

# Thomas A Rando

## List of Publications by Year in descending order

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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	Chronic inflammation in the etiology of disease across the life span. <i>Nature Medicine</i> , 2019, 25, 1822-1832.	30.7	2,195
2	Rejuvenation of aged progenitor cells by exposure to a young systemic environment. <i>Nature</i> , 2005, 433, 760-764.	27.8	1,926
3	Geroscience: Linking Aging to Chronic Disease. <i>Cell</i> , 2014, 159, 709-713.	28.9	1,709
4	The ageing systemic milieu negatively regulates neurogenesis and cognitive function. <i>Nature</i> , 2011, 477, 90-94.	27.8	1,453
5	Increased Wnt Signaling During Aging Alters Muscle Stem Cell Fate and Increases Fibrosis. <i>Science</i> , 2007, 317, 807-810.	12.6	1,321
6	Notch-Mediated Restoration of Regenerative Potential to Aged Muscle. <i>Science</i> , 2003, 302, 1575-1577.	12.6	964
7	Molecular regulation of stem cell quiescence. <i>Nature Reviews Molecular Cell Biology</i> , 2013, 14, 329-340.	37.0	912
8	The Regulation of Notch Signaling Controls Satellite Cell Activation and Cell Fate Determination in Postnatal Myogenesis. <i>Developmental Cell</i> , 2002, 3, 397-409.	7.0	779
9	Type 2 Innate Signals Stimulate Fibro/Adipogenic Progenitors to Facilitate Muscle Regeneration. <i>Cell</i> , 2013, 153, 376-388.	28.9	676
10	Stem cells, ageing and the quest for immortality. <i>Nature</i> , 2006, 441, 1080-1086.	27.8	642
11	mTORC1 controls the adaptive transition of quiescent stem cells from G0 to GAlert. <i>Nature</i> , 2014, 510, 393-396.	27.8	599
12	A Temporal Switch from Notch to Wnt Signaling in Muscle Stem Cells Is Necessary for Normal Adult Myogenesis. <i>Cell Stem Cell</i> , 2008, 2, 50-59.	11.1	546
13	Chromatin Modifications as Determinants of Muscle Stem Cell Quiescence and Chronological Aging. <i>Cell Reports</i> , 2013, 4, 189-204.	6.4	463
14	Aging, Rejuvenation, and Epigenetic Reprogramming: Resetting the Aging Clock. <i>Cell</i> , 2012, 148, 46-57.	28.9	460
15	Notch Signaling Is Necessary to Maintain Quiescence in Adult Muscle Stem Cells. <i>Stem Cells</i> , 2012, 30, 232-242.	3.2	447
16	Isolation of Adult Mouse Myogenic Progenitors. <i>Cell</i> , 2004, 119, 543-554.	28.9	446
17	H3K4me3 Breadth Is Linked to Cell Identity and Transcriptional Consistency. <i>Cell</i> , 2014, 158, 673-688.	28.9	404
18	Stem cells in postnatal myogenesis: molecular mechanisms of satellite cell quiescence, activation and replenishment. <i>Trends in Cell Biology</i> , 2005, 15, 666-673.	7.9	396

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19	Maintenance of muscle stem-cell quiescence by microRNA-489. <i>Nature</i> , 2012, 482, 524-528.	27.8	393
20	Collagen VI regulates satellite cell self-renewal and muscle regeneration. <i>Nature Communications</i> , 2013, 4, 1964.	12.8	383
21	Tissue-Specific Stem Cells: Lessons from the Skeletal Muscle Satellite Cell. <i>Cell Stem Cell</i> , 2012, 10, 504-514.	11.1	374
22	Lysosome activation clears aggregates and enhances quiescent neural stem cell activation during aging. <i>Science</i> , 2018, 359, 1277-1283.	12.6	374
23	The dystrophin-glycoprotein complex, cellular signaling, and the regulation of cell survival in the muscular dystrophies. <i>Muscle and Nerve</i> , 2001, 24, 1575-1594.	2.2	330
