Thomas A Rando

List of Publications by Year
in descending order

134 papers	27,851 citations	12330 69 h-index	13379 130 g-index
146 all docs	146 docs citations	146 times ranked	28896 citing authors

#	Article	IF	Citations
1	Meeting Report: Aging Research and Drug Discovery. Aging, 2022, 14, 530-543.	3.1	4
2	Tubastatin A maintains adult skeletal muscle stem cells in a quiescent state exÂvivo and improves their engraftment ability inÂvivo. Stem Cell Reports, 2022, 17, 82-95.	4.8	12
3	Comparative Effects of Basic Fibroblast Growth Factor Delivery or Voluntary Exercise on Muscle Regeneration after Volumetric Muscle Loss. Bioengineering, 2022, 9, 37.	3.5	7
4	Overexpression of thioredoxinâ€2 attenuates ageâ€related muscle loss by suppressing mitochondrial oxidative stress and apoptosis. JCSM Rapid Communications, 2022, 5, 130-145.	1.6	5
5	ATR activity controls stem cell quiescence via the cyclin Fâ€"SCF complex. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2115638119.	7.1	4
6	The Tabula Sapiens: A multiple-organ, single-cell transcriptomic atlas of humans. Science, 2022, 376, eabl4896.	12.6	289
7	Fasting induces a highly resilient deep quiescent state in muscle stem cells via ketone body signaling. Cell Metabolism, 2022, 34, 902-918.e6.	16.2	24
8	Asynchronous, contagious and digital aging. Nature Aging, 2021, 1, 29-35.	11.6	51
9	Computational modeling of malignant ascites reveals CCL5â€"SDC4 interaction in the immune microenvironment of ovarian cancer. Molecular Carcinogenesis, 2021, 60, 297-312.	2.7	15
10	Targeting microRNA-mediated gene repression limits adipogenic conversion of skeletal muscle mesenchymal stromal cells. Cell Stem Cell, 2021, 28, 1323-1334.e8.	11.1	30
11	Regeneration, Rejuvenation, and Replacement: Turning Back the Clock on Tissue Aging. Cold Spring Harbor Perspectives in Biology, 2021, 13, a040907.	5.5	24
12	Context-dependent modulation of aggressiveness of pediatric tumors by individual oncogenic RAS isoforms. Oncogene, 2021, 40, 4955-4966.	5.9	5
13	Electrical stimulation of human neural stem cells via conductive polymer nerve guides enhances peripheral nerve recovery. Biomaterials, 2021, 275, 120982.	11.4	39
14	Hairless regulates heterochromatin maintenance and muscle stem cell function as a histone demethylase antagonist. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	8
15	Cells, scaffolds, and bioactive factors: Engineering strategies for improving regeneration following volumetric muscle loss. Biomaterials, 2021, 278, 121173.	11.4	31
16	Exercise plasma boosts memory and dampens brain inflammation via clusterin. Nature, 2021, 600, 494-499.	27.8	156
17	Adult stem cells and regenerative medicineâ€"a symposium report. Annals of the New York Academy of Sciences, 2020, 1462, 27-36.	3.8	43
18	Angiotensin receptor blockade mimics the effect of exercise on recovery after orthopaedic trauma by decreasing pain and improving muscle regeneration. Journal of Physiology, 2020, 598, 317-329.	2.9	15

