

# John Schoeneman Vorhies, MD

300 Pasteur Drive, MC5341

Stanford, CA 94305

(909) 234-9554

[jvorhies@stanford.edu](mailto:jvorhies@stanford.edu)

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Board Certification: Orthopaedic Surgery, American Board of Orthopaedic Surgery	2019
CA State Medical License	10/10/2012-4/30/2024
TX State Medical License	6/1/2016-8/31/2019

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## Educational Background

Fellow in Pediatric Orthopaedics and Scoliosis, Texas Scottish Rite Hospital for Children, Dallas, TX	8/2016 - 8/2017
Orthopaedic Surgery Resident, Stanford University Hospital, Stanford, CA	7/2011 - 7/2016
M.D., Stanford University School of Medicine, Stanford, CA	8/2007 - 6/2011
B.A., Chemistry (cum laude), Pomona College, Claremont, CA	9/2001 - 5/2005

## Current Position

Assistant Professor Department of Orthopaedic Surgery Stanford University Stanford, CA	1/2018 - Present
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## Professional Experience

Clinical Instructor Department of Orthopaedic Surgery Stanford University Stanford, CA	10/2017 – 12/2017
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## Honors and Awards

Stanford Medicine RITE Cohort Certification	2020
Recognized for Exceptional Clinical Care By Surgical Specialties Professional Practice Evaluation Committee, LPCH	2019
Elected Member of Gold Humanism Honors Society	2010
Elected member of Phi Beta Kappa Honors Society	2005
Elected member of Sigma Xi Scientific Society	2005
Pomona College Scholar	2005
Mason L. Hill Award for Leadership and Scholarly Achievement in Geology	2005
The Frank Parkhurst Brackett, Jr., and David Ward Brackett Prize in Chemistry	2005
Shulz Research Award in Environmental Studies	2004

## Scholarly Publications

Peer-reviewed journal articles of original research

1. Kaur J, Pham NS, Cahan E, Halvorsen KC, Langner JL, Bryson XM, Chan CM, **Vorhies JS**. Use of Peripheral Nerve Blocks Is Not Associated With Decreased Postoperative Opioid Prescription After ACL Reconstruction in Adolescents. *Orthopedics*. 2023 Jun 21:1-6. doi: 10.3928/01477447-20230616-05. Epub ahead of print. PMID: 37341565.
2. Seltzer RA, Langner JL, Javier NM, Kaur J, Shafau AL, Ezeonu T, Bryson X, Hastings K, Tileston K, **Vorhies JS**. Cannabidiol Use Patterns and Efficacy for Children Who Have Cerebral Palsy. *Orthopedics*. 2023 May 23:1-5. doi: 10.3928/01477447-20230517-06. Epub ahead of print. PMID: 37216564.

3. Langner JL, Pham NS, Richey A, Oquendo Y, Mehta S, **Vorhies JS**. Spinal fusion is an aerosol generating procedure. *World J Orthop*. 2023 May 18; 14(5): 340-347 doi: 10.5312/wjo.v14.i5.340
4. Montgomery BK, Joseph G, Segovia N, Koltsov J, Thomas TL, **Vorhies JS**, Tileston KR. The Influence of Race, Income, and Sex on Treatment and Complications of Common Pediatric Orthopedic Fractures. *Orthopedics*. 2023 May;46(3):e156-e160. doi: 10.3928/01477447-20230104-06. Epub 2023 Jan 10. PMID: 36623278.
5. Langner JL, Kaur J, Pham NS, Richey A, Hastings K, Mehta S, Bryson X, **Vorhies JS**. Does spinal deformity affect adolescents' quality of life before we tell them it should? *Spine Deform*. 2023 May 11. doi: 10.1007/s43390-023-00691-0. Epub ahead of print. PMID: 37166749.
6. van Niekerk M, Richey A, **Vorhies J**, Wong C, Tileston K. Effectiveness of psychosocial interventions for pediatric patients with scoliosis: a systematic review. *World J Pediatr Surg*. 2023 Mar 7;6(2):e000513. doi: 10.1136/wjps-2022-000513. PMID: 36919027; PMCID: PMC10008171.
7. Hollyer I, Johnson TR, Kha ST, Foreman C, Ho V, Klemm C, Chan CK, **Vorhies JS**. Introduction of a Novel Sequential Approach to the Ponte Osteotomy to Minimize Spinal Canal Exposure. *Children*. 2023 Feb 27; 10(3):470. <https://doi.org/10.3390/children10030470>
8. Kwong JW, Tileston KR, Kaur J, Segovia NA, Imrie MN, Rinsky LA, **Vorhies JS**. Temporary Flexible Rods for Correction of Severe Pediatric Spinal Deformity. *Orthopedics*. 2023 Feb 10:1-8. doi: 10.3928/01477447-20230207-03. Epub ahead of print. PMID: 36779740.
9. Cahan EM, Halvorsen KC, Pham NS, Kaur J, Bryson XM, Chan CM, **Vorhies JS**. Opioid Represcriptions After ACL Reconstruction in Adolescents are Associated With Subsequent Opioid Use Disorder. *J Pediatr Orthop*. 2023 Jan 19. doi: 10.1097/BPO.0000000000002340. Epub ahead of print. PMID: 36652547.
10. Pan SJ, **Vorhies JS**, Lee LH, López JR, Tsui BCH. The effect of intraoperative lidocaine administration in a disrupted erector spinae fascial plane on intercostal transcranial motor evoked potentials. *J Clin Anesth*. 2022 Nov;82:110956. doi: 10.1016/j.jclinane.2022.110956. Epub 2022 Aug 25. PMID: 36029703.
11. Langner JL, Ezeonu T, Shafau AL, Javier N, Bryson X, Kaur J, Poppino K, Shivers C, Chilakapati S, Hall KE, Imrie MN, Rinsky L, Riccio AI, **Vorhies JS**. Curve Characteristics and Surgical Outcomes in Scoliosis Associated With Childhood Sternotomy or Thoracotomy. *J Pediatr Orthop*. 2022 Nov-Dec 01;42(10):558-563. doi: 10.1097/BPO.0000000000002229. Epub 2022 Aug 25. PMID: 36017932.
12. Shaheen M, Kolstov JCB, Cohen SA, Langner JL, Japsimran K, Segovia NA, **Vorhies JS**. Complication risks and costs associated with Ponte osteotomies in surgical treatment of adolescent idiopathic scoliosis: insights from a national database. *Spine Deform*. 2022 July. Doi:10.1007/s43390-022-00534-4.
13. Montgomery BK, Tileston K, Kaur J, Kym D, Segovia NA, Imrie MN, Policy J, Rinsky L, **Vorhies JS**. Innovative technique for early-onset scoliosis casting using Jackson table. *Spine Deform*. 2022 July. Doi:10.1007/s43390-022-00526-4.
14. Pan S, Lee CK, Caruso TJ, **Vorhies JS**, Tsui BCH. Systematic lidocaine absorption from continuous erector spinae plane catheters after paediatric posterior spine fusion surgery. *Reg Anesth Pain Med*. 2022 April. 47(4):251-252. doi: 10.1136/rapm-2021-103234.
15. Montgomery BK, Gamble JG, Kha ST, Hecht GG, **Vorhies JS**, Lucas JF. Indications for and risks associated with implant removal after pediatric trauma. *J Am Acad Orthop Surg Glob Res Rev*. 2022 April 1. doi: 10.5435/JAAOSGlobal-D-22-00050.
16. Kaur J, Koltsov JCB, Kwong JW, Cheng I, **Vorhies JS**. Does Navigation Make Spinal Fusion for Adolescent Idiopathic Scoliosis Safer? Insights from a National Database. *Spine*. 2021 Jan 21. doi: 10.1097/BRS.0000000000004037
17. Ha A, **Vorhies JS**, Campion A, Fang C, Fadell II M, Dou S, Halabi S, Larson D, Wang E, Lee Y, Langner J, Kaur J, Do B. Automatic Extraction of Skeletal Maturity from Whole Body Pediatric Scoliosis X-rays Using Regional Proposal and Compound Scaling Convolutional Neural Networks. Short paper and scientific presentation. IEEE International Conference on Bioinformatics and Biomedicine (BIBM), 2020 Dec. doi: 10.1109/BIBM49941.2020.9313251
18. Jiang SY, Carlock KD, Campbell ST, **Vorhies JS**, Gardner MJ, Leucht P, Bishop JA. The Impact of Subspecialty Fellows on Orthopaedic Resident Surgical Experience: A Multicenter Study of 51,111 Cases. *J Am Acad Orthop Surg*. 2020 Jul 7. doi: 10.5435/JAAOS-D-20-00233. Epub

