), La Montana Children's Camp (Costa Rica)*

LICENSE AND EXAMS

- California State Medical License 2017-2019: 155897
- Indiana State Medical License 2017-2019: 01079755A
- Vermont State Medical License 2012-2017: 0600004032
- American Board of Orthopaedic Surgery Part I Examination 7/13/17: Passed
- California Dept of Public Health: Radiology and Fluoroscopy License 2018-2020
- United States Medical License Examination Steps 1 (2010), 2 (2012), & 3 (2013)
- BLS/ACLS Certified (2013, 2017)

PROFESSIONAL ORGANIZATIONS

- American Academy of Orthopaedic Surgery (candidate member) 2012-present
- American Academy of Hip and Knee Surgeons (surgeon in training member) 2014-present
- American Medical Association (member) 2008-present

PROFESSIONAL SERVICE

- Arthroplasty Today, Reviewer (2018-Present)
- Journal of Arthroplasty, Reviewer (2017-Present)
- AAHKS Poster Reviewer (2016, 2017)
- AAOS Resident Assembly, Program representative (2015-2016)
- University of Vermont College of Medicine Admissions Committee Interviewer (2017)

- University of Vermont Department of Orthopaedics Residency Selection Committee (2016-2017)
- University of Vermont Medical Center Graduate Medical Education Quality Council 2013-2017 (Chair, 2015-17)
- University of Vermont Medical Center Quality Council (Resident member, 2015-16)
- University of Vermont Medical Center Medical Staff Quality Committee (Resident member, 2015-16)
- Graduate Medical Education Program Representative (2013-14, 2015-16)
- PRISM Subcommittee: Discharge/After Visit Summary 2014
- Inpatient Preoperative Preparation Committee 2013-2014

RECOGNITION & AWARDS

- Arnold P. Gold Foundation Humanism and Excellence in Teaching Award nominee (2014, 2015, 2016)
- Fletcher Allen Health Care "Going the Extra Mile" Award 2013
- UCSD PRIME Health Equity Scholar 2008-2012
- Gold Humanism Honor Society 2011
- NIH Summer Research Training Program 2009
- UCSD Friends of the International Center Scholarship 2009
- Infectious Disease Society of America Medical Scholars 2009
- Rotary International 2004
- The National Society of Collegiate Scholars 2001-2004

EDUCATIONAL COURSES

- Zimmer Biomet Direct Anterior Revision Arthroplasty Course (2018, Atlanta)
- Smith and Nephew Arthroplasty Fellows Course (2018, Memphis)
- American Academy of Hip and Knee Surgeons Annual Meeting (2017, Dallas)
- AAOS Annual Meeting (San Diego, 2017)
- Zimmer Biomet Oxford Unicompartmental Arthroplasty Course Advanced & Masters Course (2017, SLC)
- University of Florida William F Enneking Musculoskeletal Pathology Seminar (2016, Gainesville)
- AO Trauma – Advanced Principles of Fracture Management (2015, Hollywood)
- Ste-Justine Pediatric Orthopaedic Review Course (2015, Montreal)
- American Academy of Hip and Knee Surgeons Annual Meeting (2014, Dallas)
- American Academy of Hip and Knee Surgeons 6th Annual Resident Education Course (2014, Dallas)
- Orthopaedic Research Society Annual Meeting (2014, New Orleans)
- AO Trauma - Basic Principles of Fracture Management (2013, San Diego)
- Orthopaedic Trauma Association 28th Annual Meeting (2012, Minneapolis) – Basic Science Focus Forum

SELECTED PUBLICATIONS

PEER REVIEWED PUBLICATIONS

- Chlebeck JD, Birch CE, Schottel PC. Do Nonoperatively Managed Hip Fracture Patients Have A Lower Mortality Rate Than Historically Reported? A Matched Cohort Study Comparing Operative and Nonoperative Geriatric Hip Fracture Mortality. *Journal of Orthopaedic Trauma*. ***Under Review, Journal of Orthopaedic Trauma***
- Birch CE, Mensch KS, DeSarno MJ, Beynon BD, Tourville TW. Subchondral trabecular bone integrity changes following ACL injury and reconstruction: A matched case-control study. *Osteoarthritis and Cartilage* 2018 Jun;26(6):762-769
- Birch CE, Blankstein M, Chlebeck JD, Bartlett III CS. Orthogonal plating of Vancouver B1 and C-type periprosthetic femur fracture nonunions. *Hip International*. 2017 Nov 21;27(6):578-583
- Chlebeck JD, Birch CE, Lisle JW. Percutaneous in situ fixation of slipped capital femoral epiphysis. *JBJS Essent Surg Tech*. Mar 2016, 6 (1), e1.
- Bartlett III CS, Birch CE. Femoral head reduction osteoplasty for fracture dislocation: A surgical technique. *Injury*. 46 (2015) 1689–1694
- Kim AY, Nagami E, Birch CE, Bowen MJ, Lauer GM, McGovern BH. A simple strategy to screen for acute HCV infection among newly incarcerated injection drug users. *Hepatology*. 2013 Mar;57(3):944-52
- Nagami E, Kim AY, Birch CE, Bowen MJ, McGovern BH. A "one-two punch" leading to hepatitis C seroconversion. *Clinical Infectious Disease* 2011 Feb; 52(3):361-3.

