## David E Birk

List of Publications by Year in descending order

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ΠΑΥΙΟ Ε ΒΙΡΚ

| #  | Article  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | The molecular basis of corneal transparency. Experimental Eye Research, 2010, 91, 326-335.   | 2.6  | 449       |
| 2  | Type V Collagen Controls the Initiation of Collagen Fibril Assembly. Journal of Biological Chemistry, 2004, 279, 53331-53337.  | 3.4  | 422       |
| 3  | Decorin regulates assembly of collagen fibrils and acquisition of biomechanical properties during tendon development. Journal of Cellular Biochemistry, 2006, 98, 1436-1449.                               | 2.6  | 361       |
| 4  | Differential Expression of Lumican and Fibromodulin Regulate Collagen Fibrillogenesis in Developing<br>Mouse Tendons. Journal of Cell Biology, 2000, 151, 779-788.   | 5.2  | 316       |
| 5  | The regulatory roles of small leucineâ€rich proteoglycans in extracellular matrix assembly. FEBS<br>Journal, 2013, 280, 2120-2137.   | 4.7  | 293       |
| 6  | Collagen fibrillogenesis in situ: Fibril segments undergo post-depositional modifications resulting in<br>linear and lateral growth during matrix development. Developmental Dynamics, 1995, 202, 229-243. | 1.8  | 218       |
| 7  | Reciprocal signalling by Notch–Collagen V–CALCR retains muscle stem cells in their niche. Nature,<br>2018, 557, 714-718.   | 27.8 | 203       |
| 8  | Human limbal biopsy–derived stromal stem cells prevent corneal scarring. Science Translational<br>Medicine, 2014, 6, 266ra172.   | 12.4 | 200       |
| 9  | A Syndrome of Joint Laxity and Impaired Tendon Integrity in Lumican- and Fibromodulin-deficient Mice.<br>Journal of Biological Chemistry, 2002, 277, 35532-35540.  | 3.4  | 199       |
| 10 | Targeted Ablation of the Abcc6 Gene Results in Ectopic Mineralization of Connective Tissues.<br>Molecular and Cellular Biology, 2005, 25, 8299-8310.   | 2.3  | 193       |
| 11 | Genetic Evidence for the Coordinated Regulation of Collagen Fibrillogenesis in the Cornea by Decorin<br>and Biglycan. Journal of Biological Chemistry, 2009, 284, 8888-8897.                               | 3.4  | 192       |
| 12 | Stem Cell Therapy Restores Transparency to Defective Murine Corneas. Stem Cells, 2009, 27, 1635-1642.  | 3.2  | 186       |
| 13 | Decorin expression is important for age-related changes in tendon structure and mechanical properties. Matrix Biology, 2013, 32, 3-13.   | 3.6  | 169       |
| 14 | Influence of Decorin and Biglycan on Mechanical Properties of Multiple Tendons in Knockout Mice.<br>Journal of Biomechanical Engineering, 2005, 127, 181-185.  | 1.3  | 167       |
| 15 | Structure, Physiology, and Biochemistry of Collagens. Advances in Experimental Medicine and Biology, 2014, 802, 5-29.  | 1.6  | 167       |
| 16 | Keratocan-deficient Mice Display Alterations in Corneal Structure. Journal of Biological Chemistry, 2003, 278, 21672-21677.  | 3.4  | 162       |
| 17 | A role for MEK kinase 1 in TGF-Â/activin-induced epithelium movement and embryonic eyelid closure.<br>EMBO Journal, 2003, 22, 4443-4454.   | 7.8  | 161       |
| 18 | Type XIV Collagen Regulates Fibrillogenesis. Journal of Biological Chemistry, 2009, 284, 8427-8438.  | 3.4  | 161       |

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|----|---|------|-----------|
| 19 | Decorin and biglycan are necessary for maintaining collagen fibril structure, fiber realignment, and mechanical properties of mature tendons. Matrix Biology, 2017, 64, 81-93.  | 3.6  | 159       |
