

# Gerhard KrÄnke

## List of Publications by Year in descending order

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Version: 2024-02-01

91  
papers

7,229  
citations

53660

45  
h-index

58464

82  
g-index

93  
all docs

93  
docs citations

93  
times ranked

12708  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Tibia Cortical Bone Segmentation in Micro-CT and X-ray Microscopy Data Using a Single Neural Network. <i>Informatik Aktuell</i> , 2022, , 333-338.   | 0.4  | 3         |
| 2  | Estrogen-mediated downregulation of HIF-1 $\alpha$ signaling in B lymphocytes influences postmenopausal bone loss. <i>Bone Research</i> , 2022, 10, 15.  | 5.4  | 10        |
| 3  | Advanced neural networks for classification of MRI in psoriatic arthritis, seronegative, and seropositive rheumatoid arthritis. <i>Rheumatology</i> , 2022, 61, 4945-4951.                                 | 0.9  | 14        |
| 4  | Synovial Macrophage and Fibroblast Heterogeneity in Joint Homeostasis and Inflammation. <i>Frontiers in Medicine</i> , 2022, 9, 862161.  | 1.2  | 16        |
| 5  | An advanced optical clearing protocol allows label-free detection of tissue necrosis via multiphoton microscopy in injured whole muscle. <i>Theranostics</i> , 2021, 11, 2876-2891.                        | 4.6  | 10        |
| 6  | Upregulation of CCR4 in activated CD8 <sup>+</sup> T cells indicates enhanced lung homing in patients with severe acute SARS-CoV-2 infection. <i>European Journal of Immunology</i> , 2021, 51, 1436-1448. | 1.6  | 22        |
| 7  | The complement system drives local inflammatory tissue priming by metabolic reprogramming of synovial fibroblasts. <i>Immunity</i> , 2021, 54, 1002-1021.e10.  | 6.6  | 106       |
| 8  | IL-33-induced metabolic reprogramming controls the differentiation of alternatively activated macrophages and the resolution of inflammation. <i>Immunity</i> , 2021, 54, 2531-2546.e5.                    | 6.6  | 67        |
| 9  | T2 Mapping as a New Method for Quantitative Assessment of Cartilage Damage in Rheumatoid Arthritis. <i>Journal of Rheumatology</i> , 2020, 47, 820-825.  | 1.0  | 12        |
| 10 | Formation of atherosclerotic lesions is independent of eosinophils in male mice. <i>Atherosclerosis</i> , 2020, 311, 67-72.  | 0.4  | 3         |
| 11 | Metabolic reprogramming of osteoclasts represents a therapeutic target during the treatment of osteoporosis. <i>Scientific Reports</i> , 2020, 10, 21020.  | 1.6  | 29        |
| 12 | Identifying "non-progressors" among patients with arthralgia. <i>Nature Reviews Rheumatology</i> , 2020, 16, 251-252.  | 3.5  | 0         |
| 13 | JAK inhibition increases bone mass in steady-state conditions and ameliorates pathological bone loss by stimulating osteoblast function. <i>Science Translational Medicine</i> , 2020, 12, .               | 5.8  | 80        |
| 14 | Environmental arginine controls multinuclear giant cell metabolism and formation. <i>Nature Communications</i> , 2020, 11, 431.  | 5.8  | 37        |
| 15 | Targeting zonulin and intestinal epithelial barrier function to prevent onset of arthritis. <i>Nature Communications</i> , 2020, 11, 1995.   | 5.8  | 253       |
| 16 | PPAR $\gamma$ -mediated mitochondrial rewiring of osteoblasts determines bone mass. <i>Scientific Reports</i> , 2020, 10, 8428.  | 1.6  | 14        |
| 17 | Osteocyte necrosis triggers osteoclast-mediated bone loss through macrophage-inducible C-type lectin. <i>Journal of Clinical Investigation</i> , 2020, 130, 4811-4830.                                     | 3.9  | 93        |
| 18 | Locally renewing resident synovial macrophages provide a protective barrier for the joint. <i>Nature</i> , 2019, 572, 670-675.   | 13.7 | 345       |

