

CHRISTIAN A. CRUZ

Education

Drexel University College of Medicine, Philadelphia, PA

Doctor of Medicine, 2014-2018

Ursinus College, Collegeville, PA

Bachelor of Science, Biology + Minor in Exercise and Sport Science

2009-2013

Training

Tripler Army Medical Center, Honolulu, HI

Orthopaedic Surgery Resident, 2018-2023

University of Southern California, Epstein Family Center for Sports Medicine

Sports Medicine and Shoulder Surgery Fellow, 2023- 2024

Team Physician Experience

- **University of Southern California Athletics**
 - Football, Basketball, Soccer, Lacrosse, Volleyball
- **Los Angeles Kings**

Awards

- **AOSSM O'Donoghue Award 2018** – Arthroscopic Versus Open Anterior Shoulder Stabilization: A Prospective Randomized Clinical Trial With 15-Year Follow-up with an Assessment of the Glenoid Being “On-Track” and “Off-Track” as a Predictor of Failure
- AANA 2023 Annual Meeting Best E-Poster Award
- Hawaii Orthopaedic Association Richardson Award 1st place Best Paper 2021
- MAST-AANA Scholarship Recipient 2022
- Army Achievement Medal- 2019 Orthopaedic In-Training Exam Score top 10th percentile
- Army Accommodation Medal-2023
- Hawaii Orthopaedic Association Richardson Award 3rd place Best Paper 2018

Publications

- **CA. Cruz**, DB. Goldberg, J. Wake, J. Sy, BJ. Mannino, CR. Bottoni. Comparison of the Bone-Tendon-Autograft (BTA) Anterior Cruciate Ligament Reconstruction: A Matched Cohort Analysis to Bone-Tendon-Bone Autograft. *Orthopaedic Journal of Sports Medicine*. December 2020. PMID: 33330739
- CR. Bottoni, JD. Johnson, L. Zhou, S. Raybin, JS. Shaha, **CA. Cruz**, KK. Lindell, DC. Thoma. Arthroscopic Versus Open Anterior Shoulder Stabilization: A Prospective Randomized Clinical Trial with 15-Year Follow-up and an Assessment of “On-Track” and “Off-Track” as a Predictor of Failure. *American Journal of Sports Medicine*. 2021. PMID: 34102075
- Min, J. Horng, **CA. Cruz**, HJ. Ahn, J. Patzkowski. Glenoid Bone Loss in Recurrent Shoulder Instability Following an Arthroscopic Bankart Repair: Systematic Review and Meta-Analysis. *JBJS*. PMID: 37643239
- **CA. Cruz**, J. Sy, RK. Miles, CR. Bottoni, KS. Min. Surgical Treatment of Anterior Shoulder Instability with Glenoid Bone Loss with the Latarjet Procedure in Active-Duty Military Service Members. *Journal of Shoulder and Elbow Surgery*. Sep 2021. PMID: 34537338
- **CA. Cruz**, CB. Venrick, RK. Miles, BJ. Mannino, CR. Bottoni. Failure Rates After Anterior Cruciate Ligament Repair with Suture Tape Augmentation in an Active-Duty Military Population. *Orthopaedic Journal of Sports Medicine*. PMID: 36814764
- JL. Wake, **CA. Cruz**, RN. Miles, S. Chan. JS. Shaha, KS. Min, CR. Bottoni. Surgical Treatment of

Shoulder Instability with Subcritical Glenoid Bone Loss: Bankart versus Latarjet. *Journal of Shoulder and Elbow Surgery* November 2022. PMID: 36375750