- ahead of print. PMID: 32649442. \*Participated in Analysis and interpretation of data, Drafting of the manuscript, Critical revision of the manuscript for important intellectual content, Statistical analysis
19. Gamble JG, **Vorhies JS**. Remodeling of Sagittal Plane Malunion After Pediatric Supracondylar Humerus Fractures. *J Pediatr Orthop*. 2020 Jun 26. doi: 10.1097/BPO.0000000000001623. Epub ahead of print. PMID: 32604347.
  20. Tsui BCH, Esfahanian M, Lin C, Policy J, **Vorhies J**. Moving toward patients being pain- and spasm-free after pediatric scoliosis surgery by using bilateral surgically-placed erector spinae plane catheters. *Can J Anaesth*. 2020 May;67(5):621-622. doi: 10.1007/s12630-019-01543-0. PubMed PMID: 31776896.
  21. Leonard DA, Segovia NA, Kaur J, Bishop L, **Vorhies JS**. Posterior Sternoclavicular Dislocation: Do We Need “Cardiothoracic Backup?” Insights from a National Sample. *J Orthop Trauma*. 2020 Feb;34(2):e67-e71. doi: 10.1097/BOT.0000000000001685.
  22. **Vorhies JS**, Funk S, Elliot M, Riccio A, Ramo B. The Utility of Intra-Operative Arthrogram in the Management of Pediatric Lateral Condyle Fractures of the Humerus. *Orthopedics*. 2020 Jan 1;43(1):30-35. doi: 10.3928/01477447-20191031-01.
  23. **Vorhies JS**, Uzosike OB, Imrie MN, Rinsky L, Hoffinger S. Treatment in a Nonpediatric Hospital Is a Risk Factor for Open Reduction of Pediatric Supracondylar Humerus Fractures: A Population-Based Study. *J Orthop Trauma*. 2019 Sep;33(9):e331-e338. PMID: 31188255
  24. Calanna F, Chen F, Risitano S, **Vorhies J\***, Franceschini M, Giori NJ, Indelli PF. Debridement, Antibiotic Pearls, and Retention of the Implant (DAPRI): A Modified Technique for Implant Retention in Total Knee Arthroplasty PJI Treatment. *J Orthop Surg (Hong Kong)*. 2019 Sep-Dec;27(3):2309499019874413. doi:10.1177/2309499019874413. PMID: 31554470.  
\*Participated in Conception and Design, Critical revision of the manuscript for important intellectual content,
  25. **Vorhies JS**, Lindsay EA, Tareen NG, Kellum RJ, Jo CH, Copley LAB. Severity Adjusted Risk of Long-Term Adverse Sequelae Among Children with Osteomyelitis. *Pediatr Infect Dis J*. 2019 Jan;38(1):26-31. PMID: 29742649
  26. Lichstein PM, Kleimyer JP, Githens M, **Vorhies JS\***, Gardner MJ, Bellino M, Bishop J. Does the Watson-Jones or Modified Smith-Petersen Approach Provide Superior Exposure for Femoral Neck Fracture Fixation? *Clin Orthop Relat Res*. 2018 Jul;476(7):1468-1476. PMID: 29698292.  
\*Participated in Analysis and interpretation of data, Drafting of the manuscript, Critical revision of the manuscript for important intellectual content, Statistical analysis
  27. Paci GM, Tileston KR, **Vorhies JS\***, Bishop JA. Pediatric Supracondylar Humerus Fractures: Does After-Hours Treatment Influence Outcomes? *J Orthop Trauma*. 2018 Jun;32(6):e215-e220. PMID: 29432316. \*Participated in Analysis and interpretation of data, Drafting of the manuscript, Critical revision of the manuscript for important intellectual content, Statistical analysis
  28. **Vorhies JS**, Hernandez-Boussard, T., Alamin, TS. Treatment of Degenerative Lumbar Spondylolisthesis with Fusion or Decompression Alone Results in Similar Rates of Reoperation at 5 years. *Clinical Spine Surgery*. Clin Spine Surg. 2018 Feb;31(1):E74-E79 PMID: 28671881
  29. **Vorhies JS**, Weaver, MJ Bishop JA. Admission through the Emergency Department is an independent risk factor for Lower Satisfaction with Physician Performance among Orthopaedic Surgery Patients. *Journal of the American Academy of Orthopaedic Surgeons*. 2016 Oct;24(10):735-42 PMID: 27579815
  30. Gaines RR, **Vorhies JS**. Growth mechanisms and geochemistry of carbonate concretions from the Cambrian Wheeler Formation (Utah, USA). 2015. *Sedimentology*. 2016 Volume 63, Issue 3
  31. Rolnick J, **Vorhies JS**. Legal restrictions and complications of abortion: insights from data on complication rates in the United States, *Journal of Public Health Policy*, vol. 33, pp. 348–362, 2012. PMID: 22622483
  32. **Vorhies JS**, Wang Y, Herndon J, Maloney WJ, Huddleston JI. Readmission and length of stay after total hip arthroplasty in a national Medicare sample. *J Arthroplasty*. 2011 Sep;26(6 Suppl):119-23. PMID: 21723700
  33. **Vorhies JS**, Wang Y, Herndon JH, Maloney WJ, Huddleston JI. Decreased Length of Stay After TKA Is Not Associated With Increased Readmission Rates in a National Medicare Sample. *Clin Orthop Relat Res*. 2011 Jul 1. PMID: 21720934

