Ioannis V Yannas

List of Publications by Year
in descending order

104 papers	13,707 citations	25034 57 h-index	51608 86 g-index
105 all docs	105 docs citations	105 times ranked	9846 citing authors

#	Article	IF	Citations
1	Mammals fail to regenerate organs when wound contraction drives scar formation. Npj Regenerative Medicine, 2021, 6, 39.	5.2	18
2	Neural stem cell delivery via porous collagen scaffolds promotes neuronal differentiation and locomotion recovery in spinal cord injury. Npj Regenerative Medicine, 2020, 5, 12.	5.2	60
3	Regeneration mechanism for skin and peripheral nerves clarified at the organ and molecular scales. Current Opinion in Biomedical Engineering, 2018, 6, 1-7.	3.4	9
4	Dermal Regeneration and Induction of Wound Closure in Diabetic Wounds. Contemporary Diabetes, 2018, , 155-172.	0.0	0
5	Hesitant steps from the artificial skin to organ regeneration. International Journal of Energy Production and Management, 2018, 5, 189-195.	3.7	6
6	Regeneration of injured skin and peripheral nerves requires control of wound contraction, not scar formation. Wound Repair and Regeneration, 2017, 25, 177-191.	3.0	70
7	In Situ Quantification of Surface Chemistry in Porous Collagen Biomaterials. Annals of Biomedical Engineering, 2016, 44, 803-815.	2.5	23
8	Tissue and Organ Regeneration in Adults. , 2015, , .		65
9	In Vivo Synthesis of Tissues and Organs. , 2014, , 325-355.		7
10	Image informatics for studying signal transduction in cells interacting with 3D matrices. Proceedings of SPIE, 2014, , .	0.8	0
11	Spectral-resolved multifocal multiphoton microscopy with multianode photomultiplier tubes. Optics Express, 2014, 22, 21368.	3.4	9
12	Quantifying the surface chemistry of 3D matrices in situ. , 2014, , .		0
13	Emerging rules for inducing organ regeneration. Biomaterials, 2013, 34, 321-330.	11.4	106
14	3D-resolved fluorescence and phosphorescence lifetime imaging using temporal focusing wide-field two-photon excitation. Optics Express, 2012, 20, 26219.	3.4	44
15	Induced Regeneration of Skin and Peripheral Nerves in the Adult. , 2012, , 163-183.		0
16	Common features of optimal collagen scaffolds that disrupt wound contraction and enhance regeneration both in peripheral nerves and in skin. Biomaterials, 2012, 33, 4783-4791.	11.4	119
17	Template for Skin Regeneration. Plastic and Reconstructive Surgery, 2011, 127, 60S-70S.	1.4	84
18	Design of a multiphase osteochondral scaffold. II. Fabrication of a mineralized collagenâ€"glycosaminoglycan scaffold. Journal of Biomedical Materials Research - Part A, 2010, 92A, 1066-1077.	4.0	92

#	Article	IF	Citations
19	Design of a multiphase osteochondral scaffold III: Fabrication of layered scaffolds with continuous interfaces. Journal of Biomedical Materials Research - Part A, 2010, 92A, 1078-1093.	4.0	121
20	Design of a multiphase osteochondral scaffold. I. Control of chemical composition. Journal of Biomedical Materials Research - Part A, 2010, 92A, 1057-1065.	4.0	49
21	Use of the parabiotic model in studies of cutaneous wound healing to define the participation of circulating cells. Wound Repair and Regeneration, 2010, 18, 426-432.	3.0	39
22	An optical method to quantify the density of ligands for cell adhesion receptors in three-dimensional matrices. Journal of the Royal Society Interface, 2010, 7, S649-61.	3.4	11
23	Biologically active collagen-based scaffolds: advances in processing and characterization. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 2123-2139.	3.4	119
24	Collagenâ€based matrices with axially oriented pores. Journal of Biomedical Materials Research - Part A, 2008, 85A, 757-767.	4.0	114
25	Microarchitecture of Three-Dimensional Scaffolds Influences Cell Migration Behavior via Junction Interactions. Biophysical Journal, 2008, 95, 4013-4024.	0.5	313
26	Early Fetal Healing as a Model for Adult Organ Regeneration. Tissue Engineering, 2007, 13, 1789-1798.	4.6	39
27	Standardized criterion to analyze and directly compare various materials and models for peripheral nerve regeneration. Journal of Biomaterials Science, Polymer Edition, 2007, 18, 943-966.	3.5	55
28	In Vivo Synthesis of Tissues and Organs. , 2007, , 219-238.		3
29	Early Fetal Healing As a Model for Adult Organ Regeneration. Tissue Engineering, 2007, .	4.6	0
30	The effect of pore size on permeability and cell attachment in collagen scaffolds for tissue engineering. Technology and Health Care, 2007, 15, 3-17.	1.2	100
31	Tissue Engineering and Developmental Biology: Going Biomimetic. Tissue Engineering, 2006, 12, 3265-3283.	4.6	273
32	The effect of pore size on permeability and cell attachment in collagen scaffolds for tissue engineering. Technology and Health Care, 2006, 15, 3-17.	1.2	286
33	Fabricating tubular scaffolds with a radial pore size gradient by a spinning technique. Biomaterials, 2006, 27, 866-874.	11.4	115
34	Induced Regeneration of Skin and Peripheral Nerves. , 2006, , 83-103.		0
35	Peripheral Nerve Regeneration. Advances in Biochemical Engineering/Biotechnology, 2005, 94, 67-89.	1.1	31
36	Formation of Lung Alveolar-Like Structures in Collagenâ€"Glycosaminoglycan Scaffolds in Vitro. Tissue Engineering, 2005, 11, 1436-1448.	4.6	82

#	Article	IF	Citations
37	The effect of pore size on cell adhesion in collagen-GAG scaffolds. Biomaterials, 2005, 26, 433-441.	11.4	1,144
38	Similarities and differences between induced organ regeneration in adults and early foetal regeneration. Journal of the Royal Society Interface, 2005, 2, 403-417.	3.4	70
39	Facts and Theories of Induced Organ Regeneration. Advances in Biochemical Engineering/Biotechnology, 2005, 93, 1-38.	1.1	17
40	Effect of Passage Number and Collagen Type on the Proliferative, Biosynthetic, and Contractile Activity of Adult Canine Articular Chondrocytes in Type I and II Collagen-Glycosaminoglycan Matrices in Vitro. Tissue Engineering, 2004, 10, 119-127.	4.6	68
41	Selection of biomaterials for peripheral nerve regeneration using data from the nerve chamber model. Biomaterials, 2004, 25, 1593-1600.	11.4	96
42	Degradation of a collagenâ€“chondroitin-6-sulfate matrix by collagenase and by chondroitinase. Biomaterials, 2004, 25, 473-482.	11.4	99
43	Influence of freezing rate on pore structure in freeze-dried collagen-GAG scaffolds. Biomaterials, 2004, 25, 1077-1086.	11.4	647
44	Synthesis of Tissues and Organs. ChemBioChem, 2004, 5, 26-39.	2.6	28
45	Synthesis of Tissues and Organs. ChemInform, 2004, 35, no.	0.0	0
46	Contractile forces generated by articular chondrocytes in collagen-glycosaminoglycan matrices. Biomaterials, 2004, 25, 1299-1308.	11.4	50
47	Optimal Degradation Rate for Collagen Chambers Used for Regeneration of Peripheral Nerves over Long Gaps. Cells Tissues Organs, 2004, 176, 153-165.	2.3	115
48	Fibroblast Contractile Force Is Independent of the Stiffness Which Resists the Contraction. Experimental Cell Research, 2002, 272, 153-162.	2.6	111
49	Delivery of Plasmid DNA to Articular Chondrocytes via Novel Collagenâ€“Glycosaminoglycan Matrices. Human Gene Therapy, 2002, 13, 791-802.	2.7	66
50	Evidence for sequential utilization of fibronectin, vitronectin, and collagen during fibroblast-mediated collagen contraction. Wound Repair and Regeneration, 2002, 10, 397-408.	3.0	76
51	Micromechanics of Fibroblast Contraction of a Collagenâ€“GAG Matrix. Experimental Cell Research, 2001, 269, 140-153.	2.6	75
52	Growth Factor Regulation of Smooth Muscle Actin Expression and Contraction of Human Articular Chondrocytes and Meniscal Cells in a Collagenâ€“GAG Matrix. Experimental Cell Research, 2001, 270, 21-31.	2.6	64
53	Contraction of collagenâ€“glycosaminoglycan matrices by peripheral nerve cells in vitro. Biomaterials, 2001, 22, 1085-1093.	11.4	34
54	Fibroblast contraction of a collagenâ€“GAG matrix. Biomaterials, 2001, 22, 2883-2891.	11.4	146

#	Article	IF	Citations
55	Cellular materials as porous scaffolds for tissue engineering. Progress in Materials Science, 2001, 46, 273-282.	32.8	505
56	Near-terminus axonal structure and function following rat sciatic nerve regeneration through a collagen-GAG matrix in a ten-millimeter gap. , 2000, 60, 666-677.		122
57	Connective tissue response to tubular implants for peripheral nerve regeneration: The role of myofibroblasts. , 2000, 417, 415-430.		72
58	Tendon cell contraction of collagenâ€“GAG matrices in vitro: effect of cross-linking. Biomaterials, 2000, 21, 1607-1619.	11.4	134
59	In Vivo SYNTHESIS OF TISSUES AND ORGANS. , 2000, , 167-178.		5
60	Meniscus cells seeded in type I and type II collagenâ€“GAG matrices in vitro. Biomaterials, 1999, 20, 701-709.	11.4	124
61	Comparison of cultured and uncultured keratinocytes seeded into a collagenâ€“GAG matrix for skin replacements. Journal of Plastic, Reconstructive and Aesthetic Surgery, 1999, 52, 127-132.	1.1	64
62	Design of an artificial skin. IV. Use of island graft to isolate organ regeneration from scar synthesis and other processes leading to skin wound closure. , 1998, 39, 531-535.		13
63	Tensional homeostasis in dermal fibroblasts: Mechanical responses to mechanical loading in three-dimensional substrates. Journal of Cellular Physiology, 1998, 175, 323-332.	4.1	322
64	Early peripheral nerve healing in collagen and silicone tube implants: Myofibroblasts and the cellular response. Biomaterials, 1998, 19, 1393-1403.	11.4	111
65	Chondrocyte-seeded collagen matrices implanted in a chondral defect in a canine model. Biomaterials, 1998, 19, 2313-2328.	11.4	237
66	Organized Skin Structure Is Regenerated In Vivo from Collagen-GAG Matrices Seeded with Autologous Keratinocytes. Journal of Investigative Dermatology, 1998, 110, 908-916.	0.7	100
67	Studies on the biological activity of the dermal regeneration template. Wound Repair and Regeneration, 1998, 6, 518-523.	3.0	71
68	Characteristics of Articular Chondrocytes Seeded in Collagen Matrices in Vitro. Tissue Engineering, 1998, 4, 175-183.	4.6	25
69	Vascularized Collagen-Glycosaminoglycan Matrix Provides a Dermal Substrate and Improves Take of Cultured Epithelial Autografts. Plastic and Reconstructive Surgery, 1998, 102, 423-429.	1.4	73
70	Effect of Keratinocyte Seeding of Collagen-Glycosaminoglycan Membranes on the Regeneration of Skin in a Porcine Model. Plastic and Reconstructive Surgery, 1998, 101, 1572-1579.	1.4	56
71	Design of an artificial skin. IV. Use of island graft to isolate organ regeneration from scar synthesis and other processes leading to skin wound closure. Journal of Biomedical Materials Research Part B, 1998, 39, 531-535.	3.1	1
72	Matrix collagen type and pore size influence behaviour of seeded canine chondrocytes. Biomaterials, 1997, 18, 769-776.	11.4	376

#	Article	IF	Citations
73	Canine chondrocytes seeded in type I and type II collagen implants investigated In Vitro. Journal of Biomedical Materials Research Part B, 1997, 38, 95-104.	3.1	239
74	Models of Organ Regeneration Processes Induced by Templates. Annals of the New York Academy of Sciences, 1997, 831, 280-293.	3.8	19
75	Canine chondrocytes seeded in type I and type II collagen implants investigated in vitro. Journal of Biomedical Materials Research Part B, 1997, 38, 95-104.	3.1	27
76	Myofibroblasts in the healing lapine medial collateral ligament: Possible mechanisms of contraction. Journal of Orthopaedic Research, 1996, 14, 228-237.	2.3	62
77	Recent advances in tissue synthesis in vivo by use of collagen-glycosaminoglycan copolymers. Biomaterials, 1996, 17, 291-299.	11.4	123
78	Wound contraction and scar synthesis during development of the amphibian Rana catesbeiana. Wound Repair and Regeneration, 1996, 4, 29-39.	3.0	48
79	Classes of Materials Used in Medicine. , 1996, , 67-I.		1
80	Tissue Regeneration by Use of Analogs of Extracellular Matrix. , 1996, , 415-429.		0
81	Preliminary Evaluation of a Technique for Inhibiting Intimal Hyperplasia: Implantation of a Resorbable Luminal Collagen Membrane. Annals of Vascular Surgery, 1995, 9, 135-139.	0.9	1
82	Specific effects of glycosaminoglycans in an analog of extracellular matrix that delays wound contraction and induces regeneration. Wound Repair and Regeneration, 1994, 2, 270-276.	3.0	21
83	Applications of ECM analogs in surgery. Journal of Cellular Biochemistry, 1994, 56, 188-191.	2.6	40
84	Scattering of Light from Histologic Sections: A New Method for the Analysis of Connective Tissue. Journal of Investigative Dermatology, 1993, 100, 710-716.	0.7	68
85	Tissue regeneration by use of collagen-glycosaminoglycan copolymers. Clinical Materials, 1992, 9, 179-187.	0.5	110
86	Biologically Active Analogues of the Extracellular Matrix: Artificial Skin and Nerves. Angewandte Chemie International Edition in English, 1990, 29, 20-35.	4.4	91
87	Biologisch aktive Analoga der extrazellulÃren Matrix â€“ kÃ¼nstliche Haut und Nerven. Angewandte Chemie, 1990, 102, 21-36.	2.0	3
88	Electrophysiological Study of Recovery of Peripheral Nerves Regenerated by a Collagen-Glycosaminoglycan Copolymer Matrix. , 1990, , 107-120.		18
89	Collagen banded fibril structure and the collagen-platelet reaction. Thrombosis Research, 1989, 55, 135-148.	1.7	73
90	Synthesis and characterization of a model extracellular matrix that induces partial regeneration of adult mammalian skin.. Proceedings of the National Academy of Sciences of the United States of America, 1989, 86, 933-937.	7.1	847

#	Article	IF	Citations
91	Wound tissue can utilize a polymeric template to synthesize a functional extension of skin. Science, 1982, 215, 174-176.	12.6	597
92	Successful Use of a Physiologically Acceptable Artificial Skin in the Treatment of Extensive Burn Injury. Annals of Surgery, 1981, 194, 413-428.	4.2	1,088
93	Design of an artificial skin. I. Basic design principles. Journal of Biomedical Materials Research Part B, 1980, 14, 65-81.	3.1	917
94	Design of an artificial skin. II. Control of chemical composition. Journal of Biomedical Materials Research Part B, 1980, 14, 107-132.	3.1	528
95	Design of an artificial skin. Part III. Control of pore structure. Journal of Biomedical Materials Research Part B, 1980, 14, 511-528.	3.1	325
96	Glycosaminoglycan inhibition of collagen induced platelet aggregation. Thrombosis Research, 1978, 13, 267-277.	1.7	24
97	Thrombosis research , (No. 2, August): pp. 267â€“277, 1978. Thrombosis Research, 1978, 13, 583.	1.7	0
98	Mechanochemical studies of enzymatic degradation of insoluble collagen fibers. Journal of Biomedical Materials Research Part B, 1977, 11, 137-154.	3.1	103
99	Dependence of stress-strain nonlinearity of connective tissues on the geometry of collagen fibres. Journal of Biomechanics, 1976, 9, 427-433.	2.1	133
100	Correlation ofin vivo collagen degradation rate within vitro measurements. Journal of Biomedical Materials Research Part B, 1975, 9, 623-628.	3.1	75
101	Nonlinear viscoelasticity of solid polymers (in uniaxial tensile loading). Journal of Polymer Science Macromolecular Reviews, 1974, 9, 163-190.	1.9	28
102	The Far-Infrared Spectrum of Collagen. Macromolecules, 1974, 7, 954-956.	4.8	67
103	Vitrification Temperature of Water. Science, 1968, 160, 298-299.	12.6	38
104	Cross-linking of Gelatine by Dehydration. Nature, 1967, 215, 509-510.	27.8	212