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19	Ageing hallmarks exhibit organ-specific temporal signatures. Nature, 2020, 583, 596-602.	27.8	317
20	Functional redundancy of type I and type II receptors in the regulation of skeletal muscle growth by myostatin and activin A. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30907-30917.	7.1	33
21	Transplantation of insulin-like growth factor-1 laden scaffolds combined with exercise promotes neuroregeneration and angiogenesis in a preclinical muscle injury model. Biomaterials Science, 2020, 8, 5376-5389.	5.4	16
22	Transient non-integrative expression of nuclear reprogramming factors promotes multifaceted amelioration of aging in human cells. Nature Communications, 2020, 11, 1545.	12.8	183
23	Taking the Next Steps in Regenerative Rehabilitation: Establishment of a New Interdisciplinary Field. Archives of Physical Medicine and Rehabilitation, 2020, 101, 917-923.	0.9	24
24	Exercise rejuvenates quiescent skeletal muscle stem cells in old mice through restoration of Cyclin D1. Nature Metabolism, 2020, 2, 307-317.	11.9	97
25	Stem cell therapy for muscular dystrophies. Journal of Clinical Investigation, 2020, 130, 5652-5664.	8.2	58
26	ARDD 2020: from aging mechanisms to interventions. Aging, 2020, 12, 24484-24503.	3.1	32
27	Alternative polyadenylation of Pax3 controls muscle stem cell fate and muscle function. Science, 2019, 366, 734-738.	12.6	53
28	Treatment of volumetric muscle loss in mice using nanofibrillar scaffolds enhances vascular organization and integration. Communications Biology, 2019, 2, 170.	4.4	64
29	Mesenchymal Stromal Cells Are Required for Regeneration and Homeostatic Maintenance of Skeletal Muscle. Cell Reports, 2019, 27, 2029-2035.e5.	6.4	235
30	mTORC1 underlies ageâ€related muscle fiber damage and loss by inducing oxidative stress and catabolism. Aging Cell, 2019, 18, e12943.	6.7	104
31	Stem Cell Quiescence: Dynamism, Restraint, and Cellular Idling. Cell Stem Cell, 2019, 24, 213-225.	11.1	220
32	Chronic inflammation in the etiology of disease across the life span. Nature Medicine, 2019, 25, 1822-1832.	30.7	2,195
33	Regenerative Rehabilitation: Applied Biophysics Meets Stem Cell Therapeutics. Cell Stem Cell, 2018, 22, 306-309.	11.1	65
34	Inhibition of Methyltransferase Setd7 Allows the InÂVitro Expansion of Myogenic Stem Cells with Improved Therapeutic Potential. Cell Stem Cell, 2018, 22, 177-190.e7.	11.1	54
35	Lysosome activation clears aggregates and enhances quiescent neural stem cell activation during aging. Science, 2018, 359, 1277-1283.	12.6	374
36	The regenerative rehabilitation collection: a forum for an emerging field. Npj Regenerative Medicine, 2018, 3, 20.	5.2	7

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37	Honey bee Royalactin unlocks conserved pluripotency pathway in mammals. Nature Communications, 2018, 9, 5078.	12.8	22
38	Rehabilitative exercise and spatially patterned nanofibrillar scaffolds enhance vascularization and innervation following volumetric muscle loss. Npj Regenerative Medicine, 2018, 3, 16.	5.2	47
39	Biomechanics show stem cell necessity for effective treatment of volumetric muscle loss using bioengineered constructs. Npj Regenerative Medicine, 2018, 3, 18.	5.2	24
40	Impaired Notch Signaling Leads to a Decrease in p53 Activity and Mitotic Catastrophe in Aged Muscle Stem Cells. Cell Stem Cell, 2018, 23, 544-556.e4.	11.1	107
41	Monitoring disease activity noninvasively in the <i>mdx</i> model of Duchenne muscular dystrophy. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 7741-7746.	7.1	5
42	A Muscle Stem Cell Support Group: Coordinated Cellular Responses in Muscle Regeneration. Developmental Cell, 2018, 46, 135-143.	7.0	249
43	Bioengineered Viral Platform for Intramuscular Passive Vaccine Delivery to Human Skeletal Muscle. Molecular Therapy - Methods and Clinical Development, 2018, 10, 144-155.	4.1	21
44	Interaction between epigenetic and metabolism in aging stem cells. Current Opinion in Cell Biology, 2017, 45, 1-7.	5.4	62
45	Fleeting factors, turning back time. Nature Biotechnology, 2017, 35, 218-220.	17.5	0
46	HGFA Is an Injury-Regulated Systemic Factor that Induces the Transition of Stem Cells into GAlert. Cell Reports, 2017, 19, 479-486.	6.4	117
47	Bioengineered constructs combined with exercise enhance stem cell-mediated treatment of volumetric muscle loss. Nature Communications, 2017, 8, 15613.	12.8	205
48	Aging of the skeletal muscle extracellular matrix drives a stem cell fibrogenic conversion. Aging Cell, 2017, 16, 518-528.	6.7	172
49	The protein tyrosine phosphatase 1B inhibitor MSI-1436 stimulates regeneration of heart and multiple other tissues. Npj Regenerative Medicine, 2017, 2, 4.	5.2	53
50	Deltex2 represses MyoD expression and inhibits myogenic differentiation by acting as a negative regulator of Jmjd1c. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E3071-E3080.	7.1	24
51	Staufen1 inhibits MyoD translation to actively maintain muscle stem cell quiescence. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E8996-E9005.	7.1	70
52	Macrophage-released ADAMTS1 promotes muscle stem cell activation. Nature Communications, 2017, 8, 669.	12.8	89
53	mTORC1 Activation during Repeated Regeneration Impairs Somatic Stem Cell Maintenance. Cell Stem Cell, 2017, 21, 806-818.e5.	11.1	87
54	Transcriptional Profiling of Quiescent Muscle Stem Cells InÂVivo. Cell Reports, 2017, 21, 1994-2004.	6.4	165