34. **Vorhies JS**; Gaines RR. Microbial dissolution of clay minerals as a source of iron and silica in marine sediments. 2009. *Nature Geosciences* (2) 221 - 225
35. Nemunaitis J; Senzer N; Khalil I; Shen Y; Kumar P; Tong A; Kuhn J; Lamont J, Nemunaitis M; Rao D; Zhang Y; Zhou Y; **Vorhies JS\***; Maples P; Hill C; Shanahan D. Proof of Concept for Clinical justification of Network Mapping for Personalized Cancer Therapeutics. 2007. *Cancer Gene Therapy*. Aug;14(8):686-95. PMID: 17541424 \*Participated in Drafting of the manuscript, Critical revision of the manuscript for important intellectual content
37. Nemunaitis J; **Vorhies JS\***; Pappen B; Senzer N. 10 Year Follow Up of Gene Modified Adenoviral Based Therapy in 146 Non Small Cell Lung Cancer (NSCLC) Patients. 2007. *Cancer Gene Therapy* Aug;14(8):762-3. PM ID: 17514194 \*Participated in Drafting of the manuscript, Critical revision of the manuscript for important intellectual content

#### Non Peer-Reviewed Journal Articles

1. Rao DD, **Vorhies JS**, Senzer N, Nemunaitis J. siRNA vs. shRNA: similarities and differences. *Adv Drug Deliv Rev*. 2009 Jul 25;61(9):746-59 PMID:19389436
2. **Vorhies JS**, Senzer N, Nemunaitis J. Nucleic acid Aptamers for use in targeting of shRNA based cancer therapy. 2007. *Biologics: Targets & Therapy* 1(4) 367–376. PMCID: PMC2721292
3. **Vorhies JS**, Nemunaitis J. Non-viral shRNA delivery vehicles for cancer therapy. 2007. *Expert Opinions in Cancer Therapy*, 2007 Mar;7(3):373-82. PMID: 17338656

#### Book Chapters, Thesis

1. **Vorhies, J.S.**, Frick, S.L. (2022). Quality, Safety, and Value Initiatives for Early-Onset Scoliosis. In: Akbarnia, B.A., Thompson, G.H., Yazici, M., El-Hawary, R. (eds) *The Growing Spine*. Springer, Cham. [https://doi.org/10.1007/978-3-030-84393-9\\_57](https://doi.org/10.1007/978-3-030-84393-9_57)
2. Podeszwa David A, Ashley Philip, Bouton Daniel, Tice Andrew, **Vorhies John S**, Zmugg Stephan (2018) What's new in pediatric orthopedics? In: Courtney P Maxwell (Ed.) *Recent Advances in Orthopedics-2* Jaypee Brothers Medical Publishers (P) Ltd. [https://doi.org/10.5005/jp/books/18102\\_16](https://doi.org/10.5005/jp/books/18102_16)
3. **Vorhies JS**, Rao DD, Senzer N, Nemunaitis J. siRNA vs. shRNA for Personalized Cancer Therapy: Mechanisms and Applications. *Gene Based Therapies for Cancer*. Roth JA (Ed.) 2010, 51-62
4. **Vorhies JS**, Nemunaitis J. Synthetic vs. Natural/Biodegradable Polymers for Delivery of shRNA Based Cancer Therapies. 2009. *Macromolecular Drug Delivery, Methods in Molecular Biology, Molecular Medicine and Biotechnology* Vol. 480 Belting M (Ed.) 2009, XIV, 202 p.PMID: 19085121
5. **Vorhies JS**. Arsenic biogeochemistry in the surface waters of the Long Valley Caldera. 2005 *Pomona College Undergraduate Chemistry Thesis*.

#### Published Abstracts and Presentations

1. Bryson XM, Pham N, Hollyer I, Rinsky LA, **Vorhies JS**. 3D CT modeling Demonstrates the Anatomic Feasibility of S1AI Screw Trajectory for Spinopelvic Fixation in Neuromuscular Scoliosis. October 2023. American Academy of Pediatrics 2023 National Conference & Exhibition. (accepted for oral presentation)
2. Horneck N, Bryson XM, Pham N, Richey A, Javier N, Tileston K, **Vorhies JS**. Identifying Brace Compliance Trends in Adolescent Idiopathic Scoliosis. October 2023. American Academy of Pediatrics 2023 National Conference & Exhibition.
3. Oquendo YA, Bryson XM, Harris T, Langner JL, Javier NM, Richey A, Tileston K, Gardner M, **Vorhies JS**. Mobile device-based surface topography is a better predictor of spinal deformity than scoliometer. October 2023. 38th Annual North American Spine Society Meeting. (accepted for podium presentation)
4. Michaud J, Jin C, Oquendo Y, Bryson X, Gardner M, Tileston K, **Vorhies JS**. Asymmetry Index Derived from Mobile Device 3D Scanning Accurately Detects Idiopathic Scoliosis: A Pilot Study.

