# Christine Lyn Le Maitre

List of Publications by Year
in descending order



| 87 | 6,317 | 94433 37 | 69250 77 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 89 | 89 | 89 | 4624 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | The role of interleukin-1 in the pathogenesis of human intervertebral disc degeneration. Arthritis Research, 2005, 7, R732. | 2.0 | 695 |
| 2 | Catabolic cytokine expression in degenerate and herniated human intervertebral discs: IL-1Î² and TNFÎ± expression profile. Arthritis Research and Therapy, 2007, 9, R77. | 3.5 | 502 |
| 3 | Matrix synthesis and degradation in human intervertebral disc degeneration. Biochemical Society Transactions, 2007, 35, 652-655. | 3.4 | 424 |
| 4 | Localization of degradative enzymes and their inhibitors in the degenerate human intervertebral disc. Journal of Pathology, 2004, 204, 47-54. | 4.5 | 395 |
| 5 | Accelerated cellular senescence in degenerate intervertebral discs: a possible role in the pathogenesis of intervertebral disc degeneration. Arthritis Research and Therapy, 2007, 9, R45. | 3.5 | 365 |
| 6 | Molecular mechanisms of biological aging in intervertebral discs. Journal of Orthopaedic Research, 2016, 34, 1289-1306. | 2.3 | 270 |
| 7 | Modified expression of the ADAMTS enzymes and tissue inhibitor of metalloproteinases 3 during human intervertebral disc degeneration. Arthritis and Rheumatism, 2009, 60, 482-491. | 6.7 | 232 |
| 8 | Investigation of the role of IL-1 and TNF in matrix degradation in the intervertebral disc. Rheumatology, 2008, 47, 809-814. | 1.9 | 222 |
| 9 | Tumor necrosis factor Î±â€“ and interleukinâ€1Î²â€“dependent induction of CCL3 expression by nucleus pulposus cells promotes macrophage migration through CCR1. Arthritis and Rheumatism, 2013, 65, 832-842. | 6.7 | 144 |
| 10 | Interleukin-1 receptor antagonist delivered directly and by gene therapy inhibits matrix degradation in the intact degenerate human intervertebral disc: an in situ zymographic and gene therapy study. Arthritis Research and Therapy, 2007, 9, R83. | 3.5 | 140 |
| 11 | Potential roles of cytokines and chemokines in human intervertebral disc degeneration: interleukin-1 is a master regulator of catabolic processes. Osteoarthritis and Cartilage, 2015, 23, 1165-1177. | 1.3 | 123 |
| 12 | Expression and regulation of neurotrophic and angiogenic factors during human intervertebral disc degeneration. Arthritis Research and Therapy, 2014, 16, 416. | 3.5 | 118 |
| 13 | Interleukin-1 receptor antagonist deficient mice provide insights into pathogenesis of human intervertebral disc degeneration. Annals of the Rheumatic Diseases, 2013, 72, 1860-1867. | 0.9 | 101 |
| 14 | A preliminary in vitro study into the use of IL-1Ra gene therapy for the inhibition of intervertebral disc degeneration. International Journal of Experimental Pathology, 2006, 87, 17-28. | 1.3 | 93 |
| 15 | Inflammatory Cytokines Induce NOTCH Signaling in Nucleus Pulposus Cells. Journal of Biological Chemistry, 2013, 288, 16761-16774. | 3.4 | 93 |
| 16 | Integrative epigenomics, transcriptomics and proteomics of patient chondrocytes reveal genes and pathways involved in osteoarthritis. Scientific Reports, 2017, 7, 8935. | 3.3 | 90 |
| 17 | An in vitro study investigating the survival and phenotype of mesenchymal stem cells following injection into nucleus pulposus tissue. Arthritis Research and Therapy, 2009, 11, R20. | 3.5 | 87 |
| 18 | The cytokine and chemokine expression profile of nucleus pulposus cells: implications for degeneration and regeneration of the intervertebral disc. Arthritis Research and Therapy, 2013, 15, R213. | 3.5 | 86 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Altered integrin mechanotransduction in human nucleus pulposus cells derived from degenerated discs. Arthritis and Rheumatism, 2009, 60, 460-469. | 6.7 | 81 |
| 20 | The use of auxetic materials in tissue engineering. Biomaterials Science, 2020, 8, 2074-2083. | 5.4 | 78 |