- CA. Cruz, B. Mannino, D. Thoma, K. Lindell, A. Lopez, Y. Kerbel, C. Bottoni. Increased Posterior Tibial Slope is an Independent Risk Factor of Anterior Cruciate Ligament Reconstruction Graft Rupture Irrespective of Graft Choice. *Journal of ISAKOS*. April 2022. DOI: 10.1016/j.isako.2022.04.002
- CA. Cruz, J. Sy, RK. Miles, WE. Daner, CR. Bottoni, KS. Min. Comparison of the Latarjet: Subscapularis Split Versus Tenotomy. *Arthroscopy, Sports Medicine and Rehabilitation*. PMID: 36033176
- CA. Cruz, YS. Kerbel, J. Prodromo, C. Smith, MA Mulcahey. A Sport Specific Biomechanical Analysis of the Epidemiology of Hip Injuries in NCAA Athletes from 2009/2010-2013/2014. *Arthroscopy- Journal of Arthroscopic and Related Surgery*. September 2019. PMID: 31500761 KS.
- CA. Cruz, MC. Harris, J. Wake, BJ. Mannino, CR. Bottoni. Tibial Tubercle Sparring Anterior Closing Wedge Osteotomy with Cross Screw Fixation to Correct Pathologic Posterior Tibial Slope. *Arthroscopy Techniques* 2021. PMID: 33738230
- S. Wilding, CA. Cruz, JB. Deal, J. Wake, BJ. Mannino, CR. Bottoni. Bone-Tendon-Autograft (BTA) Anterior Cruciate Ligament Reconstruction: A New ACL Graft Option. *Arthroscopy Techniques*. September 2020. PMID: 33134055
- AA. Thompson, IK. Bolia, A. Fathi, A. Dobitsch, CA. Cruz, R. Grewal, AE. Weber, FA. Petrigliano, GF. Hatch III. Tissue Augmentation Techniques in the Management of Ligamentous Knee Injuries. *Orthopedic Research and Reviews*. 2023. PMID: 38028655
- RN. Miles, CA. Cruz, BJ. Mannino. Bilateral Multipartite Patallae Avulsions Associated with a Unilateral Quadriceps Tendon Rupture. *BMJ Case Reports*. December 2021. PMID: 34937756
- L. Zhou, CA. Cruz, Z. Johnson, C. Bottoni. Outcomes of Patellar Stabilization Utilizing a Combined Arthroscopic and Open Technique: A Retrospective Review with 5-year Average Follow-Up. *Orthopaedic Journal of Sports Medicine*. PMID: 35237696.
- J. Horng, M. Czarnecki, CA. Cruz, KS. Min. Outcomes of Pectoralis Major Rupture Repairs Using Intraosseous Anchors in Military Athletes. Submitted to JSES Dec 2023.
- M. Czarnecki, J Horng, JM. Liwag, CA. Cruz, KS. Min. Outcomes Following Coracoclavicular Ligament Reconstruction Using a Double-Pulley Suspensory Fixation Technique in Active-Duty Service Members. Submitted to Arthroscopy Dec 2023.
- C. Mayfield, J. Ryan, CA. Cruz, IK. Bolia, FA. Petrigliano, AE. Weber. Can We Identify Why Athletes Fail to Return to Sports After Latarjet: A Systematic Review and Meta-Analysis. Submitted to *Arthroscopy* Jan 2024.
- R. Mirzayam, J. Ragheb, K. Jeshian-Nelson, D. DeWitt, CA. Cruz. Fresh Osteochondral Allograft Transplantation of the Capitellum for the Treatment of Osteochondritis Dissecans. Submitted to *AJSM* Dec 2023.
- R. Mirzayam, J. Ragheb, K. Jeshian-Nelson, D. DeWitt, CA. Cruz. Bipolar Osteochondral Allograft Transplantation of the Patello-Trochlear Joint: Mid-Term Outcomes.
- A. Fathi, J. Kotlier, SS. Telang, VS. Patel, IK. Bolia, BM. Biedermann, CA. Cruz, FA. Petrigliano, JN. Liu. The Literature that Commercial Insurance Payers Use to Substantiate Osteochondral Allograft Policies are of a Low Level of Evidence. Submitted to *AJSM* Jan 2024.
- RD. Freshman, JL. Kotlier, CK. Mayfield, A. Fathi, A. Ahmad, CA. Cruz, JN. Liu, FA. Petrigliano. Perioperative Dexamethasone Use Is Not Associated with Periprosthetic Joint Infection or Wound Healing Complications Following Shoulder Arthroplasty. Submitted to JSES Nov 2023.
- RD. Freshman, JL. Kotlier, CK. Mayfield, A. Fathi, A. Ahmad, CA. Cruz, JN. Liu, FA. Petrigliano. Non-Cefazolin Antibiotic Prophylaxis is Associated with Increased Rates of Acute Infectious, Medical, and Surgical Complications Following Total Shoulder Arthroplasty. Submitted to JSES Dec 2023.
- JN. Wary, AJ. Magee, RN. Mcallister, CA. Cruz, KS. Min. Outcomes of Treating On-Track and Off-Track Lesions with an Open Latarjet in the Military Population. Submitted to JSES Jan 2023.

