Cheng-Ming Chuong

List of Publications by Year
in descending order

132 papers	7,770 citations	44069 48 h-index	56724 83 g-index
133 all docs	133 docs citations	133 times ranked	5629 citing authors

#	Article	IF	Citations
1	Regional specific differentiation of integumentary organs: <scp>SATB2</scp> is involved in Î±â€•and Î²â€•keratin gene cluster switching in the chicken. Developmental Dynamics, 2022, 251, 1490-1508.	1.8	4
2	Defining Wound Healing Progression in Cetacean Skin: Characteristics of Full-Thickness Wound Healing in Fraserâ€™s Dolphins (Lagenodelphis hosei). Animals, 2022, 12, 537.	2.3	5
3	Evo-Devo of Scales, Feathers, and Hairs. , 2021, , 921-937.		0
4	Tissue Mechanics in Haired Murine Skin: Potential Implications for Skin Aging. Frontiers in Cell and Developmental Biology, 2021, 9, 635340.	3.7	11
5	Symmetry breaking of tissue mechanics in wound induced hair follicle regeneration of laboratory and spiny mice. Nature Communications, 2021, 12, 2595.	12.8	40
6	The feather pattern <i>autosomal barring</i> in chicken is strongly associated with segregation at the <i>MC1R</i> locus. Pigment Cell and Melanoma Research, 2021, 34, 1015-1028.	3.3	6
7	The global regulatory logic of organ regeneration: circuitry lessons from skin and its appendages. Biological Reviews, 2021, 96, 2573-2583.	10.4	4
8	Global feather orientations changed by electric current. IScience, 2021, 24, 102671.	4.1	4
9	Regional Specific Differentiation of Integumentary Organs: Regulation of Gene Clusters within the Avian Epidermal Differentiation Complex and Impacts of SATB2 Overexpression. Genes, 2021, 12, 1291.	2.4	4
10	Cyclic growth of dermal papilla and regeneration of follicular mesenchymal components during feather cycling. Development (Cambridge), 2021, 148, .	2.5	10
11	Making region-specific integumentary organs in birds: evolution and modifications. Current Opinion in Genetics and Development, 2021, 69, 103-111.	3.3	6
12	A quantitative image-based protocol for morphological characterization of cellular solids in feather shafts. STAR Protocols, 2021, 2, 100661.	1.2	1
13	The crest phenotype in domestic chicken is caused by a 195 bp duplication in the intron of <i>HOXC10</i>. G3: Genes, Genomes, Genetics, 2021, 11, .	1.8	16
14	<i>Cis</i> -acting mutation affecting <i>GJA5</i> transcription is underlying the <i>Melanotic</i> within-feather pigmentation pattern in chickens. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	3
15	Editorial: Hair Follicle Stem Cell Regeneration in Aging. Frontiers in Cell and Developmental Biology, 2021, 9, 799268.	3.7	4
16	The Effects of Premature Tooth Extraction and Damage on Replacement Timing in the Green Iguana. Integrative and Comparative Biology, 2020, 60, 581-593.	2.0	9
17	Avian Pigment Pattern Formation: Developmental Control of Macro- (Across the Body) and Micro- (Within a Feather) Level of Pigment Patterns. Frontiers in Cell and Developmental Biology, 2020, 8, 620.	3.7	21
18	Human Fetal Scalp Dermal Papilla Enriched Genes and the Role of R-Spondin-1 in the Restoration of Hair Neogenesis in Adult Mouse Cells. Frontiers in Cell and Developmental Biology, 2020, 8, 583434.	3.7	11