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|----|---|-----|-----------|
| 19 | Origin and function of synovial macrophage subsets during inflammatory joint disease. <i>Advances in Immunology</i> , 2019, 143, 75-98.   | 1.1 | 23        |
| 20 | A network of trans-cortical capillaries as mainstay for blood circulation in long bones. <i>Nature Metabolism</i> , 2019, 1, 236-250.   | 5.1 | 221       |
| 21 | RELM $\beta$ -expressing macrophages protect against fatal lung damage and reduce parasite burden during helminth infection. <i>Science Immunology</i> , 2019, 4, .   | 5.6 | 44        |
| 22 | Enzymatically oxidized phospholipids assume center stage as essential regulators of innate immunity and cell death. <i>Science Signaling</i> , 2019, 12, .  | 1.6 | 55        |
| 23 | Phospholipid membranes drive abdominal aortic aneurysm development through stimulating coagulation factor activity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 8038-8047.                                      | 3.3 | 22        |
| 24 | OP0076...JAK-INHIBITORS TOFACITINIB AND BARICITINIB IMPROVE PATHOLOGICAL BONE LOSS IN VIVO. , 2019, , .   |     | 0         |
| 25 | Structural insights into heme binding to IL-36 $\beta$ proinflammatory cytokine. <i>Scientific Reports</i> , 2019, 9, 16893.  | 1.6 | 29        |
| 26 | Modular Lattice Constructs for Biological Joint Resurfacing. <i>Tissue Engineering - Part A</i> , 2019, 25, 1053-1062.  | 1.6 | 3         |
| 27 | Eosinophils are not essential for maintenance of murine plasma cells in the bone marrow. <i>European Journal of Immunology</i> , 2018, 48, 822-828.   | 1.6 | 38        |
| 28 | The B cell response to citrullinated antigens in the development of rheumatoid arthritis. <i>Nature Reviews Rheumatology</i> , 2018, 14, 157-169.   | 3.5 | 88        |
| 29 | Short-chain fatty acids regulate systemic bone mass and protect from pathological bone loss. <i>Nature Communications</i> , 2018, 9, 55.  | 5.8 | 393       |
| 30 | NR4A1 Regulates Motility of Osteoclast Precursors and Serves as Target for the Modulation of Systemic Bone Turnover. <i>Journal of Bone and Mineral Research</i> , 2018, 33, 2035-2047.   | 3.1 | 15        |
| 31 | Group 2 Innate Lymphoid Cells Attenuate Inflammatory Arthritis and Protect from Bone Destruction in Mice. <i>Cell Reports</i> , 2018, 24, 169-180.  | 2.9 | 64        |
| 32 | Autoantibodies Recognizing Secondary Necrotic Cells Promote Neutrophilic Phagocytosis and Identify Patients With Systemic Lupus Erythematosus. <i>Frontiers in Immunology</i> , 2018, 9, 989.   | 2.2 | 9         |
| 33 | The involvement of Toll-like receptor 9 in the pathogenesis of erosive autoimmune arthritis. <i>Journal of Cellular and Molecular Medicine</i> , 2018, 22, 4399-4409.   | 1.6 | 17        |
| 34 | Glucocorticoid receptor in stromal cells is essential for glucocorticoid-mediated suppression of inflammation in arthritis. <i>Annals of the Rheumatic Diseases</i> , 2018, 77, 1610-1618.  | 0.5 | 37        |
| 35 | Estrogen induces St6gal1 expression and increases IgG sialylation in mice and patients with rheumatoid arthritis: a potential explanation for the increased risk of rheumatoid arthritis in postmenopausal women. <i>Arthritis Research and Therapy</i> , 2018, 20, 84. | 1.6 | 79        |
| 36 | Development of three-dimensional prints of arthritic joints for supporting patients' awareness to structural damage. <i>Arthritis Research and Therapy</i> , 2017, 19, 34.  | 1.6 | 17        |

