Frederick Grinnell

List of Publications by Year
in descending order

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97 papers	10,156 citations	44069 48 h-index	45317 90 g-index
103 all docs	103 docs citations	103 times ranked	6976 citing authors

#	Article	IF	Citations
1	Cellular Adhesiveness and Extracellular Substrata. International Review of Cytology, 1978, 53, 65-144.	6.2	778
2	Fibroblast biology in three-dimensional collagen matrices. Trends in Cell Biology, 2003, 13, 264-269.	7.9	730
3	Wound Fluid from Chronic Leg Ulcers Contains Elevated Levels of Metalloproteinases MMP-2 and MMP-9. Journal of Investigative Dermatology, 1993, 101, 64-68.	0.7	635
4	Distribution of Fibronectin During Wound Healing in Vivo. Journal of Investigative Dermatology, 1981, 76, 181-189.	0.7	412
5	Fibroblastâ€"collagen-matrix contraction: growth-factor signalling and mechanical loading. Trends in Cell Biology, 2000, 10, 362-365.	7.9	385
6	Fibroblast adhesion to fibrinogen and fibrin substrata: Requirement for cold-insoluble globulin (plasma fibronectin). Cell, 1980, 19, 517-525.	28.9	362
7	Fibronectin and wound healing. Journal of Cellular Biochemistry, 1984, 26, 107-116.	2.6	355
8	Studies on the biocompatibility of materials: Fibroblast reorganization of substratum-bound fibronectin on surfaces varying in wettability. , 1996, 30, 385-391.		326
9	Adsorption characteristics of plasma fibronectin in relationship to biological activity. Journal of Biomedical Materials Research Part B, 1981, 15, 363-381.	3.1	316
10	Cell Motility and Mechanics in Three-Dimensional Collagen Matrices. Annual Review of Cell and Developmental Biology, 2010, 26, 335-361.	9.4	298
11	Initial adhesion of human fibroblasts in serum-free medium: Possible role of secreted fibronectin. Cell, 1979, 17, 117-129.	28.9	292
12	Release of Mechanical Tension Triggers Apoptosis of Human Fibroblasts in a Model of Regressing Granulation Tissue. Experimental Cell Research, 1999, 248, 608-619.	2.6	267
13	Degradation of Fibronectin and Vitronectin and Vitronectin in Chronic Wound Fluid: Analysis by Cell Blotting, Immunoblotting, and Cell Adhesion Assays. Journal of Investigative Dermatology, 1992, 98, 410-416.	0.7	214
14	Stress relaxation of contracted collagen gels: Disruption of actin filament bundles, release of cell surface fibronectin, and down-regulation of DNA and protein synthesis. Experimental Cell Research, 1991, 193, 198-207.	2.6	213
15	Modulation of Fibroblast Morphology and Adhesion during Collagen Matrix Remodeling. Molecular Biology of the Cell, 2002, 13, 3915-3929.	2.1	213
16	Extracellular matrix organization modulates fibroblast growth and growth factor responsiveness. Experimental Cell Research, 1989, 182, 572-582.	2.6	204
17	The differential regulation of cell motile activity through matrix stiffness and porosity in three dimensional collagen matrices. Biomaterials, 2010, 31, 6425-6435.	11.4	198
18	Fibronectin Degradation in Chronic Wounds Depends on the Relative Levels of Elastase, Î±1-Proteinase Inhibitor, and Î±2-Macroglobulin. Journal of Investigative Dermatology, 1996, 106, 335-341.	0.7	189