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19	Connectivity between nidopallium caudolateral and visual pathways in color perception of zebra finches. Scientific Reports, 2020, 10, 19382.	3.3	3
20	Integrating Bioelectrical Currents and Ca²⁺Signaling with Biochemical Signaling in Development and Pathogenesis. Bioelectricity, 2020, 2, 210-220.	1.1	3
21	Folding Keratin Gene Clusters during Skin Regional Specification. Developmental Cell, 2020, 53, 561-576.e9.	7.0	18
22	Variations of Mesozoic feathers: Insights from the morphogenesis of extant feather rachises. Evolution; International Journal of Organic Evolution, 2020, 74, 2121-2133.	2.3	4
23	Skin Cyst: A Pathological Dead-End With a New Twist of Morphogenetic Potentials in Organoid Cultures. Frontiers in Cell and Developmental Biology, 2020, 8, 628114.	3.7	4
24	Niche Modulation of IGF-1R Signaling: Its Role in Stem Cell Pluripotency, Cancer Reprogramming, and Therapeutic Applications. Frontiers in Cell and Developmental Biology, 2020, 8, 625943.	3.7	16
25	The genetic basis for pigmentation phenotypes in poultry. Burleigh Dodds Series in Agricultural Science, 2020, , 67-106.	0.2	4
26	Evo-Devo of Scales, Feathers, and Hairs. , 2020, , 1-17.		0
27	Selfâ€organizing hair pegâ€like structures from dissociated skin progenitor cells: New insights for human hair follicle organoid engineering and Turing patterning in an asymmetric morphogenetic field. Experimental Dermatology, 2019, 28, 355-366.	2.9	27
28	Self-assembly of biological networks via adaptive patterning revealed by avian intradermal muscle network formation. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 10858-10867.	7.1	5
29	Instructive role of melanocytes during pigment pattern formation of the avian skin. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 6884-6890.	7.1	36
30	Understanding skin morphogenesis across developmental, regenerative and evolutionary levels. Experimental Dermatology, 2019, 28, 327-331.	2.9	2
31	Turing patterning with and without a global wave. PLoS Biology, 2019, 17, e3000195.	5.6	13
32	Comparative regenerative biology of spiny (<i>Acomys cahirinus)</i> and laboratory (<i>Mus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 222	2.9	39
33	The Making of a Flight Feather: Bio-architectural Principles and Adaptation. Cell, 2019, 179, 1409-1423.e17.	28.9	28
34	Morphoâ€regulation in diverse chicken feather formation: Integrating branching modules and sex hormoneâ€dependent morphoâ€regulatory modules. Development Growth and Differentiation, 2019, 61, 124-138.	1.5	13
35	Regulation of melanocyte stem cells in the pigmentation of skin and its appendages: Biological patterning and therapeutic potentials. Experimental Dermatology, 2019, 28, 395-405.	2.9	44
36	The tension biology of wound healing. Experimental Dermatology, 2019, 28, 464-471.	2.9	116

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37	Msx2 Supports Epidermal CompetencyÂduring Wound-Induced HairÂFollicle Neogenesis. Journal of Investigative Dermatology, 2018, 138, 2041-2050.	0.7	23
38	Contraction of basal filopodia controls periodic feather branching via Notch and FGF signaling. Nature Communications, 2018, 9, 1345.	12.8	29
39	Multiple Regulatory Modules Are Required for Scale-to-Feather Conversion. Molecular Biology and Evolution, 2018, 35, 417-430.	8.9	46
40	Transcriptome analyses of reprogrammed feather / scale chimeric explants revealed co-expressed epithelial gene networks during organ specification. BMC Genomics, 2018, 19, 780.	2.8	7
41	Calcium oscillations coordinate feather mesenchymal cell movement by SHH dependent modulation of gap junction networks. Nature Communications, 2018, 9, 5377.	12.8	40
42	Comprehensive molecular and cellular studies suggest avian scutate scales are secondarily derived from feathers, and more distant from reptilian scales. Scientific Reports, 2018, 8, 16766.	3.3	22
43	Epidermal Darwinism and Competitive Equilibrium within the Epidermis. Cell Stem Cell, 2018, 23, 627-629.	11.1	5
44	Comparative genomics and transcriptomics of Chrysolophus provide insights into the evolution of complex plumage colouration. GigaScience, 2018, 7, .	6.4	14
45	Spatial and temporal variations in hemodynamic forces initiate cardiac trabeculation. JCI Insight, 2018, 3, .	5.0	46
46	Diverse feather shape evolution enabled by coupling anisotropic signalling modules with self-organizing branching programme. Nature Communications, 2017, 8, ncomms14139.	12.8	37
47	Genetic Mapping and Biochemical Basis of Yellow Feather Pigmentation in Budgerigars. Cell, 2017, 171, 427-439.e21.	28.9	101
48	Heterochronic truncation of odontogenesis in theropod dinosaurs provides insight into the macroevolution of avian beaks. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 10930-10935.	7.1	43
49	Getting to the Core of the DermalÂPapilla. Journal of Investigative Dermatology, 2017, 137, 2250-2253.	0.7	24
50	Self-organization process in newborn skin organoid formation inspires strategy to restore hair regeneration of adult cells. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E7101-E7110.	7.1	94
51	MicroCT Imaging on Living Alligator Teeth Reveals Natural Tooth Cycling. Methods in Molecular Biology, 2017, 1650, 355-362.	0.9	3
52	The â€œtaoâ€•of integuments. Science, 2016, 354, 1533-1534.	12.6	23
53	Regulatory Differences in Natal Down Development between Altricial Zebra Finch and Precocial Chicken. Molecular Biology and Evolution, 2016, 33, 2030-2043.	8.9	14
54	Quorum sensing and other collective regenerative behavior in organ populations. Current Opinion in Genetics and Development, 2016, 40, 138-143.	3.3	12

