

Rajiv R Mohan

List of Publications by Year in descending order

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106
papers

5,607
citations

109321

35
h-index

88630

70
g-index

106
all docs

106
docs citations

106
times ranked

3960
citing authors

#	ARTICLE	IF	CITATIONS
1	The Corneal Wound Healing Response:. Progress in Retinal and Eye Research, 2001, 20, 625-637.	15.5	529
2	Wound Healing in the Cornea. Cornea, 2005, 24, 509-522.	1.7	378
3	Apoptosis, necrosis, proliferation, and myofibroblast generation in the stroma following LASIK and PRK. Experimental Eye Research, 2003, 76, 71-87.	2.6	374
4	Stromal-epithelial interactions in the cornea. Progress in Retinal and Eye Research, 1999, 18, 293-309.	15.5	314
5	Stromal haze, myofibroblasts, and surface irregularity after PRK. Experimental Eye Research, 2006, 82, 788-797.	2.6	245
6	Role of Transforming Growth Factor Beta in Corneal Function, Biology and Pathology. Current Molecular Medicine, 2010, 10, 565-578.	1.3	178
7	Expression of HGF, KGF, EGF and Receptor Messenger RNAs Following Corneal Epithelial Wounding. Experimental Eye Research, 1999, 68, 377-397.	2.6	168
8	Effect of Prophylactic and Therapeutic Mitomycin C on Corneal Apoptosis, Cellular Proliferation, Haze, and Long-term Keratocyte Density in Rabbits. Journal of Refractive Surgery, 2006, 22, 562-574.	2.3	167
9	Femtosecond Laser and Microkeratome Corneal Flaps: Comparison of Stromal Wound Healing and Inflammation. Journal of Refractive Surgery, 2007, 23, 667-676.	2.3	143
10	Apoptosis in the Cornea: Further Characterization of Fas/Fas Ligand System. Experimental Eye Research, 1997, 65, 575-589.	2.6	129
11	The NLRP3 Inflammasome May Contribute to Pathologic Neovascularization in the Advanced Stages of Diabetic Retinopathy. Scientific Reports, 2018, 8, 2847.	3.3	105
12	Polyethylenimine-conjugated gold nanoparticles: Gene transfer potential and low toxicity in the cornea. Nanomedicine: Nanotechnology, Biology, and Medicine, 2011, 7, 505-513.	3.3	103
13	BMP7 Gene Transfer via Gold Nanoparticles into Stroma Inhibits Corneal Fibrosis In Vivo. PLoS ONE, 2013, 8, e66434.	2.5	94
14	Assessment of corneal substrate biomechanics and its effect on epithelial stem cell maintenance and differentiation. Nature Communications, 2019, 10, 1496.	12.8	93
15	Gene therapy in the cornea. Progress in Retinal and Eye Research, 2005, 24, 537-559.	15.5	87
16	Targeted Decorin Gene Therapy Delivered with Adeno-Associated Virus Effectively Retards Corneal Neovascularization In Vivo. PLoS ONE, 2011, 6, e26432.	2.5	87
17	Decorin transfection suppresses profibrogenic genes and myofibroblast formation in human corneal fibroblasts. Experimental Eye Research, 2010, 91, 238-245.	2.6	84
18	Nanomedicine Approaches for Corneal Diseases. Journal of Functional Biomaterials, 2015, 6, 277-298.	4.4	78

