

## ACADEMIC APPOINTMENT

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**University of California – Irvine School of Medicine** | Irvine, CA

August 2025-Present

Assistant Professor

Department of Orthopaedic Surgery

## EDUCATION

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**Residency, Department of Orthopaedic Surgery**

2019 – 2024

Administrative Chief Resident

2023-2024

Keck School of Medicine at the University of California

**Quinnipiac University Frank H. Netter M.D. School of Medicine** | North Haven, CT

2015-2019

**Doctor of Medicine**

Concentration: Basic Clinical and Translational Research

Step 1 Score: 263

Step 2 Score: 266

Step 3: Pass

ABOS Part I: Pass

**Haverford College** | Haverford, PA

2009-2013

**Bachelor of Sciences** in Chemistry

Abroad: University of Cambridge, Cambridge, United Kingdom

University of Melbourne, Melbourne, Australia

## PUBLICATIONS

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1. Ton, Andy, Karakash, William J, Avetisian, Henry, Abdou, Marc, Gettleman, Brandon, Palmer, Ryan, **Mills, Emily S**, Ball, Jacob R, Ragheb, Jonathan, Wang, Jeffrey C. Anatomic Variation with Supine to Prone Positioning: Implications for Prone Transposas Single-Position Lumbar Fusion. Spine Surgery and Related Research. 2025.
2. **Mills, Emily S**, Wang, Jennifer C, Richardson, Mary K, Chung, Brian C, Mayer, Lucas W, Gallo, Matthew C, Alluri, Ram K, Hah, Raymond J, Heckmann, Nathanael D. The change in lumbar lordosis from the standing to the lateral position: implications for lateral interbody fusion. European Spine Journal. 2025;34(1):148-155.
3. Lechtholz-Zey, Elizabeth A, Ayad, Mina, Gettleman, Brandon S, **Mills, Emily S**, Shelby, Hannah, Ton, Andy, Karakash, William J, Shah, Ishan, Wang, Jeffrey C, Alluri, Ram K. Changes in segmental and lumbar lordosis following lumbar interbody fusion: a systematic review and meta-analysis. Clinical Spine Surgery. 2025;38(6):294-303.
4. Ton, Andy, Mertz, Kevin, Abdou, Marc, Hang, Nicole, **Mills, Emily S**, Hah, Raymond J, Alluri, Ram K, Wang, Jeffrey C. Nationwide analysis of sacroiliac joint fusion trends: regional variations in utilization and population characteristics. Global Spine Journal. 2025;15(2):518-525.

5. Lechtholz-Zey, Elizabeth A, Gettleman, Brandon S, Ayad, Mina, **Mills, Emily S**, Shelby, Hannah, Ton, Andy, Shah, Ishan, Safaee, Michael M, Wang, Jeffrey C, Alluri, Ram K. The effect of osteoporosis on complications and reoperation rates after surgical management of adult thoracolumbar spinal deformity: a systematic review and meta analysis. *Global Spine Journal*. 2024;14(8):2420-2439.
6. **Mills, Emily S**, Mertz, Kevin, Faye, Ethan, Ton, Andy, Wang, Jeffrey C, Hah, Raymond J, Alluri, Ram K. The effect of COVID-19 on spine surgery. *Global Spine Journal*. 2024;14(8):2252-2258.
7. **Mills, Emily S**, Mertz, Kevin, Fresquez, Zoe, Ton, Andy, Buser, Zorica, Alluri, Ram K, Hah, Raymond J. The incidence of double crush syndrome in surgically treated patients. *Global Spine Journal*. 2024;14(4):1220-1226.
8. Ball, Jacob R, Shelby, Tara, Mertz, Kevin, **Mills, Emily S**, Ton, Andy, Alluri, Ram K, Hah, Raymond J. The incidence of vertebral artery injury in cervical spine surgery. *World Neurosurgery*. 2024;181:e841-e847.
9. Robertson, Djani M, Ton, Andy, Brown, Michael, Shahrestani, Shane, **Mills, Emily S**, Wang, Jeffrey C, Hah, Raymond J, Alluri, Ram K. Cervical Disc Arthroplasty: Rationale, Designs, and Results of Randomized Controlled Trials. *International Journal of Spine Surgery*. 2024;18(3):258-276.
10. Lechtholz-Zey, Elizabeth A, Ayad, Mina, Gettleman, Brandon S, **Mills, Emily S**, Shelby, Hannah, Ton, Andy, Shin, John JS, Wang, Jeffrey C, Hah, Raymond J, Alluri, Ram K. Systematic review and meta-analysis of the effect of osteoporosis on fusion rates and complications following surgery for degenerative cervical spine pathology. *International Journal of Spine Surgery*. 2024;18(3):277-286.
11. **Mills, Emily S**, Wang, Jennifer C, Richardson, Mary K, Alluri, Ram K, Hah, Raymond J, Cleary, Ekaterina, Lau, Edmund, Ong, Kevin, Heckmann, Nathanael D. Patients with hip osteoarthritis have a higher rate of spinal reoperation following lumbar spinal fusion. *JBJS*. 2024;106(15):1351-1361.
12. Lechtholz-Zey, Elizabeth A, Ayad, Mina, Gettleman, Brandon S, **Mills, Emily S**, Shelby, Hannah, Ton, Andy T, Shah, Ishan, Wang, Jeffrey C, Hah, Raymond J, Alluri, Ram K. Systematic review and meta-analysis of the effect of osteoporosis on reoperation rates and complications after surgical management of lumbar degenerative disease. *Journal of Bone Metabolism*. 2024;31(2):114.
13. Liu, Kevin G, Ton, Andy T, Brown, Michael, Mertz, Kevin, Patel, Siddharth, Shelby, Hannah, Gettleman, Brandon, Ragheb, Jonathan M, **Mills, Emily S**, Wang, Jeffrey C. Lumbar Fusions in Patients with Sickle Cell Disease: A Propensity-Matched Analysis of Postoperative Complications. *World Neurosurgery*. 2024;190:e435-e442.
14. Ton, Andy, Bell, Jennifer A, Karakash, William J, Alter, Thomas D, Erdman, Mary Kate, Kang, Hyunwoo Paco, **Mills, Emily S**, Ragheb, Jonathan Mina, Athari, Mirbahador, Wang, Jeffrey C. Risk of Subsequent Hip Fractures across Varying Treatment Patterns for Index Vertebral Compression Fractures. *Journal of Clinical Medicine*. 2024;13(16):4781.
15. **Mills, Emily S**, Mayfield, Cory, Liu, Kevin, Ton, Andy, Palmer, Ryan, Wang, Jeffrey C, Hah, Raymond J, Alluri, Ram Kiran, Karakash, William. 63. Odontoid fractures portend higher mortality risk compared to hip fractures: a matched cohort analysis. *The Spine Journal*. 2024;24(9):S34.
16. Ton, Andy, Hang, Nicole, Sargsyan, Anahit, Au, Christian, Ball, Jacob, Ragheb, Jonathan, Abdou, Marc, **Mills, Emily S**, Wang, Jeffrey C, Hah, Raymond J. P205. Nationwide analysis of cervical hybrid surgery for two-level cervical degenerative disease. *The Spine Journal*. 2024;24(9):S165.

17. Ton, Andy, Iyer, Avinash, Hang, Nicole, Abdou, Marc, **Mills, Emily S**, Hah, Raymond J, Wang, Jeffrey C, Alluri, Ram Kiran. P46. Kinetic analysis of structural parameters in degenerative lumbar spondylolisthesis. *The Spine Journal*. 2024;24(9):S85-S86.
18. **Mills, Emily S**, Bouz, Gabriel J, Kang, Hyunwoo P, Chung, Brian C, Wang, Jennifer C, Tezuka, Taro, Dorr, Lawrence D, Heckmann, Nathanael D. Preoperative radiographic findings associated with postoperative spinopelvic risk factors for instability following total hip arthroplasty. *Journal of Orthopaedic Research®*. 2023;41(9):2026-2031.
19. Heckmann, Nathanael D, Wang, Jennifer C, Piple, Amit S, Marshall, Glenda A, **Mills, Emily S**, Liu, Kevin C, Lieberman, Jay R, Christ, Alexander B. Is intraoperative dexamethasone utilization associated with increased rates of periprosthetic joint infection following total joint arthroplasty?. *The Journal of Arthroplasty*. 2023;38(2):224-231. e1.
20. Piple, Amit S, Wang, Jennifer C, Kebaish, Kareem J, **Mills, Emily S**, Oakes, Daniel A, Lieberman, Jay R, Christ, Alexander B, Heckmann, Nathanael D, Does prednisone dose affect rates of periprosthetic joint infection following primary total hip and total knee arthroplasty?. *The Journal of Arthroplasty*. 2023;38(6):1024-1031.
21. Shelby, Tara, **Mills, Emily S**, Ton, Andy, Wang, Jeffrey C, Hah, Raymond J, Qureshi, Sheeraz A, Alluri, Ram K. The role of sex hormones in degenerative disc disease. *Global Spine Journal*. 2023;13(7):2096-2099.
22. **Mills, Emily S**, Shelby, Tara, Bouz, Gabriel J, Hah, Raymond J, Wang, Jeffrey C, Alluri, Ram K. A decreasing national trend in lumbar disc arthroplasty. *Global Spine Journal*. 2023;13(8):2271-2277.
23. Piple, Amit S, Wang, Jennifer C, Kang, Hyunwoo P, **Mills, Emily S**, Mayfield, Cory K, Lieberman, Jay R, Christ, Alexander B, Heckmann, Nathanael D. Safety and efficacy of rivaroxaban in primary total hip and knee arthroplasty. *The Journal of Arthroplasty*. 2023;38(8):1613-1620. e4.
24. **Mills, Emily S**, Wang, Jennifer C, Sanchez, Joshua, Ton, Andy, Alluri, Ram K, Heckmann, Nathanael D, Hah, Raymond J. The correlation between pelvic motion and lumbar motion in patients presenting with a lumbar spinal Pathology: implications for assessing dislocation risk in total hip arthroplasty. *Arthroplasty Today*. 2023;20:101105.
25. Faye, Ethan R, Ball, Jacob R, **Mills, Emily S**, Wang, Jeffrey, Hah, Raymond J, Alluri, Ram K. The Role of Psychosocial Screening in Patient Selection for Spine Surgery: A Review. *International Journal of Spine Surgery*. 2023;17(2):309-317.
26. **Mills, Emily S**, Talehakimi, Arad, Urness, Matthew, Wang, Jennifer C, Piple, Amit S, Chung, Brian C, Tezuka, Taro, Heckmann, Nathanael D. Anteroposterior pelvic radiograph findings correlate with sagittal spinopelvic motion. *The Bone & Joint Journal*. 2023;105(5):496-503.
27. **Mills, Emily S**, Mayfield, Cory K, Shelby, Tara, Ton, Andy T, Hah, Raymond J, Alluri, Ram K. Are cervical disc arthroplasty Medicare reimbursement trends sustainable?. *International Journal of Spine Surgery*. 2023;17(2):222-229.
28. Shelby, Tara, **Mills, Emily S**, Kang, Hyunwoo P, Ton, Andy, Hah, Raymond J, Alluri, Ram K. Preoperative epidural steroid injection does not increase infection risk following posterior cervical surgery. *Spine*. 2023;48(23):1658-1662.