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55	Aging, alopecia, and stem cells. Science, 2016, 351, 559-560.	12.6	45
56	Epigenetic and Environmental Regulation of Skin Appendage Regeneration. , 2015, , 163-184.		0
57	Transcriptomic analyses of regenerating adult feathers in chicken. BMC Genomics, 2015, 16, 756.	2.8	38
58	Roles of GasderminA3 in Catagenâ€"Telogen Transition During Hair Cycling. Journal of Investigative Dermatology, 2015, 135, 2162-2172.	0.7	26
59	Emergence of differentially regulated pathways associated with the development of regional specificity in chicken skin. BMC Genomics, 2015, 16, 22.	2.8	15
60	Dynamic imaging of the growth plate cartilage reveals multiple contributors to skeletal morphogenesis. Nature Communications, 2015, 6, 6798.	12.8	39
61	Proper BMP Signaling Levels Are Essential for 3D Assembly of Hepatic Cords from Hepatoblasts and Mesenchymal Cells. Digestive Diseases and Sciences, 2015, 60, 3669-3680.	2.3	3
62	Topographical mapping of Î±- and Î²-keratins on developing chicken skin integuments: Functional interaction and evolutionary perspectives. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E6770-9.	7.1	74
63	Genomic Organization, Transcriptomic Analysis, and Functional Characterization of Avian Î±- and Î²-Keratins in Diverse Feather Forms. Genome Biology and Evolution, 2014, 6, 2258-2273.	2.5	67
64	An integrative approach to understanding bird origins. Science, 2014, 346, 1253293.	12.6	240
65	Regeneration of reptilian scales after wounding: neogenesis, regional difference, and molecular modules. Regeneration (Oxford, England), 2014, 1, 15-26.	6.3	33
66	Macroenvironmental Regulation of Hair Cycling and Collective Regenerative Behavior. Cold Spring Harbor Perspectives in Medicine, 2014, 4, a015198-a015198.	6.2	45
67	SnapShot: Branching Morphogenesis. Cell, 2014, 158, 1212-1212.e1.	28.9	23
68	Regenerative Hair Waves in Aging Mice and Extra-Follicular Modulators Follistatin, Dkk1, and Sfrp4. Journal of Investigative Dermatology, 2014, 134, 2086-2096.	0.7	80
69	Dkk2/Frzb in the dermal papillae regulates feather regeneration. Developmental Biology, 2014, 387, 167-178.	2.0	32
70	Moduleâ€based complexity formation: periodic patterning in feathers and hairs. Wiley Interdisciplinary Reviews: Developmental Biology, 2013, 2, 97-112.	5.9	50
71	Local circadian clock gates cell cycle progression of transient amplifying cells during regenerative hair cycling. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E2106-15.	7.1	119
72	Specialized stem cell niche enables repetitive renewal of alligator teeth. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E2009-18.	7.1	97

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73	Feather regeneration as a model for organogenesis. Development Growth and Differentiation, 2013, 55, 139-148.	1.5	45
74	Shaping organs by a wingless-int/Notch/nonmuscle myosin module which orients feather bud elongation. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E1452-61.	7.1	28
75	Competitive balance of intrabulge BMP/Wnt signaling reveals a robust gene network ruling stem cell homeostasis and cyclic activation. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 1351-1356.	7.1	169
76	Homology and Potential Cellular and Molecular Mechanisms for the Development of Unique Feather Morphologies in Early Birds. Geosciences (Switzerland), 2012, 2, 157-177.	2.2	58
77	Physiological Regeneration of Skin Appendages and Implications for Regenerative Medicine. Physiology, 2012, 27, 61-72.	3.1	64
78	Progressive Alopecia Reveals Decreasing Stem Cell Activation Probability during Aging of Mice with Epidermal Deletion of DNA Methyltransferase 1. Journal of Investigative Dermatology, 2012, 132, 2681-2690.	0.7	74
79	Roles of EphB3/ephrin-B1 in feather morphogenesis. International Journal of Developmental Biology, 2012, 56, 719-728.	0.6	14
80	From buds to follicles: Matrix metalloproteinases in developmental tissue remodeling during feather morphogenesis. Differentiation, 2011, 81, 307-314.	1.9	29
81	The cycling hair follicle as an ideal systems biology research model. Experimental Dermatology, 2010, 19, 707-713.	2.9	75
82	Pattern formation today. International Journal of Developmental Biology, 2009, 53, 653-658.	0.6	22
83	Reptile scale paradigm: Evo-Devo, pattern formation and regeneration. International Journal of Developmental Biology, 2009, 53, 813-826.	0.6	133
84	Analyses of regenerative wave patterns in adult hair follicle populations reveal macro-environmental regulation of stem cell activity. International Journal of Developmental Biology, 2009, 53, 857-868.	0.6	61
85	The River of Stem Cells. Cell Stem Cell, 2009, 4, 100-102.	11.1	14
86	Spots and stripes: Pleomorphic patterning of stem cells via p-ERK-dependent cell chemotaxis shown by feather morphogenesis and mathematical simulation. Developmental Biology, 2009, 334, 369-382.	2.0	61
87	026â€˙Altered Skin Wound Healing in Homeobox Gene Msx-2 Knockout Mice. Wound Repair and Regeneration, 2008, 13, A4-A27.	3.0	0
88	Cyclic dermal BMP signalling regulates stem cell activation during hair regeneration. