

Andrzej Fertala

List of Publications by Year in descending order

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83
papers

3,122
citations

147801

31
h-index

168389

53
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83
all docs

83
docs citations

83
times ranked

3364
citing authors

#	ARTICLE	IF	CITATIONS
1	Candidate Cell and Matrix Interaction Domains on the Collagen Fibril, the Predominant Protein of Vertebrates. <i>Journal of Biological Chemistry</i> , 2008, 283, 21187-21197.	3.4	244
2	Direct quantification of the flexibility of type I collagen monomer. <i>Biochemical and Biophysical Research Communications</i> , 2002, 295, 382-386.	2.1	201
3	The Collagen Fibril: The Almost Crystalline Structure. <i>Journal of Structural Biology</i> , 1998, 122, 111-118.	2.8	167
4	Perlecan domain V is neuroprotective and proangiogenic following ischemic stroke in rodents. <i>Journal of Clinical Investigation</i> , 2011, 121, 3005-3023.	8.2	133
5	Stretching type II collagen with optical tweezers. <i>Journal of Biomechanics</i> , 2004, 37, 1665-1669.	2.1	127
6	Inhibition of the Self-assembly of Collagen I into Fibrils with Synthetic Peptides. <i>Journal of Biological Chemistry</i> , 1998, 273, 15598-15604.	3.4	121
7	Transgenic mice with inactive alleles for procollagen N-proteinase (ADAMTS-2) develop fragile skin and male sterility. <i>Biochemical Journal</i> , 2001, 355, 271-278.	3.7	106
8	Mapping critical sites in collagen II for rational design of gene-engineered proteins for cell-supporting materials. <i>Journal of Biomedical Materials Research Part B</i> , 2001, 57, 48-58.	3.1	99
9	Transgenic mice with inactive alleles for procollagen N-proteinase (ADAMTS-2) develop fragile skin and male sterility. <i>Biochemical Journal</i> , 2001, 355, 271.	3.7	90
10	Extracellular matrix protein 1 inhibits the activity of matrix metalloproteinase 9 through high-affinity protein/protein interactions. <i>Experimental Dermatology</i> , 2006, 15, 300-307.	2.9	88
11	The D2 Period of Collagen II Contains a Specific Binding Site for the Human Discoidin Domain Receptor, DDR2. <i>Journal of Molecular Biology</i> , 2004, 344, 993-1003.	4.2	87
12	High-affinity binding of the NC1 domain of collagen VII to laminin 5 and collagen IV. <i>Biochemical and Biophysical Research Communications</i> , 2006, 343, 692-699.	2.1	69
13	Piezoelectric Tensor of Collagen Fibrils Determined at the Nanoscale. <i>ACS Biomaterials Science and Engineering</i> , 2017, 3, 929-935.	5.2	69
14	Collagen Fibril Formation. <i>Journal of Biological Chemistry</i> , 2008, 283, 25879-25886.	3.4	65
15	Y-position cysteine substitution in type I collagen ($\hat{1}\pm 1$ (I) R888C/p.R1066C) is associated with osteogenesis imperfecta/Ehlers-Danlos syndrome phenotype. <i>Human Mutation</i> , 2007, 28, 396-405.	2.5	63
16	Compound Heterozygous Desmoplakin Mutations Result in a Phenotype with a Combination of Myocardial, Skin, Hair, and Enamel Abnormalities. <i>Journal of Investigative Dermatology</i> , 2010, 130, 968-978.	0.7	57
17	Structural determinants of the selectivity of KTS-disintegrins for the $\hat{1}\pm 1\hat{1}^2 1$ integrin. <i>FEBS Letters</i> , 2004, 577, 478-482.	2.8	56
18	Kuskokwim Syndrome, a Recessive Congenital Contracture Disorder, Extends the Phenotype of FKBP10 Mutations. <i>Human Mutation</i> , 2013, 34, 1279-1288.	2.5	53