24	Ageing hallmarks exhibit organ-specific temporal signatures. <i>Nature</i> , 2020, 583, 596-602.	27.8	317
25	Isolation of skeletal muscle stem cells by fluorescence-activated cell sorting. <i>Nature Protocols</i> , 2015, 10, 1612-1624.	12.0	290
26	The Tabula Sapiens: A multiple-organ, single-cell transcriptomic atlas of humans. <i>Science</i> , 2022, 376, eabl4896.	12.6	289
27	Manifestations and mechanisms of stem cell aging. <i>Journal of Cell Biology</i> , 2011, 193, 257-266.	5.2	281
28	Stem cells and healthy aging. <i>Science</i> , 2015, 350, 1199-1204.	12.6	268
29	Aging, Stem Cells and Tissue Regeneration: Lessons from Muscle. <i>Cell Cycle</i> , 2005, 4, 407-410.	2.6	267
30	A Muscle Stem Cell Support Group: Coordinated Cellular Responses in Muscle Regeneration. <i>Developmental Cell</i> , 2018, 46, 135-143.	7.0	249
31	Emerging models and paradigms for stem cell ageing. <i>Nature Cell Biology</i> , 2011, 13, 506-512.	10.3	240
32	Stem Cell Review Series: Aging of the skeletal muscle stem cell niche. <i>Aging Cell</i> , 2008, 7, 590-598.	6.7	237
33	Induction of autophagy supports the bioenergetic demands of quiescent muscle stem cell activation. <i>EMBO Journal</i> , 2014, 33, 2782-2797.	7.8	235
34	Mesenchymal Stromal Cells Are Required for Regeneration and Homeostatic Maintenance of Skeletal Muscle. <i>Cell Reports</i> , 2019, 27, 2029-2035.e5.	6.4	235
35	High Incidence of Non-Random Template Strand Segregation and Asymmetric Fate Determination In Dividing Stem Cells and their Progeny. <i>PLoS Biology</i> , 2007, 5, e102.	5.6	232
36	Stem Cell Quiescence: Dynamism, Restraint, and Cellular Idling. <i>Cell Stem Cell</i> , 2019, 24, 213-225.	11.1	220

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37	Bioengineered constructs combined with exercise enhance stem cell-mediated treatment of volumetric muscle loss. <i>Nature Communications</i> , 2017, 8, 15613.	12.8	205
38	Heterochronic parabiosis for the study of the effects of aging on stem cells and their niches. <i>Cell Cycle</i> , 2012, 11, 2260-2267.	2.6	198
39	Heterochronic parabiosis: historical perspective and methodological considerations for studies of aging and longevity. <i>Aging Cell</i> , 2013, 12, 525-530.	6.7	198
40	Intrinsic Changes and Extrinsic Influences of Myogenic Stem Cell Function During Aging. <i>Stem Cell Reviews and Reports</i> , 2007, 3, 226-237.	5.6	196
41	Transient non-integrative expression of nuclear reprogramming factors promotes multifaceted amelioration of aging in human cells. <i>Nature Communications</i> , 2020, 11, 1545.	12.8	183
42	Aging of the skeletal muscle extracellular matrix drives a stem cell fibrogenic conversion. <i>Aging Cell</i> , 2017, 16, 518-528.	6.7	172
43	Ex Vivo Expansion and In Vivo Self-Renewal of Human Muscle Stem Cells. <i>Stem Cell Reports</i> , 2015, 5, 621-632.	4.8	168
44	Translational strategies and challenges in regenerative medicine. <i>Nature Medicine</i> , 2014, 20, 814-821.	30.7	166
45	An artificial niche preserves the quiescence of muscle stem cells and enhances their therapeutic efficacy. <i>Nature Biotechnology</i> , 2016, 34, 752-759.	17.5	165
46	Transcriptional Profiling of Quiescent Muscle Stem Cells In Vivo. <i>Cell Reports</i> , 2017, 21, 1994-2004.	6.4	165
47	Regulation of Pax3 by Proteasomal Degradation of Monoubiquitinated Protein in Skeletal Muscle Progenitors. <i>Cell</i> , 2007, 130, 349-362.	28.9	160
