**Publications: (\*Corresponding Author)**

1. Rios-Arce ND, Murugesh DK, Hum NR, Sebastian A, Jbeily EH, **Christiansen BA**, Loots GG. Preexisting type 1 diabetes mellitus blunts the development of posttraumatic osteoarthritis. *JBMR Plus*. 2022;6:(5):e10625.
2. \***Christiansen BA**, Chan DD, van der Meulen MCH, Maerz T. Small-animal compression models of osteoarthritis. *Methods in Molecular Biology:* *Cartilage Tissue Engineering*. 2022; In Press.
3. Hsia AW, Jbeily EH, Mendez ME, Cunningham HC, Biris KK, Bang H, Lee CA, Loots GG, \***Christiansen BA**. Post-traumatic osteoarthritis progression is diminished by early mechanical unloading and anti-inflammatory treatment in mice. *Osteoarthritis Cartilage*. 2021;29:(12):1709-1719.
4. Deloney M, Garoosi P, Dartora VFC, **Christiansen BA**, Panitch A. Hyaluronic acid-binding, anionic, nanoparticles inhibit ECM degradation and restore compressive stiffness in aggrecan-depleted articular cartilage explants. *Pharmaceutics*. 2021;13:(9):1503.
5. Osipov B, Paralkar MP, Emami AJ, Cunningham HC, Tjandra PM, Pathak S, Langer HT, Baar K, **Christiansen BA**. Sex differences in systemic bone and muscle loss following femur fracture in mice. *Journal of Orthopaedic Research*. 2021;40:(4):878-890.
6. Emami AJ, Sebastian A, Lin YY, Yee CS, Osipov B, Loots GG, Alliston T, \***Christiansen BA**. Altered canalicular remodeling associated with femur fracture in mice. *Journal of Orthopaedic Research*. 2021;40:(4):891-900.
7. Sebastian A, McCool JL, Hum NR, Murugesh DK, Wilson SP, **Christiansen BA**, Loots GG. Single-cell RNA-seq reveals transcriptomic heterogeneity and post-traumatic osteoarthritis-associated early molecular changes in mouse articular chondrocytes. *Cells*. 2021;10:(6):1462.
8. Hahn AK, Wallace CW, Welhaven HD, Brooks E, McAlpine M, **Christiansen BA**, Walk ST, June RK. The microbiome mediates epiphyseal bone loss and metabolomic changes after acute joint trauma in mice. *Osteoarthritis and Cartilage*. 2021;29:(6):882-893.
9. Osipov B, **Christiansen BA**. Mechanisms for increased systemic fracture risk after index fracture. *Medicine in Novel Technology and Devices*. 2021;11:100072.
10. Tjandra PM, Paralkar MP, Osipov B, Chen YJ, Zhao F, Ripplinger CM, \***Christiansen BA**. Systemic bone loss following myocardial infarction in mice. *Journal of Orthopaedic Research*. 2021;39:(4):739-749.
11. Tomlinson RE, **Christiansen BA**, Giannone AA, Genetos DC. The role of nerves in skeletal development, adaptation, and aging. *Frontiers in Endocrinology-Bone Research*. 2020;11:646.
12. Mendez ME, Murugesh DK, Sebastian A, Hum NR, McCloy SA, Kuhn EA, **Christiansen BA**, Loots GG. Antibiotic treatment prior to injury improves post-traumatic osteoarthritis outcomes in mice. *International Journal of Molecular Sciences*. 2020;21:(17):6424.
13. Ely EV, Osipov B, Emami AJ, \***Christiansen BA**. Region-dependent bone loss in the lumbar spine following femoral fracture in mice. *Bone*. 2020;140:115555.
14. Mendez ME, Sebastian A, Murugesh DK, Hum NR, McCool JL, Hsia AW, **Christiansen BA**, Loots GG. LPS-induced inflammation prior to injury exacerbates the development of post-traumatic osteoarthritis in mice. *Journal of Bone and Mineral Research*. 2020;35:(11):2229-2241.
15. Deloney M, Smart K, **Christiansen BA**, Panitch A. Thermoresponsive, hollow, degradable core-shell nanoparticles for intra-articular delivery of anti-inflammatory peptide. *Journal of Controlled Release*. 2020;323:47-58.
16. Sebastian A, Murugesh DK, Mendez ME, Hum NR, Rios-Arce ND, McCool JL, **Christiansen BA**, Loots GG. Global gene expression analysis identifies age-related differences in knee joint transcriptome during the development of post-traumatic osteoarthritis in mice. *International Journal of Molecular Sciences*. 2020;21:(1):364.
17. Wegner AM, Campos NR, Robbins MA, Haddad AF, Cunningham HC, Yik JHN, **Christiansen BA**, Haudenschild DR. Acute changes in NADPH oxidase 4 in early post-traumatic osteoarthritis. *Journal of Orthopaedic Research*. 2019;37:(11):2429-2436.
18. Hopkins J, Nguyen K, Heyrani N, Shelton T, Kreulen C, Garcia-Nolen T, **Christiansen BA**, Giza E. InternalBrace has biomechanical properties comparable to suture button but less rigid than screw in ligamentous Lisfranc model. *Journal of Orthopaedics*. 2019;7:7-12.
19. **\*Christiansen BA**. The importance of performing knee surgery in rats. *Osteoarthritis and Cartilage*. 2019;S1063-4584:(19):30954-9.
20. Emami AJ, Toupadakis CA, Telek SM, Fyhrie DP, Yellowley CE, \***Christiansen BA**. Age dependence of systemic bone loss and recovery following femur fracture in mice. *Journal of Bone and Mineral Research*. 2019;34:(1):157-70.
21. Osipov B, Emami AJ, **Christiansen BA**. Systemic bone loss after fracture. *Clinical Reviews in Bone and Mineral Metabolism*. 2018;16:(4):116-30.
22. Sebastian A, Chang JC, Mendez ME, Murugesh DK, Hatsell S, Economides AN, **Christiansen BA**, Loots GG. Comparative transcriptomics identifies novel genes and pathways involved in post-traumatic osteoarthritis development and progression. *International Journal of Molecular Sciences*. 2018;19:(9):E2657.
23. **\*Christiansen BA**, Litwack-Harrison S, Fink HA, Lane NE. Incident fracture is associated with a period of accelerated loss of hip BMD: the Study of Osteoporotic Fractures. *Osteoporosis International*. 2018;29:(10):2201-9.
24. Cunningham HC, West DWD, Baehr LM, Baar K, Bodine SC, \***Christiansen BA**. Age-dependent recovery of bone during reloading following a period of hindlimb unloading in rats. *BMC Musculoskeletal Disorders*. 2018;19:(1):223.