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19	Significant Inhibition of Corneal Scarring In Vivo with Tissue-Selective, Targeted AAV5 Decorin Gene Therapy. , 2011, 52, 4833.		77
20	Differential Molecular Expression of Extracellular Matrix and Inflammatory Genes at the Corneal Cone Apex Drives Focal Weakening in Keratoconus. , 2016, 57, 5372.		77
21	Trichostatin A Inhibits Corneal Haze In Vitro and In Vivo. , 2009, 50, 2695.		74
22	Corneal stromal wound healing: Major regulators and therapeutic targets. Ocular Surface, 2021, 19, 290-306.	4.4	68
23	Gene therapy in the Cornea: 2005â€‘present. Progress in Retinal and Eye Research, 2012, 31, 43-64.	15.5	67
24	Targeted AAV5-Smad7 gene therapy inhibits corneal scarring in vivo. PLoS ONE, 2017, 12, e0172928.	2.5	59
25	Effect of prophylactic and therapeutic mitomycin C on corneal apoptosis, cellular proliferation, haze, and long-term keratocyte density in rabbits. Journal of Refractive Surgery, 2006, 22, 562-74.	2.3	59
26	RANK, RANKL, OPG, and M-CSF Expression in Stromal Cells during Corneal Wound Healing. , 2004, 45, 2201.		55
27	Novel Combination <i>BMP7</i> and <i>HGF</i> Gene Therapy Instigates Selective Myofibroblast Apoptosis and Reduces Corneal Haze In Vivo. , 2018, 59, 1045.		54
28	Femtosecond laser and microkeratome corneal flaps: comparison of stromal wound healing and inflammation. Journal of Refractive Surgery, 2007, 23, 667-76.	2.3	54
29	A novel method for generating corneal haze in anterior stroma of the mouse eye with the excimer laser. Experimental Eye Research, 2008, 86, 235-240.	2.6	53
30	Attenuation of lysyl oxidase and collagen gene expression in keratoconus patient corneal epithelium corresponds to disease severity. Molecular Vision, 2015, 21, 12-25.	1.1	53
31	Gene transfer into rabbit keratocytes using AAV and lipid-mediated plasmid DNA vectors with a lamellar flap for stromal access. Experimental Eye Research, 2003, 76, 373-383.	2.6	52
32	Corneal stromal repair and regeneration. Progress in Retinal and Eye Research, 2022, 91, 101090.	15.5	49
33	Topical interleukin-1 receptor antagonist inhibits inflammatory cell infiltration into the cornea. Experimental Eye Research, 2008, 86, 753-757.	2.6	48
34	AAV serotype influences gene transfer in corneal stroma in vivo. Experimental Eye Research, 2010, 91, 440-448.	2.6	48
35	Corneal Gene Therapy: Basic Science and Translational Perspective. Ocular Surface, 2013, 11, 150-164.	4.4	48
36	PDGF-driven proliferation, migration, and IL8 chemokine secretion in human corneal fibroblasts involve JAK2-STAT3 signaling pathway. Molecular Vision, 2008, 14, 1020-7.	1.1	44