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19	Dendritic Fibroblasts in Three-dimensional Collagen Matrices. Molecular Biology of the Cell, 2003, 14, 384-395.	2.1	183
20	Differences in the Regulation of Fibroblast Contraction of Floating Versus Stressed Collagen Matrices. Journal of Biological Chemistry, 1999, 274, 918-923.	3.4	164
21	Fibroblast mechanics in 3D collagen matricesâ˜†. Advanced Drug Delivery Reviews, 2007, 59, 1299-1305.	13.7	161
22	Microtubule function in fibroblast spreading is modulated according to the tension state of cell-matrix interactions. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 5425-5430.	7.1	142
23	Contraction of Hydrated Collagen Gels by Fibroblasts: Evidence for Two Mechanisms by which Collagen Fibrils are Stabilized. Collagen and Related Research, 1987, 6, 515-529.	2.0	136
24	Long-Term Culture of Fibroblasts in Contracted Collagen Gels: Effects on Cell Growth and Biosynthetic Activity. Journal of Investigative Dermatology, 1989, 93, 792-798.	0.7	123
25	Activation of MRTF-Aâ€"dependent gene expression with a small molecule promotes myofibroblast differentiation and wound healing. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 16850-16855.	7.1	119
26	Collagen processing, crosslinking, and fibril bundle assembly in matrix produced by fibroblasts in long-term cultures supplemented with ascorbic acid. Experimental Cell Research, 1989, 181, 483-491.	2.6	113
27	Studies on cell adhesion. Archives of Biochemistry and Biophysics, 1972, 153, 193-198.	3.0	103
28	Transforming Growth Factor Î² Stimulates Fibroblastâ€"Collagen Matrix Contraction by Different Mechanisms in Mechanically Loaded and Unloaded Matrices. Experimental Cell Research, 2002, 273, 248-255.	2.6	101
29	Identification of Neutrophil Elastase as the Proteinase in Burn Wound Fluid Responsible for Degradation of Fibronectin. Journal of Investigative Dermatology, 1994, 103, 155-161.	0.7	98
30	Metalloproteinase Activation Cascade After Burn Injury: A Longitudinal Analysis of the Human Wound Environment. Journal of Investigative Dermatology, 1994, 103, 660-664.	0.7	95
31	Nested collagen matrices: A new model to study migration of human fibroblast populations in three dimensions. Experimental Cell Research, 2005, 312, 86-94.	2.6	87
32	Fibronectin-Mediated Keratinocyte Migration and Initiation of Fibronectin Receptor Function In Vitro. Journal of Investigative Dermatology, 1985, 85, 304-308.	0.7	85
33	Cellâ€"Matrix Entanglement and Mechanical Anchorage of Fibroblasts in Three-dimensional Collagen Matrices. Molecular Biology of the Cell, 2005, 16, 5070-5076.	2.1	84
34	Fibroblast Quiescence in Floating or Released Collagen Matrices. Journal of Biological Chemistry, 2001, 276, 31047-31052.	3.4	83
35	Fibroblast Quiescence and the Disruption of ERK Signaling in Mechanically Unloaded Collagen Matrices. Journal of Biological Chemistry, 2000, 275, 3088-3092.	3.4	79
36	Disappearance of Anionic Sites from the Surface of the Rat Endometrial Epithelium at the Time of Blastocyst Implantation. Biology of Reproduction, 1979, 21, 691-707.	2.7	75

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37	Collagen Fibril Flow and Tissue Translocation Coupled to Fibroblast Migration in 3D Collagen Matrices. Molecular Biology of the Cell, 2008, 19, 2051-2058.	2.1	75
38	Induction of cell spreading by substratum-adsorbed ligands directed against the cell surface. Experimental Cell Research, 1978, 116, 275-284.	2.6	74
39	Activation of Rabbit Keratinocyte Fibronectin Receptor Function In Vivo During Wound Healing. Journal of Investigative Dermatology, 1986, 86, 585-590.	0.7	65
40	P21-activated kinase 1: convergence point in PDGF- and LPA-stimulated collagen matrix contraction by human fibroblasts. Journal of Cell Biology, 2006, 172, 423-432.	5.2	65
41	Calcium ions protect cell-substratum adhesion receptors against proteolysis. Experimental Cell Research, 1984, 152, 467-475.	2.6	64
42	Interaction of fibronectin-coated beads with attached and spread fibroblasts. Experimental Cell Research, 1986, 162, 449-461.	2.6	62
43	Fibronectin Adsorption on Material Surfaces. Annals of the New York Academy of Sciences, 1987, 516, 280-290.	3.8	61
44	Spatial organization of extracellular matrix and fibroblast activity: Effects of serum, transforming growth factor Î², and fibronectin. Experimental Cell Research, 1990, 190, 276-282.	2.6	58
45	Deposition of fibronectin on material surfaces exposed to plasma: Quantitative and biological studies. Journal of Cellular Physiology, 1983, 116, 289-296.	4.1	57
46	Distinguishing fibroblast promigratory and procontractile growth factor environments in 3â€Ð collagen matrices. FASEB Journal, 2008, 22, 2151-2160.	0.5	53
47	Attachment of normal and transformed hamster kidney cells to substrata varying in chemical composition. Biochemical Medicine, 1973, 7, 87-90.	0.5	52
48	Fibroblast mechanics in three-dimensional collagen matrices. Journal of Bodywork and Movement Therapies, 2008, 12, 191-193.	1.2	52
49	Different Molecular Motors Mediate Platelet-derived Growth Factor and Lysophosphatidic Acid-stimulated Floating Collagen Matrix Contraction. Journal of Biological Chemistry, 2003, 278, 47707-47712.	3.4	47
50	Inhibition of cellular adhesiveness by sulfhydryl blocking agents. Journal of Cellular Physiology, 1971, 78, 153-157.	4.1	46
51	Activation of ERK and p38 MAP Kinases in Human Fibroblasts during Collagen Matrix Contraction. Experimental Cell Research, 2000, 257, 190-197.	2.6	45
52	Fibronectin and wound healing. American Journal of Dermatopathology, 1982, 4, 185-188.	0.6	43
53	Increased c-<i>fos</i> mRNA Expression By Human Fibroblasts Contracting Stressed Collagen Matrices. Molecular and Cellular Biology, 1998, 18, 2659-2667.	2.3	43
54	Studies on the mechanism of cell attachment to a substratum: Evidence for three biochemically distinct processes. Archives of Biochemistry and Biophysics, 1974, 160, 304-310.	3.0	41