- The International HIV Controllers Study (contributing author). The major genetic determinants of HIV-1 control affect HLA class I peptide presentation. *Science* 2010 Dec 10;330 (6010):1551-7.
- BH McGovern, CE Birch, M Bowen, LL Reyor, EH Nagami, RT Chung, AY Kim. Improving the diagnosis of acute hepatitis C with expanded viral load criteria. *Clinical Infectious Disease* 2009 (1 Oct);49(7): 1051-60.
- BH McGovern, EH Nagami, CE Birch, MJ Bowen, LL Reyor, Raymond T Chung, Arthur Y Kim. Rate of sustained virologic response in relation to baseline hepatitis C virus RNA level and rapid virological clearance in persons with acute HCV infection. *Journal of Infectious Disease* 2009 (15 September); 200: 877-881.
- T Kuntzen, J Timm, A Berical, N Lennon, AM Berlin, SK Young, B Lee, D Heckerman, J Carlson, LL Reyor, M Kleyman, CM McMahon, CE Birch, J Schulze zur Wiesch, T Ledlie, M Koehrsen, C Kodira, AD Roberts, GM Lauer, HR Rosen, F Bihl, A Cerny, U Spengler, Z Liu, AY Kim, Y Xing, A Schneidewind, MA Madey, JF Fleckenstein, VM Park, JE Galagan, C Nusbaum, BD Walker, GV Lake-Bakaar, ES Daar, IM Jacobson, ED Gomperts, BR Edlin, SM Donfield, RT Chung, AH Talal, T Marion, BW Birren, MR Henn, TM Allen. Naturally occurring dominant resistance mutations to HCV protease and polymerase inhibitors in treatment-naïve patients. *Hepatology* 2008 Dec; 48 (6):1769-78.
- BH McGovern, CE Birch, MT Zaman, I Bica, D Stone, JR Quirk, B Davis, K Zachary, Nesli Basgoz, F Graeme-Cook, RT Gandhi. Managing symptomatic drug-induced liver injury in HIV/HCV coinfecting patients: a role for interferon. *Clinical Infectious Disease* 2007; 45:1386-92.