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55	Intronic polyadenylation of PDGFRÎ± in resident stem cells attenuates muscle fibrosis. Nature, 2016, 540, 276-279.	27.8	93
56	An artificial niche preserves the quiescence of muscle stem cells and enhances their therapeutic efficacy. Nature Biotechnology, 2016, 34, 752-759.	17.5	165
57	Stem cells and healthy aging. Science, 2015, 350, 1199-1204.	12.6	268
58	Synergizing Engineering and Biology to Treat and Model Skeletal Muscle Injury and Disease. Annual Review of Biomedical Engineering, 2015, 17, 217-242.	12.3	43
59	Mimicking the niche: cytokines expand muscle stem cells. Cell Research, 2015, 25, 761-762.	12.0	7
60	Isolation of skeletal muscle stem cells by fluorescence-activated cell sorting. Nature Protocols, 2015, 10, 1612-1624.	12.0	290
61	ExÂVivo Expansion and InÂVivo Self-Renewal of Human Muscle Stem Cells. Stem Cell Reports, 2015, 5, 621-632.	4.8	168
62	The JAK-STAT Pathway Is Critical in Ventilator-Induced Diaphragm Dysfunction. Molecular Medicine, 2014, 20, 579-589.	4.4	34
63	Lineage of origin in rhabdomyosarcoma informs pharmacological response. Genes and Development, 2014, 28, 1578-1591.	5.9	87
64	A Wnt-TGFÎ²2 axis induces a fibrogenic program in muscle stem cells from dystrophic mice. Science Translational Medicine, 2014, 6, 267ra176.	12.4	112
65	mTORC1 controls the adaptive transition of quiescent stem cells from G0 to GAlert. Nature, 2014, 510, 393-396.	27.8	599
66	Geroscience: Linking Aging to Chronic Disease. Cell, 2014, 159, 709-713.	28.9	1,709
67	Of fish and men. Nature Chemical Biology, 2014, 10, 91-92.	8.0	2
68	Alive and well? Exploring disease by studying lifespan. Current Opinion in Genetics and Development, 2014, 26, 33-40.	3.3	11
69	Induction of autophagy supports the bioenergetic demands of quiescent muscle stem cell activation. EMBO Journal, 2014, 33, 2782-2797.	7.8	235
70	H3K4me3 Breadth Is Linked to Cell Identity and Transcriptional Consistency. Cell, 2014, 158, 673-688.	28.9	404
71	Translational strategies and challenges in regenerative medicine. Nature Medicine, 2014, 20, 814-821.	30.7	166
72	FOXO3 Promotes Quiescence in Adult Muscle Stem Cells during the Process of Self-Renewal. Stem Cell Reports, 2014, 2, 414-426.	4.8	156