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55	Fibroblast spreading and phagocytosis: Similar cell responses to different-sized substrata. Journal of Cellular Physiology, 1984, 119, 58-64.	4.1	41
56	Activation of Human Keratinocyte Fibronectin Receptor Function in Relation to Other Ligand-Receptor Interactions. Journal of Investigative Dermatology, 1987, 88, 412-417.	0.7	41
57	Fibroblast Quiescence in Floating Collagen Matrices. Journal of Biological Chemistry, 2003, 278, 20612-20617.	3.4	41
58	Fibronectin Receptor Internalization and AP-2 Complex Reorganization in Potassium-Depleted Fibroblasts. Experimental Cell Research, 1995, 216, 299-309.	2.6	40
59	Effects of freezing-induced cellâ€“fluidâ€“matrix interactions on the cells and extracellular matrix of engineered tissues. Biomaterials, 2011, 32, 5380-5390.	11.4	37
60	Collagenase-1 Complexes with Î±2-Macroglobulin in the Acute and Chronic Wound Environments. Journal of Investigative Dermatology, 1998, 110, 771-776.	0.7	35
61	Fibroblast morphogenesis on 3D collagen matrices: The balance between cell clustering and cell migration. Experimental Cell Research, 2013, 319, 2440-2446.	2.6	35
62	Morphological appearance of epidermal cells cultured on fibroblast-reorganized collagen gels. Cell and Tissue Research, 1986, 246, 13-21.	2.9	34
63	The effect of growth factor environment on fibroblast morphological response to substrate stiffness. Biomaterials, 2013, 34, 965-974.	11.4	31
64	Fibroblast cluster formation on 3D collagen matrices requires cell contraction dependent fibronectin matrix organization. Experimental Cell Research, 2013, 319, 546-555.	2.6	29
65	Promigratory and procontractile growth factor environments differentially regulate cell morphogenesis. Experimental Cell Research, 2010, 316, 232-244.	2.6	28
66	Increased Myosin Light Chain Phosphorylation Is Not Required for Growth Factor Stimulation of Collagen Matrix Contraction. Journal of Biological Chemistry, 1999, 274, 30163-30168.	3.4	27
67	LPA-stimulated fibroblast contraction of floating collagen matrices does not require Rho kinase activity or retraction of fibroblast extensions. Experimental Cell Research, 2003, 289, 86-94.	2.6	27
68	Oncogenic Ras-transformed human fibroblasts exhibit differential changes in contraction and migration in 3D collagen matrices. Experimental Cell Research, 2008, 314, 3081-3091.	2.6	21
69	Research Integrity and Everyday Practice of Science. Science and Engineering Ethics, 2013, 19, 685-701.	2.9	20
70	Effects of dynamic matrix remodelling on <i>en masse</i> migration of fibroblasts on collagen matrices. Journal of the Royal Society Interface, 2017, 14, 20170287.	3.4	20
71	High school science fair: Student opinions regarding whether participation should be required or optional and why. PLoS ONE, 2018, 13, e0202320.	2.5	17
72	High school science fair and research integrity. PLoS ONE, 2017, 12, e0174252.	2.5	15