25. Hsia AW, Tarke FD, Shelton TJ, Tjandra PM, **\*Christiansen BA**. Comparison of knee injury threshold during tibial compression based on limb orientation in mice. *Journal of Biomechanics*. 2018;6:(74):220-4.
26. Chang JC, **Christiansen BA**, Murugesh DK, Sebastian A, Hum NR, Collette NM, Hatsell S, Economides AN, Blanchette CD, Loots GG. SOST/sclerostin improves posttraumatic osteoarthritis and inhibits MMP2/3 expression after injury. *Journal of Bone and Mineral Research*. 2018;33:(6):1105-13.
27. Hsia AW, Emami AJ, Tarke FD, Cunningham HC, Tjandra PM, Wong A, \***Christiansen BA**, Collette NM. Osteophytes and fracture calluses share developmental milestones and are diminished by unloading. *Journal of Orthopaedic Research*. 2018;36:(2):699-710.
28. Heffner MA, Genetos DC, \***Christiansen BA**. Bone adaptation to mechanical loading in a mouse model of reduced peripheral sensory nerve function. *PLoS One*. 2017;12:(10):e0187354.
29. Eastman J, Deafenbaugh B, **Christiansen B**, Garcia-Nolen T, Lee M. Achieving interfragmentary compression without special drilling technique or screw design. *Journal of Orthopaedic Research*. 2017;36:(4):1099-105.
30. Zhang X, Li S, Zhao X, **Christiansen BA**, Fan S, Zhao F, Chen J. The mechanism of thoracolumbar burst fracture may be related to the basivertebral foramen. *Spine Journal*. 2017;S1529-9430:(17):30911-7.
31. Li S, Wang C, Shan Z, Liu J, Yu T, Zhang X, Fan S, **Christiansen BA**, Ding W, Zhao F. Trabecular microstructure and damage affect cement leakage from the basivertebral foramen during vertebral augmentation. *Spine*. 2017;42:(16):E939-E948.
32. Hsia AW, Anderson MJ, Heffner MA, Lagmay EP, Zavodovskaya R, \***Christiansen BA**. Osteophyte formation after ACL rupture in mice is associated with joint restabilization and loss of range of motion. *Journal of Orthopaedic Research*. 2017;35:(3):466-473.
33. Chang JC, Sebastian A, Murugesh DK, Hatsell S, Economides AN, **Christiansen BA**, Loots GG. Global molecular changes in a tibial compression induced ACL rupture model of post-traumatic osteoarthritis. *Journal of Orthopaedic Research*. 2017;35:(3):474-485.
34. Wu DJ, Gu R, Sarin R, Zavodovskaya R, Chen CP, **Christiansen BA**, Adamopoulos IE. Autophagy-linked FYVE containing protein WDFY3 interacts with TRAF6 and modulates RANKL-induced osteoclastogenesis. *Journal of Autoimmunology*. 2016;73:73-84.
35. Collette NM, Yee CSN, Urbin SS, **Christiansen BA**, Xie L, Economides AN, Loots GG. Sostdc1 deficiency accelerates fracture healing by promoting the expansion of periosteal mesenchymal stem cells. *Bone*. 2016;88:20-30.
36. **\*Christiansen BA**. Effect of micro-computed tomography voxel size and segmentation method on trabecular bone microstructure measures in mice. *Bone Reports*. 2016;5:136-40.
37. Anderson MJ, Diko S, Baehr LM, Baar K, Bodine SC, \***Christiansen BA**. Contribution of mechanical unloading to trabecular bone loss following non-invasive knee injury in mice. *Journal of Orthopaedic Research*. 2016;34:(10):1680-1687.
38. Hudson BD, Hum NR, Thomas CB, Kohlgruber A, Sebastian A, Collette NM, Coleman MA, **Christiansen BA**, Loots GG. SOST inhibits prostate cancer invasion. *PLoS One*. 2015;10:(11): e0142058.
39. Williams JC, Maitra S, Anderson MJ, **Christiansen BA**, Reddi AH, Lee MA. BMP-7 and bone regeneration: evaluation of dose-response in a rodent segmental defect model. *Journal of Orthopaedic Trauma*. 2015;29:(9):e336-41.
40. **\*Christiansen BA**, Guilak F, Lockwood KA, Olson SA, Pitsillides AA, Sandell LJ, van der Meulen MCH, Haudenschild DR. Non-invasive mouse models of post-traumatic osteoarthritis. *Osteoarthritis and Cartilage*. 2015;23:(10):1627-38.
41. Fyhrie DP, **Christiansen BA**. Bone material properties and skeletal fragility. *Calcified Tissue International*. 2015;97:(3):213-28.
42. **\*Christiansen BA**, Yik JH, Haudenschild DR. Closed joint ACL disruption murine model of PTA.In S.A. Olson and F. Guilak (Eds.), *Post-Traumatic Arthritis: Pathogenesis, Diagnosis, and Management.* 2015;7:75-85.
43. Khorasani MS, Diko S, Hsia AW, Anderson MJ, Genetos DC, Haudenschild DR, \***Christiansen BA**. Effect of alendronate on post-traumatic osteoarthritis induced by ACL rupture in mice. *Arthritis Research & Therapy*. 2015;17:30.
44. **Christiansen BA**, Bhatti S, Goudarzi R, Emami S. Management of osteoarthritis with avocado/soybean unsaponifiables. *Cartilage*, 2015;6:(1):30-44.
45. Nazarian A, \***Christiansen BA**, Trabecular bone: light as a feather, stiff as a board. *Journal of Biomechanical Engineering*, 2015;137:(010201):1-2.
46. **\*Christiansen BA**, Emami AJ, Fyhrie DP, Satkunananthan PB, Hardisty MR. Trabecular bone loss at a distant skeletal site following noninvasive knee injury in mice. *Journal of Biomechanical Engineering*, 2015;137:(011005):1-6.
47. Satkunananthan PB, Anderson MJ, De Jesus NM, Haudenschild DR, Ripplinger CM, \***Christiansen BA**. In vivo fluorescence reflectance imaging to quantify sex-based differences in protease activity in a mouse model of post-traumatic osteoarthritis. *Osteoarthritis and Cartilage*. 2014;22:(10):1461-9.
48. Soicher MA, **Christiansen BA**, Stover SM, Leach JK, Yellowley CE, Griffiths LG, Fyhrie DP. Remineralized bone matrix as a scaffold for bone tissue engineering. *Journal of Biomedical Materials Research Part A*. 2014;102:(12):4480-90.
49. Heffner MA, Anderson MJ, Yeh GC, Genetos DC, \***Christiansen BA**. Altered bone development in a mouse model of peripheral sensory nerve inactivation. *Journal of Musculoskeletal and Neuronal Interaction*. 2014;14:(1):1-9.
