Raymond B Runyan

List of Publications by Year
in descending order

87 papers	5,965 citations	117453 34 h-index	76769 74 g-index
88 all docs	88 docs citations	88 times ranked	5473 citing authors

#	Article	IF	Citations
1	Guidelines and definitions for research on epithelialâ€“mesenchymal transition. Nature Reviews Molecular Cell Biology, 2020, 21, 341-352.	16.1	1,195
2	Requirement of Type III TGF- Receptor for Endocardial Cell Transformation in the Heart. Science, 1999, 283, 2080-2082.	6.0	361
3	Cell Biology of Cardiac Cushion Development. International Review of Cytology, 2005, 243, 287-335.	6.2	316
4	Epithelial-mesenchymal cell transformation in the embryonic heart can be mediated, in part, by transforming growth factor Î². Developmental Biology, 1989, 134, 392-401.	0.9	275
5	Temporal and Distinct TGFÎ² Ligand Requirements during Mouse and Avian Endocardial Cushion Morphogenesis. Developmental Biology, 2002, 248, 170-181.	0.9	262
6	Invasion of mesenchyme into three-dimensional collagen gels: A regional and temporal analysis of interaction in embryonic heart tissue. Developmental Biology, 1983, 95, 108-114.	0.9	248
7	Epithelial-mesenchymal transformation of embryonic cardiac endothelial cells is inhibited by a modified antisense oligodeoxynucleotide to transforming growth factor beta 3.. Proceedings of the National Academy of Sciences of the United States of America, 1991, 88, 1516-1520.	3.3	243
8	Morphogenetic Mechanisms of Epithelial Tubulogenesis: MDCK Cell Polarity Is Transiently Rearranged without Loss of Cellâ€“Cell Contact during Scatter Factor/Hepatocyte Growth Factor-Induced Tubulogenesis. Developmental Biology, 1998, 204, 64-79.	0.9	204
9	TGFÎ²2 and TGFÎ²3 Have Separate and Sequential Activities during Epithelialâ€“Mesenchymal Cell Transformation in the Embryonic Heart. Developmental Biology, 1999, 208, 530-545.	0.9	196
10	Slug is an Essential Target of TGFÎ²2 Signaling in the Developing Chicken Heart. Developmental Biology, 2000, 223, 91-102.	0.9	164
11	Expression of complete keratin filaments in mouse L cells augments cell migration and invasion.. Proceedings of the National Academy of Sciences of the United States of America, 1993, 90, 4261-4265.	3.3	156
12	Multiple Transforming Growth Factor-Î² Isoforms and Receptors Function during Epithelial-Mesenchymal Cell Transformation in the Embryonic Heart. Cells Tissues Organs, 2007, 185, 146-156.	1.3	133
13	Protein extracts from early embryonic hearts initiate cardiac endothelial cytodifferentiation. Developmental Biology, 1985, 112, 414-426.	0.9	129
14	Evidence for a novel enzymatic mechanism of neural crest cell migration on extracellular glycoconjugate matrices.. Journal of Cell Biology, 1986, 102, 432-441.	2.3	123
15	Antibodies to the Type II TGFÎ² Receptor Block Cell Activation and Migration during Atrioventricular Cushion Transformation in the Heart. Developmental Biology, 1996, 174, 248-257.	0.9	123
16	Functionally distinct laminin receptors mediate cell adhesion and spreading: the requirement for surface galactosyltransferase in cell spreading.. Journal of Cell Biology, 1988, 107, 1863-1871.	2.3	120
17	Ligandâ€specific function of transforming growth factor <i>beta</i> in epithelialâ€mesenchymal transition in heart development. Developmental Dynamics, 2009, 238, 431-442.	0.8	113
18	Transforming growth factor beta signaling in adult cardiovascular diseases and repair. Cell and Tissue Research, 2012, 347, 203-223.	1.5	85

