

## Thomas C. Keller, MD

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**Diplomate American Board of Orthopaedic Surgery**  
**Active Medical License: HI, CA**

### EDUCATION and WORK

- Attending Orthopaedic Surgeon: Windward Orthopaedic Group, Kailua HI: 2015-Present.
  - Privileges - Castle Medical Center, Windward Surgery Center
  - Board of Managers – Windward Surgery Center
  - Orthopaedic Trauma Liason – Castle Medical Center
- Fellowship: Santa Monica Orthopaedic and Sports Medicine Group 2014-2015
- Residency: University of Virginia Medical Center: 2008-2014
- Research Fellow: University of Virginia Department of Orthopaedic Surgery; NIH T32 Grant: 2009-2010
- Medical School: University of Virginia School of Medicine: 2004-2008.
- Software Developer: L-3 Communications, Vienna, VA: 2003–2004 (TS/SCI clearance)
- BS Computer Engineering (Minors: Computer Science/Biology): Virginia Tech: 1998-2003

### AWARDS and HONORS

University of Virginia Orthopaedic Surgery

- 2012 OREF Residency Enhancement Grant – Awarded to UVA Department of Orthopaedic Surgery.
- Recipient of the 2010 OREF/MTF/Charles H. Herndon Resident Clinician Scientist Training Grant: “*A Novel Scaffold for Growth Factor Delivery –An Alternative Graft for Tendon Repair*”
- University of Virginia Academic Orthopaedist Training Program 2009-2010: NIH funded T32 Grant.

University of Virginia School of Medicine

- Elected to Alpha Omega Alpha: 2007
- Society of Cincinnati Augustine J. Todd Scholarship recipient: 2007/2008
- Pass with Distinction of Core Sciences (Top 20%): 2006

Virginia Tech

- Dean’s List with Distinction (4.0): Spring 2002, Fall 2002, Spring 2003

Eagle Scout: 1997

### ORTHOPAEDIC PUBLICATIONS

- Welch T; **Keller TC**; Maldonado R; Metzger M; Mohr K; Kvitne R. The effect of a dynamic PCL brace on patellofemoral compartment pressures in PCL-and PCL/PLC-deficient knees. *Journal of Experimental Orthopaedics* December, 2017; 4:10.
- **Keller TC**; Dempsey I; Park J. Arthroscopically-assisted treatment of Navicular OCD using flowable collagen, iliac crest bone aspirate, and fibrin glue: A case report. *Foot and Ankle Specialist* Nov 2014
- **Keller TC**; Economopoulos K; Tompkins M; Milewski M; Gaskin C; Brockmeier S; Miller MD. Tibial Tunnel Aperture placement following Transtibial and Independent Femoral Drilling techniques for ACL Reconstruction. *Arthroscopy* Vol 30(9);1116–1123, September 2014
- Tompkins M; **Keller TC**; Milewski MD; Gaskin CM; Brockmeier SF; Hart JM; Miller MD. Transtibial Tunnel Placement in PCL Reconstruction: How it Relates to the Anatomic Footprint. *Orthopaedic Journal of Sports Medicine*. Feb 2014 vol.2 no. 2
- D’Apuzzo M; **Keller TC**; Novicoff W, Browne J. CT Pulmonary Angiography after Total Joint Arthroplasty. *Overdiagnosis and Iatrogenic Harm?* *Clin Orthop Relat Res* (2013) 471:2737–2742.
- Seamon JB, Wang XL, Cui F; **Keller TC**; Dighe A; Balian G; Cui Q; Carmines D. Adenoviral delivery of the VEGF and BMP-6 genes to rat mesenchymal stem cells potentiates osteogenesis. *Bone Marrow Research* 2013 - 737580

- Tompkins M; **Keller TC**; Millewski MD; Gaskin CM; Brockmeier SF; Hart JM; Miller MD. Anatomic Femoral Tunnels in PCL Reconstruction: Inside-Out versus Outside- In Drilling. *Am J Sports Med*; 40(11): 2012.
- Seamon JB; **Keller TC**; Saleh J; Cui Q. The pathogenesis of non-traumatic osteonecrosis. *Arthritis*; Volume 2012 (2012)
- **Keller TC**; Miller MD. Posterior Cruciate Ligament Reconstruction: Posterior Inlay Technique. *Insall & Scott Surgery of the Knee 5<sup>th</sup> ed.* 2012.
- **Keller TC**; Seamon JB; Dacus AR. Treatment of Osteoarthritic Conditions of the Hand. *Hand Surgery Update 5: Hand, elbow, and shoulder.* 2011.
- Salzar RS; Lievers WB; Frimenko B; Seamon JB; **Keller TC**; Subit DL; Gochenhour TH; Sochor M; Crandall JR. Fracture tolerance of the patellofemoral joint in frontal knee impacts of 75 and 35 year old males. *International Journal of Crashworthiness*; 16(4):2011.
- **Keller TC**; Hogan MV; Kesturu G; James R; Balian G; Chhabra AB. Growth/Differentiation Factor-5 Modulates the Synthesis and Expression of Extracellular Matrix and Cell Adhesion Related Molecules of Rat Achilles Tendon Fibroblasts. *Connect Tissue Res.* 2011;52(4):353-64.
- Bumpass DB; **Keller TC**; Robinson EP; Marks I; Iwanik M; Arlet V; Shen FH. Implications of lumbar plexus anatomy for removal of total disc replacements through a posterior approach. *Spine.* 2008 Apr 20;33(9):E274-8.
- **Keller TC**; Samartzis D; Shen FH. Marfan syndrome. In Zhang, Yawei (Ed.), *Encyclopedia of global health*, v. 3, p. 1067-1068. Thousand Oaks: Sage Publications, 2008
- **Keller TC**; Samartzis D; Shen FH. Arthritis. In Zhang, Y (Ed.), *Encyclopedia of global health*, v. 1, p. 161-165. Thousand Oaks: Sage Publications, 2008