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|----|--|------|-----------|
| 37 | The Nuclear Receptor Nr4a1 Acts as a Microglia Rheostat and Serves as a Therapeutic Target in Autoimmune-Driven Central Nervous System Inflammation. <i>Journal of Immunology</i> , 2017, 198, 3878-3885.  | 0.4  | 34        |
| 38 | PPAR $\delta$ : A master regulator of mesenchymal stem cell functions. <i>Biochimie</i> , 2017, 136, 55-58.  | 1.3  | 7         |
| 39 | Enzymatic lipid oxidation by eosinophils propagates coagulation, hemostasis, and thrombotic disease. <i>Journal of Experimental Medicine</i> , 2017, 214, 2121-2138.   | 4.2  | 78        |
| 40 | Networks of enzymatically oxidized membrane lipids support calcium-dependent coagulation factor binding to maintain hemostasis. <i>Science Signaling</i> , 2017, 10, .   | 1.6  | 40        |
| 41 | Regulation of autoantibody activity by the IL-23 $\rightarrow$ TH17 axis determines the onset of autoimmune disease. <i>Nature Immunology</i> , 2017, 18, 104-113.   | 7.0  | 274       |
| 42 | The double-edged role of 12/15-lipoxygenase during inflammation and immunity. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2017, 1862, 371-381.   | 1.2  | 99        |
| 43 | Runx2 mediated Induction of Novel Targets ST2 and Runx3 Leads to Cooperative Regulation of Hypertrophic Differentiation in ATDC5 Chondrocytes. <i>Scientific Reports</i> , 2017, 7, 17947.   | 1.6  | 19        |
| 44 | 08.27 $\rightarrow$ ...Impact of toll-like receptor 9 in inflammatory arthritis and osteoclastogenesis. , 2017, , .  |      | 0         |
| 45 | Full Length Interleukin 33 Aggravates Radiation-Induced Skin Reaction. <i>Frontiers in Immunology</i> , 2017, 8, 722.  | 2.2  | 9         |
| 46 | A role for 12/15-lipoxygenase-derived proresolving mediators in postoperative ileus: protectin DX-regulated neutrophil extravasation. <i>Journal of Leukocyte Biology</i> , 2016, 99, 231-239.   | 1.5  | 37        |
| 47 | Orphan nuclear receptor NR4A1 regulates transforming growth factor $\beta$ signaling and fibrosis. <i>Nature Medicine</i> , 2015, 21, 150-158.   | 15.2 | 267       |
| 48 | Fc-gamma receptors are not involved in cartilage damage during experimental osteoarthritis. <i>Osteoarthritis and Cartilage</i> , 2015, 23, 1221-1225.   | 0.6  | 5         |
| 49 | Glycosylation of immunoglobulin G determines osteoclast differentiation and bone loss. <i>Nature Communications</i> , 2015, 6, 6651.   | 5.8  | 212       |
| 50 | Microbiota from Obese Mice Regulate Hematopoietic Stem Cell Differentiation by Altering the Bone Niche. <i>Cell Metabolism</i> , 2015, 22, 886-894.  | 7.2  | 148       |
| 51 | Loss of Phosphatase and Tensin Homolog in APCs Impedes Th17-Mediated Autoimmune Encephalomyelitis. <i>Journal of Immunology</i> , 2015, 195, 2560-2570.  | 0.4  | 10        |
| 52 | Activation of liver X receptors inhibits experimental fibrosis by interfering with interleukin-6 release from macrophages. <i>Annals of the Rheumatic Diseases</i> , 2015, 74, 1317-1324.  | 0.5  | 28        |
| 53 | 12/15-lipoxygenase $\rightarrow$ mediated enzymatic lipid oxidation regulates DC maturation and function. <i>Journal of Clinical Investigation</i> , 2015, 125, 1944-1954.   | 3.9  | 77        |
| 54 | Brief Report: Anti $\rightarrow$ Citrullinated Protein Antibody Positivity Correlates With Cartilage Damage and Proteoglycan Levels in Patients With Rheumatoid Arthritis in the Hand Joints. <i>Arthritis and Rheumatology</i> , 2014, 66, 3283-3288. | 2.9  | 13        |