29. Ton, Andy, Mertz, Kevin, Han, Jane, Avetisian, Henry, **Mills, Emily S**, Wang, Jeffrey, Hah, Raymond, Alluri, Ram. 122. Predictors and postoperative complication risks for revision discectomies following primary lumbar microdiscectomy. *The Spine Journal*. 2023;23(9):S62-S63.
30. **Mills, Emily S**, Wang, Jennifer, Chung, Brian, Mayer, Lucas, Richardson, Mary, Ton, Andy, Wang, Jeffrey, Alluri, Ram, Hah, Raymond, Heckmann, Nathanael. 112. The change in lordosis from the standing to lateral position: implications for lateral interbody fusion. *The Spine Journal*. 2023;23(9):S57.
31. **Mills, Emily S**, Bell, Jennifer, Alter, Thomas, Erdman, Mary Kate, Kang, Hyunwoo, Ton, Andy, Wang, Jeffrey, Hah, Raymond, Alluri, Ram. P57. Anti-osteoporotic medication prescription patterns in patients with vertebral compression fractures. *The Spine Journal*. 2023;23(9):S134-S135.
32. **Mills, Emily S**, Richardson, Mary, Wang, Jennifer, Chung, Brian, Mayer, Lucas, Wang, Jeffrey, Ton, Andy, Alluri, Ram, Hah, Raymond, Heckmann, Nathanael. P15. Normative spinopelvic motion amongst healthy volunteers. *The Spine Journal*. 2023;23(9):S115-S116.
33. Shabani, Soroush, Faye, Ethan, **Mills, Emily S**, Yoshida, Brandon, Ton, Andy, Wang, Jeffrey, Hah, Raymond, Alluri, Ram. P35. The effect of positional graft placement on pseudarthrosis rates in anterior cervical discectomy and fusion. *The Spine Journal*. 2023;23(9):S124-S125.
34. Ton, Andy, Mertz, Kevin, Brown, Michael, **Mills, Emily S**, Wang, Jeffrey, Hah, Raymond, Alluri, Ram. P27. Lumbar fusions in patients with sickle cell disease: a propensity-matched analysis of postoperative complications. *The Spine Journal*. 2023;23(9):S121-S122.
35. **Mills, Emily S**, Mertz, Kevin, Faye, Ethan, Bell, Jennifer A, Ton, Andy T, Wang, Jeffrey C, Alluri, Ram K, Hah, Raymond J. Complication rates and utilization trends of 3-level posterior column osteotomy compared to single-level pedicle subtraction osteotomy. *Neurospine*. 2023;20(2):662.
36. **Mills, Emily S**, Hah, Raymond J, Fresquez, Zoe, Mertz, Kevin, Buser, Zorica, Alluri, Ram K, Anderson, Paul A. Secondary fracture rate after vertebral osteoporotic compression fracture is decreased by anti-osteoporotic medication but not increased by cement augmentation. *JBJS*. 2022;104(24):2178-2185.
37. **Mills, Emily S**, Ton, Andy T, Bouz, Gabriel, Alluri, Ram K, Hah, Raymond J. Acute operative management of osteoporotic vertebral compression fractures is associated with decreased morbidity. *Asian Spine Journal*. 2022;16(5):634.
38. **Mills, Emily S**, Hah, Raymond J, Fresquez, Zoë, Buser, Zorica, Alluri, Ram K, Anderson, Paul A. 186. The effect of cement augmentation and anti-osteoporotic medication on secondary fracture risk in osteoporotic compression fractures. *The Spine Journal*. 2022;22(9):S99.
39. **Mills, Emily S**, Treloar, Joshua, Idowu, Olumuyiwa, Shelby, Tara, Alluri, Ram K, Hah, Raymond J. Single position lumbar fusion: a systematic review and meta-analysis. *The Spine Journal*. 2022;22(3):429-443.
40. **Mills, Emily S**, Bouz, Gabriel J, Formanek, Blake G, Chung, Brian C, Wang, Jeffrey C, Heckmann, Nathanael D, Hah, Raymond J. Timing of total hip arthroplasty affects lumbar spinal fusion outcomes. *Clinical Spine Surgery*. 2022;35(2):E333-E338.

41. **Mills, Emily S**, Becerra, Jacob A, Yensen, Katie, Bolia, Ioanna K, Shontz, Edward C, Kebaish, Kareem J, Dobitsch, Andrew, Hasan, Laith K, Haratian, Aryan, Ong, Charlton D. Current and future advanced imaging modalities for the diagnosis of early osteoarthritis of the hip. *Orthopedic Research and Reviews*. 2022;14:327.
42. **Mills, Emily S**, Ellman, Michael B, Foran, Jared RH. The utility of obtaining a complete blood count after total knee arthroplasty in the era of tranexamic acid. *Orthopedics*. 2021;44(1):e26-e30.
43. Mirzayan, Raffy, **Mills, Emily S**. Chronic distal biceps tendon tear reconstruction with tibialis anterior allograft. *Arthroscopy Techniques*. 2021;10(8):e1935-e1941.
44. **Mills, Emily S**, Iorio, Louis, Feinn, Richard S, Duignan, Kevin M, Macica, Carolyn M. Joint replacement in X-linked hypophosphatemia. *Journal of orthopaedics*. 2019;16(1):55-60.
45. **Mills, Emily S**, Debbi, Eytan M, Brien, Earl W, Giaconi, Joseph C, Moon, Charles N. Squamous Cell Carcinoma Arising from a Morel-Lavallée Lesion: A Case Report. *JBJS Case Connector*. 2019;9(4):e0441.
46. **Mills, Emily S**, Elman, Michael B, Foran, Jared RH. The risk of acute infection following intra-articular corticosteroid injection into a pre-existing total knee arthroplasty. *The Journal of Arthroplasty*. 2018;33(1):216-219.
47. **Mills, Emily S**, Iorio, Louis, Macica, Carolyn. Assessing Outcomes of Joint Replacement in Patients with X-Linked Hypophosphatemia. *Journal of Bone and Mineral Research*.. 2017;32:S169-S169.

#### PRESENTATIONS AND ABSTRACTS

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1. **Mills, E. S.**, Mayfield, C., Liu, K., Palmer, R., Ton, A., Wang, J. C., Hah, R. J., Alluri, R. K. Odontoid Fractures Portend Higher Mortality Risk Compared To Hip Fractures: A Matched Cohort Analysis. Poster Presentation at Cervical Spine Research Society 2024.
2. **Mills, E. S.**, Mayfield, C., Liu, K., Palmer, R., Ton, A., Wang, J. C., Hah, R. J., Alluri, R. K. Odontoid Fractures Portend Higher Mortality Risk Compared To Hip Fractures: A Matched Cohort Analysis. Podium Presentation at Western Orthopaedic Association Annual Meeting, 2024.
3. Shabani S, Yoshida B, Ton A, Faye E, **Mills E.S.**, Wang J.C., Hah R.J., Alluri R.K. Effect of Positional Graft Placement on Pseudarthrosis Rates in Anterior Cervical Discectomy and Fusion. Podium Presentation Western Orthopaedic Association Annual Meeting, 2024.
4. Ton, A., Gettleman, B., Palmer, R., Abdou, M., **Mills, E.S.**, Safaee, M.S., Wang, J.C., Hah, R.J., Alluri, R.K. Anatomic Variation with Supine to Prone Positioning: Implications for Prone Transposas Single-Position Lumbar Fusion. Podium Presentation at Western Orthopaedic Association Annual Meeting, 2024.
5. Ball, J., Ton, A., Hopkins, B., Hang, N., Bajouri, Z., **Mills, E.S.**, Wang, J.C., Alluri, R.K., Hah, R.J. Cost-Analysis of Single-Position versus Conventional Dual Positioning for Lumbar Interbody Fusions. Podium Presentation at Western Orthopaedic Association Annual Meeting, 2024.