- September 2023. 58th Annual Scoliosis Research Society Meeting. (accepted for podium presentation)
5. Fletcher ND, Harris H, **Vorhies JS**, Garg S, Fabregas J, George SG, Lovejoy J, Lonner BS, Ramo BA, Jain VV, Bauer JM. Delayed Onset Neurologic Deficit Following Spinal Fusion for Pediatric Spinal Deformity. September 2023. 58th Annual Scoliosis Research Society Meeting. (accepted for podium presentation)
  6. Oquendo Y, Bryson X, Harris T, DeBaun M, Langner J, Javier N, Richey A, Gardner M, Tileston K, **Vorhies JS**. Mobile Device Based Surface Topography is a Better Predictor of Spinal Deformity than Scoliometer. September 2023. 58th Annual Scoliosis Research Society Meeting. (accepted for e-point presentation)
  7. Bryson XM, Segovia NA, Rinsky LA, **Vorhies JS**. CT Modeling Demonstrates Feasibility of S1AI Screw Trajectory for Spinopelvic Fixation. August 2023. 87th Annual Western Orthopaedic Association Meeting.
  8. Michaud JB, Jin CA, Oquendo YA, Bryson XM, Gardner MJ, Tileston KR, **Vorhies JS**. Asymmetry Index from Mobile Device 3D Scanning Detects Idiopathic Scoliosis. August 2023. 87th Annual Western Orthopaedic Association Meeting.
  9. Kha ST, Foreman C, Hollyer I, Johnson TR, Ho V, Klemt C, Chan C, **Vorhies JS**. Stepwise Ponte Osteotomy: Biomechanical Pilot of a Risk-Minimizing Approach. August 2023. 87th Annual Western Orthopaedic Association Meeting.
  10. Tileston KR, Naz H, Bryson X, Imrie MN, Policy JF, Rinsky LA, **Vorhies JS**. Postoperative Mobility Following Posterior Spinal Fusion for Adolescent Idiopathic Scoliosis. August 2023. Western Orthopaedic Association Annual Meeting. (accepted for podium presentation)
  11. Anari J, Roye B, Sturm P, Glotzbecker M, Fletcher N, Stone J, Cahill P. Pediatric Spine Study Group, Hauth L, Garcia S. **Vorhies JS**. A New Look at Vertebral Body Tethering: Through the Modified Clavien-Dindo-Sink (mCDS) Classification. April 2023. Pediatric Orthopedic Society of North America Annual Meeting. (accepted for podium presentation)
  12. Oquendo YA, Bryson XM, Harris T, Langner JL, Javier NM, Richey A, Tileston K, Gardner M, **Vorhies JS**. Mobile device based surface topography is a better predictor of spinal deformity than scoliometer. April 2023. Pediatric Orthopedic Society of North America Annual Meeting. (accepted for podium presentation)
  13. Bryson XM, Segovia NA, Rinsky LA, **Vorhies JS**. 3D CT Modeling Demonstrates the Anatomic Feasibility of S1AI Screw Trajectory for Spinopelvic Fixation in Neuromuscular Scoliosis. March 2023. 30<sup>th</sup> Annual International Meeting on Advanced Spine Techniques. (accepted for e-presentation).
  14. Oquendo YA, Bryson XM, Langner JL, Harris T, Jin C, Javier NM, Richey A, DeBaun M, Catanzano A, Gardner M, **Vorhies JS**. Mobile Device Based 3D Scanning Predicts Cobb Angle in Patients with AIS. March 2023. 30th Annual International Meeting on Advanced Spine Techniques. (accepted for e-presentation)
  15. Johnson TR, Cahan E, Segovia N, Kaur J, Chan C, Bryson X, Javier N, **Vorhies JS**. Incidence and risk factors for opioid use disorder after spinal fusion for idiopathic scoliosis. March 29-April 1<sup>st</sup>, 2023. 41st Annual Meeting of the European Paediatric Orthopaedic Society. (accepted for oral presentation)
  16. Foreman C, Kha ST, Johnson T, Hollyer I, Klemt C, **Vorhies JS**. A stepwise Ponte Osteotomy: Biomechanical Cadaveric Pilot Study of a risk minimizing approach. December 6<sup>th</sup>, 2022. Annual International Pediatric Orthopaedic Symposium (IPOS). (E-poster presentation)
  17. Johnson TR, Cahan EM, Segovia NA, Kaur J, Chan CM, Bryson X, Javier NM, **Vorhies JS**. Factors Associated with Opioid Use Disorder following Spinal Fusion for Adolescent Idiopathic Scoliosis. October 20th, 2022. 5th Annual Stanford Maternal and Child Health Research Institute Symposium (poster presentation)
  18. Johnson TR, Cahan EM, Segovia NA, Kaur J, Chan CM, Javier NM, Bryson X, **Vorhies JS**. Factors Associated with Opioid Use Disorder following Spinal Fusion for Adolescent Idiopathic Scoliosis. September 2022. 57<sup>th</sup> Annual Scoliosis Research Society Meeting (oral presentation)
  19. Langner JL, Ezeonu T, Shafau AL, Kaur J, Poppino K, Shivers C, Chilakapati S, Hall KE, Imrie MN, Rinsky L, Riccio AI, **Vorhies JS**. Characteristics and Surgical Outcomes in Scoliosis

- Associated with Childhood Sternotomy or Thoracotomy: A Multicenter study over 19 years. September 2022. 57<sup>th</sup> Annual Scoliosis Research Society Meeting (oral presentation)
20. Pan SJ, **Vorhies JS**, Lee LH, López JR, Bryson X, Javier NM, Tsui BCH. Erector Spinae Plane Blocks After PSF Do Not Affect Neuromonitoring. August 2022. Annual Western Orthopedic Association Meeting (oral presentation)
  21. Oquendo Y, Joseph L, Bryson X, Javier NM, DeBaun MR, Catanzano A, Langner JL, Richey A, Gardner MJ, **Vorhies JS**. Mobile Device-Based 3D Scanning As A Diagnostic Tool in Adolescent Idiopathic Scoliosis. August 2022. Annual Western Orthopedic Association Meeting (oral presentation)
  22. Oquendo Y, Maschhoff C, Calderon C, DeBaun MR, Langner JL, Javier NM, Bryson X, Richey A, Gardner MJ, **Vorhies JS**. Evaluation of deformity in adolescent idiopathic scoliosis using mobile device based surface topography. May 2022. Annual Pediatric Orthopaedic Society of North America Meeting (E-poster)
  23. Oquendo Y, Maschhoff C, Calderon C, DeBaun MR, Langner JL, Javier NM, Bryson X, Richey A, Gardner MJ, **Vorhies JS**. Screening and monitoring of deformity in adolescent idiopathic scoliosis using mobile device based surface topography. March 2022. Annual American Academy of Orthopaedic Surgeons (poster presentation)
  24. Oquendo Y, Langner JL, Maschoff C, Calderon C, Javier NM, Bryson X, Richey A, **Vorhies JS**. Evaluating the correlation and performance of SRS and PROMIS questionnaires in patients presenting with adolescent idiopathic scoliosis. March 2022. Annual American Academy of Orthopaedic Surgeons (poster presentation)
  25. Oquendo Y, Javier NM, Bryson X, Langner JL, Maschhoff C, Calderon C, Richey A, **Vorhies JS**. A comparison of SRS and PROMIS questionnaires in patients presenting with adolescent idiopathic scoliosis. April 2022. 40<sup>th</sup> Annual European Pediatric Orthopaedic Society Meeting (oral presentation)
  26. Shaheen M, Koltsov JCB, Cohen SA, Langner JL, Kaur J, Segovia NA, **Vorhies JS**. Complication Risks and Costs Associated with Ponte Osteotomies in Surgical Treatment of Adolescent Idiopathic Scoliosis: Insights from a National Database. April 2022. 40<sup>th</sup> Annual European Pediatric Orthopaedic Society Meeting (oral presentation)
  27. Langner JL, Ezeonu T, Shafau AL, Kaur J, Poppino K, Shivers C, Chilakapati S, Hall K, Imrie MN, Rinsky L, Riccio AI, **Vorhies JS**. Curve Characteristics and Clinical Outcomes in Post-Sternotomy/Thoracotomy Scoliosis Undergoing Definitive Spinal Fusion. April 2022. 40<sup>th</sup> Annual European Pediatric Orthopaedic Society Meeting (oral presentation)
  28. Shaheen M, Koltsov JCB, Cohen SA, Langner JL, Kaur J, Segovia NA, **Vorhies JS**. Complication Risks and Costs Associated with Ponte Osteotomies in Surgical Treatment of Adolescent Idiopathic Scoliosis: Insights from a National Database. October 2021. 4<sup>th</sup> Annual Stanford Maternal and Child Health Research Institute Symposium (virtual poster presentation)
  29. Seltzer R, Javier NM, Langner JL, Kaur J, Ezeonu T, Shafau AL, Bryson X, Hastings K, Tileston K, **Vorhies J**. Cannabidiol Use and Efficacy in Children with Cerebral Palsy. October 2021. 4<sup>th</sup> Annual Stanford Maternal and Child Health Research Institute Symposium (virtual poster presentation)
  30. Oquendo Y, Langner J, Maschoff C, Calderon C, Javier N, Bryson X, Richey A, **Vorhies JS**. A comparison of SRS and PROMIS questionnaires in patients presenting with adolescent idiopathic scoliosis. October 2021. 4<sup>th</sup> Annual Stanford Maternal and Child Health Research Institute Symposium (virtual poster presentation)
  31. Oquendo Y, Maschoff C, Calderon C, DeBaun M, Langner J, Javier N, Bryson X, Richey A, Gardner M, **Vorhies JS**. Evaluation of deformity in adolescent idiopathic scoliosis using mobile device based surface topography. October 2021. 4<sup>th</sup> Annual Stanford Maternal and Child Health Research Institute Symposium (virtual oral presentation)
  32. Kaur J, Langner JL, Segovia NA, Richey A, Hastings K, Mehta S, **Vorhies JS**. Does Scoliosis Affect HRQoL Before We Tell Patients it Should? August 2021. 84<sup>th</sup> Annual Meeting of the Western Orthopaedic Association (virtual presentation)
  33. Langner JL, Kaur J, Segovia NA, Richey A, Hastings K, Mehta S, **Vorhies JS**. Does Spinal Deformity Affect Adolescents' Quality of Life Before We Tell Them it Should? October 2021. Annual American Academy of Pediatrics National Conference & Exhibition (oral presentation)