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|----|---|------|-----------|
| 55 | Reactive Oxygen Species Deficiency Induces Autoimmunity with Type 1 Interferon Signature. Antioxidants and Redox Signaling, 2014, 21, 2231-2245.                                    | 2.5  | 107       |
| 56 | The Nuclear Receptor Nr4a1 Mediates Anti-Inflammatory Effects of Apoptotic Cells. Journal of Immunology, 2014, 192, 4852-4858.  | 0.4  | 70        |
| 57 | Adopted orphans as regulators of inflammation, immunity and skeletal homeostasis. Swiss Medical Weekly, 2014, 144, w14055.  | 0.8  | 7         |
| 58 | Milk fat globule-EGF factor 8 mediates the enhancement of apoptotic cell clearance by glucocorticoids. Cell Death and Differentiation, 2013, 20, 1230-1240.                         | 5.0  | 59        |
| 59 | PPAR $\delta$ governs Wnt signaling and bone turnover. Nature Medicine, 2013, 19, 608-613.  | 15.2 | 98        |
| 60 | Autophagy regulates TNF $\alpha$ -mediated joint destruction in experimental arthritis. Annals of the Rheumatic Diseases, 2013, 72, 761-768.  | 0.5  | 249       |
| 61 | A8.3...Deficit of S100A4 Prevents Joint Destruction and Systemic Bone Loss in hTNF $\alpha$ Mouse Model. Annals of the Rheumatic Diseases, 2013, 72, A58.1-A58.                     | 0.5  | 0         |
| 62 | The 12/15-lipoxygenase pathway counteracts fibroblast activation and experimental fibrosis. Annals of the Rheumatic Diseases, 2012, 71, 1081-1087.                                  | 0.5  | 35        |
| 63 | Liver X receptors orchestrate osteoblast/osteoclast crosstalk and counteract pathologic bone loss. Journal of Bone and Mineral Research, 2012, 27, 2442-2451.                       | 3.1  | 35        |
| 64 | 12/15-Lipoxygenase during the regulation of inflammation, immunity, and self-tolerance. Journal of Molecular Medicine, 2012, 90, 1247-1256.   | 1.7  | 63        |
| 65 | Development of myeloproliferative disease in 12/15-lipoxygenase deficiency. Blood, 2012, 119, 6173-6174.  | 0.6  | 10        |
| 66 | 12/15-Lipoxygenase Orchestrates the Clearance of Apoptotic Cells and Maintains Immunologic Tolerance. Immunity, 2012, 36, 834-846.  | 6.6  | 204       |
| 67 | Inflammation-Associated Changes in Bone Homeostasis. Inflammation and Allergy: Drug Targets, 2012, 11, 188-195.   | 1.8  | 16        |
| 68 | $\alpha$ -galactin-mediated amelioration of ITP in mice is dependent on sialic acid and SIGIRR. European Journal of Immunology, 2012, 42, 826-830.                                  | 1.6  | 101       |
| 69 | Platelet-derived serotonin links vascular disease and tissue fibrosis. Journal of Experimental Medicine, 2011, 208, 961-972.  | 4.2  | 222       |
| 70 | Periarticular bone structure in rheumatoid arthritis patients and healthy individuals assessed by high-resolution computed tomography. Arthritis and Rheumatism, 2010, 62, 330-339. | 6.7  | 153       |
| 71 | R $\alpha$ spondin 1 protects against inflammatory bone damage during murine arthritis by modulating the Wnt pathway. Arthritis and Rheumatism, 2010, 62, 2303-2312.                | 6.7  | 57        |
| 72 | Blockade of Dickkopf (DKK)-1 induces fusion of sacroiliac joints. Annals of the Rheumatic Diseases, 2010, 69, 592-597.  | 0.5  | 198       |