6. Palmer, R.C., Chen, M., Ton, A., Bajouri, Z., Mills, E.S., Wang, J.C., Hah, R.J., Alluri, R.K. Predictors of Ligamentum Flavum Buckling in Patients with Congenital Cervical Stenosis. Podium Presentation at Western Orthopaedic Association Annual Meeting, 2024.
7. Ayad, M., Lechtholz-Zey, E.A., Gettleman, B.S., Mills, E.S., Shelby, H., Ton, A., Wang, J.C., Hah, R.J., Alluri R.K. Changes in Segmental and Lumbar Lordosis Following Lumbar Interbody Fusion. Podium Presentation at Western Orthopaedic Association Annual Meeting, 2024.
8. **Mills, E.S.**, Mayfield, C., Liu, K., Palmer, R., Ton, A., Wang, J. C., Hah, R. J., Alluri, R. K. Odontoid Fractures Portend Higher Mortality Risk Compared To Hip Fractures: A Matched Cohort Analysis. Podium Presentation North American Spine Society Annual Meeting, 2024
9. Ton, A., Hang, N., Au, C., Sargsyan, A., Ball, J., Abdou, M., **Mills, E.S.**, Wang, J.C., Hah, R.J., Alluri, R.K. Nationwide Analysis Of Cervical Hybrid Surgery For Two-Level Cervical Degenerative Disease. Podium Presentation North American Spine Society Annual
10. Ton, A., Gettleman, B., Palmer, R., Abdou, M., **Mills, E.S.**, Safaee, M.S., Wang, J.C., Hah, R.J., Alluri, R.K. Anatomic Variation with Supine to Prone Positioning: Implications for Prone Transposas Single-Position Lumbar Fusion. Podium Presentation Lumbar Spine Research Society Annual Meeting, 2024.
11. Ton, A., Han, J., Mertz, K., Avetisian, H., Hang, N., **Mills, E.S.**, Wang, J.C., Hah, R.J., Alluri, R.K. Revision Discectomies Following Primary Lumbar Microdiscectomy: Predictors and Postoperative Complications. Poster Presentation Lumbar Spine Research Society Annual Meeting, 2024.
12. Ton, A., Gettleman, B., Palmer, R., Abdou, M., **Mills, E.S.**, Safaee, M.S., Wang, J.C., Hah, R.J., Alluri, R.K. Anatomic Variation with Supine to Prone Positioning: Implications for Prone Transposas Single-Position Lumbar Fusion. Podium Presentation at The International Society for the Advancement of Spine Surgery Annual Conference, 2024
13. **Mills E.S.**, Wang J, Chung B, Mayer L, Richardson M, Ton A, Hah R.J., Heckmann N.D. The Change in Lordosis from the Standing to Lateral Position: Implications for Lateral Interbody Fusion. Podium Presentation, Lumbar Spine Research Society, 2023
14. **Mills E.S.**, Wang J, Sanchez J, Bouz G, Ton A, Kim A, Wang, J.C., Alluri R.K., Heckman N.D., Hah R.J. Decreased Hip Motion is Associated with Inferior Spine Outcomes. Poster Presentation, Lumbar Spine Research Society 2023.
15. **Mills E.S.**, Wang J, Chung B, Mayer L, Richardson M, Ton A, Hah R.J., Heckmann N.D. The Change in Lordosis from the Standing to Lateral Position: Implications for Lateral Interbody Fusion. Podium Presentation at NASS Annual Meeting, 2023.
16. Ton A, Mertz K, Han, J, Avestian, H, **Mills E.S.**, Wang J.C., Hah R.J., Alluri, R.K. Predictors and Postoperative Complication Risks for Revision Discectomies Following Primary Lumbar Microdiscectomy. Podium Presentation at NASS Annual Meeting, 2023.
17. Ton A, Mertz K, Brown, M, **Mills E.S.**, Wang J.C., Hah R.J., Alluri, R.K. Lumbar Fusions in

Patients with Sick Cell Disease: A Propensity-Matched Analysis of Postoperative Complications. Poster Presentation at NASS Annual Meeting, 2023.