#	Article	IF	Citations
19	Sense and antisense TGFÎ²3 mRNA levels correlate with cardiac valve induction. Developmental Dynamics, 1992, 193, 340-345.	0.8	75
20	TGF-?3-Mediated tissue interaction during embryonic heart development. Molecular Reproduction and Development, 1992, 32, 152-159.	1.0	72
21	Frzb modulates Wnt-9a-mediated Î²-catenin signaling during avian atrioventricular cardiac cushion development. Developmental Biology, 2005, 278, 35-48.	0.9	71
22	TGFÎ²-mediated RhoA expression is necessary for epithelial-mesenchymal transition in the embryonic chick heart. Developmental Dynamics, 2006, 235, 1589-1598.	0.8	70
23	Slug Is a Mediator of Epithelialâ€"Mesenchymal Cell Transformation in the Developing Chicken Heart. Developmental Biology, 1999, 212, 243-254.	0.9	69
24	Endoglin and Alk5 regulate epithelialâ€"mesenchymal transformation during cardiac valve formation. Developmental Biology, 2007, 304, 420-432.	0.9	64
25	Epithelial-mesenchymal transformation in the embryonic heart is mediated through distinct pertussis toxin-sensitive and TGF? signal transduction mechanisms. , 1999, 214, 81-91.		55
26	A comparison of fibronectin, laminin, and galactosyltransferase adhesion mechanisms during embryonic cardiac mesenchymal cell migration in vitro. Developmental Biology, 1990, 140, 401-412.	0.9	53
27	Differential growth and multicellular villi direct proepicardial translocation to the developing mouse heart. Developmental Dynamics, 2008, 237, 145-152.	0.8	52
28	Dynamic Myofibrillar Remodeling in Live Cardiomyocytes under Static Stretch. Scientific Reports, 2016, 6, 20674.	1.6	47
29	Trichloroethylene Inhibits Development of Embryonic Heart Valve Precursors in Vitro. Toxicological Sciences, 2000, 53, 109-117.	1.4	46
30	TGF? Type III and TGF? Type II receptors have distinct activities during epithelial-mesenchymal cell transformation in the embryonic heart. Developmental Dynamics, 2001, 221, 454-459.	0.8	45
31	Biochip-based study of unidirectional mitochondrial transfer from stem cells to myocytes via tunneling nanotubes. Biofabrication, 2016, 8, 015012.	3.7	43
32	Latrophilin-2 is a novel component of the epithelial-mesenchymal transition within the atrioventricular canal of the embryonic chicken heart. Developmental Dynamics, 2006, 235, 3213-3221.	0.8	40
33	Mesenchymal Stem Cell-Cardiomyocyte Interactions under Defined Contact Modes on Laser-Patterned Biochips. PLoS ONE, 2013, 8, e56554.	1.1	36
34	Mechanisms of Cell Transformation in the Embryonic Heart. Annals of the New York Academy of Sciences, 1995, 752, 317-330.	1.8	35
35	Laser patterning for the study of MSC cardiogenic differentiation at the single-cell level. Light: Science and Applications, 2013, 2, e68-e68.	7.7	35
36	Cell surface galactosyltransferase as a recognition molecule during development. Molecular and Cellular Biochemistry, 1986, 72, 141-51.	1.4	34