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37	Transient pressure mediated intranuclear delivery of FITC-Dextran into chicken cardiomyocytes by MEMS-based nanothermite reaction actuator. <i>Sensors and Actuators B: Chemical</i> , 2012, 171-172, 1292-1296.	7.8	40
38	Development of genetically engineered tet HPV16-E6/E7 transduced human corneal epithelial clones having tight regulation of proliferation and normal differentiation. <i>Experimental Eye Research</i> , 2003, 77, 395-407.	2.6	39
39	Transduction efficiency of AAV 2/6, 2/8 and 2/9 vectors for delivering genes in human corneal fibroblasts. <i>Brain Research Bulletin</i> , 2010, 81, 273-278.	3.0	38
40	Applications of aptamers in nanodelivery systems in cancer, eye and inflammatory diseases. <i>Nanomedicine</i> , 2010, 5, 1435-1445.	3.3	38
41	NOD-like Receptors in the Eye: Uncovering Its Role in Diabetic Retinopathy. <i>International Journal of Molecular Sciences</i> , 2020, 21, 899.	4.1	37
42	Effect of ectopic epithelial tissue within the stroma on keratocyte apoptosis, mitosis, and myofibroblast transformation. <i>Experimental Eye Research</i> , 2003, 76, 193-201.	2.6	36
43	Epigenetic Modification Prevents Excessive Wound Healing and Scar Formation After Glaucoma Filtration Surgery. , 2016, 57, 3381.		36
44	ITF2357 transactivates Id3 and regulate TGF β 2/BMP7 signaling pathways to attenuate corneal fibrosis. <i>Scientific Reports</i> , 2016, 6, 20841.	3.3	34
45	Vorinostat: A Potent Agent to Prevent and Treat Laser-induced Corneal Haze. <i>Journal of Refractive Surgery</i> , 2012, 28, 285-290.	2.3	34
46	Autophagy in corneal health and disease: A concise review. <i>Ocular Surface</i> , 2019, 17, 186-197.	4.4	31
47	Development of a novel in vivo corneal fibrosis model in the dog. <i>Experimental Eye Research</i> , 2016, 143, 75-88.	2.6	30
48	KCa3.1 ion channel: A novel therapeutic target for corneal fibrosis. <i>PLoS ONE</i> , 2018, 13, e0192145.	2.5	29
49	Isolation and cultivation of equine corneal keratocytes, fibroblasts and myofibroblasts. <i>Veterinary Ophthalmology</i> , 2010, 13, 37-42.	1.0	26
50	Therapeutic potential of trichostatin A to control inflammatory and fibrogenic disorders of the ocular surface. <i>Molecular Vision</i> , 2010, 16, 2964-73.	1.1	26
51	Efficacy and safety of mitomycin C as an agent to treat corneal scarring in horses using an in vitro model. <i>Veterinary Ophthalmology</i> , 2010, 13, 211-218.	1.0	24
52	Nanotechnology and adeno-associated virus-based decorin gene therapy ameliorates peritoneal fibrosis. <i>American Journal of Physiology - Renal Physiology</i> , 2014, 307, F777-F782.	2.7	24
53	Correlation between systemic S100A8 and S100A9 levels and severity of diabetic retinopathy in patients with type 2 diabetes mellitus. <i>Diabetes and Metabolic Syndrome: Clinical Research and Reviews</i> , 2019, 13, 1581-1589.	3.6	24
54	Ocular toxicity of mustard gas: A concise review. <i>Toxicology Letters</i> , 2021, 343, 21-27.	0.8	24

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55	Localization of angiotensin converting enzyme in rabbit cornea and its role in controlling corneal angiogenesis in vivo. <i>Molecular Vision</i> , 2010, 16, 720-8.	1.1	23
56	Attenuation of corneal myofibroblast development through nanoparticle-mediated soluble transforming growth factor- β type II receptor (sTGF β RII) gene transfer. <i>Molecular Vision</i> , 2012, 18, 2598-607.	1.1	23
57	Novel insights into gene therapy in the cornea. <i>Experimental Eye Research</i> , 2021, 202, 108361.	2.6	22
58	Role of 5'TG3'-interacting factors (TGIFs) in Vorinostat (HDAC inhibitor)-mediated Corneal Fibrosis Inhibition. <i>Molecular Vision</i> , 2015, 21, 974-84.	1.1	22
59	Efficacious and Safe Tissue-Selective Controlled Gene Therapy Approaches for the Cornea. <i>PLoS ONE</i> , 2011, 6, e18771.	2.5	21
60	Suberoylanilide hydroxamic acid (vorinostat): its role on equine corneal fibrosis and matrix metalloproteinase activity. <i>Veterinary Ophthalmology</i> , 2014, 17, 61-68.	1.0	21
61	Decorin-PEI nanoconstruct attenuates equine corneal fibroblast differentiation. <i>Veterinary Ophthalmology</i> , 2014, 17, 162-169.	1.0	21
62	Decorin antagonizes corneal fibroblast migration via caveolae-mediated endocytosis of epidermal growth factor receptor. <i>Experimental Eye Research</i> , 2019, 180, 200-207.	2.6	21
63	Altered ocular surface immune cell profile in patients with dry eye disease. <i>Ocular Surface</i> , 2021, 21, 96-106.	4.4	21
64	Apoptosis in the Cornea in Response to Epithelial Injury: Significance to Wound Healing and Dry Eye. <i>Advances in Experimental Medicine and Biology</i> , 2002, 506, 821-826.	1.6	21
65	Linear Polyethylenimine-DNA Nanoconstruct for Corneal Gene Delivery. <i>Journal of Ocular Pharmacology and Therapeutics</i> , 2019, 35, 23-31.	1.4	20
66	Mitomycin C: a promising agent for the treatment of canine corneal scarring. <i>Veterinary Ophthalmology</i> , 2011, 14, 304-312.	1.0	18
67	Effects of topical hyaluronic acid on corneal wound healing in dogs: a pilot study. <i>Veterinary Ophthalmology</i> , 2017, 20, 123-130.	1.0	18
68	Gene delivery in the equine cornea: a novel therapeutic strategy. <i>Veterinary Ophthalmology</i> , 2010, 13, 301-306.	1.0	17
69	Therapeutic potential of pirfenidone for treating equine corneal scarring. <i>Veterinary Ophthalmology</i> , 2015, 18, 242-250.	1.0	17
70	Is sex a biological variable in corneal wound healing?. <i>Experimental Eye Research</i> , 2019, 187, 107705.	2.6	17
71	Keratoconus patients exhibit a distinct ocular surface immune cell and inflammatory profile. <i>Scientific Reports</i> , 2021, 11, 20891.	3.3	17
72	Young Ossabaw Pigs Fed a Western Diet Exhibit Early Signs of Diabetic Retinopathy. , 2018, 59, 2325.		16