| 20 | Collagen fibrillogenesis in situ: Fibril segments become long fibrils as the developing tendon matures.<br>, 1997, 208, 291-298.  |      | 150       |
| 21 | Murine Model of the Ehlers-Danlos Syndrome. Journal of Biological Chemistry, 2006, 281, 12888-12895.  | 3.4  | 144       |
| 22 | Collagen V is a dominant regulator of collagen fibrillogenesis: dysfunctional regulation of<br>structure and function in a corneal-stroma-specific <i>Col5a1</i> -null mouse model. Journal of Cell<br>Science, 2011, 124, 4096-4105. | 2.0  | 137       |
| 23 | Nuclear Ferritin Protects DNA From UV Damage in Corneal Epithelial Cells. Molecular Biology of the<br>Cell, 1998, 9, 1037-1051.   | 2.1  | 130       |
| 24 | Keratocan, a Cornea-specific Keratan Sulfate Proteoglycan, Is Regulatedby Lumican. Journal of<br>Biological Chemistry, 2005, 280, 25541-25547.  | 3.4  | 128       |
| 25 | Collagen XII: Protecting bone and muscle integrity by organizing collagen fibrils. International<br>Journal of Biochemistry and Cell Biology, 2014, 53, 51-54.  | 2.8  | 127       |
| 26 | Regulation of Collagen Fibril Nucleation and Initial Fibril Assembly Involves Coordinate Interactions<br>with Collagens V and XI in Developing Tendon. Journal of Biological Chemistry, 2011, 286, 20455-20465.                       | 3.4  | 118       |
| 27 | Regulation of corneal stroma extracellular matrix assembly. Experimental Eye Research, 2015, 133, 69-80.  | 2.6  | 117       |
| 28 | Type XII collagen regulates osteoblast polarity and communication during bone formation. Journal of Cell Biology, 2011, 193, 1115-1130.   | 5.2  | 113       |
| 29 | Type V Collagen in Scar Tissue Regulates the Size of Scar after Heart Injury. Cell, 2020, 182, 545-562.e23.   | 28.9 | 113       |
| 30 | Secretion and Organization of a Cornea-like Tissue In Vitro by Stem Cells from Human Corneal Stroma.<br>, 2007, 48, 5038.   |      | 111       |
| 31 | Recessive and dominant mutations in COL12A1 cause a novel EDS/myopathy overlap syndrome in humans and mice. Human Molecular Genetics, 2014, 23, 2339-2352.  | 2.9  | 107       |
| 32 | Ocular and Scleral Alterations in Gene-Targeted Lumican-Fibromodulin Double-Null Mice. , 2003, 44, 2422.  |      | 105       |
| 33 | Structural Abnormalities of the Cornea and Lid Resulting from Collagen V Mutations. , 2006, 47, 565.  |      | 105       |
| 34 | Biologically Active Decorin Is a Monomer in Solution. Journal of Biological Chemistry, 2004, 279,<br>6606-6612.   | 3.4  | 103       |
| 35 | Regional Differences in Stem Cell/Progenitor Cell Populations from the Mouse Achilles Tendon.<br>Tissue Engineering - Part A, 2013, 19, 199-210.  | 3.1  | 99        |
| 36 | Composition, structure and function of the corneal stroma. Experimental Eye Research, 2020, 198, 108137.  | 2.6  | 97        |

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|----|--|-----|-----------|
| 37 | Collagen fibrillogenesis in vitro: Comparison of types I, II, and III. Archives of Biochemistry and<br>Biophysics, 1984, 235, 178-185.   | 3.0 | 95        |
| 38 | Functional Knockout of the Matrilin-3 Gene Causes Premature Chondrocyte Maturation to<br>Hypertrophy and Increases Bone Mineral Density and Osteoarthritis. American Journal of Pathology,<br>2006, 169, 515-527.                        | 3.8 | 95        |
| 39 | Regulation of procollagen amino-propeptide processing during mouse embryogenesis by specialization of homologous ADAMTS proteases: insights on collagen biosynthesis and dermatosparaxis. Development (Cambridge), 2006, 133, 1587-1596. | 2.5 | 94        |
| 40 | The roles of types XII and XIV collagen in fibrillogenesis and matrix assembly in the developing cornea.<br>Journal of Cellular Biochemistry, 2002, 87, 208-220.   | 2.6 | 90        |
| 41 | Expression of type XIV collagen in developing chicken tendons: Association with assembly and growth of collagen fibrils. , 2000, 217, 430-439.   |     | 88        |
| 42 | Thrombospondin 2 Modulates Collagen Fibrillogenesis and Angiogenesis. Journal of Investigative<br>Dermatology Symposium Proceedings, 2000, 5, 61-66.   | 0.8 | 88        |
| 43 | Dysfunctional tendon collagen fibrillogenesis in collagen VI null mice. Matrix Biology, 2011, 30, 53-61.   | 3.6 | 88        |
| 44 | Heterotypic Collagen Fibrils and Stabilizing Collagens Annals of the New York Academy of Sciences, 1990, 580, 143-160.   | 3.8 | 87        |
| 45 | Targeted Inactivation of Murine Laminin γ2-Chain Gene Recapitulates Human Junctional Epidermolysis<br>Bullosa. Journal of Investigative Dermatology, 2003, 121, 720-731.   | 0.7 | 85        |
| 46 | Collagen Suprastructures. Topics in Current Chemistry, 0, , 185-205.   | 4.0 | 84        |
| 47 | Mechanical, Compositional, and Structural Properties of the Post-natal Mouse Achilles Tendon.<br>Annals of Biomedical Engineering, 2011, 39, 1904-1913.  | 2.5 | 83        |
| 48 | Effect of Latanoprost on the Expression of Matrix Metalloproteinases and Their Tissue Inhibitors in<br>Human Trabecular Meshwork Cells. , 2006, 47, 3887.  |     | 79        |
| 49 | Influence of Decorin on the Mechanical, Compositional, and Structural Properties of the Mouse<br>Patellar Tendon. Journal of Biomechanical Engineering, 2012, 134, 031005.   | 1.3 | 77        |
| 50 | Interclass small leucine-rich repeat proteoglycan interactions regulate collagen fibrillogenesis and corneal stromal assembly. Matrix Biology, 2014, 35, 103-111.  | 3.6 | 76        |
| 51 | Kinetic Analysis of Collagen Fibrillogenesis: I. Use of Turbidity-Time Data. Collagen and Related<br>Research, 1983, 3, 393-405.   | 2.0 | 75        |
| 52 | Effect of Age and Proteoglycan Deficiency on Collagen Fiber Re-Alignment and Mechanical Properties<br>in Mouse Supraspinatus Tendon. Journal of Biomechanical Engineering, 2013, 135, 021019.  | 1.3 | 73        |
| 53 | The injury response of aged tendons in the absence of biglycan and decorin. Matrix Biology, 2014, 35, 232-238.   | 3.6 | 73        |
| 54 | Cornea organoids from human induced pluripotent stem cells. Scientific Reports, 2017, 7, 41286.  | 3.3 | 73        |

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|----|--|------|-----------|
| 55 | Characterization of collagen fibril segments from chicken embryo cornea, dermis and tendon. Matrix<br>Biology, 1996, 15, 111-118.  | 3.6  | 72        |
| 56 | Molecular structure of collagen in solution: comparison of types I, II, III and V. International Journal of Biological Macromolecules, 1984, 6, 125-132.                                     | 7.5  | 71        |
| 57 | Collagen fibril assembly during postnatal development and dysfunctional regulation in the lumican-deficient murine cornea. Developmental Dynamics, 2006, 235, 2493-2506.                     | 1.8  | 71        |
| 58 | Altered Corneal Stromal Matrix Organization is Associated with Mucopolysaccharidosis I, III and VI.<br>Experimental Eye Research, 1999, 68, 523-530.   | 2.6  | 70        |
| 59 | Corneal cell-matrix interactions: Type VI Collagen promotes adhesion and spreading of corneal fibroblasts. Experimental Cell Research, 1992, 200, 490-499.                                   | 2.6  | 69        |