18. **Mills E.S.**, Bell J, Alter T.D., Erdman M.K., Kang H.P., Ton A, Wang J.C., Alluri R.K., Hah R.J. Anti-osteoporotic Medication Prescription Patterns in Patients with Vertebral Compression Fractures. Poster Presentation at NASS Annual Meeting, 2023.
19. **Mills E.S.**, Richardson M, Wang J, Chung B, Mayer L, Ton A, Wang J.C., Alluri R.K., Hah R.J., Heckmann N.D. Normative Spinopelvic Motion Amongst Healthy Volunteers. Poster Presentation at NASS Annual Meeting, 2023.
20. Shabani S, Faye E, **Mills E.S.**, Yoshida B, Ton A, Wang J.C., Hah, R.J., Alluri R.K. The Effect of Positional Graft Placement on Pseudarthrosis Rates in Anterior Cervical Discectomy and Fusion. Poster Presentation at NASS Annual Meeting, 2023.
21. Ton, A., Hang, N., Au, C., Sargsyan, A., Ball, J., Abdou, M., **Mills, E.S.**, Wang, J.C., Hah, R.J., Alluri, R.K. Nationwide Analysis of Hybrid Surgery for Two-Level Cervical Degenerative Disease. Podium Presentation at Global Spine Congress Annual Meeting, 2024
22. Palmer, R.C., Chen, M., Ton, A., Bajouri, Z., **Mills, E.S.**, Wang, J.C., Hah, R.J., Alluri, R.K. Predictors of Ligamentum Flavum Buckling in Patients with Congenital Cervical Stenosis. Podium Presentation at Global Spine Congress Annual Meeting, 2024.
23. Lechtholz-Zey, E.A., Ayad, M., Gettleman, B.S., **Mills, E.S.**, Shelby, H., Ton, A., Wang, J.C., Hah, R.J., Alluri R.K. Systematic Review and Meta-Analysis of the Effect of Osteoporosis on Reoperation Rates and Complications After Surgical Management of Lumbar Degenerative Disease. Poster Presentation at Global Spine Congress Annual Meeting, 2024.
24. Ton, A., Mertz, K., Brown, M., **Mills, E.S.**, Wang, J.C., Hah, R.J., Alluri, R.K. Postoperative Complications in Sick Cell Disease Patients Undergoing Lumbar Fusion. Poster Presentation at Global Spine Congress Annual Meeting, 2024.
25. Ton, A., Mertz, K., Han, J., Avetisian, H., **Mills, E.S.**, Wang, J.C., Hah, R.J., Alluri, R.K. Revision Discectomies Following Primary Lumbar Microdiscectomy: Predictors and Postoperative Complications. Poster Presentation at Global Spine Congress Annual.
26. Ton, A., Hang, N., Abdou, M., Lee, C., **Mills, E.S.**, Wang, J.C., Hah, R.J., Alluri, R.K. Kinetic Analysis of Structural Parameters in Degenerative Lumbar Spondylolisthesis. Poster Presentation at Global Spine Congress Annual Meeting, 2024.
27. Ball, J., Ton, A., Hopkins, B., Hang, N., Bajouri, Z., **Mills, E.S.**, Wang, J.C., Alluri, R.K., Hah, R.J. Cost-Analysis of Single-Position versus Conventional Dual Positioning for Lumbar Interbody Fusions. Poster Presentation at Global Spine Congress Annual Meeting, 2024.
28. Lechtholz-Zey, E.A., Ayad, M., Gettleman, B.S., **Mills, E.S.**, Shelby, H., Ton, A., Wang, J.C., Hah, R.J., Alluri R.K. The Effect of Osteoporosis on Complications and Reoperation Rates After Surgical Management of Adult Thoracolumbar Spinal

29. Deformity: A Systematic Review and Meta-Analysis. Poster Presentation at Global Spine Congress Annual Meeting, 2024.
30. **Mills ES**, Wang JC, Richardson MK, Cleary E, Ong K, Alluri RK, Hah RJ, Heckmann ND. Patients with Hip Osteoarthritis Have a Higher Rate of Revision Following Lumbar Spinal Fusion Surgery. Podium Presentation at Western Orthopaedic Association, 2023.
31. Ton A, Hang N, Abdou M, Lee C, **Mills E.S.**, Wang J.C., Hah, R.J., Alluri R.K. Kinetic Analysis of Structural Parameters in Degenerative Lumbar Spondylolisthesis. Podium Presentation at Western Orthopaedic Association Annual Meeting, 2023.
32. Ton A, Mertz K, Han, J, Avestian, H, **Mills E.S.**, Wang J.C., Hah R.J., Alluri, R.K. Revision Discectomies Following Primary Lumbar Microdiscectomy: Predictors and Postoperative Complications. Podium Presentation at Western Orthopaedic Association Annual Meeting, 2023..
33. Shabani S, Yoshida B, Ton A, Faye E, **Mills E.S.**, Wang J.C., Hah, R.J., Alluri R.K. Graft Positioning and Pseudarthrosis in Anterior Cervical Discectomy and Fusion. Podium Presentation at Western Orthopaedic Association Annual Meeting, 2023.
34. Ton A, Mertz K, Abdou M, Hang N, **Mills E.S.**, Wang J.C., Hah, R.J., Alluri R.K. Regional Variations and Utilization Trends in Sacroiliac Joint Fusion. Podium Presentation at Western Orthopaedic Association Annual Meeting, 2023..
35. Pimenta L, **Mills E.S.**, Shelby T, Ton A, Wang J.C., Hah R.J., Alluri R.K. Coronal Anatomy of the Lumbar Plexus: Implications for Lateral Lumbar Interbody Fusion. Podium Presentation at Western Orthopaedic Association Annual Meeting, 2023.
36. **Mills E.S.**, Faye E, Mertz K, Ton A, Wang J.C., Hah, R.J., Alluri R.K. The Impact of COVID-19 on Spine Surgery. Poster Presentation at Western Orthopaedic Association Annual Meeting, 2023.
37. Ayad M, Gettleman B, Lechtholz-Zey E, **Mills E.S.**, Shelby T, Ton A, Wang J.C., Hah, R.J., Alluri R.K. Systematic Review: Segmental and Lumbar Lordosis Following Lumbar Interbody Fusion. Poster Presentation at Western Orthopaedic Association Annual Meeting, 2023.
38. Ton A, Mertz K, Brown M, **Mills E.S.**, Wang J.C., Hah R.J., Alluri, R.K. Postoperative Complications in Sickle Cell Disease Patients Undergoing Lumbar Fusion. Poster Presentation at Western Orthopaedic Association Annual Meeting, 2023.
39. Lechtholz-Zey E, Ayad M, Gettleman B, **Mills E.S.**, Shelby T, Ton A, Wang J.C., Hah, R.J., Alluri R.K. Systematic Review: Osteoporosis and Complications in Cervical Degenerative Disease Surgery. Poster Presentation at Western Orthopaedic Association Annual Meeting, 2023.
40. Shelby T, **Mills E.S.**, Chen M, Kang H.P., Ton A, Wang J.C., Hah R.J., Alluri R.K. Navigation Trends in Lumbar Spine Surgery. Poster Presentation at Western Orthopaedic Association Annual Meeting, 2023.
41. Palmer R.C., Chen M, Ton A, Bajouri Z., **Mills E.S.**, Wang J.C., Hah R.J., Alluri R.K. Predictors of Ligamentum Flavum Buckling in Patients with Congenital Cervical Stenosis. Cervical Spine Research Society Annual Meeting, 2023.