34. Oquendo Y, DeBaun M, Lai C, Langner JL, Richey A, **Vorhies JS**. Mobile Device-Based 3D Scanning Accurately Captures Deformity in Adolescent Idiopathic Scoliosis. October 2021. Annual American Academy of Pediatrics National Conference & Exhibition (oral presentation)
35. Oquendo Y, DeBaun M, Lai C, Langner JL, Richey A, Gardner M, **Vorhies JS**. Mobile Device-Based 3D Scanning Accurately Captures Deformity in Adolescent Idiopathic Scoliosis. August 2021. 84<sup>th</sup> Annual Meeting of the Western Orthopaedic Association (virtual presentation)
36. Langner JL, Kaur J, Segovia NA, Richey A, Mehta S, **Vorhies JS**. Does Spinal Deformity Affect Adolescents' Quality of Life Before We Tell Them it Should? September-October 2021. 36<sup>th</sup> Annual Meeting of the North American Spine Society (electronic-poster presentation)
37. Kaur J, Segovia NA, Cahan EM, Halvorsen K, Chan CM, **Vorhies JS**. Usage of Peripheral Nerve Blocks Is Not Associated with Decreased Postoperative Opioid Usage after ACL Reconstruction in Adolescents. August-September 2021. Annual Meeting of the American Academy of Orthopaedic Surgeons (podium presentation)
38. Cahan EM, Segovia NA, Kaur J, Chan CM, **Vorhies JS**. Opioid Re-prescriptions After ACL Reconstruction in Adolescents are Associated with Subsequent Opiate Use Disorders. August-September 2021. Annual Meeting of the American Academy of Orthopaedic Surgeons (poster presentation)
39. Ha A, Do B, Langner J, Champion A, Fang C, Fadell II M, Halabi S, Kaur J, **Vorhies JS**. Proof of Concept: Artificial Intelligence Based Estimation of Skeletal Maturity from Biplanar Slot Scan Scoliosis Imaging. August-September 2021. Annual Meeting of the American Academy of Orthopaedic Surgeons (poster presentation)
40. Ha A, Do B, Langner J, Champion A, Fang C, Fadell II M, Dou S, Halabi S, Larson D, Wang E, Lee Y, Kaur J, **Vorhies JS**. Proof of Concept: Artificial Intelligence Based Estimation of Skeletal Maturity from Biplanar Slot Scan Scoliosis Imaging. May 2021. Annual Meeting of the Pediatric Orthopaedic Society of North America (electronic-poster presentation)
41. Ha A, Do B, Langner J, Champion A, Fadell II M, Dou S, Halabi S, Wang E, Lee Y, Kaur J, **Vorhies JS**. Proof of Concept: Artificial Intelligence Based Estimation of Skeletal Maturity from Biplanar Slot Scan Scoliosis Imaging. April 2021. 28<sup>th</sup> International Meeting on Advanced Spine Techniques (electronic-poster presentation)
42. Kwong JW, Tileston K, Kaur J, Segovia NA, Imrie MN, Rinsky LA, **Vorhies JS**. Temporary Flexible Rods for Correction of Severe Pediatric Spinal Deformity. November 2020. 3<sup>rd</sup> Annual Stanford Maternal and Child Health Research Institute Symposium (poster and video presentation)
43. Kym D, Kaur J, Segovia NA, Klein E, **Vorhies JS**. Effectiveness of an Early Operating Room Start Time in Managing Pediatric Supracondylar Humerus and Femoral Shaft Fractures. October 2020. American Academy of Pediatrics (podium presentation)
44. Kaur J, Kym D, Segovia NA, Mayor ID, Imrie MN, **Vorhies JS**. Has the Evolution of Pelvic Fixation in Neuromuscular Scoliosis Improved Outcomes? October 2020. American Academy of Pediatrics (electronic-poster presentation)
45. Montgomery BK, Joseph G, Segovia NA, Koltsov JCB, **Vorhies JS**, Tileston K. Race and Income Affect Treatment of Common Pediatric Orthopaedic Fractures. October 2020. American Academy of Pediatrics (electronic-poster presentation)
46. Kaur J, Koltsov JCB, Cheng I, **Vorhies JS**, Kwong JW. Does Navigation Make Spinal Fusion for Adolescent Idiopathic Scoliosis Safer? Insights from 17,400 Cases from a National Database. October 2020. American College of Surgeons Medical Student Symposium (electronic-poster presentation)
47. Gamble JGG, **Vorhies JS**. Remodeling of Sagittal Plane Mal-Union after Pediatric Supracondylar Fractures. August 2020. 84<sup>th</sup> Annual Meeting of the Western Orthopaedic Association (podium presentation)
48. Cahan EM, Segovia NA, Kaur J, Tileston K, Chan CM, **Vorhies JS**. Do Opioid Prescriptions After PSF for AIS cause Opioid Abuse? August 2020. 84<sup>th</sup> Annual Meeting of the Western Orthopaedic Association (poster presentation)
49. Kaur J, Segovia NA, Cahan EM, Tileston K, Chan CM, **Vorhies JS**. Do Peripheral Nerve Blocks Decrease Opioid Usage After ACL Reconstruction? August 2020. 84<sup>th</sup> Annual Meeting of the Western Orthopaedic Association (podium presentation)