50. Yik JH, Kumari R, **Christiansen BA**, Haudenschild DR. Cyclin-dependent kinase 9 inhibition protects cartilage from the catabolic effects of pro-inflammatory cytokines. *Arthritis & Rheumatology*. 2014;66:(6):1537-46.
51. Lockwood KA, Chu BT, Anderson MJ, Haudenschild DR, \***Christiansen BA**. Comparison of loading rate-dependent injury modes in a murine model of post-traumatic osteoarthritis. *Journal of Orthopaedic Research*. 2014;32:(1):79-88.
52. Klineberg EO, Haudenschild DR, Snow KD, Garitty S, **Christiansen BA**, Acharya C, Maitra S, Gupta MC. The effect of Noggin interference in a rabbit posterolateral spinal fusion model. *European Spine Journal.* 2014;23:2385-92.
53. Lo E, Tseng S, **Christiansen BA**, Lee MA, Yoo B. Locking versus nonlocking construct in an osteoporotic, segmental fibula defect model. *Orthopedics*. 2013;36(10):e1262-8.
54. **\*Christiansen BA**. Assessment of bone mass and microarchitecture in rodents*.* In C.J. Rosen (Ed.), *Primer on the Metabolic Bone Diseases and Disorders of Mineral Metabolism – Eighth Edition*. 2013;59-68.
55. Soicher MA, **Christiansen BA**, Stover SM, Leach JK, Fyhrie DP. Remineralization of demineralized bone matrix (DBM) via alternating solution immersion (ASI). *Journal of Mechanical Behavior of Biomedical Materials*. 2013;26:109-18.
56. Ishida K, Acharya C, **Christiansen BA**, Yik JH, Di Cesare PE, Haudenschild DR. Cartilage oligomeric matrix protein enhances osteogenesis by directly binding and activating bone morphogenetic protein-2. *Bone*. 2013;55:(1):23-35.
57. Ellman R, Spatz J, Cloutier A, Palme R, **Christiansen BA**, Bouxsein ML. Partial reductions in mechanical loading yield proportional changes in bone density, bone architecture, and muscle mass. *Journal of Bone and Mineral Research*. 2012;28:(4):875.
58. **\*Christiansen BA**, Anderson MJ, Lee CA, Williams JC, Yik JH, Haudenschild DR. Musculoskeletal changes following non-invasive knee injury using a novel mouse model of post-traumatic osteoarthritis. *Osteoarthritis and Cartilage*. 2012;20:(7):773-82.
59. Toupadakis CA, Wong A, Genetos DC, Chung DJ, Murugesh D, Anderson MJ, Loots GG, **Christiansen BA**, Kapatkin AS, Yellowley CE. Long term administration of AMD3100, an antagonist of SDF-1/CXCR4 signaling, alters fracture repair. *Journal of Orthopaedic Research.* 2012;30:(11):1853-9.
60. Symons JE, Entwistle RC, Arens AM, Garcia TC, **Christiansen BA**, Fyhrie DP, Stover SM. Mechanical and morphologic properties of trabecular bone from horses with a bone fragility syndrome. *American Journal of Veterinary Research*. 2012;73:(11):1742-51.
61. Samelson EJ, **Christiansen BA**, Demissie S, Broe KE, Louie-Gao Q, Cupples LA, Roberts BJ, Manoharan R, D’Agostino J, Lang T, Kiel DP, Bouxsein ML. QCT measures of bone strength at the thoracic and lumbar spine: The Framingham study. *Journal of Bone and Mineral Research*. 2011;27:(3):654-663.
62. **Christiansen BA**, Kopperdahl DL, Kiel DP, Keaveny TM, Bouxsein ML. Mechanical contributions of the cortical and trabecular compartments contribute to differences in age-related changes in vertebral body strength in men and women assessed by QCT-based finite element analysis. *Journal of Bone and Mineral Research*. 2011;26:(5):974-83.
63. Samelson EJ, **Christiansen BA**, Demissie S, Broe KE, Meng CA, Yu W, Cheng X, O'Donnell CJ, Hoffmann U, Genant HK, Kiel DP, Bouxsein ML. Reliability of vertebral fracture assessment using multidetector CT lateral scout views: the Framingham osteoporosis study. *Osteoporosis International*. 2011;22:(4):1123-31.
64. **Christiansen BA**, Bouxsein ML. Methods in Bone Biology in Animals: Imaging. In G. Duque, K. Watanabe (Eds.), *Osteoporosis Research: Animal Models*. 2011;45-56.
65. Bouxsein ML, Boyd SK, **Christiansen BA**, Guldberg RE, Jepsen KJ, Müller R. Guidelines for assessment of bone microstructure in rodents using microcomputed tomography. *Journal of Bone and Mineral Research*. 2010;25:(7):1468-1486.
66. Iyer S, **Christiansen BA**, Roberts BJ, Valentine MJ, Manoharan R, Bouxsein ML. A biomechanical model for estimating loads on thoracic and lumbar vertebrae. *Clinical Biomechanics*. 2010;25:(9):853-858.
67. **Christiansen BA**, Bouxsein ML. Biomechanics of vertebral fractures and the vertebral fracture cascade. *Current Osteoporosis Reports*. 2010;8:(4):198-204.
68. **Christiansen BA**, Kotiya AA, Silva MJ. Constrained tibial vibration does not produce an anabolic bone response in adult mice*. Bone*. 2009;45:(4):750-759.
69. **\*Christiansen BA.** Letter to the Editor: Whole-body vibration and weight loss: truth or consequence? *International Journal of Obesity*. 2009;33:(3):384.
70. **Christiansen BA**, Bouxsein ML. Assessment of bone mass and microarchitecture in rodents*.* In C.J. Rosen (Ed.), *Primer on the Metabolic Bone Diseases and Disorders of Mineral Metabolism – Seventh Edition*. 2008;38-45.
71. **Christiansen BA**, Bayly PV, Silva MJ. Constrained tibial vibration in mice: a method for studying the effects of vibrational loading of bone. *Journal of Biomechanical Engineering*. 2008;130:(4):044502.
72. Ramanadham S, Yarasheski KE, Silva MJ, Wohltmann M, Veis-Novack D, **Christiansen BA**, Lei XY, Turk J. Age-Related Changes in Bone Morphology are Accelerated in Group VIA Calcium-Independent Phospholipase A2β (iPLA2β)-Null Mice. *American Journal of Pathology*. 2008;172:(4):868-881.
73. **Christiansen BA,** Silva MJ. The effect of varying magnitudes of whole-body vibration on several skeletal sites in mice. *Annals of Biomedical Engineering*. 2006;34:(7):1149-56.