#	Article	IF	Citations
37	Trichloroethylene effects on gene expression during cardiac development. Birth Defects Research Part A: Clinical and Molecular Teratology, 2003, 67, 488-495.	1.6	34
38	Myosin filament assembly onto myofibrils in live neonatal cardiomyocytes observed by TPEF-SHG microscopy. Cardiovascular Research, 2013, 97, 262-270.	1.8	30
39	A freeze-fracture study of avian epiphyseal cartilage differentiation. The Anatomical Record, 1981, 199, 449-457.	2.3	29
40	Gene expression profiling in the fetal cardiac tissue after folate and lowâ€dose trichloroethylene exposure. Birth Defects Research Part A: Clinical and Molecular Teratology, 2010, 88, 111-127.	1.6	29
41	Trichloroethylene Disrupts Cardiac Gene Expression and Calcium Homeostasis in Rat Myocytes. Toxicological Sciences, 2008, 104, 135-143.	1.4	27
42	TGF-Î²₁, -Î²₂ and -Î²₃ Cooperate to Facilitate Tubulogenesis in the Explanted Quail Heart. Journal of Vascular Research, 2004, 41, 491-498.	0.6	26
43	Exposure to Low-Dose Trichloroethylene Alters Shear Stress Gene Expression and Function in the Developing Chick Heart. Cardiovascular Toxicology, 2010, 10, 100-107.	1.1	25
44	COMP Gene Coexpresses With EMT Genes and Is Associated With Poor Survival in Colon Cancer Patients. Journal of Surgical Research, 2019, 233, 297-303.	0.8	24
45	Phosphodiesterase 9a Inhibition in Mouse Models of Diastolic Dysfunction. Circulation: Heart Failure, 2020, 13, e006609.	1.6	23
46	Production of the transforming growth factor-Î² binding protein endoglin is regulated during chick heart development. , 1998, 213, 237-247.		22
47	Endosomal regulation of contact inhibition through the AMOT:YAP pathway. Molecular Biology of the Cell, 2015, 26, 2673-2684.	0.9	20
48	Correlation of freeze-fracture and scanning electron microscopy of epiphyseal chondrocytes. Calcified Tissue Research, 1978, 26, 237-241.	1.3	19
49	Low-Dose Trichloroethylene Alters Cytochrome P450-2C Subfamily Expression in the Developing Chick Heart. Cardiovascular Toxicology, 2013, 13, 77-84.	1.1	19
50	Olfactomedin-1 activity identifies a cell invasion checkpoint during epithelial-mesenchymal transition in the embryonic heart. DMM Disease Models and Mechanisms, 2013, 6, 632-42.	1.2	19
51	Runx2â€ is an Early Regulator of Epithelialâ€“Mesenchymal Cell Transition in the Chick Embryo. Developmental Dynamics, 2018, 247, 542-554.	0.8	18
52	Arsenic Exposure Perturbs Epithelial-Mesenchymal Cell Transition and Gene Expression In a Collagen Gel Assay. Toxicological Sciences, 2010, 116, 273-285.	1.4	17
53	Collagen gel analysis of epithelialâ€“mesenchymal transition in the embryo heart: An in vitro model system for the analysis of tissue interaction, signal transduction, and environmental effects. Birth Defects Research Part C: Embryo Today Reviews, 2011, 93, 298-311.	3.6	16
54	An in situ demonstration of self-recognition in gorgonians. Developmental and Comparative Immunology, 1979, 3, 591-597.	1.0	15

#	Article	IF	Citations
55	Effects of trichloroethylene and its metabolite trichloroacetic acid on the expression of vimentin in the rat H9c2 cell line. Cell Biology and Toxicology, 2005, 21, 83-95.	2.4	13
56	Purification and characterization of avian Î²1,4 galactosyltransferase: comparison with the mammalian enzyme. Glycobiology, 1991, 1, 211-221.	1.3	12
57	Molecular Regulation of Cushion Morphogenesis. , 2010, , 363-387.		11
58	Trichloroethylene perturbs HNF4a expression and activity in the developing chick heart. Toxicology Letters, 2018, 285, 113-120.	0.4	11
59	Utilization of Antisense Oligodeoxynucleotides with Embryonic Tissues in Culture. Methods, 1999, 18, 316-321.	1.9	9
60	Epithelialâ€"mesenchymal transition and plasticity in the developmental basis of cancer and fibrosis. Developmental Dynamics, 2018, 247, 330-331.	0.8	9
61	Tissue Interaction and Signal Transduction in the Atrioventricular Canal of the Embryonic Heart. Annals of the New York Academy of Sciences, 1990, 588, 442-443.	1.8	8
62	Changes in the crystallographic structures of cardiac myosin filaments detected by polarization-dependent second harmonic generation microscopy. Biomedical Optics Express, 2019, 10, 3183.	1.5	8
63	Cardiac Regeneration in the Human Left Ventricle After CorMatrix Implantation. Annals of Thoracic Surgery, 2017, 104, e239-e241.	0.7	7
64	Clinical outcomes meta-analysis: measuring subendocardial perfusion and efficacy of transmyocardial laser revascularization with nuclear imaging. Journal of Cardiothoracic Surgery, 2017, 12, 37.	0.4	7
65	Epithelial-Mesenchymal Transformation in the Embryonic Heart. , 2005, , 40-55.		7
66	Adipose-derived human stem/stromal cells: comparative organ specific mitochondrial bioenergy profiles. SpringerPlus, 2016, 5, 2057.	1.2	6
67	Study of the Expression Transition of Cardiac Myosin Using Polarization-Dependent SHG Microscopy. Biophysical Journal, 2020, 118, 1058-1066.	0.2	6
68	Remodeling an infarcted heart: novel hybrid treatment with transmyocardial revascularization and stem cell therapy. SpringerPlus, 2016, 5, 738.	1.2	4
69	Remodeling Failing Human Myocardium With Hybrid Cell/Matrix and Transmyocardial Revascularization. ASAIO Journal, 2018, 64, e130-e133.	0.9	4
70	PROTEINS OF THE EMBRYONIC EXTRACELLULAR MATRIX: REGIONAL AND TEMPORAL CORRELATION WITH TISSUE INTERACTION IN THE HEART11Supported by NIH grant HL-19136 to R.R.M.. , 1982, , 153-157.		4
71	Cartilage Oligomeric Matrix Protein, COMP may be a Better Prognostic Marker Than CEACAM5 and Correlates With Colon Cancer Molecular Subtypes, Tumor Aggressiveness and Overall Survival. Journal of Surgical Research, 2022, 270, 169-177.	0.8	4
72	4D imaging of embryonic chick hearts by streak-mode Fourier domain optical coherence tomography. , 2012, , .		3