50. Kwong JW, Tileston K, Kaur J, Segovia NA, Imrie MN, Rinsky LA, **Vorhies JS**. Temporary Flexible Rods for Correction of Severe Pediatric Spinal Deformity. August 2020. 84<sup>th</sup> Annual Meeting of the Western Orthopaedic Association (electronic-poster presentation)
51. Kaur J, Koltsov JCB, Cheng I, **Vorhies JS**. Does Navigation Make Spinal Fusion for Adolescent Idiopathic Scoliosis Safer? Insights from 17,400 Cases from a National Database. May 2020. Annual Meeting of the Pediatric Orthopaedic Society of North America (podium presentation)
52. Kaur J, Koltsov JCB, Cheng I, **Vorhies JS**. Does Navigation Make Spinal Fusion for Adolescent Idiopathic Scoliosis Safer? Insights from 17,400 Cases from a National Database. May 2020. North American Spine Society 35<sup>th</sup> Annual Meeting (podium presentation)
53. Montgomery BK, Tileston K, Kaur J, Kim D, Segovia NA, Imrie MN, Policy J, Rinsky LA, **Vorhies JS**. Elongation, Derotation, Flexion Cast on Jackson Table. May 2020. Annual Meeting of the Pediatric Orthopaedic Society of North America (poster presentation)
54. Cahan EM, Segovia NA, Kaur J, Chan CM, **Vorhies JS**. Opiate Re-Prescription Following ACL Reconstruction is Associated with Subsequent Opiate Use Disorder. May 2020. Annual Meeting of the Pediatric Orthopaedic Society of North America (poster presentation)
55. Cahan EM, Segovia NA, Kaur J, Chan CM, **Vorhies JS**. Opiate Prescription Patterns Do Not Predict Subsequent Development of Opioid Use Disorders in Pediatric Patients Undergoing Spinal Fusion for Adolescent Idiopathic Scoliosis. April 2020. 27<sup>th</sup> International Meeting on Advanced Spine Techniques (poster presentation)
56. Kaur J, Koltsov JCB, Cheng I, **Vorhies JS**. Does Navigation Make Spinal Fusion for Adolescent Idiopathic Scoliosis Safer? Insights from 17,400 Cases from a National Database. April 2020. 27<sup>th</sup> International Meeting on Advanced Spine Techniques (podium presentation)
57. Cahan EM, Segovia NA, Halvorsen K, Kaur J, Chan CM, **Vorhies JS**. Opiate Re-Prescription Following ACL Reconstruction is Associated with Subsequent Opiate Use Disorder. April 2020. 39<sup>th</sup> European Pediatric Orthopaedic Society Annual Meeting (electronic-poster presentation)
58. Kym D, Kaur J, Segovia NA, Mayor ID, Imrie MN, **Vorhies JS**. Has the Evolution of Pelvic Fixation in Neuromuscular Scoliosis Improved Outcomes?. April 2020. 39<sup>th</sup> European Pediatric Orthopaedic Society Annual Meeting (electronic-poster presentation)
59. Kaur J, Koltsov JCB, Cheng I, **Vorhies JS**. Does Navigation Make Spinal Fusion for Adolescent Idiopathic Scoliosis Safer? Insights from 17,400 Cases from a National Database. April 2020. 39<sup>th</sup> European Pediatric Orthopaedic Society Annual Meeting (podium presentation)
60. Leonard DA, Segovia N, Kaur J, Nathan K, **Vorhies JS**. Does Autism Alter the Risk Profile for Adolescent Idiopathic Scoliosis Surgery?. April 2020. 39<sup>th</sup> European Pediatric Orthopaedic Society Annual Meeting (electronic-poster presentation)
61. Montgomery BK, Tileston K, Kaur J, Kim D, Segovia NA, Imrie MN, Policy J, Rinsky LA, **Vorhies JS**. Elongation, Derotation, Flexion Cast on Jackson Table. March 2020. April 2020. 39<sup>th</sup> European Pediatric Orthopaedic Society Annual Meeting (electronic-poster presentation)
62. Montgomery BK, Tileston K, Kaur J, Brody C, Imrie MN, Policy J, Rinsky LA, **Vorhies JS**. Elongation, Derotation, Flexion Cast on Jackson Table. March 2020. 13<sup>th</sup> Annual Meeting of the American Academy of Orthopaedic Surgeons (video abstract; Recipient of the Pediatric Evidence-Based Technique Award)
63. Leonard DA, Segovia N, Kaur J, Bishop L, **Vorhies JS**. Posterior Sternoclavicular Dislocation: Do We Need "Cardiothoracic Backup?" Insights from a National Sample. March 2020. Annual Meeting of the American Academy of Orthopaedic Surgeons (podium presentation)
64. Leonard DA, Segovia N, Kaur J, Nathan K, **Vorhies JS**. Does Autism Alter the Risk Profile for Adolescent Idiopathic Scoliosis Surgery?. March 2020. Annual Meeting of the American Academy of Orthopaedic Surgeons (poster presentation)
65. Montgomery BK, Tileston K, Kaur J, Imrie MN, Policy J, Rinsky LA, **Vorhies JS**. Novel Technique for Early Onset Scoliosis Casting Using Jackson Table. November 2019. 13<sup>th</sup> International Congress on Early Onset Scoliosis (electronic-poster presentation)