48	Heterogeneity among muscle precursor cells in adult skeletal muscles with differing regenerative capacities. <i>Developmental Dynamics</i> , 1998, 212, 495-508.	1.8	157
49	FOXO3 Promotes Quiescence in Adult Muscle Stem Cells during the Process of Self-Renewal. <i>Stem Cell Reports</i> , 2014, 2, 414-426.	4.8	156
50	Exercise plasma boosts memory and dampens brain inflammation via clusterin. <i>Nature</i> , 2021, 600, 494-499.	27.8	156
51	The Immortal Strand Hypothesis: Segregation and Reconstruction. <i>Cell</i> , 2007, 129, 1239-1243.	28.9	153
52	FOXO3 Shares Common Targets with ASCL1 Genome-wide and Inhibits ASCL1-Dependent Neurogenesis. <i>Cell Reports</i> , 2013, 4, 477-491.	6.4	139
53	Heterogeneity in the muscle satellite cell population. <i>Seminars in Cell and Developmental Biology</i> , 2010, 21, 845-854.	5.0	138
54	Alternative Polyadenylation Mediates MicroRNA Regulation of Muscle Stem Cell Function. <i>Cell Stem Cell</i> , 2012, 10, 327-336.	11.1	133

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55	Biomarker system for studying muscle, stem cells, and cancer <i>in vivo</i> . <i>FASEB Journal</i> , 2009, 23, 2681-2690.	0.5	125
56	HGFA Is an Injury-Regulated Systemic Factor that Induces the Transition of Stem Cells into GALert. <i>Cell Reports</i> , 2017, 19, 479-486.	6.4	117
57	Role of nitric oxide in the pathogenesis of muscular dystrophies: A "two hit" hypothesis of the cause of muscle necrosis. <i>Microscopy Research and Technique</i> , 2001, 55, 223-235.	2.2	114
58	Focal Adhesion Kinase Signaling Regulates the Expression of Caveolin 3 and $\beta$ 1 Integrin, Genes Essential for Normal Myoblast Fusion. <i>Molecular Biology of the Cell</i> , 2009, 20, 3422-3435.	2.1	114
59	A Wnt-TGF $\beta$ 2 axis induces a fibrogenic program in muscle stem cells from dystrophic mice. <i>Science Translational Medicine</i> , 2014, 6, 267ra176.	12.4	112
60	Oxidative Stress and the Pathogenesis of Muscular Dystrophies. <i>American Journal of Physical Medicine and Rehabilitation</i> , 2002, 81, S175-S186.	1.4	111
61	Impaired Notch Signaling Leads to a Decrease in p53 Activity and Mitotic Catastrophe in Aged Muscle Stem Cells. <i>Cell Stem Cell</i> , 2018, 23, 544-556.e4.	11.1	107
62	mTORC1 underlies age-related muscle fiber damage and loss by inducing oxidative stress and catabolism. <i>Aging Cell</i> , 2019, 18, e12943.	6.7	104
63	BCL9 is an essential component of canonical Wnt signaling that mediates the differentiation of myogenic progenitors during muscle regeneration. <i>Developmental Biology</i> , 2009, 335, 93-105.	2.0	97
64	Exercise rejuvenates quiescent skeletal muscle stem cells in old mice through restoration of Cyclin D1. <i>Nature Metabolism</i> , 2020, 2, 307-317.	11.9	97
65	Intronic polyadenylation of PDGFR $\alpha$ in resident stem cells attenuates muscle fibrosis. <i>Nature</i> , 2016, 540, 276-279.	27.8	93
66	Macrophage-released ADAMTS1 promotes muscle stem cell activation. <i>Nature Communications</i> , 2017, 8, 669.	12.8	89
67	Focal adhesion kinase is essential for costamereogenesis in cultured skeletal muscle cells. <i>Developmental Biology</i> , 2006, 293, 38-52.	2.0	88
68	Lineage of origin in rhabdomyosarcoma informs pharmacological response. <i>Genes and Development</i> , 2014, 28, 1578-1591.	5.9	87