**Most Cited Publications (h-index 27):**

1. Bouxsein ML, Boyd SK, Christiansen BA, Guldberg RE, Jepsen KJ, Müller R. Guidelines for assessment of bone microstructure in rodents using microcomputed tomography. *Journal of Bone and Mineral Research*. 2010;25:(7):1468-1486.

**Citations: 3,445**

1. Christiansen BA, Anderson MJ, Lee CA, Williams JC, Yik JH, Haudenschild DR. Musculoskeletal changes following non-invasive knee injury using a novel mouse model of post-traumatic osteoarthritis. *Osteoarthritis and Cartilage*. 2012;20:(7):773-82.

**Citations: 173**

1. Christiansen BA, Silva MJ. The effect of varying magnitudes of whole-body vibration on several skeletal sites in mice. *Annals of Biomedical Engineering*. 2006;34:(7):1149-56.

**Citations: 145**

1. Christiansen BA, Kopperdahl DL, Kiel DP, Keaveny TM, Bouxsein ML. Mechanical contributions of the cortical and trabecular compartments contribute to differences in age-related changes in vertebral body strength in men and women assessed by QCT-based finite element analysis. *Journal of Bone and Mineral Research*. 2011;26:(5):974-83.

**Citations: 120**

1. Christiansen BA, Guilak F, Lockwood KA, Olson SA, Pitsillides AA, Sandell LJ, van der Meulen MCH, Haudenschild DR. Non-invasive mouse models of post-traumatic osteoarthritis. *Osteoarthritis and Cartilage*. 2015;23:(10):1627-38.

**Citations: 106**

**Patents:**

1. US Patent 10,639,302. Use of CDK9 inhibitors to reduce cartilage degradation. Haudenschild D, Di Cesare P, Yik J, **Christiansen B**. May 5, 2020.
2. US Patent 10,172,844. Use of CDK9 inhibitors to reduce cartilage degradation. Haudenschild D, Di Cesare P, Yik J, **Christiansen B**. January 8, 2019.
3. US Patent 9,498,471. Use of CDK9 inhibitors to reduce cartilage degradation. Haudenschild D, Di Cesare P, Yik J, **Christiansen B**. November 22, 2016.
4. US Patent 8,792,973. Bipolar sieve electrode and method of assembly. Moran D, **Christiansen B**, MacEwan M. July 29, 2014.