| 60 | Decorin Regulates the Aggrecan Network Integrity and Biomechanical Functions of Cartilage<br>Extracellular Matrix. ACS Nano, 2019, 13, 11320-11333.  | 14.6 | 67        |
| 61 | The Tendon Injury Response is Influenced by Decorin and Biglycan. Annals of Biomedical Engineering, 2014, 42, 619-630.   | 2.5  | 66        |
| 62 | The Fibril-associated Collagen IX Provides a Novel Mechanism for Cell Adhesion to Cartilaginous<br>Matrix. Journal of Biological Chemistry, 2004, 279, 51677-51687.                          | 3.4  | 65        |
| 63 | Fhit Interaction with Ferredoxin Reductase Triggers Generation of Reactive Oxygen Species and Apoptosis of Cancer Cells. Journal of Biological Chemistry, 2008, 283, 13736-13744.            | 3.4  | 64        |
| 64 | Corneal and scleral collagen fiber formation in vitro. Biochimica Et Biophysica Acta (BBA) - Protein<br>Structure, 1981, 670, 362-369.   | 1.7  | 63        |
| 65 | Fibulin-2 Is Dispensable for Mouse Development and Elastic Fiber Formation. Molecular and Cellular<br>Biology, 2008, 28, 1061-1067.  | 2.3  | 62        |
| 66 | Mice lacking matrilin-1 (cartilage matrix protein) have alterations in type II collagen fibrillogenesis and fibril organization. Developmental Dynamics, 1999, 216, 434-441.                 | 1.8  | 61        |
| 67 | Mechanical, compositional, and structural properties of the mouse patellar tendon with changes in biglycan gene expression. Journal of Orthopaedic Research, 2013, 31, 1430-1437.            | 2.3  | 61        |
| 68 | Collagen XIV is important for growth and structural integrity of the myocardium. Journal of<br>Molecular and Cellular Cardiology, 2012, 53, 626-638.   | 1.9  | 60        |
| 69 | Collagen Fibrillogenesis in Situ Annals of the New York Academy of Sciences, 1990, 580, 176-194.   | 3.8  | 58        |
| 70 | Production of Human Type I Collagen in Yeast Reveals Unexpected New Insights into the Molecular<br>Assembly of Collagen Trimers. Journal of Biological Chemistry, 2001, 276, 24038-24043.    | 3.4  | 58        |
| 71 | COL6A3 Protein Deficiency in Mice Leads to Muscle and Tendon Defects Similar to Human Collagen VI<br>Congenital Muscular Dystrophy. Journal of Biological Chemistry, 2013, 288, 14320-14331. | 3.4  | 58        |
| 72 | Induced ablation of Bmp1 and Tll1 produces osteogenesis imperfecta in mice. Human Molecular<br>Genetics, 2014, 23, 3085-3101.  | 2.9  | 58        |

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|----|--|------|-----------|
| 73 | Reduced type I collagen utilization: A pathogenic mechanism in COL5A1 haplo-insufficient<br>Ehlers-Danlos syndrome. Journal of Cellular Biochemistry, 2004, 92, 113-124.   | 2.6  | 57        |
| 74 | Nonâ€enzymatic glycation of type I collagen diminishes collagen–proteoglycan binding and weakens<br>cell adhesion. Journal of Cellular Biochemistry, 2008, 104, 1684-1698.   | 2.6  | 57        |
| 75 | Partial restoration of the keratocyte phenotype to bovine keratocytes made fibroblastic by serum.<br>Investigative Ophthalmology and Visual Science, 2002, 43, 3416-21.  | 3.3  | 55        |
| 76 | Procollagen C Proteinase Enhancer 1 Genes Are Important Determinants of the Mechanical Properties<br>and Geometry of Bone and the Ultrastructure of Connective Tissues. Molecular and Cellular Biology,<br>2006, 26, 238-249.                      | 2.3  | 54        |
| 77 | Niche stiffening compromises hair follicle stem cell potential during ageing by reducing bivalent promoter accessibility. Nature Cell Biology, 2021, 23, 771-781.  | 10.3 | 51        |