69	mTORC1 Activation during Repeated Regeneration Impairs Somatic Stem Cell Maintenance. <i>Cell Stem Cell</i> , 2017, 21, 806-818.e5.	11.1	87
70	Staufen1 inhibits MyoD translation to actively maintain muscle stem cell quiescence. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E8996-E9005.	7.1	70
71	Regenerative Rehabilitation: Applied Biophysics Meets Stem Cell Therapeutics. <i>Cell Stem Cell</i> , 2018, 22, 306-309.	11.1	65
72	Myf5 expression during fetal myogenesis defines the developmental progenitors of adult satellite cells. <i>Developmental Biology</i> , 2013, 379, 195-207.	2.0	64

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73	Treatment of volumetric muscle loss in mice using nanofibrillar scaffolds enhances vascular organization and integration. <i>Communications Biology</i> , 2019, 2, 170.	4.4	64
74	Interaction between epigenetic and metabolism in aging stem cells. <i>Current Opinion in Cell Biology</i> , 2017, 45, 1-7.	5.4	62
75	Dystrophin mutations predict cellular susceptibility to oxidative stress. , 2000, 23, 784-792.		59
76	Stem cell therapy for muscular dystrophies. <i>Journal of Clinical Investigation</i> , 2020, 130, 5652-5664.	8.2	58
77	Overexpression of copper/zinc superoxide dismutase: A novel cause of murine muscular dystrophy. <i>Annals of Neurology</i> , 1998, 44, 381-386.	5.3	54
78	Inhibition of Methyltransferase Setd7 Allows the InÂVitro Expansion of Myogenic Stem Cells with Improved Therapeutic Potential. <i>Cell Stem Cell</i> , 2018, 22, 177-190.e7.	11.1	54
79	The protein tyrosine phosphatase 1B inhibitor MSI-1436 stimulates regeneration of heart and multiple other tissues. <i>Npj Regenerative Medicine</i> , 2017, 2, 4.	5.2	53
80	Alternative polyadenylation of Pax3 controls muscle stem cell fate and muscle function. <i>Science</i> , 2019, 366, 734-738.	12.6	53
81	Asynchronous, contagious and digital aging. <i>Nature Aging</i> , 2021, 1, 29-35.	11.6	51
82	Rehabilitative exercise and spatially patterned nanofibrillar scaffolds enhance vascularization and innervation following volumetric muscle loss. <i>Npj Regenerative Medicine</i> , 2018, 3, 16.	5.2	47
83	The place of genetics in ageing research. <i>Nature Reviews Genetics</i> , 2012, 13, 589-594.	16.3	43
84	Synergizing Engineering and Biology to Treat and Model Skeletal Muscle Injury and Disease. <i>Annual Review of Biomedical Engineering</i> , 2015, 17, 217-242.	12.3	43
85	Adult stem cells and regenerative medicineâ€”a symposium report. <i>Annals of the New York Academy of Sciences</i> , 2020, 1462, 27-36.	3.8	43
86	From stem to stern. <i>Nature</i> , 2007, 449, 288-291.	27.8	39
87	Electrical stimulation of human neural stem cells via conductive polymer nerve guides enhances peripheral nerve recovery. <i>Biomaterials</i> , 2021, 275, 120982.	11.4	39
88	Stem cell ageing and non-random chromosome segregation. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2011, 366, 85-93.	4.0	38
89	Taf1 Regulates Pax3 Protein by Monoubiquitination in Skeletal Muscle Progenitors. <i>Molecular Cell</i> , 2010, 40, 749-761.	9.7	36
90	The JAK-STAT Pathway Is Critical in Ventilator-Induced Diaphragm Dysfunction. <i>Molecular Medicine</i> , 2014, 20, 579-589.	4.4	34