- CA. Cruz, CR. Bottoni. Shoulder Arthroscopy: The Basics. *Operative Techniques in Orthopaedics 3rd Edition. Textbook Chapter*
- CA. Cruz, IK. Bolia, R. Mirzayan: Grafting for Humeral Bone Loss. *Complex and Revision Problems in Shoulder Instability*

Oral Presentations

- R. Mirzayam, J. Ragheb, K. Jeshian-Nelson, D. DeWitt, CA. Cruz. Fresh Osteochondral Allograft Transplantation of the Capitellum for the Treatment of Osteochondritis Dissecans. *SOMOS 2023, AAOS 2024.*
- R. Mirzayam, J. Ragheb, K. Jeshian-Nelson, D. DeWitt, CA. Cruz. Bipolar Osteochondral Allograft Transplantation of the Patello-Trochlear Joint: Mid-Term Outcomes. *SOMOS 2023.*
- T. Stocker-Downing, J. Pruneski, CA. Cruz, CR. Bottoni. Comparing Bone-Tendon Autograft with Bone-Tendon-Bone Autograft for ACL Reconstruction, Five-Year Outcomes. *SOMOS 2023.*
- J. Wary, AJ. Magee, RN. McCallister, CA. Cruz, KS. Min. Outcomes of Treating On-Track and Off-Track Lesions with Open Latarjet. *SOMOS 2023.*
- CB. Venrick, M. Scribner, J. Liwag, CA. Cruz, A. Mann, L. Zhou, CR. Bottoni. Active-Duty Retrospective Review in ACL Reconstruction: Quadriceps vs. Patellar Tendon. *SOMOS 2023*
- CA. Cruz, CB. Venrick, RN. Miles, H. Imlay, CR. Bottoni. Fifteen-Year Radiographic Follow-Up of a Prospectively Randomized Clinical Trial Comparing Early versus Delayed Anterior Cruciate Ligament Reconstruction. *Society of Military Orthopaedic Surgeons 2022, Hawaii Orthopaedic Association 2023, AANA Annual Meeting 2023, AOSSM Annual Meeting 2023*
- CA. Cruz, CB. Venrick, RK. Miles, N. Hazim, BJ. Mannino, CR. Bottoni. Primary Anterior Cruciate Ligament Repair with Suture Tape Augmentation in an Active-Duty Military Population. *Society of Military Orthopaedic Surgeons 2021.*
- CA. Cruz, DB. Goldberg, J. Wake, J. Sy, BJ. Mannino, CR. Bottoni. Comparison of the Bone-Tendon-Autograft (BTA) Anterior Cruciate Ligament Reconstruction: A Matched Cohort Analysis to Bone-Tendon-Bone Autograft. *Society of Military Orthopaedic Surgeons Awards Finalist 2019, Hawaii Orthopaedic Association 2020, Richardson Award First Place Winner*
- CA. Cruz, B. Mannino, D. Thoma, K. Lindell, A. Lopez, Y. Kerbel, C. Bottoni. Increased Posterior Tibial Slope is Associated with Higher Rates of Anterior Cruciate Ligament Reconstruction Graft Rupture. *Presented at SOMOS 2019, AAOS Annual Meeting 2020*
- L. Zhou, CA. Cruz, Z. Johnson, C. Bottoni. Tibial Tubercle Osteotomy for Patellofemoral Instability in an Active-Duty Military Cohort: A Retrospective Review with 7-year Average Follow-Up. *Presented at Hawaii Orthopaedic Association 2019-3rd place Award Winner, Society of Military Orthopaedic Surgeons 2019.*