**Abstracts:**

1. Lopez-Torres M, Biris KK, Yik JHN, Lee CA, **Christiansen BA**. Joint restabilization does not mitigate early inflammation associated with ACL injury in mice. *2022 Orthopaedic Research Society Annual Meeting.*
2. Lin YY, Biris KK, Jbeily EH, Lee CA, **Christiansen BA**. Surgical restabilization following ACL rupture in mice slows the progression of post-traumatic osteoarthritis. *2022 Orthopaedic Research Society Annual Meeting.*
3. Osipov B, Cunningham HC, Tjandra PM, Biris KK, Lin YY, **Christiansen BA**. The effects of ovariectomy on systemic bone loss and immune response after fracture. *2022 Orthopaedic Research Society Annual Meeting.*
4. Orr S, Cunningham HC, Go L, Wu PH, Kazakia GJ, **Christiansen BA**. Effects of age and osteocyte dysfunction on cortical bone during hindlimb unloading and reloading in mice. *2022 Orthopaedic Research Society Annual Meeting.*
5. Cunningham HC, Murugesh DK, Hsia AW, Osipov B, Orr S, Wong A, Loots GG, **Christiansen BA**. Bone adaptation to mechanical unloading and subsequent reloading in young, old and osteocyte-deficient mice. *2022 Orthopaedic Research Society Annual Meeting.*
6. Tjandra PM, Yu K, Orr S, Adhikari A, Silverman JL, Ripplinger CM, Chen YJ, **Christiansen BA**. Systemic bone loss after myocardial infarction is not mitigated in complement 5aR1 knockout mice. *2022 Orthopaedic Research Society Annual Meeting.*
7. Haudenschild AK, Ball EE, Yik JHN, Coffey LL, Haudenschild DR, **Christiansen BA**. A radiomics and machine learning model identifies biomarkers of SARS-CoV-2-induced systemic bone loss. *2022 Orthopaedic Research Society Annual Meeting.*
8. Mendoza SV, Murugesh DK, **Christiansen BA**, Loots GG, Genetos DC, Yellowley CE. Degradation-resistant hypoxia inducible factor-2α in osteocytes promotes a high bone mass phenotype. *2022 Orthopaedic Research Society Annual Meeting.*
9. **Christiansen BA**, Ball EE, Haudenschild AK, Yik JHN, Coffey LL, Haudenschild DR. Bone loss following SARS-CoV-2 infection in mice. *2021 American Society for Bone and Mineral Research Annual Meeting*.
10. Orr S, Cunningham HC, Go L, Wu PH, Kazakia GJ, **Christiansen BA**. Effects of age and osteocyte dysfunction on bone porosity changes during hindlimb unloading and reloading in mice. *2021 American Society for Bone and Mineral Research Annual Meeting*.
11. Cunningham HC, Murugesh DK, Hsia AW, Osipov B, Orr S, Wong A, Loots GG, **Christiansen BA**. Differential bone adaptation to mechanical unloading and reloading in young, old, and osteocyte-deficient mice. *2021 American Society for Bone and Mineral Research Annual Meeting*.
12. Rios Arce ND, Murugesh DK, Hum NR, Sebastian A, Jbeily EH, **Christiansen BA**, Loots GG. Type 1 diabetes blunts the effects of joint trauma on osteoarthritis. *2021 American Society for Bone and Mineral Research Annual Meeting*.
13. Mendez ME, Murugesh DK, **Christiansen BA**, Loots GG. Antibiotic treatment prior to injury improves post-traumatic osteoarthritis phenotype in str/ort mice. *2021 Orthopaedic Research Society Annual Meeting.*
14. Sebastian A, McCool JL, Hum NR, Murugesh DK, Wilson SP, **Christiansen BA**, Loots GG. Defining articular chondrocyte heterogeneity and injury-induced molecular responses at single cell level. *2021 Orthopaedic Research Society Annual Meeting.*
15. Yao W, **Christiansen BA**, Jiang X, Jiang M, Liu L, Wise BL. Absence of galectin-3 increases progression of osteoarthritis. *2021 Orthopaedic Research Society Annual Meeting.*
16. Deloney M, Smart K, **Christiansen B**, Panitch A. Hollow, degradable poly(N-isopropylacrylamide) derived nanoparticles for the delivery of anti-inflammatory peptides for the treatment and prevention of post-traumatic osteoarthritis. *Biomedical Engineering Society 2020 Virtual Annual Meeting*.
17. Emami AJ, Yee CS, Alliston T, **Christiansen BA**. Perilacunar remodeling following femoral fracture in mice. *2020 Orthopaedic Research Society Annual Meeting.*
18. Hsia AW, Tjandra PM, Cunningham HC, Emami AJ, Mendez ME, Loots GG, **Christiansen BA**. Osteophyte and post-traumatic osteoarthritis development are diminished by mechanical unloading and anti-inflammatory treatment. *2020 Orthopaedic Research Society Annual Meeting.*
19. Osipov B, Paralkar MP, Langer HT, Pathak SJ, Tjandra PM, Emami AJ, Baar K, **Christiansen BA**. Sex differences in systemic bone and muscle loss after fracture. *2020 Orthopaedic Research Society Annual Meeting.*
20. Mendez ME, Murugesh DK, Hsia AW, **Christiansen BA**, Loots GG. Gene expression changes caused by LPS induced inflammation and injury on the development of post-traumatic osteoarthritis. *2020 Orthopaedic Research Society Annual Meeting.*
21. Sebastian A, Mendez ME, Murugesh DK, Hum NR, **Christiansen BA**, Loots GG. Global gene expression analysis identified age-related differences in knee joint transcriptome during the development of post-traumatic osteoarthritis in mice. *2020 Orthopaedic Research Society Annual Meeting.*
22. Osipov B, Emami AJ, Murugesh DK, Loots GG, **Christiansen BA**. Osteocyte dysfunction alters systemic bone loss after fracture. *2019 American Society for Bone and Mineral Research Annual Meeting*.
23. **Christiansen BA**, Paralkar MP, Osipov B, Langer HT, Tjandra PM, Emami AJ, Baar K. Sex differences in systemic bone and muscle loss after fracture in mice. *2019 American Society for Bone and Mineral Research Annual Meeting*.
24. Mendez ME, Murugesh DK, McCool J, Hsia AW, **Christiansen BA**, Loots GG. LPS induced inflammation prior to anterior cruciate ligament (ACL) injury increases the severity of post-traumatic osteoarthritis in C57Bl/6J mice. *2019 American Society for Bone and Mineral Research Annual Meeting*.
25. Shelton TJ, Hopkins J, Heyrani N, Nguyen KN, Kreulen C, Garcia TC, **Christiansen BA**, Giza E. Ligametous Lisfranc: biomechanical properties of InternalBrace, suture button, and screw. *2019 Western Orthopaedic Association Annual Meeting*.
26. Hsia AW, Cunningham HC, Emami AJ, Mendez ME, Loots GG, **Christiansen BA**. The effect of temporary unloading on post-traumatic osteoarthritis development following knee injury in mice. *2019 Orthopaedic Research Society Annual Meeting.*
27. Emami AJ, Yee CS, Alliston T, **Christiansen BA**. The role of perilacunar remodeling on systemic bone loss following femoral fracture in mice. *2019 Orthopaedic Research Society Annual Meeting.*