#	Article	IF	Citations
73	Letter to the Editor. Birth Defects Research, 2019, 111, 1234-1236.	0.8	3
74	Transfection of cells attached to selected cell based biosensor surfaces. Life Sciences, 2007, 80, 1395-1402.	2.0	2
75	Disassembly of myofibrils in adult cardiomyocytes during dedifferentiation. , 2013, , .		2
76	Improved metabolism and redox state with a novel preservation solution: implications for donor lungs after cardiac death (DCD). Pulmonary Circulation, 2017, 7, 494-504.	0.8	2
77	A dual therapy of off-pump temporary left ventricular extracorporeal device and amniotic stem cell for cardiogenic shock. Journal of Cardiothoracic Surgery, 2017, 12, 80.	0.4	2
78	Environmental Sensitivity to Trichloroethylene (TCE) in the Developing Heart. Molecular and Integrative Toxicology, 2014, , 153-169.	0.5	2
79	Indium Tin Oxide Electrodes for Cell-Based Biosensors. , 0, , .		1
80	Out of the Desert: The 4th TEMTIA Meeting on New Advances in Development, Fibrosis and Cancer. Cells Tissues Organs, 2011, 193, 4-7.	1.3	1
81	HNF4a transcription is a target of trichloroethylene toxicity in the embryonic mouse heart. Environmental Sciences: Processes and Impacts, 2020, 22, 824-832.	1.7	1
82	Transforming Growth Factor-Î² Signal Transduction in the Atrioventricular Canal During Heart Development. , 2001, , 201-219.		1
83	Formation of the Heart and Its Regulation. Cardiovascular Molecular Morphogenesis. Edited by RobertÂJÂ Tomanek and, RaymondÂBÂ Runyan; Foreword by, EdwardÂBÂ Clark. Boston (Massachusetts): BirkhÃuser. DM 320. xv + 276 p + 8 pl; ill.; index. ISBN: 0â€“8176â€“4216â€“1. 2001.. Quarterly Review of Biology, 2002, 77, 491-491.	0.0	0
84	Doppler streak mode Fourier domain optical coherence tomography. , 2012, , .		0
85	4D display of the outflow track of embryonic-chick hearts (HH 14-19) using a high speed streak mode OCT. , 2013, , .		0
86	Pre-Clinical Ex Vivo Human Recellularization of Acellular Porcine Hearts. Journal of the American College of Surgeons, 2017, 225, S202-S203.	0.2	0
87	Abstract 17277: Myocardial Rescue by Mesenchymal Stem Cell via Tunneling Nanotube Formation. Circulation, 2014, 130, .	1.6	0