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91	Functional redundancy of type I and type II receptors in the regulation of skeletal muscle growth by myostatin and activin A. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 30907-30917.	7.1	33
92	Stem Cells as Vehicles for Youthful Regeneration of Aged Tissues. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2014, 69, S39-S42.	3.6	32
93	ARDD 2020: from aging mechanisms to interventions. <i>Aging</i> , 2020, 12, 24484-24503.	3.1	32
94	Cells, scaffolds, and bioactive factors: Engineering strategies for improving regeneration following volumetric muscle loss. <i>Biomaterials</i> , 2021, 278, 121173.	11.4	31
95	Targeting microRNA-mediated gene repression limits adipogenic conversion of skeletal muscle mesenchymal stromal cells. <i>Cell Stem Cell</i> , 2021, 28, 1323-1334.e8.	11.1	30
96	Enhanced gene repair mediated by methyl-CpG-modified single-stranded oligonucleotides. <i>Nucleic Acids Research</i> , 2009, 37, 7468-7482.	14.5	27
97	Non-viral gene therapy for Duchenne muscular dystrophy: Progress and challenges. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2007, 1772, 263-271.	3.8	24
98	Deltex2 represses MyoD expression and inhibits myogenic differentiation by acting as a negative regulator of Jmjd1c. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E3071-E3080.	7.1	24
99	Biomechanics show stem cell necessity for effective treatment of volumetric muscle loss using bioengineered constructs. <i>Npj Regenerative Medicine</i> , 2018, 3, 18.	5.2	24
100	Taking the Next Steps in Regenerative Rehabilitation: Establishment of a New Interdisciplinary Field. <i>Archives of Physical Medicine and Rehabilitation</i> , 2020, 101, 917-923.	0.9	24
101	Regeneration, Rejuvenation, and Replacement: Turning Back the Clock on Tissue Aging. <i>Cold Spring Harbor Perspectives in Biology</i> , 2021, 13, a040907.	5.5	24
102	Fasting induces a highly resilient deep quiescent state in muscle stem cells via ketone body signaling. <i>Cell Metabolism</i> , 2022, 34, 902-918.e6.	16.2	24
103	Honey bee Royalactin unlocks conserved pluripotency pathway in mammals. <i>Nature Communications</i> , 2018, 9, 5078.	12.8	22
104	Bioengineered Viral Platform for Intramuscular Passive Vaccine Delivery to Human Skeletal Muscle. <i>Molecular Therapy - Methods and Clinical Development</i> , 2018, 10, 144-155.	4.1	21
105	The mortal strand hypothesis: Non-random chromosome inheritance and the biased segregation of damaged DNA. <i>Seminars in Cell and Developmental Biology</i> , 2013, 24, 653-660.	5.0	16
106	Transplantation of insulin-like growth factor-1 laden scaffolds combined with exercise promotes neuroregeneration and angiogenesis in a preclinical muscle injury model. <i>Biomaterials Science</i> , 2020, 8, 5376-5389.	5.4	16
107	Angiotensin receptor blockade mimics the effect of exercise on recovery after orthopaedic trauma by decreasing pain and improving muscle regeneration. <i>Journal of Physiology</i> , 2020, 598, 317-329.	2.9	15
108	Computational modeling of malignant ascites reveals CCL5-SDC4 interaction in the immune microenvironment of ovarian cancer. <i>Molecular Carcinogenesis</i> , 2021, 60, 297-312.	2.7	15

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109	Copper/zinc superoxide dismutase: More is not necessarily better!. <i>Annals of Neurology</i> , 1999, 46, 135-136.	5.3	14