ABSTRACTS

- CE Birch, M Ziemba-Davis, RM Meneghini. Is a Diagnostic Injection Predictive of Outcome after Revision Total Hip Arthroplasty? AAHKS 2018. Submitted.
- CE Birch, B Beynonn, M Blankstein, DA Halsey, NN Nelms. Accelerometer Based Functional Gait Assessment of Anterior and Posterior Approach Total Hip Arthroplasty. AAHKS. Dallas, TX. Submitted.
- CE Birch, B Beynonn, M Blankstein, DA Halsey, NN Nelms. Accelerometer Based Functional Gait Assessment of Anterior and Posterior Approach Total Hip Arthroplasty. AAOS Annual Meeting. Las Vega, NV. Submitted.
- Nolan JE III, Chlebeck JD, Charlson MD, Birch CE. Delayed Primary Closure of Fasciotomy Incisions Remains a Viable Option for Acute Compartment Syndrome in Patients with Tibia Fractures. Eastern Orthopaedic Association. Oct 2018. Amelia Island, FL.
- Nolan JE III, Birch CE, Michelson JD, Benoit MY, Paganelli WC, Tsai MH. The Reduction of Preoperative Testing for Surgery with a Bier Block Anesthetic Does Not Increase Case Cancellation Rates. ASSH. San Francisco. Sept 2017
- JD Chlebeck, CE Birch, GM Grechette, SS Ramadan, BD Brown, PC Schottel. Do Nonoperatively Managed Hip Fracture Patients Have A Lower Mortality Rate Than Historically Reported? A Matched Cohort Study Comparing Operative and Nonoperative Geriatric Hip Fracture Mortality. AAOS Annual Meeting. San Diego, CA. March 2017
- A Bensimhon, CE Birch, MY Benoit, S Frenzen, WP Paganelli, MH Tsai. The Effect of Minimal Preoperative Testing on Cancellation Rates for Ambulatory Procedures Under a Bier Block Anesthetic. American Society of Anesthesiologists Annual Meeting. Chicago, IL. October 2016.
- CE Birch, M Blankstein, JD Chlebeck, CS Bartlett. Orthogonal Plating of Vancouver B1 and C-type Periprosthetic Femur Fracture Nonunions. Canadian Orthopaedic Association Annual Meeting. Quebec City, QC. June 2016.
- MH Tsai, AC Rubens, JD Michelson, CE Birch, JA McAvoy, AA Jacobs, JP Gilwee. The Reduction of Preoperative Testing for Patients undergoing Surgery with a Bier Block Anesthetic. International Anesthesia Research Society Annual Meeting. San Francisco, CA. May 2016.
- JD Chlebeck, CE Birch, GM Grechette, SS Ramadan, BD Brown, PC Schottel. Do Nonoperatively Managed Hip Fracture Patients Have A Lower Mortality Rate Than Historically Reported? A Matched Cohort Study Comparing Operative and Nonoperative Geriatric Hip Fracture Mortality. Orthopaedic Trauma Association Annual Meeting. Annapolis, Maryland. Oct 2016.
- BD Beynonn, CE Birch, KS Mensch, MJ DeSarno, MG Gardner-Morse, JR Slauterbeck, RJ Johnson, TW Tourville. Subchondral trabecular bone morphology changes following ACL Injury: A matched case-control study. OARSI World Congress on Osteoarthritis, Paris, France. April 2014

- CE Birch, MJ DeSarno, MG Gardner-Morse, JR Slauterbeck, RJ Johnson, BD Beynon BD, TW Tourville. Subchondral trabecular bone morphology changes following ACL Injury: A matched case-control study. Orthopaedic Research Society Annual Meeting, New Orleans, March 2014
- BH McGovern , CE Birch, M Bowen, LL Reyor, EH Nagami, RT Chung, AY Kim. Improving the diagnosis of acute hepatitis C using expanded viral load criteria. 13th International Symposium of Viral Hepatitis and Liver Disease. March 2009
- CE Birch, AY Kim, LL Reyor, M Bowen, EH Nagami, BH McGovern. Rapid virologic response is common in acute hepatitis C virus infection regardless of genotype. 59th Annual Meeting of the American Association for the Study of Liver Disease. November 2008
- T Kuntzen, N Lennon, J Carlson, C Oniangue-Ndza, A Berical, AM Berlin, J Timm, SK Young, S Adams, LL Reyor, M Kleyman, CM McMahon, CE Birch, J Schulze zur Wiesch, T Ledlie, M Koehrsen, C Kodira, AD Roberts, GM Lauer, HR Rosen, F Bihl, A Cerny, U Spengler, Z Liu, AY Kim, Y Xing, A Schneidewind, MA Madey, JF Fleckenstein, VM Park, JE Galagan, FM Marincola, C Nusbaum, BD Walker, GV Lake-Bakaar, ES Daar, IM Jacobson, ED Gomperts, BR Edlin, BW Birren, SM Donfield, RT Chung, AH Talal, T Marion, M Carrington, MR Henn, D Heckerman, TM Allen. Large-scale sequencing reveals reproducible patterns of CD8+ T cell escape in HCV. 15th International Symposium on Hepatitis C. October 2008
- T Kuntzen, J Timm, A Berical, N Lennon, AM Berlin, SK Young, B Lee, D Heckerman, J Carlson, LL Reyor, M Kleyman, CM McMahon, CE Birch, J Schulze zur Wiesch, T Ledlie, M Koehrsen, C Kodira, AD Roberts, GM Lauer, HR Rosen, F Bihl, A Cerny, U Spengler, Z Liu, AY Kim, Y Xing, A Schneidewind, MA Madey, JF Fleckenstein, VM Park, JE Galagan, C Nusbaum, BD Walker, GV Lake-Bakaar, ES Daar, IM Jacobson, ED Gomperts, BR Edlin, SM Donfield, RT Chung, AH Talal, T Marion, BW Birren, MR Henn, TM Allen. Naturally occurring dominant resistance mutations to HCV protease and polymerase inhibitors in treatment-naïve patients. 15th International Symposium on Hepatitis C. October 2008
- CE Birch, M Bowen, AY Kim, BH McGovern. A prospective study of acute HCV infection among incarcerated injection drug users. 45th Annual Meeting of the Infectious Diseases Society of America. October 2007