42. Ton A, Hang N, Au C, Sargsyan A, Ball J, **Mills E.S.**, Wang J.C., Hah R.J., Alluri R.K. Nationwide Analysis of Hybrid Surgery for Two-Level Cervical Degenerative Disease. Cervical Spine Research Society Annual Meeting, 2023.
43. Ton A, Hang N, Au C, Sargsyan A, Ball J, Abdou M, **Mills ES**, Wang JC, Hah RJ, Alluri RK. Nationwide Analysis of Hybrid Surgery for Two-Level Cervical Degenerative Disease. Global Spine Congress Annual Meeting, 2024.
44. Palmer RC, Chen M, Ton A, Bajouri Z, **Mills ES**, Wang JC, Hah RJ, Alluri RK. Predictors of Ligamentum Flavum Buckling in Patients with Congenital Cervical Stenosis. Global Spine Congress Annual Meeting, 2024.
45. Lechtholz-Zey, EA, Ayad, M, Gettleman, BS, **Mills ES**, Shelby H, Ton A, Wang JC, Hah RJ, Alluri RK. Systematic Review and Meta- Analysis of the Effect of Osteoporosis on Reoperation Rates and Complications After Surgical Management of Lumbar Degenerative Disease. Global Spine Congress Annual Meeting, 2024.
46. Ton A, Mertz K, Brown M, **Mills ES**, Wang JC, Hah RJ, Alluri RK. Postoperative Complications in Sickle Cell Disease Patients Undergoing Lumbar Fusion. Global Spine Congress Annual Meeting, 2024.
47. Ton A, Mertz K, Han J, Avetisian H, **Mills ES**, Wang JC, Hah RJ, Alluri RK. Revision Discectomies Following Primary Lumbar Microdiscectomy: Predictors and Postoperative Complications. Global Spine Congress Annual Meeting, 2024.
48. Ton A, Hang N, Abdou M, Lee C, **Mills ES**, Wang JC, Hah RJ, Alluri RK. Kinetic Analysis of Structural Parameters in Degenerative Lumbar Spondylolisthesis. Global Spine Congress Annual Meeting, 2024.
49. Ball J, Ton A, Hopkins B, Hang N, Bajouri Z, **Mills ES**, Wang JC, Alluri RK, Hah RJ. Cost-Analysis of Single-Position versus Conventional Dual Positioning for Lumbar Interbody Fusions. Global Spine Congress Annual Meeting, 2024.
50. Lechtholz-Zey EA, Ayad M, Gettleman BS, **Mills ES**, Shelby H, Ton A, Wang JC, Hah RJ, Alluri RK. The Effect of Osteoporosis on Complications and Reoperation Rates After Surgical Management of Adult Thoracolumbar Spinal Deformity: a Systematic Review and Meta-Analysis. Global Spine Congress Annual Meeting, 2024.
51. El-Farra, M.H., **Mills, ES**, Jimenez, C.J., Solaru, S., Kang, H.P., Shelby, T., Ton, A., Wang, J.C., Hah, R.J., Alluri, R.K. Venous Thromboembolism Prophylaxis Safety Profile in Elective Spine Surgery. Poster Presentation at AAOS 2023.
52. Shelby T, **Mills ES**, Kang HP, Hah R, Alluri R. Epidural Steroid Injection and Infection Risk Following Posterior Cervical Surgery. Poster Presentation at AAOS 2023
53. **Mills, ES.**, Wang, J., Sanchez, J., Bouz, G., Ton, A., Kim, A., Wang, J.C., Alluri, R.K., Heckman, N.D., Hah, R.J. Decreased Hip Motion is Associated with Inferior Spine Outcomes. Poster

Presentation at AAOS 2023.

54. **Mills E.S.**, Wang J, Chung B, Mayer L, Richardson M, Ton A, Hah R.J., Heckmann N.D. The Change in Lordosis from the Standing to Lateral Position: Implications for Lateral Interbody Fusion. Podium Presentation at Global Spine Congress Annual Meeting, 2023.
55. **Mills E.S.**, Wang J, Sanchez J, Bouz G, Ton A, Kim A, Wang, J.C., Alluri R.K., Heckman N.D., Hah R.J. Decreased Hip Motion is Associated with Inferior Spine Outcomes. Podium presentation at Global Spine Congress Annual Meeting, 2023.
56. Shabani S, Faye E, **Mills ES**, Yoshida B, Ton A, Wang J.C., Hah, R.J., Alluri R.K. The Effect of Positional Graft Placement on Pseudarthrosis Rates in Anterior Cervical Discectomy and Fusion. Podium presentation at Global Spine Congress Annual Meeting, 2023.
57. **Mills ES**, Faye E, Mertz K, Ton A, Wang J.C., Hah, R.J., Alluri R.K. The Impact of COVID-19 on Spine Surgery. Poster at Global Spine Congress Annual Meeting, 2023.
58. **Mills ES**, Wang J, Chung B, Mayer L, Richardson M, Ton A, Hah R.J., Heckmann N.D. There is Significant Variability in Segmental Lumbar Motion. Poster at Global Spine Congress Annual Meeting, 2023.
59. Shelby T, **Mills ES**, Chen M, Kang H.P., Ton A, Wang J.C., Hah R.J., Alluri R.K. Navigation Trends in Lumbar Spine Surgery. Poster at Global Spine Congress Annual Meeting, 2023.
60. Shelby T, **Mills ES**, Kang H.P., Ton A, Wang J.C., Hah R.J., Alluri R.K. Prospective Epidural Steroid Injection Does not Increase Infection Risk Following Posterior Cervical Surgery. Poster at Global Spine Congress Annual Meeting, 2023.
61. El-Farra M.H., **Mills, ES**, Jimenez, C.J., Solaru S, Kang, H.P., Shelby T, Ton A, Wang J.C., Hah R.J., Alluri R.K. Venous Thromboembolism Prophylaxis Safety Profile in Elective Spine Surgery. Poster at Global Spine Congress Annual Meeting, 2023.
62. Bell J, Alter T.D., Erdman M.K., Kang H.P., **Mills ES**, Ton A, Wang J.C., Alluri R.K., Hah R.J. Anti-Osteoporotic Medication Prescription Patterns in Patients with Vertebral Compression Fractures. Poster at Global Spine Congress Annual Meeting, 2023.
63. Bell J, Alter T.D., Erdman M.K., Kang H.P., **Mills ES**, Ton A, Wang J.C., Alluri R.K., Hah R.J. Vertebral Compression Fractures and Subsequent Hip Fractures. Poster at Global Spine Congress Annual Meeting, 2023.
64. **Mills ES**, Hah R, Fresquez Z, Buser Z, Alluri R, Anderson P. Percutaneous Vertebral Augmentation Does Not Affect Refracture Rate Following Osteoporotic Compression Fractures, but Anti-Osteoporotic Medications Do. Podium presentation at NASS 2022
65. **Mills ES**, Mertz K, Fresquez Z, Buser Z, Alluri R, Hah R. The Incidence of Double Crush Syndrome. Poster presentation at CSRS 2022.