| 78 | Collagens, Suprastructures, and Collagen Fibril Assembly. , 2011, , 77-115.  |      | 51        |
| 79 | Ferritin Is a Developmentally Regulated Nuclear Protein of Avian Corneal Epithelial Cells. Journal of<br>Biological Chemistry, 1997, 272, 12831-12839.   | 3.4  | 50        |
| 80 | Fibroblasts Create Compartments in the Extracellular Space Where Collagen Polymerizes into Fibrils<br>and Fibrils Associate into Bundles. Annals of the New York Academy of Sciences, 1985, 460, 258-266.  | 3.8  | 47        |
| 81 | Turbidimetric and morphological studies of type I collagen fibre self assembly in vitro and the influence of fibronectin. International Journal of Biological Macromolecules, 1985, 7, 135-140.  | 7.5  | 47        |
| 82 | Collagen fibril assembly by corneal fibroblasts in three-dimensional collagen gel cultures:<br>Small-diameter heterotypic fibrils are deposited in the absence of keratan sulfate proteoglycan.<br>Experimental Cell Research, 1992, 202, 113-124. | 2.6  | 47        |
| 83 | Tendon proper- and peritenon-derived progenitor cells have unique tenogenic properties. Stem Cell<br>Research and Therapy, 2014, 5, 86.  | 5.5  | 47        |
| 84 | Targeted Deletion of Collagen V in Tendons and Ligaments Results in a Classic Ehlers-Danlos<br>Syndrome Joint Phenotype. American Journal of Pathology, 2015, 185, 1436-1447.  | 3.8  | 46        |
| 85 | Analysis of Expression of Matrix Metalloproteinases and Tissue Inhibitors of Metalloproteinases in<br>Human Ciliary Body after Latanoprost. , 2006, 47, 953.   |      | 45        |
| 86 | Fibromodulin regulates collagen fibrillogenesis during peripheral corneal development.<br>Developmental Dynamics, 2010, 239, 844-854.  | 1.8  | 45        |
| 87 | Matrix Assembly. , 1991, , 221-254.  |      | 45        |
| 88 | Collagens VI and XII form complexes mediating osteoblast interactions during osteogenesis. Cell and<br>Tissue Research, 2016, 364, 623-635.  | 2.9  | 44        |
| 89 | Fibulin-4 E57K Knock-in Mice Recapitulate Cutaneous, Vascular and Skeletal Defects of Recessive Cutis<br>Laxa 1B with both Elastic Fiber and Collagen Fibril Abnormalities. Journal of Biological Chemistry,<br>2015, 290, 21443-21459.            | 3.4  | 42        |
| 90 | Position of single amino acid substitutions in the collagen triple helix determines their effect on structure of collagen fibrils. Journal of Structural Biology, 2004, 148, 326-337.  | 2.8  | 41        |

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|-----|---|-----|-----------|
| 91  | BMP1-like proteinases are essential to the structure and wound healing of skin. Matrix Biology, 2016, 56, 114-131.  | 3.6 | 41        |
| 92  | Focus on Molecules: Collagens V and XI. Experimental Eye Research, 2012, 98, 105-106.   | 2.6 | 40        |
| 93  | Stromal assemblies containing collagen types IV and VI and fibronectin in the developing embryonic avian cornea. Developmental Biology, 1991, 144, 379-391.   | 2.0 | 39        |
| 94  | Type IIA procollagen: Expression in developing chicken limb cartilage and human osteoarthritic articular cartilage. Developmental Dynamics, 2001, 220, 307-322.   | 1.8 | 39        |
| 95  | Abnormal Corneal Endothelial Maturation in Collagen XII and XIV Null Mice. , 2013, 54, 3297.  |     | 38        |
| 96  | Deficits in Col5a2 Expression Result in Novel Skin and Adipose Abnormalities and Predisposition to Aortic Aneurysms and Dissections. American Journal of Pathology, 2017, 187, 2300-2311.   | 3.8 | 38        |