## PRESENTATIONS

- **Keller TC**; Hip pain in active patients. Castle Medical Center Grand Rounds CME 2016;
- **Keller TC**; Welch T; Banffy M; Gerhardt M. Surgical outcomes following endoscopic treatment of proximal hamstring injuries. 29<sup>th</sup> Annual Kerlan Jobe Alumni Research Conference 2015;
- James R; Hogan MV; **Keller TC**; Balian G; Laurencin C; Chhabra AB. Combined treatment of a tendon gap with a biomimetic electrospun scaffold, stromal cells and GDF5. NIRA finalist - ORS 2013 Annual Meeting
- **Keller TC**; Tompkins M; Millewski MD; Gaskin CM; Brockmeier SF; Hart JM; Miller MD. Anatomic Femoral Tunnel Drilling in PCL Reconstruction: Inside-Out(IO) versus Outside-In(OI) Drilling. Podium AAOS Annual Meeting 2013.
- Werner BC; McCormick JD; **Keller TC**; Shimer AL; Cervical Range of Motion; An Innovative and Reliable Method of Measurement Using the iPhone. Abstract Poster Presentation Winner: 2012 Virginia Orthopaedic Society Annual Meeting.
- Seamon JB; Wang XL; Cui F; **Keller TC**; Tanolin N; Balian G; Cui Q. "Cell-Mediated Delivery of hBMP-6 and hVEGF Potentiates Osteogenesis in Fisher 344 Rat Bone Marrow Cells." Presented at 2011 Orthopaedic Research Society International Meeting and 2010 University of Virginia Orthopaedic Surgery Basic Science Grand Rounds.
- Seamon JB; Wang XL; Cui F; **Keller TC**; Tanolin N; Balian G; Cui Q. "Adenovirus Mediated Gene Transfer of hVEGF and hBMP-6 to the Fisher 344 Rat Mixed Marrow Cell Population Promotes Osteogenesis." Poster Presentation at 2011 Virginia Orthopaedic Society Annual Meeting
- Seamon JB; Wang XL; Cui F; **Keller TC**; Balian GB; Qui Q. "The efficacy of PLGA scaffolds loaded with Fisher 344 mixed marrow cells infected with an adenovirus coding the BMP-6 and VEGF genes in filling critical bone defects in the tibial diaphysis of Fisher 344 Rats." Presented at 2010 University of Virginia Musculoskeletal Research Symposium
- Seamon JB; Wang XL; Cui F; **Keller TC**; Cui Q. The efficacy of VEGF and BMP-6 in promoting osteogenesis in Fischer 344 rats. University of Virginia Department of Orthopaedic Surgery Grand Rounds: 2010
- **Keller TC**; James R; Hogan MV. "GDF-5 loaded scaffold to bridge tendon defects." Presented at 2010 University of Virginia Musculoskeletal Research Symposium

## **MEMBERSHIPS**

American Academy of Orthopaedic Surgeons  
American Orthopaedic Society for Sports Medicine  
Arthroscopy Association of North America

## **SPORTS COVERAGE**

- Major League Soccer: La Galaxy, Chivas USA: 2014-15
- US Men's National Soccer Team, US Women's National Soccer Team: 2015
- Events:
  - XTERRA Trail Run World Championship Medical Director (2017), Volunteer (2015-16)
  - Amgen Tour of California 2015&17
  - Nike 3 on 3 Basketball LA 2014
- College Athletics: Pepperdine University Athletics, Santa Monica College Football: 2014-15
- High School Football:
  - Kahuku High School – Oahu, HI: 2016, 2017
  - Kalaheo High School – Oahu, HI: 2015
  - St. Monica High School - Santa Monica, CA: 2014
  - Woodberry Forest – Virginia: 2011, 2012, 2013
  - Blue Ridge High School – Virginia: Fall 2010