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19	Recombinant Procollagen II: Deletion of D Period Segments Identifies Sequences That Are Required for Helix Stabilization and Generates a Temperature-sensitive N-Proteinase Cleavage Site. <i>Journal of Biological Chemistry</i> , 1998, 273, 31822-31828.	3.4	46
20	Collagen Structure-Function Mapping Informs Applications for Regenerative Medicine. <i>Bioengineering</i> , 2021, 8, 3.	3.5	46
21	SITE-SPECIFIC INTERACTION OF BONE MORPHOGENETIC PROTEIN 2 WITH PROCOLLAGEN II. <i>Cytokine</i> , 2002, 18, 214-221.	3.2	45
22	Position of single amino acid substitutions in the collagen triple helix determines their effect on structure of collagen fibrils. <i>Journal of Structural Biology</i> , 2004, 148, 326-337.	2.8	41
23	Extracellular matrix protein 1 interacts with the domain III of fibulin-1C and 1D variants through its central tandem repeat 2. <i>Biochemical and Biophysical Research Communications</i> , 2005, 333, 1327-1333.	2.1	41
24	Testing the utility of rationally engineered recombinant collagen-like proteins for applications in tissue engineering. <i>Journal of Biomedical Materials Research - Part A</i> , 2006, 76A, 551-560.	4.0	40
25	Skeletal diseases caused by mutations that affect collagen structure and function. <i>International Journal of Biochemistry and Cell Biology</i> , 2013, 45, 1556-1567.	2.8	39
26	Three Decades of Research on Recombinant Collagens: Reinventing the Wheel or Developing New Biomedical Products?. <i>Bioengineering</i> , 2020, 7, 155.	3.5	39
27	Thermostability Gradient in the Collagen Triple Helix Reveals its Multi-domain Structure. <i>Journal of Molecular Biology</i> , 2004, 338, 989-998.	4.2	37
28	Procollagen VII Self-Assembly Depends on Site-Specific Interactions and Is Promoted by Cleavage of the NC2 Domain with Procollagen C-Proteinase. <i>Biochemistry</i> , 2003, 42, 11434-11442.	2.5	35
29	Identifying the SPARC Binding Sites on Collagen I and Procollagen I by Atomic Force Microscopy. <i>Analytical Chemistry</i> , 2005, 77, 6765-6771.	6.5	35
30	Assembly of Thin and Thick Fibrils of Collagen II from Recombinant Procollagen II. <i>Journal of Biological Chemistry</i> , 1996, 271, 14864-14869.	3.4	34
31	Collagen II Containing a Cys Substitution for Arg-1519. <i>Journal of Biological Chemistry</i> , 1997, 272, 6457-6464.	3.4	32
32	Prospects and limitations of the rational engineering of fibrillar collagens. <i>Protein Science</i> , 2003, 12, 2063-2072.	7.6	32
33	Guilty by Association: Some Collagen II Mutants Alter the Formation of ECM as a Result of Atypical Interaction with Fibronectin. <i>Journal of Molecular Biology</i> , 2005, 352, 382-395.	4.2	32
34	RNA binding protein HuR regulates extracellular matrix gene expression and pH homeostasis independent of controlling HIF-1 signaling in nucleus pulposus cells. <i>Matrix Biology</i> , 2019, 77, 23-40.	3.6	32
35	Cells expressing partially unfolded R789C/p.R989C type II procollagen mutant associated with spondyloepiphyseal dysplasia undergo apoptosis. <i>Human Mutation</i> , 2008, 29, 841-851.	2.5	31
36	Molecular basis of organization of collagen fibrils. <i>Journal of Structural Biology</i> , 2007, 157, 297-307.	2.8	30