| 97  | Collagen XI regulates the acquisition of collagen fibril structure, organization and functional properties in tendon. Matrix Biology, 2020, 94, 77-94.  | 3.6 | 38        |
| 98  | Pathophysiological Mechanisms of Autosomal Dominant Congenital Stromal Corneal Dystrophy.<br>American Journal of Pathology, 2011, 179, 2409-2419.   | 3.8 | 37        |
| 99  | Mediation of Cartilage Matrix Degeneration and Fibrillation by Decorin in Postâ€traumatic<br>Osteoarthritis. Arthritis and Rheumatology, 2020, 72, 1266-1277.   | 5.6 | 37        |
| 100 | Decorin regulates cartilage pericellular matrix micromechanobiology. Matrix Biology, 2021, 96, 1-17.  | 3.6 | 37        |
| 101 | Collagen Fibril Assembly, Deposition, and Organization into Tissue-Specific Matrices. , 1994, , 91-128.   |     | 36        |
| 102 | The metalloproteinase-proteoglycans ADAMTS7 and ADAMTS12 provide an innate, tendon-specific protective mechanism against heterotopic ossification. JCI Insight, 2018, 3, .  | 5.0 | 36        |
| 103 | Association of Type XII Collagen with Regions of Increased Stability and Keratocyte Density in the Cornea. Experimental Eye Research, 2002, 75, 683-694.  | 2.6 | 35        |
| 104 | Procollagen VII Self-Assembly Depends on Site-Specific Interactions and Is Promoted by Cleavage of the NC2 Domain with Procollagen C-Proteinase. Biochemistry, 2003, 42, 11434-11442.   | 2.5 | 35        |
| 105 | A Mouse Model for Dominant Collagen VI Disorders. Journal of Biological Chemistry, 2014, 289, 10293-10307.  | 3.4 | 35        |
| 106 | Collagen XII mediated cellular and extracellular mechanisms regulate establishment of tendon structure and function. Matrix Biology, 2021, 95, 52-67.   | 3.6 | 35        |
| 107 | Differential Expression of Genes Associated with Collagen Fibril Growth in the Chicken Tendon:<br>Identification of Structural and Regulatory Genes by Subtractive Hybridization. Archives of<br>Biochemistry and Biophysics, 1998, 350, 1-9. | 3.0 | 34        |
| 108 | Differential expression of type XII collagen in developing chicken metatarsal tendons. Journal of Anatomy, 2003, 202, 411-420.  | 1.5 | 34        |

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|-----|---|-----|-----------|
| 109 | Collagen Fibril Formation in a Wound Healing Model. Journal of Structural Biology, 2002, 137, 23-30.  | 2.8 | 32        |
| 110 | Regulatory role of collagen V in establishing mechanical properties of tendons and ligaments is tissue dependent. Journal of Orthopaedic Research, 2015, 33, 882-888.   | 2.3 | 32        |
| 111 | Adipocyte-Derived Versican and Macrophage-Derived Biglycan Control Adipose Tissue Inflammation in<br>Obesity. Cell Reports, 2020, 31, 107818.   | 6.4 | 32        |
| 112 | Type V collagen regulates the assembly of collagen fibrils in cultures of bovine vascular smooth muscle cells. Journal of Cellular Biochemistry, 2001, 80, 146-155.   | 2.6 | 31        |
| 113 | Collagen fibrillogenesis in vitro: evidence for pre-nucleation and nucleation steps. International<br>Journal of Biological Macromolecules, 1986, 8, 37-42.   | 7.5 | 30        |
| 114 | Spatial and Temporal Variations in Extracellular Matrix of Periocular and Corneal Regions During<br>Corneal Stromal Development. Experimental Eye Research, 1996, 62, 285-292.  | 2.6 | 30        |
| 115 | Recapitulation of the Achilles tendon mechanical properties during neonatal development: A Study of differential healing during two stages of development in a mouse model. Journal of Orthopaedic Research, 2012, 30, 448-456. | 2.3 | 30        |