66. Shelby T, **Mills ES**, Kang HP, Hah R, Alluri R. Preoperative Epidural Steroid Injection does not affect Infection Risk Following Posterior Cervical Surgery. Podium presentation CSRS 2022.
67. **Mills, ES.**, Joshua Treloar, Olumuyiwa Idowu, Tara Shelby, Ram K. Alluri, and Raymond J. Hah. 2021. "Single Position Lumbar Fusion: A Systematic Review and Meta Analysis." Podium presentation AAOS 2022.
68. **Mills ES**, Ton A, Bouz G, Alluri R, Hah R. Acute Percutaneous Vertebral Augmentation is Associated with Decreased Morbidity Compared to Nonoperative Treatment. Poster presentation AAOS 2022.
69. **Mills ES**, Mayfield C, Shelby T, Ton A, Hah R, Alluri R. Medicare Reimbursement Trends for Cervical Disc Arthroplasty are not Sustainable. Podium presentation AAOS 2022.
70. **Mills ES**, Hah R, Buser Z, Fresquez Z, Anderson P. Percutaneous Vertebral Augmentation Does Not Affect Refracture Rate Following Osteoporotic Compression Fractures, but Antiosteoporotic Medications Do. Poster presentation at AAOS 2022.
71. **Mills ES**, Taleehakimi A, Urness M, Wang JC, Piple A, Chung B, Tezuka T, Heckmann N. Does Severity of Hip Osteoarthritis Affect Spinopelvic Motion? Poster presentation AAOS 2022.
72. Piple A, Wang JC, Kang PK, **Mills ES**, Mayfield C, Lieberman J, Christ A, Heckamnn N. Safety and Efficacy of Rivaroxaban in Elective Total Joint Arthroplasty. Poster presentation AAOS 2022.
73. Heckmann ND, Wang JC, Piple A, Marshall G, **Mills ES**, Liu K, Lieberman J, Christ A. Is Intravenous Dexamethasone Utilization Associated with Increased Rates of Periprosthetic Joint Infection? Podium presentation AAKHS 2022.
74. **Mills ES**, Hah R, Fresquez Z, Buser Z, Alluri R, Anderson P. Percutaneous Vertebral Augmentation Does Not Affect Refracture Rate Following Osteoporotic Compression Fractures, but Anti-osteoporotic Medications Do. Podium presentation at LSRS 2022.
75. **Mills, ES**, Joshua Treloar, Olumuyiwa Idowu, Tara Shelby, Ram K. Alluri, and Raymond J. Hah. 2021. "Single Position Lumbar Fusion: A Systematic Review and Meta Analysis." Poster presentation GSC 2022.
76. **Mills ES**, Ton A, Bouz G, Alluri R, Hah R. Acute Percutaneous Vertebral Augmentation is Associated with Decreased Morbidity Compared to Nonoperative Treatment. Podium presentation GSC 2022.
77. **Mills ES**, Mayfield C, Shelby T, Ton A, Hah R, Alluri R. Medicare Reimbursement Trends for Cervical Disc Arthroplasty are not Sustainable. Podium presentation GSC 2022.
78. **Mills ES**, Hah R, Buser Z, Fresquez Z, Alluri, R., Anderson P. Percutaneous Vertebral Augmentation Does Not Affect Refracture Rate Following Osteoporotic Compression Fractures, but Antiosteoporotic Medications Do. Podium presentation at GSC 2022.
79. **Mills ES**, Shelby T, Bouz G, Hah R, Wang J, Alluri R. A Decreasing Trend in Lumbar Disc Arthroplasty. Poster presentation GSC 2022.

80. Heckmann N, Wang JC, Sanchez J, Gettleman B, Tezuka T, **Mills ES**. Decreased Pre-operative Hip Motion is a Risk Factor for Decreased Postoperative Spinopelvic Motion. Poster Presentation AAKHS 2022.
81. Piple A, Wang JC, Kebaish K, **Mills ES**, Oakes D, Lieberman J, Christ A, Heckmann ND. Is Prednisone Associated with Periprosthetic Joint Infection Following TJA. Podium presentation at WOA 2022.
82. **Mills ES**, Hah R, Fresquez Z, Buser Z, Alluri R, Anderson P. Percutaneous Vertebral Augmentation Does Not Affect Refracture Rate Following Osteoporotic Compression Fractures, but Antiosteoporotic Medications Do. Podium presentation at WOA 2022.
83. **Mills ES**, Talehakimi A, Urness M, Wang JC, Piple A, Chung B, Tezuka T, Heckmann N. AP Pelvis Radiographic Characteristics that correlate with Spinopelvic Sagittal Motion. Podium presentation at WOA 2022.
84. Shelby T, **Mills ES**, Kang HP, Hah R, Alluri R. Preoperative Epidural Steroid Injection does not affect Infection Risk Following Posterior Cervical Surgery. Podium presentation at WOA 2022.
85. **Mills ES**, Wang J, Sanchez J, Alluri R, Heckmann N, Hah R. Decreased Hip Motion is Associated with Inferior Spine Outcomes. Podium presentation WOA 2022.
86. Bell J, Alter T, Erdman MK, Kang HP, Vonck C, **Mills ES**, Alluri R, Hah R. Anti-Osteoporotic Medication Prescription Patterns in Patients with Vertebral Compression Fractures. Podium presentation WOA 2022.
87. Bell J, Alter T, Erdman MK, Kang HP, Vonck C, **Mills ES**, Alluri R, Hah R. Vertebral Compression Fractures and Subsequent Hip Fractures. Podium presentation WOA 2022.
88. Heckmann N, Wang JC, Sanchez J, Gettleman B, Tezuka T, **Mills ES**. Decreased Pre-operative Hip Motion is a Risk Factor for Decreased Postoperative Spinopelvic Motion. Poster Presentation Medical Student Orthopedic Symposium 2022.
89. **Mills ES**, Bouz GJ, Formanek BG, Chung BC, Wang JC, Heckmann ND, Hah RJ. Timing of Total Hip Arthroplasty Affects Lumbar Spinal Fusion Outcomes. Podium presentation AAOS 2021.
90. **Mills ES**, Bouz GJ, Formanek BG, Chung BC, Wang JC, Heckmann ND, Hah RJ. Timing of Total Hip Arthroplasty Affects Lumbar Spinal Fusion Outcomes. Podium presentation WOA 2021.
91. **Mills, E.** Duignan, K., Iorio, L., Feinn, R., Macica, C. Total Joint Replacement in Patients with X-Linked Hypophosphatemia. Accepted for podium presentation at Western Orthopaedic Conference 2019 Annual Meeting.
92. Bell J, Alter T, Erdman MK, Kang HP, Vonck C, **Mills ES**, Alluri R, Hah R. Anti-Osteoporotic Medication Prescription Patterns in Patients with Vertebral Compression Fractures. Podium presentation WOA 2022.