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73	A Novel Topical Ophthalmic Formulation to Mitigate Acute Mustard Gas Keratopathy In Vivo: A Pilot Study. <i>Translational Vision Science and Technology</i> , 2020, 9, 6.	2.2	16
74	Vector delivery technique affects gene transfer in the cornea in vivo. <i>Molecular Vision</i> , 2010, 16, 2494-501.	1.1	16
75	Identification of novel predictive factors for post surgical corneal haze. <i>Scientific Reports</i> , 2019, 9, 16980.	3.3	15
76	Autophagy in Extracellular Matrix and Wound Healing Modulation in the Cornea. <i>Biomedicines</i> , 2022, 10, 339.	3.2	15
77	Molecular mechanisms of suberoylanilide hydroxamic acid in the inhibition of TGF- β 1-mediated canine corneal fibrosis. <i>Veterinary Ophthalmology</i> , 2016, 19, 480-487.	1.0	14
78	Blockade of KCa3.1: A novel target to treat TGF- β 1 induced conjunctival fibrosis. <i>Experimental Eye Research</i> , 2018, 167, 140-144.	2.6	14
79	The functional role of decorin in corneal neovascularization in vivo. <i>Experimental Eye Research</i> , 2021, 207, 108610.	2.6	14
80	Characterization of Inhibitor of differentiation (Id) proteins in human cornea. <i>Experimental Eye Research</i> , 2016, 146, 145-153.	2.6	13
81	Efficacy and Safety Comparison Between Suberoylanilide Hydroxamic Acid and Mitomycin C in Reducing the Risk of Corneal Haze After PRK Treatment In Vivo. <i>Journal of Refractive Surgery</i> , 2017, 33, 834-839.	2.3	13
82	Efficacy and safety of suberoylanilide hydroxamic acid (Vorinostat) in the treatment of canine corneal fibrosis. <i>Veterinary Ophthalmology</i> , 2012, 15, 307-314.	1.0	11
83	Characterization of hydrogen sulfide toxicity to human corneal stromal fibroblasts. <i>Annals of the New York Academy of Sciences</i> , 2020, 1480, 207-218.	3.8	11
84	Decorin regulates collagen fibrillogenesis during corneal wound healing in mouse in vivo. <i>Experimental Eye Research</i> , 2022, 216, 108933.	2.6	11
85	Characterization of a functionally active primary microglial cell culture from the pig retina. <i>Experimental Eye Research</i> , 2019, 185, 107670.	2.6	10
86	A rabbit model for evaluating ocular damage from acrolein toxicity in vivo. <i>Annals of the New York Academy of Sciences</i> , 2020, 1480, 233-245.	3.8	10
87	Glutathione is a potential therapeutic target for acrolein toxicity in the cornea. <i>Toxicology Letters</i> , 2021, 340, 33-42.	0.8	10
88	Six-Month In Vivo Safety Profiling of Topical Ocular AAV5-mediated Decorin Gene Transfer. <i>Translational Vision Science and Technology</i> , 2021, 10, 5.	2.2	10
89	Altering equine corneal fibroblast differentiation through Smad gene transfer. <i>Veterinary Ophthalmology</i> , 2018, 21, 132-139.	1.0	8
90	Development of a novel ex vivo equine corneal model. <i>Veterinary Ophthalmology</i> , 2017, 20, 288-293.	1.0	7

