

Harris Orthopaedics Laboratory 2019 Publications

- Fan Y, Xiao Y, Sabuhi W, Leape C, Gil D, Grindy S, Muratoglu OK, Bedair H, Collins J, Randolph M, Oral E. A Longitudinal Model of Periprosthetic Joint Infection in the Rat. *J Orthop Res*. 2019 Dec
- Borjali A, Chen AF, Muratoglu OK, Morid M, Varadarajan KM. "Detecting mechanical loosening of total hip replacement implant from plain radiograph using deep convolutional neural network". <https://arxiv.org/abs/1912.00943>
- Chaudhary M, Boruah S, Muratoglu OK, Varadarajan KM. Evaluation of pull-off strength and seating displacement of sleeved ceramic revision heads in modular hip arthroplasty. *J Orthop Res*. 2019 Nov, 38:1523–1528.
- Kumar S, Gupta T, Varadarajan KM. "Strong, stretchable and ultrasensitive MWCNT/TPU nanocomposites for piezoresistive strain sensing". *Compos Part B*. 2019 Nov; 177:107285.
- Harris WH, Muratoglu OK. The Role of Crosslinked Polyethylene in Reducing Aggregated Costs of Total Hip Arthroplasty in the United States. *J Arthroplasty*. 2019 Jun;34(6):1089-1092.
- Galea VP, Rojanasopondist P, Laursen M, Muratoglu OK, Malchau H, Bragdon C. Evaluation of vitamin E-diffused highly crosslinked polyethylene wear and porous titanium-coated shell stability: a seven-year randomized control trial using radiostereometric analysis. *Bone & Joint Journal*. 2019 Jun; vol. 101-B, No.7
- Connelly JW, Galea VP, Rojanasopondist P, Matuszak SJ, Ingelsrud LH, Nielsen CS, Bragdon CR, Huddleston JI 3rd, Malchau H, Troelsen A. Patient Acceptable Symptom State at 1 and 3 Years After Total Knee Arthroplasty: Thresholds for the Knee Injury and Osteoarthritis Outcome Score (KOOS). *J Bone Joint Surg Am*. 2019 Jun 5;101(11):995-1003.
- Rojanasopondist P, Galea VP, Connelly JW, Matuszak SJ, Rolfson O, Bragdon CR, Malchau H. What Preoperative Factors are Associated With Not Achieving a Minimum Clinically Important Difference After THA? Findings from an International Multicenter Study. *Clin Orthop Relat Res*. 2019 Jun;477(6):1301-1312.
- Oral E O, Doshi BN, Fung K, O'Brien C, Wannomae K, Muratoglu, OK. A chemically cross-linked UHMWPE with superior toughness. *Journal of Orthopaedic Research*. 2019 Jun.
- Almubarak S, Boruah, S, Muratoglu OK, Varadarajan KM; Lever-Out Resistance of Constrained Hip Liners is Sensitive to Changes in Opening Radius and Liner Design, *J Orthop Res*. 2019 Apr 37:1590-1595
- Galea VP, Botros MA, Madanat R, Nielsen CS, Bragdon C. Promising early outcomes of a novel anatomic knee system. *Knee Surg Sports Traumatol Arthrosc*. 2019 Apr;27(4):1067-1074. doi: 10.1007/s00167-018-5248-0.
- Xu JZ, Muratoglu OK, Oral E, Improved oxidation and wear resistance of UHMWPE using cross-linked powder reinforcement. *Journal of Biomedical Materials Research Part B: Applied Biomaterials*. 2019 Apr;107(3):716-723
- Gil D, Grindy S, Muratoglu OK, Bedair H, Oral E; Antimicrobial Effect of Anesthetic-Eluting Ultra-High Molecular Weight Polyethylene for Post-Arthroplasty Antibacterial Prophylaxis, *J Orthop Res*. 2019 Apr;37(4):981-990

Alam F, Kumar S, Varadarajan KM. "Quantification of Adhesion Force of Bacteria on the Surface of Biomaterials: Techniques and Assays". ACS Biomater Sci Eng. 2019 Mar; 5(5):2093-2110.

Alam F, Choosri M, Gupta TK, Choi D, Varadarajan KM, Kumar S. "Electrical, mechanical and thermal properties of graphene nanoplatelets reinforced UHMWPE nanocomposites". Mater Sci Eng B. 2019 Feb; 241:82-91.

Donahue G, Laaksonen I, Galea VP, Madanat R, Muratoglu OK, Malchau H. Obesity is Not Associated with Hip Failure in Patients with Articular Surface Replacement of the Hip. Hip Int. 2019 Mar. Vol. 30, Issue 1.

Galea VP, Rojanasopondist P, Matuszak SJ, Connelly JW, Bragdon C, Malchau H, Lewallen D, Bozic K, Namba R, Hallstrom B, Mohaddes M, de Steiger R, Devane P, Ayers D, Porter M, Furnes O, Graves S. The Benefits of National and Regional Arthroplasty Registries. In: Instructional Course Lectures Vol. 68. Wolters Kluwer: American Academy of Orthopaedic Surgeons 2019.