93. Bell J, Alter T, Erdman MK, Kang HP, Vonck C, **Mills ES**, Alluri R, Hah R. Vertebral Compression Fractures and Subsequent Hip Fractures. Podium presentation WOA 2022.
94. Heckmann N, Wang JC, Sanchez J, Gettleman B, Tezuka T, **Mills ES**. Decreased Pre-operative Hip Motion is a Risk Factor for Decreased Postoperative Spinopelvic Motion. Poster Presentation Medical Student Orthopedic Symposium 2022.
95. **Mills ES**, Bouz GJ, Formanek BG, Chung BC, Wang JC, Heckmann ND, Hah RJ. Timing of Total Hip Arthroplasty Affects Lumbar Spinal Fusion Outcomes. Podium presentation AAOS 2021.
96. **Mills ES**, Bouz GJ, Formanek BG, Chung BC, Wang JC, Heckmann ND, Hah RJ. Timing of Total Hip Arthroplasty Affects Lumbar Spinal Fusion Outcomes. Podium presentation WOA 2021.
97. **Mills, E.** Duignan, K., Iorio, L., Feinn, R., Macica, C. Total Joint Replacement in Patients with X-Linked Hypophosphatemia. Accepted for podium presentation at Western Orthopaedic Conference 2019 Annual Meeting.
98. **Mills ES**, Foran JRF. The Necessity of Basic Metabolic Panel Tests After Total Hip Arthroplasty. Accepted for podium presentation at Western Orthopaedic Conference 2019 Annual Meeting.
99. **Mills ES**, Foran JRF. Are Complete Blood Count Tests Necessary after Total Hip Arthroplasty? Accepted for podium presentation at Western Orthopaedic Conference 2019 Annual Meeting.
100. **Mills ES**, Foran JRF. When Are Basic Metabolic Tests After Total Knee Arthroplasty Useful? Podium presentation AAHKS 2019.
101. **Mills ES**, Foran JRF. Routine Postoperative Complete Blood Count Tests after Total Knee Arthroplasty. Accepted for podium presentation at AAOS 2020.
102. **Mills ES**, Foran JRF. Routine Postoperative Complete Blood Count Tests after Total Knee Arthroplasty. Accepted for podium presentation at Western Orthopaedic Conference 2019 Annual Meeting.
103. **Mills ES**, Foran JRF. When Are Basic Metabolic Tests After Total Knee Arthroplasty Useful? Accepted for podium presentation at Western Orthopaedic Conference 2019 Annual Meeting.
104. **Mills, ES.** Elman MB, Foran JRH. The Risk of Acute Infection Following Intra-articular Corticosteroid Injection Into a Preexisting Total Knee Arthroplasty. Mid America Orthopaedic Association. Podium Presentation. April 2018.
105. **Mills, ES.** Elman MB, Foran JRH. The Risk of Acute Infection Following Intra-articular Corticosteroid Injection Into a Preexisting Total Knee Arthroplasty. Poster Presentation. American Academy of Orthopaedic Surgeons National Meeting. March 2018.
106. **Mills, ES.** Iorio, L., Macica, C. Assessing Outcomes of Joint Replacement in Patients with X-Linked Hypophosphatemia. Poster Presentation. American Society of Bone and Mineral Research National Meeting. August 2017.

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107. Miller L., Baja A., **Mills, ES**, Clarke, B. Zarengo, G. An analysis of Operative Delivery Practices Over 30 Years. Poster Presentation. American College of Obstetricians and Gynecologists National Meeting. May 2016.
108. Baja, A., Miller L., **Mills, ES**, Clarke, B. Zarengo, G. Obstetric Delivery Practices and Malpractice Claims: Is There a Correlation? Poster Presentation. American College of Obstetricians and Gynecologists National Meeting. June 2017.
109. **Mills, ES**, BS, Kostyun, R. , Solomito, M., Milewski, M. Clinical Outcomes Post ACL Reconstruction Surgery in Adolescents: Does Physical Therapy Location Matter? Connecticut Children's Medical Center Elite Sports Medicine Research Meeting. PowerPoint Presentation. March 2016.
110. **Mills, ES**, Iorio, L., Macica, C. Assessing Outcomes of Joint Replacement in Patients with X-Linked Hypophosphatemia. Poster Presentation. XLH Day at Quinnipiac University. October 2017.

GRANTS, AWARDS, AND COMMITTEE APPOINTMENTS

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|-----------------------------------------------------------------------------------------------------|-------------|
| <b>Research Grant, Ultragenyx Pharmaceutical</b>                                                    | 2015 – 2017 |
| • Granted \$4,000 to research joint replacement outcomes in patients with X-Linked Hypophosphatemia |             |
| <b>Women in Spine Scholarship</b>                                                                   | 2022        |
| • Scholarship received to attend the annual Spine IEP Fellows and Young Surgeons' Course            |             |
| <b>NASS Section on Multidisciplinary Approaches to the Spine</b>                                    | 2022-2025   |
| • Volunteer Member                                                                                  |             |
| <b>NASS Early Career Advisory Council</b>                                                           | 2022-2025   |
| • Volunteer Member                                                                                  |             |
| <b>Lumbar Spine Research Society Educational Scholarship</b>                                        | 2022, 2023  |
| <b>Cervical Spine Research Society Educational Scholarship</b>                                      | 2023        |