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|----|--|-----|-----------|
| 73 | The 12/15-lipoxygenase pathway promotes osteoclast development and differentiation. <i>Autoimmunity</i> , 2009, 42, 383-385.   | 1.2 | 18        |
| 74 | The $\delta$ -Isoform of p38 MAPK Specifically Regulates Arthritic Bone Loss. <i>Journal of Immunology</i> , 2009, 183, 5938-5947.   | 0.4 | 76        |
| 75 | Improved Survival and Reduced Vascular Permeability by Eliminating or Blocking 12/15-Lipoxygenase in Mouse Models of Acute Lung Injury (ALI). <i>Journal of Immunology</i> , 2009, 183, 4715-4722.                 | 0.4 | 50        |
| 76 | 12/15-Lipoxygenase Counteracts Inflammation and Tissue Damage in Arthritis. <i>Journal of Immunology</i> , 2009, 183, 3383-3389.   | 0.4 | 138       |
| 77 | Tumor necrosis factor $\delta$ and RANKL blockade cannot halt bony spur formation in experimental inflammatory arthritis. <i>Arthritis and Rheumatism</i> , 2009, 60, 2644-2654.                                   | 6.7 | 68        |
| 78 | Inhibition of interleukin-6 receptor directly blocks osteoclast formation in vitro and in vivo. <i>Arthritis and Rheumatism</i> , 2009, 60, 2747-2756.   | 6.7 | 237       |
| 79 | Induction of osteoclast-associated receptor, a key osteoclast costimulation molecule, in rheumatoid arthritis. <i>Arthritis and Rheumatism</i> , 2008, 58, 3041-3050.  | 6.7 | 88        |
| 80 | Molecular mechanisms of inflammatory bone damage: emerging targets for therapy. <i>Trends in Molecular Medicine</i> , 2008, 14, 245-253.   | 3.5 | 91        |
| 81 | Photooxidation Generates Biologically Active Phospholipids That Induce Heme Oxygenase-1 in Skin Cells. <i>Journal of Biological Chemistry</i> , 2007, 282, 16934-16941.  | 1.6 | 52        |
| 82 | Expression of Heme Oxygenase-1 in Human Vascular Cells Is Regulated by Peroxisome Proliferator-Activated Receptors. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2007, 27, 1276-1282.               | 1.1 | 201       |
| 83 | Selective p38MAPK isoform expression and activation in antineutrophil cytoplasmic antibody-associated crescentic glomerulonephritis: role of p38MAPK. <i>Annals of the Rheumatic Diseases</i> , 2007, 67, 602-608. | 0.5 | 17        |
| 84 | TNF-induced structural joint damage is mediated by IL-1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 11742-11747.  | 3.3 | 273       |
| 85 | The dietary soy flavonoid genistein abrogates tissue factor induction in endothelial cells induced by the atherogenic oxidized phospholipid oxPAPC. <i>Thrombosis Research</i> , 2007, 120, 71-79.                 | 0.8 | 12        |
| 86 | Oxidized phospholipids at the interface of innate and adaptive immunity. <i>Future Lipidology</i> , 2006, 1, 623-630.  | 0.5 | 5         |
| 87 | Oxidized Phospholipids Alter Vascular Connexin Expression, Phosphorylation, and Heterocellular Communication. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2006, 26, 2216-2221.                     | 1.1 | 39        |
| 88 | Oxidized Phospholipids Trigger Atherogenic Inflammation in Murine Arteries. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2005, 25, 633-638.   | 1.1 | 138       |
| 89 | Oxidized Phospholipids Negatively Regulate Dendritic Cell Maturation Induced by TLRs and CD40. <i>Journal of Immunology</i> , 2005, 175, 501-508.  | 0.4 | 114       |
| 90 | Oxidized Phospholipids Induce Expression of Human Heme Oxygenase-1 Involving Activation of cAMP-responsive Element-binding Protein. <i>Journal of Biological Chemistry</i> , 2003, 278, 51006-51014.               | 1.6 | 169       |

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|----|--|-----|-----------|
| 91 | Disruption of the protein C inhibitor gene results in impaired spermatogenesis and male infertility.<br>Journal of Clinical Investigation, 2000, 106, 1531-1539. | 3.9 | 132       |