66. Leonard DA, Segovia N, Kaur J, Bishop L, **Vorhies JS**. Posterior Sternoclavicular Dislocation: Do We Need “Cardiothoracic Backup?” Insights from a National Sample. September 2019. Annual Meeting of the Orthopaedic Trauma Association (podium presentation)
67. Montgomery BK, Tileston K, Kaur J, Imrie MN, Policy J, Rinsky LA, **Vorhies JS**. Novel Technique for Early Onset Scoliosis Casting Using Jackson Table. August 2019. 83<sup>rd</sup> Annual Meeting of the Western Orthopaedic Association (electronic-poster presentation)
68. Leonard DA, Segovia N, Kaur J, Nathan K, **Vorhies JS**. Does Autism Alter the Risk Profile for Adolescent Idiopathic Scoliosis Surgery?. August 2019. 83<sup>rd</sup> Annual Meeting of the Western Orthopaedic Association (rapid fire presentation)
69. **Vorhies JS**, Hall KE, Kaur J, Imrie MN, Rinsky LA. Characteristics and Outcomes in Post Sternotomy/Thoracotomy Scoliosis Undergoing Fusion. August 2019. 83<sup>rd</sup> Annual Meeting of the Western Orthopaedic Association (electronic-poster presentation)
70. Leonard DA, Segovia N, Kaur J, Bishop L, **Vorhies JS**. Posterior Sternoclavicular Dislocation: Do We Need “Cardiothoracic Backup?” Insights from a National Sample. August 2019. 83<sup>rd</sup> Annual Meeting of the Western Orthopaedic Association (poster presentation)
71. Montgomery BK, Tileston K, Kaur J, Imrie MN, Policy J, Rinsky LA, **Vorhies JS**. Novel Technique for Early Onset Scoliosis Casting Using Jackson Table. July 2019. 26<sup>th</sup> Annual International Meeting on Advanced Spine Techniques (podium presentation)
72. **Vorhies JS**, Tileston K, Nguyen V, Rinsky LA. Intra-Operative Neuromonitoring for pediatric deformity, a 12 year experience from a single institution. October 2018. Annual Meeting of the Scoliosis Research Society of North America (oral presentation)
73. **Vorhies JS**, Karol LA, Herring, JA. Efficacy of Bracing for Main-lumbar vs Main-thoracic curves in patients with Adolescent idiopathic Scoliosis at Risser 0. March 2018. Annual Meeting of the American Academy of Orthopaedic Surgery (oral presentation)
74. **Vorhies JS**, Funk S, Wimberly RL, Ramo BR. The Utility of Intra-Operative Arthrogram in the Management of Pediatric Lateral Condyle Fractures of the Humerus. 2017. Orthopaedic Trauma Association Annual Meeting (oral presentation)
75. **Vorhies JS**, Karol LA, Herring, JA. Efficacy of Bracing for Main-lumbar vs Main-thoracic curves in patients with Adolescent idiopathic Scoliosis at Risser 0. 2017. Annual Meeting of the Scoliosis Research Society of North America (oral presentation)
76. **Vorhies JS**, Lindsay E, Jones M, Thornton L, Copley LA. Functional Outcome after Pediatric Osteomyelitis Treated with a Multidisciplinary Evidence-Based Clinical Practice Guideline: 2 Year Follow-up. 2017. Annual Meeting of the Pediatric Orthopaedic Society of North America (oral presentation)
77. Paci G, Tileston K, **Vorhies JS**, Bishop J. Pediatric Supracondylar Humerus Fractures: Does After-hours Treatment Influence Outcomes? 2016. Orthopaedic Trauma Association Annual Meeting (oral presentation)
78. **Vorhies JS**, Imrie M, Rinsky L, Hoffinger S. Surgical Management of Pediatric Supracondylar humerus fractures in the United States: 12 Year National Trends. 2016. Annual Meeting of the Pediatric Orthopaedic Society of North America (oral presentation)
79. **Vorhies JS**, Tileston, K, Krygier, Gamble JGG. Nights and weekends: What to expect on pediatric orthopaedic call at trauma centers. 2015. 79<sup>th</sup> Annual Meeting of the Western Orthopaedic Association (oral presentation)
80. **Vorhies JS**, Bishop JB. Diagnosis of Fracture is Associated with Lower Satisfaction with Physician Performance among Orthopaedic Surgery Patients. 2015. Annual Meeting of the American Academy of Orthopaedic Surgery (oral presentation)
81. **Vorhies JS**, Bishop JB. Diagnosis of Fracture is Associated with Lower Satisfaction with Physician Performance among Orthopaedic Surgery Patients. 2014. Orthopaedic Trauma Association (oral presentation)
82. **Vorhies JS**, Alamin, TS . Treatment of Degenerative Lumbar Spondylolisthesis with Fusion or Decompression Alone Results in Similar Rates of Reoperation at 5 years. 2014. 78<sup>th</sup> Annual Meeting of the Western Orthopaedic Association (oral presentation)
83. **Vorhies JS**, Bishop JB. Orthopaedic Patients Admitted Through The Emergency Room Are Less Satisfied With Physician Performance Than Those Admitted Through Other Pathways. 2013. 77<sup>th</sup> Annual Meeting of the Western Orthopaedic Association (oral presentation)

84. **Vorhies JS**, Krygier J. Complications In The Mangement Of Bisphosphonate Related Femoral Fractures. 2013. 77th Annual Meeting of the Western Orthopaedic Association
85. Huddleston JI, **Vorhies JS**, Wang Y, Herndon, J Maloney, WJ. Readmission and Length of Stay After TKA in a National Medicare Sample 2002-2007. 2011. *57th Annual Meeting of the Orthopaedic Research Society*.
86. **Vorhies JS**, Wang Y, Herndon, J Maloney, WJ, Huddleston JI. Readmission and Length of Stay After Total Hip Arthroplasty in a National Medicare Sample. 2011. *57th Annual Meeting of the Orthopaedic Research Society*.
87. **Vorhies JS**, Slikker W, Saddic L, Pearl J, Kaburu LM, Rasori P, Miller NG, Mugambi, KK. Addressing The Social and Economic Impact of HIV/AIDS Through Microlending in Rural Kenya. 2009. *Unite for Sight 6th Annual Global Health Conference*.(oral presentation)
88. Slikker W, **Vorhies JS**, Saddic L, Pearl J, Kaburu LM, Rasori P, Miller NG, Mugambi, KK. The Effects of Microlending on Antiretroviral Treatment Adherence in HIV/AIDS Patients in Rural Kenya. 2009. *Unite for Sight 6th Annual Global Health Conference*.
89. **Vorhies JS**, Nemunaitis J. Target selection and therapeutic delivery in individualized shRNA knockdown therapy for cancer. 2007 *Modern Drug Discovery and Development Summit*. (oral presentation)
90. **Vorhies JS**; Senzer N; Nemunaitis J. Using comparative proteomics as a tool for target selection and validation for personalized RNAi therapy. 2007. 15th *International conference on Gene therapy of Cancer Abstracts with programs*. (oral presentation)
91. **Vorhies JS**; Rao D; Kumar P; Senzer N; Nemunaitis J. In silico and in vitro Characterization of Potential Off Target and Safety Issues with Stathmin (STMN1) shRNAs. 2007. 15th *International conference on Gene therapy of Cancer Abstracts with programs*. (oral presentation)
92. **Vorhies JS**; Pineda L; Andrues M; Sierra MT; Jones S; Rivera R. Impact of Locally Produced Colloidal Silver Impregnated Ceramic Water Filters in an Urban Slum of Comayaguella Honduras. 2007. *Stanford Fall Forum on Community Health*. (poster presentation)
93. **Vorhies JS**; Senzer N; Nemunaitis J. Using comparative proteomics as a tool for target selection and validation for personalized RNAi therapy. American Society of Gene Therapy 10th Annual Meeting. Seattle, WA, May 31 – June 4, 2007. (poster presentation)
94. Gaines RR, **Vorhies JS**. Evidence for Microbial Respiration of Structural Fe<sup>3+</sup> from Clay Minerals in an Ancient Diagenetic System: Implications for Authigenic Iron and Silica Products in Mudstones. *American Association of Petroleum Geologists Annual Convention and Exhibition Technical Program 2007*.
95. **Vorhies JS**; Nemunaitis J. Vectors for the delivery of RNAi based cancer therapeutics. 2006. *International conference on Gene therapy of Cancer Abstracts with Programs*. (oral presentation)
96. Senzer N; Nemunaitis J; Rao D; Khalil I; Shen Y; Tong A; Maples P; **Vorhies JS**; Shanahan D. Non-random thoughts on the MCMRC Individualized Therapy Project. 2006. 14th *International conference on Gene therapy of Cancer Abstracts with programs*.
97. Khalil I; Nemunaitis J; Senzer N; Shen Y; Kumar P; Tong A; Kuhn J; Lamont J, Nemunaitis M; Rao D; Zhang Y; Zhou Y; **Vorhies JS**; Maples P; Hill C; Shanahan D. Inferring causal regulatory networks for personalized cancer therapeutics. 2006. *International conference on Gene therapy of Cancer Abstracts with Programs*.
98. **Vorhies JS**, Gaines RR. Carbonate concretions from the Wheeler Formation preserve evidence suggesting microbial reduction of structural Fe(III) from clay minerals in Cambrian sediments. 2005. *Geological Society of America Abstracts with Programs*. (oral presentation)
99. **Vorhies JS**.; Gaines Robert R. Growth mechanisms for carbonate concretions of the Wheeler Formation House Range, Utah: Implications for pore water Biogeochemistry. 2005. *Geological Society of America Abstracts with Programs, Cordilleran Section*. (poster presentation)
100. **Vorhies JS**. Arsenic Biogeochemistry in the Long Valley Caldera. 2004. *Pomona College Summer Research Abstracts*. (poster presentation)