28. Cunningham HC, Hsia AW, Wong A, **Christiansen BA**. Age-dependent differences in bone adaptation to hindlimb unloading and subsequent reloading in mice. *2019 Orthopaedic Research Society Annual Meeting.*
29. Osipov B, Emami AJ, Murugesh D, Loots GG, **Christiansen BA**. Determining the effect of osteocyte dysfunction on systemic bone loss after fracture using Bcl-2 transgenic mice. *2019 Orthopaedic Research Society Annual Meeting.*
30. Tjandra PM, Chen YJ, Wulff H, Ripplinger CM, **Christiansen BA**. Bone loss following myocardial infarction in mice. *2019 Orthopaedic Research Society Annual Meeting.*
31. Deloney MA, Hsia AW, Emami AJ, Cunningham HC, Panitch A, **Christiansen BA**. Intra-articular delivery of anti-inflammatory peptides reduces post-injury protease activity in rats. *2019 Orthopaedic Research Society Annual Meeting.*
32. Ely EV, Emami AJ, **Christiansen BA**. Region-dependent bone loss in the lumbar spine following femoral fracture in mice. *2019 Orthopaedic Research Society Annual Meeting.*
33. Mendez ME, Murugesh DK, Hsia AW, **Christiansen BA**, Loots GG. Effects of long-term antibiotic treatment and LPS induced inflammation pre-injury on ACL rupture mouse models of post-traumatic osteoarthritis. *2019 Orthopaedic Research Society Annual Meeting.*
34. Mendez ME, Murugesh DK, Hsia A, **Christiansen BA**, Loots GG. LPS induced inflammation pre-joint injury exacerbated osteoarthritis phenotypes. *2018 American Society for Bone and Mineral Research Annual Meeting.*
35. Cunningham HC, Emami AJ, Hsia AW, Ely EV, Yik JHN, Haudenschild DR, **Christiansen BA**. Systemic bone loss following bilateral fracture is not reduced by inhibitors of CDK9 and BRD4. *2018 Orthopaedic Research Society Annual Meeting.*
36. Sebastian A, Chang JC, Murugesh D, Economides A, Hatsell S, **Christiansen B**, Loots G. Transcriptional profiling identifies differentially expressed genes in mouse strains with varying susceptibility to post-traumatic osteoarthritis. *2018 Orthopaedic Research Society Annual Meeting.*
37. Mendez ME, Murugesh DK, Hsia A, **Christiansen BA**, Loots GG. LPS induced inflammation pre-joint injury exacerbated osteoarthritis phenotypes. *2018 Orthopaedic Research Society Annual Meeting.*
38. Chang JC, Sebastian A, Murugesh D, Hatsell S, Economides A, **Christiansen B**, Loots G. Attenuation of inflammatory responses may be critical in PTOA development in MRL/MpJ and Str/ort strains. *2017 American Society for Bone and Mineral Research Annual Meeting.*
39. Sebastian A, Chang J, Hum N, Murugesh D, Loots G, **Christiansen B**. Shared molecular mechanisms contributing to PTOA in loading-mediated injury models. *2017 American Society for Bone and Mineral Research Annual Meeting.*
40. Hsia AW, Emami AJ, Cunningham HC, Tarke FD, **Christiansen BA**, Collette NM. Osteophyte formation and the effect of mechanical loading: comparisons to fracture healing. *2017 Osteoarthritis Research Society International World Congress.*
41. Telek SM, Emami EJ, Cunningham HC, Fyhrie DP, **Christiansen BA**. Loss of bone stiffness at a distant skeletal site following femoral fracture in mice. *2017 Orthopaedic Research Society Annual Meeting*.
42. Emami AJ, Toupadakis CA, Tarke FD, Yellowley CE, Fyhrie DP, **Christiansen BA**. Age-dependent systemic bone loss and recovery following femoral fracture in mice. *2017 Orthopaedic Research Society Annual Meeting*.
43. Tarke FD, Hsia AW, Shelton TJ, Haudenschild DR, **Christiansen BA**. Comparison of knee injury threshold during tibial compression based on limb orientation in mice. *2017 Orthopaedic Research Society Annual Meeting*.
44. Hsia AW, Emami AJ, Cunningham HC, Tarke FD, **Christiansen BA**, Collette NM. Osteophyte formation and the effect of mechanical loading: comparisons to fracture healing in mice. *2017 Orthopaedic Research Society Annual Meeting*.
45. **Christiansen BA**, Litwack-Harrison S, Fink HA, Lane NE. Incident fracture is associated with a period of accelerated loss of hip BMD: The Study of Osteoporotic Fractures. *2016 American Society for Bone and Mineral Research Annual Meeting.*
46. Sebastian A, Chang JC, Murugesh DK, Hatsell S, Economides AN, **Christiansen BA**, Loots GG. Differential regulation of post-traumatic osteoarthritis associated genes in Str/ort, MRL/MpJ and C57BL/6 mice. *2016 American Society for Bone and Mineral Research Annual Meeting.*
47. Zhao F, De Jesus NM, Ripplinger CR, **Christiansen BA**. Loss of bone mass and trabecular microstructure of vertebrae and femur following myocardial infarction in mice. *2016 Orthopaedic Research Society Annual Meeting*.
48. Wegner AM, Robbins MA, Campos NR, Haddad AF, **Christiansen BA**, Yik JH, Haudenschild DR. Acute changes in Nox4 activity in early post-traumatic osteoarthritis. *2016 Orthopaedic Research Society Annual Meeting*.
49. Chang JC, **Christiansen BA**, Collette NM, Sebastian A, Murugesh DK, Hatsell S, Economides AN, Blanchette CD, Loots GG. Sost protects mouse joints from post traumatic mediated cartilage degradation by inhibiting MMP-activity. *2015 American Society for Bone and Mineral Research Annual Meeting.*
50. Emami AJ, Toupadakis CA, Yellowley CE, Fyhrie DP, **Christiansen BA**. Systemic trabecular bone loss following femoral fracture in mice. *2015 American Society for Bone and Mineral Research Annual Meeting.*
51. Emami AJ, Toupadakis CA, Yellowley CE, Fyhrie DP, **Christiansen BA**. Systemic bone loss following femoral fracture in mice: a mechanism for increased fracture risk. *2015 Orthopaedic Research Society Annual Meeting*.
52. Cunningham HC, West DWD, Baehr LM, Baar K, Bodine SC, **Christiansen BA**. Age-dependent recovery of bone during reloading following a period of hindlimb unloading in rats. *2015 Orthopaedic Research Society Annual Meeting*.
53. Eastman JG, **Christiansen BA**, Garcia TC, Lee MA. Does interfragmentary compression occur with fully threaded screws? *2014 Orthopaedic Trauma Association Annual Meeting*.
54. Heffner MA, **Christiansen BA**. Diminished bone adaptation to mechanical loading in mice with reduced sensory nerve function. *International Bone & Mineral Society – 2014 Sun Valley Workshop: Musculoskeletal Biology*.