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91	Long-Term Safety and Tolerability of BMP7 and HGF Gene Overexpression in Rabbit Cornea. <i>Translational Vision Science and Technology</i> , 2021, 10, 6.	2.2	7
92	Evaluation of a novel combination of TRAM-34 and ascorbic acid for the treatment of corneal fibrosis in vivo. <i>PLoS ONE</i> , 2022, 17, e0262046.	2.5	7
93	Canine corneal fibroblast and myofibroblast transduction with AAV5. <i>Veterinary Ophthalmology</i> , 2012, 15, 291-298.	1.0	6
94	Ocular manifestations of RT-PCR-confirmed COVID-19 cases in a large database cross-sectional study. <i>BMJ Open Ophthalmology</i> , 2021, 6, e000775.	1.6	6
95	Corneal fibrosis abrogation by a localized AAV-mediated inhibitor of differentiation 3 (Id3) gene therapy in rabbit eyes in vivo. <i>Molecular Therapy</i> , 2022, 30, 3257-3269.	8.2	6
96	The Need for Improved Therapeutic Approaches to Protect the Cornea Against Chemotoxic Injuries. <i>Translational Vision Science and Technology</i> , 2020, 9, 2.	2.2	5
97	Corticosteroids in the Management of Infectious Keratitis: A Concise Review. <i>Journal of Ocular Pharmacology and Therapeutics</i> , 2021, 37, 452-463.	1.4	5
98	Gene editing for corneal disease management. <i>World Journal of Translational Medicine</i> , 2016, 5, 1.	3.5	5
99	Role of in cellular differentiation of human corneal stromal fibroblasts. <i>Molecular Vision</i> , 2020, 26, 742-756.	1.1	4
100	Evaluation of CRISPR/Cas9 mediated TGIF gene editing to inhibit corneal fibrosis in vitro. <i>Experimental Eye Research</i> , 2022, 220, 109113.	2.6	4
101	Gene Therapy for the Cornea, Conjunctiva, and Lacrimal Gland. , 2010, , 185-194.		3
102	Safety and efficacy of combination of suberoylamilide hydroxyamic acid and mitomycin C in reducing pro-fibrotic changes in human corneal epithelial cells. <i>Scientific Reports</i> , 2021, 11, 4392.	3.3	3
103	Effects of Regular/Dilute Proparacaine Anesthetic Eye Drops in Combination with Ophthalmic Antibiotics on Corneal Wound Healing. <i>Journal of Ocular Pharmacology and Therapeutics</i> , 2022, 38, 232-239.	1.4	3
104	Retinal Ultrastructural and Microvascular Defects in Decorin Deficient (<i>Dcn</i> ^{−/−}) Mice. <i>Microscopy and Microanalysis</i> , 2018, 24, 1264-1265.	0.4	2
105	Collagen matrix perturbations in corneal stroma of Ossabaw mini pigs with type 2 diabetes.. <i>Molecular Vision</i> , 2021, 27, 666-678.	1.1	2
106	Quantitative Proteomics Reveals Molecular Network Driving Stromal Cell Differentiation: Implications for Corneal Wound Healing. <i>International Journal of Molecular Sciences</i> , 2022, 23, 2572.	4.1	0