110	Oligonucleotide-mediated gene therapy for muscular dystrophies. <i>Neuromuscular Disorders</i> , 2002, 12, S55-S60.	0.6	14
111	Assessment of disease activity in muscular dystrophies by noninvasive imaging. <i>Journal of Clinical Investigation</i> , 2013, 123, 2298-2305.	8.2	14
112	The adult muscle stem cell comes of age. <i>Nature Medicine</i> , 2005, 11, 829-831.	30.7	13
113	Tubastatin A maintains adult skeletal muscle stem cells in a quiescent state <i>ex vivo</i> and improves their engraftment ability <i>in vivo</i> . <i>Stem Cell Reports</i> , 2022, 17, 82-95.	4.8	12
114	Alive and well? Exploring disease by studying lifespan. <i>Current Opinion in Genetics and Development</i> , 2014, 26, 33-40.	3.3	11
115	Hairless regulates heterochromatin maintenance and muscle stem cell function as a histone demethylase antagonist. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	8
116	Mimicking the niche: cytokines expand muscle stem cells. <i>Cell Research</i> , 2015, 25, 761-762.	12.0	7
117	The regenerative rehabilitation collection: a forum for an emerging field. <i>Npj Regenerative Medicine</i> , 2018, 3, 20.	5.2	7
118	Comparative Effects of Basic Fibroblast Growth Factor Delivery or Voluntary Exercise on Muscle Regeneration after Volumetric Muscle Loss. <i>Bioengineering</i> , 2022, 9, 37.	3.5	7
119	RNA-binding proteins direct myogenic cell fate decisions. <i>ELife</i> , 0, 11, .	6.0	7
120	The Ins and Outs of Aging and Longevity. <i>Annual Review of Physiology</i> , 2013, 75, 617-619.	13.1	6
121	Monitoring disease activity noninvasively in the <i>mdx</i> model of Duchenne muscular dystrophy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 7741-7746.	7.1	5
122	Context-dependent modulation of aggressiveness of pediatric tumors by individual oncogenic RAS isoforms. <i>Oncogene</i> , 2021, 40, 4955-4966.	5.9	5
123	Heterogeneity among muscle precursor cells in adult skeletal muscles with differing regenerative capacities. <i>Developmental Dynamics</i> , 1998, 212, 495-508.	1.8	5
124	Age-Dependent Changes in Skeletal Muscle Regeneration. , 2008, , 359-374.		5
125	Overexpression of thioredoxin $\epsilon$ 2 attenuates age-related muscle loss by suppressing mitochondrial oxidative stress and apoptosis. <i>JCSM Rapid Communications</i> , 2022, 5, 130-145.	1.6	5
126	Artificial Sweeteners " Enhancing Glycosylation to Treat Muscular Dystrophies. <i>New England Journal of Medicine</i> , 2004, 351, 1254-1256.	27.0	4



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127	Meeting Report: Aging Research and Drug Discovery. <i>Aging</i> , 2022, 14, 530-543.	3.1	4
128	ATR activity controls stem cell quiescence via the cyclin Fâ€“SCF complex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2115638119.	7.1	4
129	Turning Back Time: Reversing Tissue Pathology to Enhance Stem Cell Engraftment. <i>Cell Stem Cell</i> , 2008, 3, 232-234.	11.1	2
130	Aging of Stem Cells. , 2011, , 141-161.		2
131	Of fish and men. <i>Nature Chemical Biology</i> , 2014, 10, 91-92.	8.0	2
132	Tissue ageing: Do insights into molecular mechanisms of ageing lead to new therapeutic strategies?. <i>Experimental Gerontology</i> , 2008, 43, 603-604.	2.8	1
133	A Sexy Spin on Nonrandom Chromosome Segregation. <i>Cell Stem Cell</i> , 2013, 12, 641-643.	11.1	0
134	Fleeting factors, turning back time. <i>Nature Biotechnology</i> , 2017, 35, 218-220.	17.5	0