| 21 | Advancing cell therapies for intervertebral disc regeneration from the lab to the clinic: Recommendations of the ORS spine section. JOR Spine, 2018, 1, e1036. | 3.2 | 74 |
| 22 | Expression of receptors for putative anabolic growth factors in human intervertebral disc: implications for repair and regeneration of the disc. Journal of Pathology, 2005, 207, 445-452. | 4.5 | 72 |
| 23 | Effects of Bioactive Compounds from Carrots (Daucus carota L.), Polyacetylenes, Beta-Carotene and Lutein on Human Lymphoid Leukaemia Cells. Anti-Cancer Agents in Medicinal Chemistry, 2012, 12, 640-652. | 1.7 | 72 |
| 24 | Nerves are more abundant than blood vessels in the degenerate human intervertebral disc. Arthritis Research and Therapy, 2015, 17, 370. | 3.5 | 70 |
| 25 | Nerves and blood vessels in degenerated intervertebral discs are confined to physically disrupted tissue. Journal of Anatomy, 2018, 233, 86-97. | 1.5 | 64 |
| 26 | Expression of cartilage-derived morphogenetic protein in human intervertebral discs and its effect on matrix synthesis in degenerate human nucleus pulposus cells. Arthritis Research and Therapy, 2009, 11, R137. | 3.5 | 58 |
| 27 | Thermally triggered injectable hydrogel, which induces mesenchymal stem cell differentiation to nucleus pulposus cells: Potential for regeneration of the intervertebral disc. Acta Biomaterialia, 2016, 36, 99-111. | 8.3 | 58 |
| 28 | Human cells derived from degenerate intervertebral discs respond differently to those derived from non-degenerate intervertebral discs following application of dynamic hydrostatic pressure. Biorheology, 2008, 45, 563-575. | 0.4 | 57 |
| 29 | Caveolin-1 expression and stress-induced premature senescence in human intervertebral disc degeneration. Arthritis Research and Therapy, 2008, 10, R87. | 3.5 | 55 |
| 30 | Nucleus pulposus phenotypic markers to determine stem cell differentiation: fact or fiction?. Oncotarget, 2016, 7, 2189-2200. | 1.8 | 51 |
| 31 | Thermally triggered hydrogel injection into bovine intervertebral disc tissue explants induces differentiation of mesenchymal stem cells and restores mechanical function. Acta Biomaterialia, 2017, 54, 212-226. | 8.3 | 50 |
| 32 | Differential Effects of Polyphenols on Proliferation and Apoptosis in Human Myeloid and Lymphoid Leukemia Cell Lines. Anti-Cancer Agents in Medicinal Chemistry, 2013, 13, 1601-1613. | 1.7 | 48 |
| 33 | A study of pH-responsive microgel dispersions: from fluid-to-gel transitions to mechanical property restoration for load-bearing tissue. Soft Matter, 2007, 3, 486. | 2.7 | 46 |
| 34 | Lactate Efflux From Intervertebral Disc Cells Is Required for Maintenance of Spine Health. Journal of Bone and Mineral Research, 2020, 35, 550-570. | 2.8 | 46 |
| 35 | Connective tissue growth factor expression in human intervertebral disc: implications for angiogenesis in intervertebral disc degeneration. Biotechnic and Histochemistry, 2008, 83, 239-245. | 1.3 | 43 |
| 36 | Expression of Cannabinoid Receptors in Human Osteoarthritic Cartilage: Implications for Future Therapies. Cannabis and Cannabinoid Research, 2016, 1, 3-15. | 2.9 | 41 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Cannabinoid WIN-55,212-2 mesylate inhibits interleukin-1Î² induced matrix metalloproteinase and tissue inhibitor of matrix metalloproteinase expression in human chondrocytes. Osteoarthritis and Cartilage, 2014, 22, 133-144. | 1.3 | 40 |
| 38 | Leaping the hurdles in developing regenerative treatments for the intervertebral disc from preclinical to clinical. JOR Spine, 2018, 1, e1027. | 3.2 | 40 |
| 39 | Use of hydrogel scaffolds to develop an in vitro 3D culture model of human intestinal epithelium. Acta Biomaterialia, 2017, 62, 128-143. | 8.3 | 39 |
| 40 | TNF-Î± promotes nuclear enrichment of the transcription factor TonEBP/NFAT5 to selectively control inflammatory but not osmoregulatory responses in nucleus pulposus cells. Journal of Biological Chemistry, 2017, 292, 17561-17575. | 3.4 | 39 |