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37	R992C (p.R1192C) Substitution in Collagen II Alters the Structure of Mutant Molecules and Induces the Unfolded Protein Response. <i>Journal of Molecular Biology</i> , 2009, 390, 306-318.	4.2	30
38	Single Amino Acid Substitutions in Procollagen VII Affect Early Stages of Assembly of Anchoring Fibrils. <i>Journal of Biological Chemistry</i> , 2005, 280, 191-198.	3.4	29
39	Collagen II Containing a Cys Substitution for Arg-1519: Abnormal Interactions of the Mutated Molecules with Collagen IX. <i>Biochemistry</i> , 2001, 40, 14422-14428.	2.5	26
40	Blocking collagen fibril formation in injured knees reduces flexion contracture in a rabbit model. <i>Journal of Orthopaedic Research</i> , 2017, 35, 1038-1046.	2.3	26
41	Differential structural properties and expression patterns suggest functional significance for multiple mouse desmoglein 1 isoforms. <i>Differentiation</i> , 2004, 72, 434-449.	1.9	25
42	Auxiliary proteins that facilitate formation of collagen-rich deposits in the posterior knee capsule in a rabbit-based joint contracture model. <i>Journal of Orthopaedic Research</i> , 2016, 34, 489-501.	2.3	24
43	Naproxen impairs load-induced bone formation, reduces bone toughness, and diminishes woven bone formation following stress fracture in mice. <i>Bone</i> , 2019, 124, 22-32.	2.9	23
44	Recessive COL6A2 C-globular Missense Mutations in Ullrich Congenital Muscular Dystrophy. <i>Journal of Biological Chemistry</i> , 2010, 285, 10005-10015.	3.4	22
45	Inhibition of collagen fibril formation. <i>Fibrogenesis and Tissue Repair</i> , 2012, 5, S29.	3.4	21
46	A cDNA Cassette system for the synthesis of recombinant procollagens. Variants of Procollagen II lacking a D-period are secreted as triple-helical monomers. <i>Matrix Biology</i> , 1997, 16, 105-116.	3.6	20
47	Mechanisms of Aberrant Organization of Growth Plates in Conditional Transgenic Mouse Model of Spondyloepiphyseal Dysplasia Associated with the R992C Substitution in Collagen II. <i>American Journal of Pathology</i> , 2015, 185, 214-229.	3.8	19
48	Collagen-rich deposit formation in the sciatic nerve after injury and surgical repair: A study of collagen-producing cells in a rabbit model. <i>Brain and Behavior</i> , 2020, 10, e01802.	2.2	19
49	Collagen II containing a Cys substitution for Arg-1519. Analysis by atomic force microscopy demonstrates that mutated monomers alter the topography of the surface of collagen II fibrils. <i>Matrix Biology</i> , 1999, 18, 189-196.	3.6	18
50	Biochemical composition and histologic structure of the forearm interosseous membrane. <i>Journal of Hand Surgery</i> , 2003, 28, 503-510.	1.6	18
51	Endostatin binds nerve growth factor and thereby inhibits neurite outgrowth and neuronal migration in-vitro. <i>Brain Research</i> , 2010, 1360, 28-39.	2.2	18
52	TIMP1 association with collagen type I overproduction in hereditary gingival fibromatosis. <i>Oral Diseases</i> , 2018, 24, 1581-1590.	3.0	18
53	Engineering and Characterization of the Chimeric Antibody That Targets the C-terminal Telopeptide of the $\alpha 2$ Chain of Human Collagen I: A Next Step in the Quest to Reduce Localized Fibrosis. <i>Connective Tissue Research</i> , 2013, 54, 187-196.	2.3	17
54	The impact of cholesterol deposits on the fibrillar architecture of the Achilles tendon in a rabbit model of hypercholesterolemia. <i>Journal of Orthopaedic Surgery and Research</i> , 2019, 14, 172.	2.3	17