| 116 | Single Amino Acid Substitutions in Procollagen VII Affect Early Stages of Assembly of Anchoring<br>Fibrils. Journal of Biological Chemistry, 2005, 280, 191-198.  | 3.4 | 29        |
| 117 | Organization of Fibrillar Collagen in the Human and Bovine Cornea. Connective Tissue Research, 1997, 36, 165-174.   | 2.3 | 28        |
| 118 | Collagen fibril growth during chicken tendon development: matrix metalloproteinase-2 and its activation. Cell and Tissue Research, 2009, 336, 79-89.  | 2.9 | 27        |
| 119 | Intracellularly-Retained Decorin Lacking the C-Terminal Ear Repeat Causes ER Stress. American Journal of Pathology, 2013, 183, 247-256.   | 3.8 | 27        |
| 120 | Collagen Fibrillogenesis in Tissues, in Solution and from Modeling: A Synthesis Journal of<br>Investigative Dermatology, 1982, 79, 109s-112s.   | 0.7 | 26        |
| 121 | Focus on Molecules: Decorin. Experimental Eye Research, 2011, 92, 444-445.  | 2.6 | 26        |
| 122 | Pericellular Proteins of the Developing Mouse Tendon: A Proteomic Analysis. Connective Tissue<br>Research, 2012, 53, 2-13.  | 2.3 | 26        |
| 123 | Increased stromal extracellular matrix synthesis and assembly by insulin activated bovine keratocytes cultured under agarose. Experimental Eye Research, 2008, 87, 604-611.   | 2.6 | 24        |
| 124 | Existence of Corneal Endothelial Slow-Cycling Cells. , 2015, 56, 3827.  |     | 24        |
| 125 | Differential expression of fibromodulin mRNA associated with tendon fibril growth: isolation and characterization of a chicken fibromodulin cDNA. Biochemical Journal, 1996, 317, 785-789.                                      | 3.7 | 23        |
| 126 | Homozygosity and Heterozygosity for Null Col5a2 Alleles Produce Embryonic Lethality and a Novel<br>Classic Ehlers-Danlos Syndrome–Related Phenotype. American Journal of Pathology, 2015, 185,<br>2000-2011.                    | 3.8 | 22        |

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|-----|--|-----|-----------|
| 127 | Injury response of geriatric mouse patellar tendons. Journal of Orthopaedic Research, 2016, 34,<br>1256-1263.  | 2.3 | 22        |
| 128 | Altered dermal fibroblast behavior in a collagen V haploinsufficient murine model of classic<br>Ehlers–Danlos syndrome. Connective Tissue Research, 2016, 57, 1-9.   | 2.3 | 22        |
| 129 | Collagen V localizes to pericellular sites during tendon collagen fibrillogenesis. Matrix Biology, 2014, 33, 47-53.  | 3.6 | 21        |
| 130 | Limb- and tendon-specific Adamtsl2 deletion identifies a role for ADAMTSL2 in tendon growth in a mouse model for geleophysic dysplasia. Matrix Biology, 2019, 82, 38-53.   | 3.6 | 21        |
| 131 | Collagen XII Is a Regulator of Corneal Stroma Structure and Function. , 2020, 61, 61.  |     | 21        |
| 132 | Collagen V haploinsufficiency in a murine model of classic Ehlers–Danlos syndrome is associated<br>with deficient structural and mechanical healing in tendons. Journal of Orthopaedic Research, 2017,<br>35, 2707-2715. | 2.3 | 20        |
| 133 | Kinetic Analysis of Collagen Fibrillogenesis: II. Corneal and Scleral Type I Collagen. Collagen and Related Research, 1984, 4, 265-277.  | 2.0 | 19        |
| 134 | Physical characterization of type I procollagen in solution: evidence that the propeptides limit self-assembly. International Journal of Biological Macromolecules, 1986, 8, 177-182.                                    | 7.5 | 19        |
| 135 | Enhanced cell accumulation and collagen processing by keratocytes cultured under agarose and in media containing IGF-I, TGF-Î <sup>2</sup> or PDGF. Matrix Biology, 2010, 29, 519-524.                                   | 3.6 | 19        |