| 41 | Long-term in vitro 3D hydrogel co-culture model of inflammatory bowel disease. Scientific Reports, 2019, 9, 1812. | 3.3 | 37 |
| 42 | Bioactive Chemicals from Carrot (Daucus carota) Juice Extracts for the Treatment of Leukemia. Journal of Medicinal Food, 2011, 14, 1303-1312. | 1.5 | 36 |
| 43 | Bioactive Actions of Pomegranate Fruit Extracts on Leukemia Cell Lines In Vitro Hold Promise for New Therapeutic Agents for Leukemia. Nutrition and Cancer, 2012, 64, 100-110. | 2.0 | 36 |
| 44 | Hydroxyapatite nanoparticle injectable hydrogel scaffold to support osteogenic differentiation of human mesenchymal stem cells. , 2016, 32, 1-23. | | 36 |
| 45 | Characterization of biomaterials intended for use in the nucleus pulposus of degenerated intervertebral discs. Acta Biomaterialia, 2020, 114, 1-15. | 8.3 | 35 |
| 46 | Studies of Human Intervertebral Disc Cell Function in a Constrained In Vitro Tissue Culture System. Spine, 2004, 29, 1187-1195. | 2.0 | 34 |
| 47 | Inhibiting ILâ€1 signaling pathways to inhibit catabolic processes in disc degeneration. Journal of Orthopaedic Research, 2017, 35, 74-85. | 2.3 | 34 |
| 48 | Cell sources proposed for nucleus pulposus regeneration. JOR Spine, 2021, 4, e1175. | 3.2 | 34 |
| 49 | Class 3 semaphorins expression and association with innervation and angiogenesis within the degenerate human intervertebral disc. Oncotarget, 2015, 6, 18338-18354. | 1.8 | 33 |
| 50 | Recapitulating Parkinson's disease pathology in a three-dimensional human neural cell culture model. DMM Disease Models and Mechanisms, 2019, 12, . | 2.4 | 31 |
| 51 | The antimicrobial activity and biocompatibility of a controlled gentamicin-releasing single-layer sol-gel coating on hydroxyapatite-coated titanium. Bone and Joint Journal, 2021, 103-B, 522-529. | 4.4 | 31 |
| 52 | Polyphenols are responsible for the proapoptotic properties of pomegranate juice on leukemia cell lines. Food Science and Nutrition, 2013, 1, 196-208. | 3.4 | 30 |
| 53 | In vivosafety and efficacy testing of a thermally triggered injectable hydrogel scaffold for bone regeneration and augmentation in a rat model. Oncotarget, 2018, 9, 18277-18295. | 1.8 | 30 |
| 54 | Tissue Engineering Laboratory Models of the Small Intestine. Tissue Engineering - Part B: Reviews, 2018, 24, 98-111. | 4.8 | 29 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Human cells derived from degenerate intervertebral discs respond differently to those derived from non-degenerate intervertebral discs following application of dynamic hydrostatic pressure. Biorheology, 2008, 45, 563-75. | 0.4 | 29 |
| 56 | Interleukin 1 is a key driver of inflammatory bowel disease-demonstration in a murine IL-1Ra knockout model. Oncotarget, 2019, 10, 3559-3575. | 1.8 | 28 |
| 57 | Multiscale Regulation of the Intervertebral Disc: Achievements in Experimental, In Silico, and Regenerative Research. International Journal of Molecular Sciences, 2021, 22, 703. | 4.1 | 27 |
| 58 | Development of a standardized histopathology scoring system for human intervertebral disc degeneration: an Orthopaedic Research Society Spine Section Initiative. JOR Spine, 2021, 4, e1167. | 3.2 | 25 |
| 59 | Mesenchymal stem cell therapies for intervertebral disc degeneration: Consideration of the degenerate niche. JOR Spine, 2019, 2, e1055. | 3.2 | 24 |
| 60 | Use of <scp>l</scp>-pNIPAM hydrogel as a 3D-scaffold for intestinal crypts and stem cell tissue engineering. Biomaterials Science, 2019, 7, 4310-4324. | 5.4 | 23 |
| 61 | Aquaporin 1 and 5 expression decreases during human intervertebral disc degeneration: novel HIF-1-mediated regulation of aquaporins in NP cells. Oncotarget, 2015, 6, 11945-11958. | 1.8 | 22 |
| 62 | Mass spectrometry imaging of endogenous metabolites in response to doxorubicin in a novel 3D osteosarcoma cell culture model. Journal of Mass Spectrometry, 2020, 55, e4461. | 1.6 | 22 |
| 63 | Notochordal Cell-Based Treatment Strategies and Their Potential in Intervertebral Disc Regeneration. Frontiers in Cell and Developmental Biology, 2021, 9, 780749. | 3.7 | 21 |