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73	Stem Cells as Vehicles for Youthful Regeneration of Aged Tissues. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2014, 69, S39-S42.	3.6	32
74	Heterochronic parabiosis: historical perspective and methodological considerations for studies of aging and longevity. Aging Cell, 2013, 12, 525-530.	6.7	198
75	A Sexy Spin on Nonrandom Chromosome Segregation. Cell Stem Cell, 2013, 12, 641-643.	11.1	0
76	Myf5 expression during fetal myogenesis defines the developmental progenitors of adult satellite cells. Developmental Biology, 2013, 379, 195-207.	2.0	64
77	FOXO3 Shares Common Targets with ASCL1 Genome-wide and Inhibits ASCL1-Dependent Neurogenesis. Cell Reports, 2013, 4, 477-491.	6.4	139
78	The Ins and Outs of Aging and Longevity. Annual Review of Physiology, 2013, 75, 617-619.	13.1	6
79	Molecular regulation of stem cell quiescence. Nature Reviews Molecular Cell Biology, 2013, 14, 329-340.	37.0	912
80	Type 2 Innate Signals Stimulate Fibro/Adipogenic Progenitors to Facilitate Muscle Regeneration. Cell, 2013, 153, 376-388.	28.9	676
81	The mortal strand hypothesis: Non-random chromosome inheritance and the biased segregation of damaged DNA. Seminars in Cell and Developmental Biology, 2013, 24, 653-660.	5.0	16
82	Chromatin Modifications as Determinants of Muscle Stem Cell Quiescence and Chronological Aging. Cell Reports, 2013, 4, 189-204.	6.4	463
83	Collagen VI regulates satellite cell self-renewal and muscle regeneration. Nature Communications, 2013, 4, 1964.	12.8	383
84	Assessment of disease activity in muscular dystrophies by noninvasive imaging. Journal of Clinical Investigation, 2013, 123, 2298-2305.	8.2	14
85	Alternative Polyadenylation Mediates MicroRNA Regulation of Muscle Stem Cell Function. Cell Stem Cell, 2012, 10, 327-336.	11.1	133
86	Tissue-Specific Stem Cells: Lessons from the Skeletal Muscle Satellite Cell. Cell Stem Cell, 2012, 10, 504-514.	11.1	374
87	Aging, Rejuvenation, and Epigenetic Reprogramming: Resetting the Aging Clock. Cell, 2012, 148, 46-57.	28.9	460
88	Maintenance of muscle stem-cell quiescence by microRNA-489. Nature, 2012, 482, 524-528.	27.8	393
89	Notch Signaling Is Necessary to Maintain Quiescence in Adult Muscle Stem Cells. Stem Cells, 2012, 30, 232-242.	3.2	447
90	The place of genetics in ageing research. Nature Reviews Genetics, 2012, 13, 589-594.	16.3	43

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91	Heterochronic parabiosis for the study of the effects of aging on stem cells and their niches. Cell Cycle, 2012, 11, 2260-2267.	2.6	198
92	Manifestations and mechanisms of stem cell aging. Journal of Cell Biology, 2011, 193, 257-266.	5.2	281
93	The ageing systemic milieu negatively regulates neurogenesis and cognitive function. Nature, 2011, 477, 90-94.	27.8	1,453
94	Aging of Stem Cells. , 2011, , 141-161.		2
95	Emerging models and paradigms for stem cell ageing. Nature Cell Biology, 2011, 13, 506-512.	10.3	240
96	Stem cell ageing and non-random chromosome segregation. Philosophical Transactions of the Royal Society B: Biological Sciences, 2011, 366, 85-93.	4.0	38
97	Taf1 Regulates Pax3 Protein by Monoubiquitination in Skeletal Muscle Progenitors. Molecular Cell, 2010, 40, 749-761.	9.7	36
98	Heterogeneity in the muscle satellite cell population. Seminars in Cell and Developmental Biology, 2010, 21, 845-854.	5.0	138
99	Focal Adhesion Kinase Signaling Regulates the Expression of Caveolin 3 and Î²1 Integrin, Genes Essential for Normal Myoblast Fusion. Molecular Biology of the Cell, 2009, 20, 3422-3435.	2.1	114
100	Biomarker system for studying muscle, stem cells, and cancer <i>in vivo</i>. FASEB Journal, 2009, 23, 2681-2690.	0.5	125
101	Enhanced gene repair mediated by methyl-CpG-modified single-stranded oligonucleotides. Nucleic Acids Research, 2009, 37, 7468-7482.	14.5	27
102	BCL9 is an essential component of canonical Wnt signaling that mediates the differentiation of myogenic progenitors during muscle regeneration. Developmental Biology, 2009, 335, 93-105.	2.0	97
103	Stem Cell Review Series: Aging of the skeletal muscle stem cell niche. Aging Cell, 2008, 7, 590-598.	6.7	237
104	Tissue ageing: Do insights into molecular mechanisms of ageing lead to new therapeutic strategies?. Experimental Gerontology, 2008, 43, 603-604.	2.8	1
105	A Temporal Switch from Notch to Wnt Signaling in Muscle Stem Cells Is Necessary for Normal Adult Myogenesis. Cell Stem Cell, 2008, 2, 50-59.	11.1	546
106	Turning Back Time: Reversing Tissue Pathology to Enhance Stem Cell Engraftment. Cell Stem Cell, 2008, 3, 232-234.	11.1	2
107	Age-Dependent Changes in Skeletal MuscleRegeneration. , 2008, , 359-374.		5
108	High Incidence of Non-Random Template Strand Segregation and Asymmetric Fate Determination In Dividing Stem Cells and their Progeny. PLoS Biology, 2007, 5, e102.	5.6	232