PRESENTATIONS

- CE Birch. Is a Diagnostic Injection Predictive of Outcome after Revision Total Hip Arthroplasty? 42nd Annual Garceau-Wray Lectureship. IU Dept of Orthopaedic Surgery. Indianapolis, IN. June 2018.
- CE Birch. High Yield Topics in Total Hip Arthroplasty. IU Department of Orthopaedics Grand Rounds. Indianapolis, IN. June 2018
- CE Birch. Cementless Total Knee Arthroplasty. IU Adult Lower Extremity Reconstruction Academic Conference. Fishers, IN. June 2018.
- CE Birch. Total Hip Arthroplasty for Femoral Neck Fracture. IU Adult Lower Extremity Reconstruction Academic Conference. Fishers, IN. May 2018.
- CE Birch. Trunnionosis: Diagnosis and Management. IU Health West Hospital Surgical Service Line CME Lecture Series (Stryker sponsored). Avon, IN. Feb 2018.
- CE Birch. Revision Total Knee Arthroplasty: Short Cemented Stems versus Hybrid Stem Fixation. IU Adult Lower Extremity Reconstruction Academic Conference. Fishers, IN. December 2017.
- CE Birch. Total Knee Arthroplasty: Surgical Management of Tibial Bone Loss. IU Adult Lower Extremity Reconstruction Academic Conference. Fishers, IN. December 2017.
- CE Birch. Total Hip Arthroplasty: Early Postoperative Infection Management. IU Adult Lower Extremity Reconstruction Academic Conference. Fishers, IN. November 2017.
- CE Birch. Trunnionosis: Diagnosis and Management. IU Adult Lower Extremity Reconstruction Academic Conference. Fishers, IN. October 2017.
- CE Birch, M Blankstein, JD Chlebeck, CS Bartlett. Orthogonal Plating of Vancouver B1 and C-type Periprosthetic Femur Fracture Nonunions. Podium Presentation. Canadian Orthopaedic Association Annual Meeting. Quebec City, QC. June 2016.

- CE Birch, JD Michelson, MY Benoit, AC Rubens, A Bensimhon, WP Paganelli, MH Tsai. The Reduction of Preoperative Testing for Surgery with a Bier Block Anesthetic is Safe and Effective. UVM Dept Of Orthopaedics Annual Research Day. June 2016.
- CE Birch. Anatomical Dissection Course, Lecturer. Surgical Anatomy Curriculum. University of Vermont College of Medicine, Department of Orthopaedic Surgery July 2016.
- CE Birch. Total Hip Arthroplasty for Femoral Neck Fractures. Grand Rounds. University of Vermont College of Medicine Department of Orthopaedic Surgery. May 2016.
- CE Birch. Orthopaedic Management: Fractures and Splinting. Nurse Practitioner Skills Course. University of Vermont College of Nursing and Health Science. April 2016.
- CE Birch. The Role for Robotic Surgery in Total Knee Arthroplasty. University of Vermont College of Medicine, Department of Orthopaedic Surgery March 2016
- CE Birch. Fracture Conference, Lecturer. Surgical Anatomy Curriculum. University of Vermont College of Medicine, Department of Orthopaedic Surgery Summer 2015.
- CE Birch. Case Presentations. Nathaniel Gould Endowed Foot and Ankle Lecture Series. April 2015
- CE Birch. Orthopaedic Management: Fractures and Splinting. Nurse Practitioner Skills Course. University of Vermont College of Nursing and Health Science. April 2015.
- CE Birch. Early Weight Bearing after ORIF of Lower Extremity Fractures. Grand Rounds. University of Vermont Collage of Medicine, Department of Orthopaedic Surgery. March 2015.
- CE Birch. Interesting Cases: Bilateral Distal Humerus Fractures. University of Vermont College of Medicine, Department of Orthopaedic Surgery. October 2014.
- CE Birch. History of Orthopaedics: Ernest Amory Codman, 1869-1940. University of Vermont College of Medicine, Department of Orthopaedic Surgery. June 2014
- CE Birch. History of Orthopaedics: SIGN Interlocking IM Nail. University of Vermont College of Medicine, Department of Orthopaedic Surgery. November 2012.