| 64 | Immuno-Modulatory Effects of Intervertebral Disc Cells. Frontiers in Cell and Developmental Biology, 0, 10, . | 3.7 | 20 |
| 65 | Investigation of intervertebral disc degeneration using multivariate FTIR spectroscopic imaging. Faraday Discussions, 2016, 187, 393-414. | 3.2 | 19 |
| 66 | Glutathione is key to the synergistic enhancement of doxorubicin and etoposide by polyphenols in leukaemia cell lines. Cell Death and Disease, 2015, 6, e2028-e2028. | 6.3 | 17 |
| 67 | Cannabinoids: novel therapies for arthritis?. Future Medicinal Chemistry, 2012, 4, 713-725. | 2.3 | 15 |
| 68 | Aquaporin expression in the human and canine intervertebral disc during maturation and degeneration. JOR Spine, 2019, 2, e1049. | 3.2 | 15 |
| 69 | Hedgehog proteins and parathyroid hormoneâ€related protein are involved in intervertebral disc maturation, degeneration, and calcification. JOR Spine, 2019, 2, e1071. | 3.2 | 15 |
| 70 | Polyphenols enhance the activity of alkylating agents in leukaemia cell lines. Oncotarget, 2019, 10, 4570-4586. | 1.8 | 14 |
| 71 | Development of anin vitromodel to test the efficacy of novel therapies for IVD degeneration. Journal of Tissue Engineering and Regenerative Medicine, 2009, 3, 461-469. | 2.7 | 13 |
| 72 | Physical disruption of intervertebral disc promotes cell clustering and a degenerative phenotype. Cell Death Discovery, 2019, 5, 154. | 4.7 | 13 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | The strain-generated electrical potential in cartilaginous tissues: a role for piezoelectricity. Biophysical Reviews, 2021, 13, 91-100. | 3.2 | 13 |
| 74 | The effect of apigenin and chemotherapy combination treatments on apoptosis-related genes and proteins in acute leukaemia cell lines. Scientific Reports, 2022, 12, . | 3.3 | 12 |
| 75 | Modelling the catabolic environment of the moderately degenerated disc with a caprine ex vivo loaded disc culture system. , 2020, 40, 21-37. | | 11 |
| 76 | Dietary polyphenols influence antimetabolite agents: methotrexate, 6-mercaptopurine and 5-fluorouracil in leukemia cell lines. Oncotarget, 2017, 8, 104877-104893. | 1.8 | 10 |
| 77 | Immunohistochemical analysis of protein expression in formalin fixed paraffin embedded human intervertebral disc tissues. JOR Spine, 2020, 3, e1098. | 3.2 | 8 |
| 78 | Molecular Action of Polyphenols in Leukaemia and Their Therapeutic Potential. International Journal of Molecular Sciences, 2021, 22, 3085. | 4.1 | 8 |
| 79 | One-pot precipitation polymerisation strategy for tuneable injectable LaponiteÂ®-pNIPAM hydrogels: Polymerisation, processability and beyond. Polymer, 2021, 233, 124201. | 3.8 | 8 |
| 80 | TonEBP regulates the hyperosmotic expression of aquaporin 1 and 5 in the intervertebral disc. Scientific Reports, 2021, 11, 3164. | 3.3 | 7 |
| 81 | 'Cell or Not to Cell' that is the Question: For Intervertebral Disc Regeneration?. HSOA Journal of Stem Cells Research, Development & Therapy, 2015, 2, 1-9. | 0.2 | 4 |
| 82 | A perspective on the <scp>ORS Spine Section</scp> initiative to develop a multiâ€species <scp>JOR Spine</scp> histopathology series. JOR Spine, 2021, 4, e1165. | 3.2 | 2 |
| 83 | Degenerative physiochemical events in the pathological intervertebral disc. Histology and Histopathology, 2021, , 18395. | 0.7 | 2 |
| 84 | Improving reproducibility in spine research. JOR Spine, 2020, 3, e1127. | 3.2 | 1 |
| 85 | Lâ€type <scp>Voltageâ€Gated</scp> calcium channels partly mediate Mechanotransduction in the intervertebral disc. JOR Spine, 0, , . | 3.2 | 1 |
| 86 | Investigation of polarization-sensitive optical coherence tomography towards the study of microstructure of articular cartilage. Proceedings of SPIE, 2013, , . | 0.8 | 0 |
| 87 | SAT-041 Testosterone Reduces Atherosclerosis and Plaque Specific Inflammatory Markers in the ApoE-/- Mouse Model. Journal of the Endocrine Society, 2020, 4, . | 0.2 | 0 |