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109	Non-viral gene therapy for Duchenne muscular dystrophy: Progress and challenges. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2007, 1772, 263-271.	3.8	24
110	Regulation of Pax3 by Proteasomal Degradation of Monoubiquitinated Protein in Skeletal Muscle Progenitors. Cell, 2007, 130, 349-362.	28.9	160
111	The Immortal Strand Hypothesis: Segregation and Reconstruction. Cell, 2007, 129, 1239-1243.	28.9	153
112	Increased Wnt Signaling During Aging Alters Muscle Stem Cell Fate and Increases Fibrosis. Science, 2007, 317, 807-810.	12.6	1,321
113	From stem to stern. Nature, 2007, 449, 288-291.	27.8	39
114	Intrinsic Changes and Extrinsic Influences of Myogenic Stem Cell Function During Aging. Stem Cell Reviews and Reports, 2007, 3, 226-237.	5.6	196
115	Focal adhesion kinase is essential for costamerogenesis in cultured skeletal muscle cells. Developmental Biology, 2006, 293, 38-52.	2.0	88
116	Stem cells, ageing and the quest for immortality. Nature, 2006, 441, 1080-1086.	27.8	642
117	The adult muscle stem cell comes of age. Nature Medicine, 2005, 11, 829-831.	30.7	13
118	Rejuvenation of aged progenitor cells by exposure to a young systemic environment. Nature, 2005, 433, 760-764.	27.8	1,926
119	Stem cells in postnatal myogenesis: molecular mechanisms of satellite cell quiescence, activation and replenishment. Trends in Cell Biology, 2005, 15, 666-673.	7.9	396
120	Aging, Stem Cells and Tissue Regeneration: Lessons from Muscle. Cell Cycle, 2005, 4, 407-410.	2.6	267
121	Artificial Sweeteners â€" Enhancing Glycosylation to Treat Muscular Dystrophies. New England Journal of Medicine, 2004, 351, 1254-1256.	27.0	4
122	Isolation of Adult Mouse Myogenic Progenitors. Cell, 2004, 119, 543-554.	28.9	446
123	Notch-Mediated Restoration of Regenerative Potential to Aged Muscle. Science, 2003, 302, 1575-1577.	12.6	964
124	Oxidative Stress and the Pathogenesis of Muscular Dystrophies. American Journal of Physical Medicine and Rehabilitation, 2002, 81, S175-S186.	1.4	111
125	The Regulation of Notch Signaling Controls Satellite Cell Activation and Cell Fate Determination in Postnatal Myogenesis. Developmental Cell, 2002, 3, 397-409.	7.0	779
126	Oligonucleotide-mediated gene therapy for muscular dystrophies. Neuromuscular Disorders, 2002, 12, S55-S60.	0.6	14

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127	The dystrophinâ€“glycoprotein complex, cellular signaling, and the regulation of cell survival in the muscular dystrophies. Muscle and Nerve, 2001, 24, 1575-1594.	2.2	330
128	Role of nitric oxide in the pathogenesis of muscular dystrophies: A ?two hit? hypothesis of the cause of muscle necrosis. Microscopy Research and Technique, 2001, 55, 223-235.	2.2	114
129	Dystrophin mutations predict cellular susceptibility to oxidative stress. , 2000, 23, 784-792.		59
130	Copper/zinc superoxide dismutase: More is not necessarily better!. Annals of Neurology, 1999, 46, 135-136.	5.3	14
131	Overexpression of copper/zinc superoxide dismutase: A novel cause of murine muscular dystrophy. Annals of Neurology, 1998, 44, 381-386.	5.3	54
132	Heterogeneity among muscle precursor cells in adult skeletal muscles with differing regenerative capacities. Developmental Dynamics, 1998, 212, 495-508.	1.8	157
133	Heterogeneity among muscle precursor cells in adult skeletal muscles with differing regenerative capacities. Developmental Dynamics, 1998, 212, 495-508.	1.8	5
134	RNA-binding proteins direct myogenic cell fate decisions. ELife, 0, 11, .	6.0	7