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55	Procollagen with Skipping of $\pm 1(I)$ Exon 41 Has Lower Binding Affinity for $\pm 1(I)$ C-telopeptide, Impaired in Vitro Fibrillogenesis, and Altered Fibril Morphology. <i>Journal of Biological Chemistry</i> , 2002, 277, 4215-4222.	3.4	15
56	Testing the anti-fibrotic potential of the single-chain Fv antibody against the ± 2 C-terminal telopeptide of collagen I. <i>Connective Tissue Research</i> , 2014, 55, 115-122.	2.3	12
57	Gingival fibromatosis with significant de novo formation of fibrotic tissue and a high rate of recurrence. <i>American Journal of Case Reports</i> , 2016, 17, 671-675.	0.8	11
58	Persistence of intracellular and extracellular changes after incompletely suppressing expression of the R789C (p.R989C) and R992C (p.R1192C) collagen II mutants. <i>Human Mutation</i> , 2011, 32, 794-805.	2.5	10
59	Designing Recombinant Collagens for Biomedical Applications. <i>Current Tissue Engineering</i> , 2016, 5, 73-84.	0.2	10
60	Mechanisms of reducing joint stiffness by blocking collagen fibrillogenesis in a rabbit model of posttraumatic arthrofibrosis. <i>PLoS ONE</i> , 2021, 16, e0257147.	2.5	9
61	A recombinant homotrimer of type I procollagen that lacks the central two D-periods. The thermal stability of the triple helix is decreased by 2 to 4 $\text{\AA}^\circ\text{C}$. <i>Matrix Biology</i> , 1997, 16, 245-253.	3.6	8
62	Fibroblasts from recurrent fibrotic overgrowths reveal high rate of proliferation in vitro - findings from the study of hereditary and idiopathic gingival fibromatosis. <i>Connective Tissue Research</i> , 2019, 60, 29-39.	2.3	8
63	Anchorless keratinocyte survival: an emerging pathogenic mechanism for squamous cell carcinoma in recessive dystrophic epidermolysis bullosa. <i>Experimental Dermatology</i> , 2007, 16, 465-467.	2.9	7
64	Reducing the effects of intracellular accumulation of thermolabile collagen II mutants by increasing their thermostability in cell culture conditions. <i>Biochemical and Biophysical Research Communications</i> , 2010, 396, 213-218.	2.1	7
65	Patterns of production of collagen-rich deposits in peripheral nerves in response to injury: A pilot study in a rabbit model. <i>Brain and Behavior</i> , 2017, 7, e00659.	2.2	7
66	Functional and structural studies of tolloid-like 1 mutants associated with atrial-septal defect 6. <i>Bioscience Reports</i> , 2019, 39, .	2.4	7
67	Matrix-Specific Anchors: A New Concept for Targeted Delivery and Retention of Therapeutic Cells. <i>Tissue Engineering - Part A</i> , 2015, 21, 1207-1216.	3.1	6
68	The Molecular Basis of Genetic Collagen Disorders and Its Clinical Relevance. <i>Journal of Bone and Joint Surgery - Series A</i> , 2018, 100, 976-986.	3.0	6
69	Single amino acid substitutions in the C-terminus of collagen II alter its affinity for collagen IX. <i>Biochemical and Biophysical Research Communications</i> , 2005, 335, 749-755.	2.1	5
70	Fluorescent protein markers to tag collagenous proteins: The paradigm of procollagen VII. <i>Biochemical and Biophysical Research Communications</i> , 2009, 390, 662-666.	2.1	5
71	P15 peptide stimulates chondrogenic commitment and endochondral ossification. <i>International Orthopaedics</i> , 2017, 41, 1413-1422.	1.9	5
72	Target-Specific Delivery of an Antibody That Blocks the Formation of Collagen Deposits in Skin and Lung. <i>Monoclonal Antibodies in Immunodiagnosis and Immunotherapy</i> , 2017, 36, 199-207.	1.6	5

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73	Fibrosis in distinct tissues. <i>Connective Tissue Research</i> , 2019, 60, 1-2.	2.3	5
74	Characterization of Recombinant Human Collagen II with Arg519-to-Cys Substitution. <i>Annals of the New York Academy of Sciences</i> , 1996, 785, 251-253.	3.8	4
75	Developmental Upregulation of an Alternative Form of pcp2 with Reduced GDI Activity. <i>Cerebellum</i> , 2014, 13, 207-214.	2.5	4
76	Epiphyseal growth plate architecture is unaffected by early postnatal activation of the expression of R992C collagen II mutant. <i>Bone</i> , 2018, 112, 42-50.	2.9	4
77	Prospects and limitations of improving skeletal growth in a mouse model of spondyloepiphyseal dysplasia caused by R992C (p.R1192C) substitution in collagen II. <i>PLoS ONE</i> , 2017, 12, e0172068.	2.5	4
78	Remodeling of the Dermalâ€“Epidermal Junction in Bilayered Skin Constructs After Silencing the Expression of the p.R2622Q and p.G2623C Collagen VII Mutants. <i>Connective Tissue Research</i> , 2012, 53, 379-389.	2.3	2
79	Circulating inflammatory cytokines alter transcriptional activity within fibrotic tissue of Dupuytren's disease patients. <i>Journal of Orthopaedic Research</i> , 2021, , .	2.3	2
80	Lack of a phenotype in transgenic mice aberrantly expressing COL2A1 mRNA because of highly selective post-transcriptional down-regulation. <i>Biochemical Journal</i> , 2000, 345, 377-384.	3.7	1
81	A PERIPHERAL NERVE INJURY MODEL UTILIZING A SIMPLE TISSUE SPARING APPROACH TO THE RABBIT SCIATIC NERVE. <i>Journal of Musculoskeletal Research</i> , 2018, 21, 1850002.	0.2	1
82	Tissue Engineered Collagen Specific Anchors Increase Cellular Integration in a Tendon Injury Model. <i>Journal of Hand Surgery</i> , 2015, 40, e18-e19.	1.6	0
83	Engineering the Second Generation of Therapeutic Cells with Enhanced Targeting of Injured Tissues. <i>Tissue Engineering - Part A</i> , 2018, 24, 1293-1300.	3.1	0