55. Chang JC, **Christiansen BA**, Collette NM, Sebastian A, Murugesh D, Hatsell S, Economides A, Blanchette CD, Loots G. Elucidating molecular mechanisms leading to post traumatic osteoarthritis in Sost KO mice. *2014 American Society for Bone and Mineral Research Annual Meeting*.
56. Heffner MA, **Christiansen BA**. Lack of adaptive bone response to increased mechanical loading in a mouse model of reduced peripheral sensory nerve function. *2014 American Society for Bone and Mineral Research Annual Meeting*.
57. Peters JH, Fong J, Arabi Y, **Christiansen BA**, Haudenschild DR. Mice null for the alternatively spliced EDA segment of fibronectin exhibit reduced knee inflammation after tibial compression injury. *Osteoarthritis Research Society International – 2014 World Congress on Osteoarthritis*.
58. Khorasani MS, Diko S, Anderson MJ, Genetos DC, Haudenschild DR, **Christiansen BA**. Effect of alendronate on development of post-traumatic osteoarthritis induced by non-invasive joint injury in mice. *Orthopaedic Research Society 2014 Annual Meeting.*
59. Satkunananthan PB, Hardisty MR, Fyhrie DP, **Christiansen BA**. Systemic bone loss following non-invasive joint injury in mice: a potential mechanism for increased fracture risk. *Orthopaedic Research Society 2014 Annual Meeting.*
60. Anderson MJ, Bodine SC, Baar K, Haudenschild DR, **Christiansen BA**. Bone and muscle atrophy during disuse following knee injury in mice: quantifying independent mechanisms contributing to OA. *Orthopaedic Research Society 2014 Annual Meeting.*
61. June R, Hu Z, Yik J, **Christiansen BA**, Haudenschild DR. Response to early joint injury assessed by metabolomics in a mouse model. *Orthopaedic Research Society 2014 Annual Meeting.*
62. Hu Z, Yik J, Fong J, Michelier P, Shidara K, Liu N, Huang B, Cissell D, **Christiansen BA**, Haudenschild DR. Cdk9 inhibition attenuates acute inflammatory response and reduces bone loss in a non-invasive post-traumatic osteoarthritis mouse model. *Orthopaedic Research Society 2014 Annual Meeting.*
63. Collette NM, Yee CSN, Urbin SS, **Christiansen BA**, Xie L, Economides AN, Loots GG. Sostdc1, a paralog of Sost, participates in bone maintenance and fracture repair. *Orthopaedic Research Society 2014 Annual Meeting.*
64. Chang JC, **Christiansen BA**, Thomas CB, Collette NM, Blanchette C, Loots G. Modulating Sost expression influences the progression and severity of post traumatic osteoarthritis in mice. *American Society for Bone and Mineral Research 2013 Annual Meeting.*
65. Heffner MA, Anderson MJ, Kelemen AC, Genetos DC, **Christiansen BA**. Altered bone development in a mouse model of peripheral sensory nerve inactivation. *Orthopaedic Research Society 2013 Annual Meeting.*
66. Yik J, Kumari R, **Christiansen BA**, Haudenschild DR. CDK9 inhibition protects cartilage from the catabolic effects of pro-inflammatory cytokines. *Orthopaedic Research Society 2013 Annual Meeting.*
67. Soicher MA, **Christiansen BA**, Stover SM, Fyhrie DP. Remineralization of decellularized bone collagen matrix via alternate solution immersion (ASI). *Orthopaedic Research Society 2013 Annual Meeting.*
68. Lockwood KA, Chu BT, Anderson MJ, Kelemen AC, Haudenschild DR, **Christiansen BA**. Subchondral bone and joint laxity changes in a mouse model of post-traumatic osteoarthritis. *Orthopaedic Research Society 2013 Annual Meeting.*
69. Yik JH, Hu Z, **Christiansen BA**, Haudenschild DR. Early transient induction of IL-6 in a mouse joint injury model. *Osteoarthritis Research Socity International – 2013 World Congress on Osteoarthritis.*
70. Satkunananthan PB, Anderson MJ, Ripplinger CM, Haudenschild DR, **Christiansen BA**. Fluorescence reflectance imaging of early processes of post-traumatic osteoarthritis in male and female mice. *Osteoarthritis Research Society International – 2013 World Congress on Osteoarthritis.*
71. Ishida K, Acharya C, **Christiansen BA**, Yik JH, DiCesare PE, Haudenschild DR, COMP Enhances BMP-2 Dependent Osteogenesis via Activating BMP-2 Signaling. *American Society for Bone and Mineral Research 2012 Annual Meeting.*
72. Anderson MJ, Haudenschild DR, **Christiansen BA**, Loading Rate-Dependent Subchondral Bone Changes in a Mouse Model of Post-Traumatic Osteoarthritis. *Orthopaedic Research Society 2012 Annual Meeting.*
73. De Jesus N, Anderson MJ, Haudenschild DR, Ripplinger CM, **Christiansen BA**, In Vivo Imaging of Inflammation, Bone Formation, and Bone Resorption In A Mouse Model of Post-Traumatic Osteoarthritis. *Orthopaedic Research Society 2012 Annual Meeting.*
74. Williams JC, Anderson MJ, **Christiansen BA**, Reddi AH, Lee MA, BMP-7 Induces Reproducible Healing in Rodent Critical Sized Defect Model Using a Novel Mini-Locking Plate. *Orthopaedic Research Society 2012 Annual Meeting.*
75. Yik JHN, Kumari R, **Christiansen BA**, Di Cesare PE, Haudenschild DR, The cdk9 Inhibitor Flavopiridol Effectively Suppresses the Activation of Primary Inflammatory Response Genes in Human Articular Chondrocytes. *Orthopaedic Research Society 2012 Annual Meeting.*
76. Snow KD, Klineberg EO, Haudenschild DR, **Christiansen BA**, Antkowiak T, Acharya C, Maitra S, Gupta MC, The Effect of Noggin Interference in a Rabbit Posterolateral Spinal Fusion Model. *Orthopaedic Research Society 2012 Annual Meeting.*
77. Williams JC, Anderson MJ, **Christiansen BA**, Reddi AH, Lee MA, Induction of Bone Regeneration by BMP-7 in Critical Sized Defects Using a Novel Internal Fixator. *California Orthopaedic Association 2012 Annual Meeting.*
78. Williams JC, Anderson MJ, **Christiansen BA**, Reddi AH, Lee MA, Induction of Bone Regeneration by BMP-7 in Critical Sized Defects Using a Novel Internal Fixator. *Challenges in Fracture Care Across Disciplines, AO North America 2012.*
79. **Christiansen BA**, Lee CA, Anderson MJ, Williams JC, Haudenschild DR, Short-Term Bone Changes After Non-Invasive Knee Injury Using a Novel Mouse Model of Post-Traumatic Osteoarthritis. *American Society for Bone and Mineral Research 2011.*
80. **Christiansen BA**, Lee CA, Anderson MJ, Williams JC, Haudenschild DR. Early Changes Following Knee Injury in Non-Invasive Mouse PTOA Model. *2011 Osteoarthritis Research Society International.*
81. Symons JE, Entwistle RC, Arens AM, Garcia-Nolen TC, **Christiansen BA**, Fyhrie DP, Stover SM. Mechanical and Morphologic Properties of Trabecular Bone from Horses with a Bone Fragility Syndrome. *2011 Biomechanical Engineering Conference at Stanford.*