- C. Belyea, CA. Cruz, W. Daner, C. Bottani, A. Pike. *Total Shoulder Arthroplasty Active Duty Cohort: Return to duty and early patient reported outcomes.* Presented at Hawaii Orthopaedic Association Annual meeting 2019, Tripler BASS Research Symposium. *Presented at SOMOS 2018 by Christopher Belyea, MD.*
- AM. Lieber, GJ. Kirchner, YE. Kerbel, RJ. Petrella, J. Prodrromo, P. Petrucelli, CA. Cruz, M. J. Craig, J. Tom, M. Shah, S. Brahmabatt. *Arthroscopic Treatment of Shoulder Infection Has Fewer Complications, Cheaper Cost and Shorter Length of Stay Than Open Arthrotomy: A Cohort-Matched Comparison.* *Presented at SOMOS December 2018.*
- AM Lieber, GJ Kircher, YE Kerbel, CA. Cruz, AJ Boniello, VM Moretti, S. Brahmabhatt, PM Courtney. *Perioperative Complications, Costs and Length of Stay Following Robotic-assisted, Computer-assisted, and Conventional Total Hip Arthroplasty.* *Presented at SOMOS December 2018*
- AM Lieber, GJ Kircher, YE Kerbel, CA. Cruz, AJ Boniello, VM Moretti, S. Brahmabhatt, PM Courtney. *Computer-assisted Total Knee Arthroplasty Reduces Perioperative Complications and Inpatient Length of Stay.* *Presented at SOMOS December 2018*
- C. Smith, G. Xiong, J. Elkind, CA. Cruz, C. Palmer, A. Cohen. *Layer specific alterations in synaptic transmission in prefrontal cortex following mild traumatic brain injury.* *Presented at Society for*

Neuroscience Conference 2014.

- K. A. Folweiler, CA. Cruz, A. S. Cohen. *The role of estrous stage cycle on synaptic transmission and behavior in female mice following mild traumatic brain injury. Presented at Society for Neuroscience Conference 2014.*

Licensure

- Hawaii Medical License – MD-20636
- California Medical License- A184402
- Texas Medical License- U9240

Certifications

- ABOS Part 1- Pass
- USMLE Step 3- Pass
- USMLE Step 2- Pass
- USMLE Step 2 CK- Pass
- USMLE Step 1- Pass

Research Experience

Reviewer, Arthroscopy: The Journal of Arthroscopic and Related Surgery
2021-Present

Clinical Research, University of Southern California Department of Sports Medicine
2023-Present
Projects include 2 FDA Clinical Trials

Clinical Research, Tripler Army Medical Center, Honolulu, HI
2018-2023

Clinical Research Assistant, Drexel University College of Medicine, Philadelphia, PA
2016-2018

Research Assistant, Children's Hospital of Philadelphia, Philadelphia, PA
2013-2014

Leadership Experience

- Hawaii Orthopaedic Association Board Member
- Tripler Orthopaedic Alumni Association Board of Directors Member
- 2x Captain of Ursinus College Men's Soccer

Interests

Surfing · Snowboarding · Soccer · Traveling · Family Life · Lifting · Running