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73	Preservation of tissue microstructure and functionality during freezing by modulation of cytoskeletal structure. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 45, 32-44.	3.1	14
74	High school science fair: Positive and negative outcomes. PLoS ONE, 2020, 15, e0229237.	2.5	14
75	The different roles of myosin IIA and myosin IIB in contraction of 3D collagen matrices by human fibroblasts. Experimental Cell Research, 2014, 326, 295-306.	2.6	13
76	Subject Vulnerability: The Precautionary Principle of Human Research. American Journal of Bioethics, 2004, 4, 72-74.	0.9	11
77	Discovery in the lab: Plato's paradox and Delbruck's principle of limited sloppiness. FASEB Journal, 2009, 23, 7-9.	0.5	11
78	Confidence of IRB/REC Members in Their Assessments of Human Research Risk: A Study of IRB/REC Decision Making in Action. Journal of Empirical Research on Human Research Ethics, 2017, 12, 140-149.	1.3	10
79	Vascular disease-causing mutation, smooth muscle Î±-actin R258C, dominantly suppresses functions of Î±-actin in human patient fibroblasts. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E5569-E5578.	7.1	10
80	Bioethical Pluralism and Complementarity. Perspectives in Biology and Medicine, 2002, 45, 338-349.	0.5	8
81	Human Embryo Research: From Moral Uncertainty to Death. American Journal of Bioethics, 2004, 4, 12-13.	0.9	7
82	High school science fair: Experiences of two groups of undergraduate bioscience students. PLoS ONE, 2021, 16, e0252627.	2.5	6
83	High school science fair: Ethnicity trends in student participation and experience. PLoS ONE, 2022, 17, e0264861.	2.5	5
84	PDGFâ€‘stimulated dispersal of cell clusters and disruption of fibronectin matrix on three-dimensional collagen matrices requires matrix metalloproteinase-2. Molecular Biology of the Cell, 2015, 26, 1098-1105.	2.1	4
85	The Interrelationship between Research Integrity, Conflict of Interest, and the Research Environment. Journal of Microbiology and Biology Education, 2014, 15, 162-164.	1.0	3
86	Defining embryo death would permit important research. Chronicle of Higher Education, 2003, 49, B13.	0.3	3
87	Philosophy of Biology and the Human Genome Project. Biology and Philosophy, 2000, 15, 595-601.	1.4	2
88	It is time to update US biomedical funding. Nature, 2013, 501, 137-137.	27.8	2
89	Biomedical ethics 2.0: redefining the meaning of disease, patient and treatment. Nature Reviews Molecular Cell Biology, 2020, 21, 417-418.	37.0	2
90	Introductory Comments for the Scientific Ethics Theme. Journal of Microbiology and Biology Education, 2014, 15, 82-82.	1.0	1

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91	Publishing science responsibly. Biology and Philosophy, 1996, 11, 121-125.	1.4	0
92	Are scientific papers examples of rhetoric?. Science and Engineering Ethics, 1999, 5, 487-488.	2.9	0
93	Intelligent design: fallacy recapitulates ontogeny. FASEB Journal, 2006, 20, 410-411.	0.5	0
94	Effects of Freezing-Induced Cell-Fluid-Matrix Interactions on Cells and Extracellular Matrix of Engineered Tissues. , 2011, , .		0
95	Harry Collins, Are We All Scientific Experts Now?Cambridge: Polity Press, 2014. Pp. vi + 144. ISBN 978-0-7456-8204-4. Â£9.99 (paperback).. British Journal for the History of Science, 2015, 48, 540-541.	0.7	0
96	<i>Response</i> : Misconduct: Judgment Called For. Science, 1996, 272, 937-937.	12.6	0
97	<i>Response</i> : Misconduct: Judgment Called For. Science, 1996, 272, 937-937.	12.6	0