## **Christiansen BA,** Lee CA, Anderson MJ, Williams JC, Haudenschild DR. Rapid subchondral bone changes after non-invasive ACL injury in mice. 2011 IBMS Sun Valley Workshop.

## Williams JC, Anderson MJ, **Christiansen BA**, Reddi AH, Lee MA, Induction of Bone Regeneration by BMP-7 in Critical Sized Defects Using a Novel Internal Fixator.  Western Orthopaedic Association 2011 Annual Meeting.

## Williams JC, Anderson MJ, **Christiansen BA**, Reddi AH, Lee MA, Induction of Bone Regeneration by BMP-7 in Critical Sized Defects Using a Novel Internal Fixator, ORS/OREF Southwest Regional Resident Research Symposium, 2011.

## **Christiansen BA**, Kopperdahl DL, Kiel DP, Keaveny TM, Bouxsein ML. Contributions of cortical and trabecular bone to age-related declines in vertebral strength are not the same for men and women. American Society of Bone and Mineral Research 2010 Annual Meeting.

1. **Christiansen BA**, Kopperdahl DL, Kiel DP, Keaveny TM, Bouxsein ML. The contributions of cortical and trabecular bone to age-related changes in vertebral body strength assessed by QCT-based finite element analysis*. Gordon Research Conference: Musculoskeletal Biology and Bioengineering (2010).*
2. Samelson EJ, Bouxsein ML, Demissie S, **Christiansen BA**, Broe KE, Zhang X, Manoharan R, D'Agostino J, Lang T, Cupples LA, Kiel DP. Association between diabetes and QCT measures of bone strength and prevalent vertebral fracture: the Framingham study. *2010 Meeting of the American Society for Bone and Mineral Research.*
3. Broe KE, Kiel DP, Zhang X, Samelson EJ, **Christiansen BA**, Meng C-A, Manoharan R, D’Agostino J, Lang T, Demissie S, Cupples LA, Bouxsein ML. Men and women with similar spine aBMD have different bone size, volumetric density, and strength: the Framingham study. *2010 Annual Meeting of the American Society for Bone and Mineral Research.*
4. **Christiansen BA**, Cloutier AM, Ellman R, Manoharan RK, Roberts BJ, Bouxsein ML. Tibial bone strain in ambulating mice during partial weight bearing. *Orthopaedic Research Society 2010 Annual Meeting.*
5. **Christiansen BA**, Samelson EJ, Demissie S, Valentine MJ, Manoharan RK, Roberts BJ, Meng CA, Broe KE, Lang TF, Kiel DP, Bouxsein ML. Men and women exhibit different patterns of age-related bone loss in the thoracic and lumbar vertebrae: the Framingham QCT study*. American Society of Bone and Mineral Research 2009 Annual Meeting.*
6. Iyer S, **Christiansen BA**, Roberts BJ, Valentine MJ, Manoharan R, Bouxsein ML. Biomechanical contribution of the rib cage and sternum for modeling vertebral loading in the thoracic spine. *2009 American Society of Mechanical Engineering Summer Bioengineering Conference.*
7. **Christiansen BA**, Iyer S, Kiel DP, Demissie-Banjaw S, Roberts BJ, Valentine MJ, Shah SR, Bouxsein ML. Effect of age-, sex- and location-specific differences in trunk muscle geometry on estimates of spinal loading. *Orthopaedic Research Society 2009 Annual Meeting.*
8. **Christiansen BA**, Demissie S, Roberts BJ, Valentine MJ, Manoharan R, Shah SR, Iyer S, Samelson EJ, Kiel DP, Bouxsein ML. Age-, sex-, and spinal level-specific differences in bone density, geometry, and compressive strength of thoracic and lumbar vertebrae. *2009 European Calcified Tissue Society.*
9. **Christiansen BA**, Kopperdahl DL, Demissie S, Roberts BJ, Valentine MJ, Kiel DP, Keaveny TM, Bouxsein ML. Age-related differences in thoracic and lumbar vertebral bone density and strength assessed using QCT-based finite element analysis. *2009 International Bone & Mineral Society.*

## **Christiansen BA**, Silva MJ. Bone adaptation response of mice to constrained tibial vibration. Orthopaedic Research Society 2008 Annual Meeting.

1. **Christiansen BA**, Demissie-Banjaw S, Iyer S, Roberts BJ, Valentine MJ, Shah SR, Samelson EJ, Kiel DP, Bouxsein ML. Biomechanics of vertebral fractures*.* *Harvard Medical School Dean’s Symposium: Frontiers in Aging Research, October, 2008*
2. **Christiansen BA**, Bayly PV, Silva MJ. A new method for studying the anabolic effects of vibrational loading of bone: constrained tibial vibration in mice. *American Society of Biomechanics 2007 Annual Conference.*
3. **Christiansen BA**, Bayly PV, Silva MJ. A novel loading method for stimulation of trabecular bone growth in mice. *2006 SEM Annual Conference on Experimental Mechanics.*
4. **Christiansen BA,** Silva MJ. The effect of varying magnitudes of whole-body vibration on several skeletal sites in mice. *2005 ASME Summer Bioengineering Conference.*
5. Linn SK, Giles KE, **Christiansen BA**, Roy ME, Cheverud JM, Silva MJ. Mouse bone mechanical testing - restoration of properties after long-term dried storage and comparison of material properties from femur vs. radius bending tests. *2005 Annual Meeting of the Orthopaedic Research Society.*
6. **Christiansen BA**, Klaesner JW, Mueller MJ. Tissue indentation with position and ultrasound measurements. *2003 Biomedical Engineering Society Annual Meeting.*