## Grants

Completed

1. Coulter Stanford Department of Bioengineering Grant: "An artificial intelligence-aided app for detection and management of musculoskeletal deformity" (Co-Investigator) \$100,000.00 Award. May 16, 2021-May 15, 2022
2. POSNA Micro-grant: "Can Commitment Contracts and Financial Incentives Improve Brace Compliance in the Treatment of Clubfoot?" (Principal Investigator) \$1,000.00 Award. June 1, 2018-May 31, 2019
3. Pediatric Orthopaedic Society of North America Medtronic Spine QSVI Grant: "A Biopsychosocial Model of Care for Pediatric Spine Clinic" (Principal Investigator) \$5,000.00 Award. June 1, 2022-May 30, 2023.
4. Scoliosis Research Society: "Leveraging Embedded Haptic Sensor Technology for Force Vector Mapping in Orthoses for Adolescent Idiopathic Scoliosis" (Co-Investigator) \$50,000.00 Award. October 1, 2020-November 1, 2022.

#### *Ongoing*

1. National Institute of Arthritis and Musculoskeletal and Skin Diseases and Eunice Kennedy Shriver National Institute of Child Health & Human Development: "IMPACCT: Infrastructure for Musculoskeletal Pediatric Acute Care Clinical Trials" (Co-Investigator) \$20,992.00 Award. September 2021-August 2026.
2. POSNA Zimmer Biomet Spine Research Grant: "Erector spinae plane catheters and clinical outcomes after spinal fusion" (Principal Investigator) \$30,000.00 Award. February 1, 2020-December 1, 2025
3. Scoliosis Research Society: "Health Mindset in Postoperative Mobilization after Posterior Spinal Fusion for Adolescent Idiopathic Scoliosis" (Principal Investigator) \$30,000.00 Award. October 1, 2020-November 1, 2022
4. Scoliosis Research Society: "SET Screws: A Novel Approach to Anterior Spinal Growth Modulation" (Co-Investigator) \$10,000.00 Award.

#### **Clinical Trials**

1. Erector spinae plane catheters and clinical outcomes after spinal fusion, a randomized clinical trial. (Principal Investigator) 8/2020-present

#### **Service as a Grant Reviewer**

Pediatric Orthopaedic Society of North America (POSNA)	5/2018 – Present
Scoliosis Research Society (SRS)	8/2019 – Present

#### **Service To Professional Organizations**

##### **Membership**

Active Member of the Ruth Jackson Orthopaedic Society (RJOS)	5/2022-Present
Active Member of the J. Robert Gladden Orthopaedic Society	4/2022-Present
Active Fellow of the Scoliosis Research Society (SRS)	4/2022-Present
American Orthopaedic Association (AOA) Emerging Leaders	3/2022-Present
Fellow of the American Academy of Orthopaedic Surgeons (AAOS)	9/2020–Present
Candidate Fellow of the Scoliosis Research Society (SRS)	12/2018–Present
American Orthopaedic Association (AOA) Emerging Leaders Program	9/2018 – Present
Active Member of the Pediatric Orthopaedic Society of North America (POSNA)	4/2016 – Present

##### **Committee service**

SRS–Research Grants Committee	8/2019 - Present
POSNA-Industry Relations Committee	5/2020 – Present
POSNA–Research Committee	5/2018 – Present
POSNA Evidence –Based Practice Committee	5/2018 – 5/2020

##### **Leadership roles**

Team Leader: SRS–Research Grants Committee	8/2019 - Present
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## Presentations

SRS Research Grant Outcome Symposium “ <i>Leveraging Embedded Haptic Sensor Technology for Vector mapping in Orthoses for Adolescent Idiopathic Scoliosis</i> ”	3/2022
Pediatric Grand Rounds Community Hospital Monterey “ <i>Pediatric Scoliosis. Update</i> ”	8/2020
Stanford Dept of Orthopaedic Surgery Grand Rounds “ <i>What’s an RVU worth?</i> ”	6/2019
Stanford Dept of Orthopaedic Surgery Grand Rounds “ <i>Sagittal Balance</i> ”	1/2018

## Community Service

Member, Board of Directors, Proyecto Villa Nueva, Everson, WA and Tegucigalpa, Honduras	8/2006-Present
Volunteer Surgeon, Operation Rainbow, San Pedro Sula, Honduras	9/2019
Volunteer Surgeon, Operation Rainbow Tegucigalpa, Honduras	9/2018
Orthopaedic Instructor, Stanford International Humanitarian Aid Course	8/2015 -12/2015
Resident Surgeon, Operation Rainbow Guatemala City, Guatemala	7/2014
Student Interviewer, Stanford School of Medicine	12/2008- 5/2011
Intern, World Health Organization Headquarters Geneva, Switzerland	6/2009-7/2009
Research Associate, Village HopeCore International Chogoria, Kenya	6/2008-8/2008
Health Education Instructor, Comayaguela, Honduras	8/2008 -12/2008
Manager, Hope for Honduras Clinic Comayaguela, Honduras	8/2005-7/2007
<i>Ceramic Artist in Residence</i> Jingdezhen, China	9/2005-10/2005
<i>Spanish Interpreter</i> , Texas Scottish Rite Hospital Dallas TX	7/2003 and 7/2004

## Trainees

Felipe D. Diaz-Valdez, Stanford Orthopaedics Summer Research Program. “Does participation in Schroth affect health-related quality-of-life?”	6/2023-7/2023
Nadine Horneck, Stanford Orthopaedics Remote Research Program. “Identifying Brace Compliance Trends in Adolescent Idiopathic Scoliosis”	6/2022-8/2022
Teeto Ezeonu, Stanford Orthopaedics Remote Research Program. “Curve Characteristics and Surgical Outcomes in Scoliosis Associated with Childhood Sternotomy or Thoracotomy”	6/2021-8/2021
Abdul-Lateef Shafau, Stanford Orthopaedics Remote Research Program. “Curve Characteristics and Surgical Outcomes in Scoliosis Associated with Childhood Sternotomy or Thoracotomy”	6/2021-8/2021
Ryan Seltzer, Med Scholar’s Advisee. “Describing Cannabidiol Use Patterns and Effects on Quality of Life in a Convenience Sample of Children with Cerebral Palsy”	6/2020-9/2020