| 136 | Mechanical property changes during neonatal development and healing using a multiple regression model. Journal of Biomechanics, 2012, 45, 1288-1292.   | 2.1 | 19        |
| 137 | Collagen V-heterozygous and -null supraspinatus tendons exhibit altered dynamic mechanical behaviour at multiple hierarchical scales. Interface Focus, 2016, 6, 20150043.  | 3.0 | 19        |
| 138 | Characterization and Developmental Regulation of Avian Corneal β-1,4-galactosyltransferase mRNA.<br>Experimental Eye Research, 1996, 63, 193-200.  | 2.6 | 18        |
| 139 | Proteome profiling of wild type and lumican-deficient mouse corneas. Journal of Proteomics, 2011, 74, 1895-1905.   | 2.4 | 18        |
| 140 | Topographies of extracytoplasmic compartments in developing chick tendon fibroblasts. Journal of<br>Structural Biology, 1986, 97, 238-248.   | 0.8 | 17        |
| 141 | Collagen and glycosaminoglycan synthesis in aging human keratocyte cultures. Experimental Eye<br>Research, 1981, 32, 331-339.  | 2.6 | 16        |
| 142 | Cellular invasion and collagen type IX in the primary corneal stroma in vitro. Developmental Dynamics, 1994, 201, 206-215.   | 1.8 | 16        |
| 143 | Complete primary structure and genomic organization of the mouse Col14a1 gene. Matrix Biology, 2003, 22, 209-216.  | 3.6 | 16        |
| 144 | Role of Cys41 in the N-terminal domain of lumican in ex vivo collagen fibrillogenesis by cultured corneal stromal cells. Biochemical Journal, 2003, 369, 461-468.  | 3.7 | 15        |

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|-----|---|-----|-----------|
| 145 | Complete primary structure and genomic organization of the mouse Col14a1 gene. Matrix Biology, 2004, 22, 595-601.   | 3.6 | 15        |
| 146 | Mouse Models in Tendon and Ligament Research. Advances in Experimental Medicine and Biology, 2014, 802, 201-230.  | 1.6 | 15        |
| 147 | Corneal and scleral type I collagens: analyses of physical properties and molecular flexibility.<br>International Journal of Biological Macromolecules, 1983, 5, 209-214.                           | 7.5 | 13        |
| 148 | Collagen Dysregulation in the Dermis of the Sagg/+ Mouse: A Loose Skin Model. Journal of Investigative Dermatology, 2006, 126, 595-602.   | 0.7 | 12        |
| 149 | Collagen V expression is crucial in regional development of the supraspinatus tendon. Journal of<br>Orthopaedic Research, 2016, 34, 2154-2161.  | 2.3 | 12        |
| 150 | Type V collagen regulates the structure and biomechanics of TMJ condylar cartilage: A fibrous-hyaline<br>hybrid. Matrix Biology, 2021, 102, 1-19.   | 3.6 | 10        |
| 151 | Attachment to and Degradation of Collagen Substrata by Adenovirus-Transformed Cells of Varying<br>Tumorigenicity. Collagen and Related Research, 1984, 4, 49-61.                                    | 2.0 | 9         |
| 152 | The location-specific role of proteoglycans in the flexor carpi ulnaris tendon. Connective Tissue Research, 2013, 54, 367-373.  | 2.3 | 9         |
| 153 | Validation of an Empirical Damage Model for Aging and in Vivo Injury of the Murine Patellar Tendon.<br>Journal of Biomechanical Engineering, 2013, 135, 041005.                                     | 1.3 | 8         |
| 154 | Multiscale regression modeling in mouse supraspinatus tendons reveals that dynamic processes act<br>as mediators in structure–function relationships. Journal of Biomechanics, 2016, 49, 1649-1657. | 2.1 | 7         |
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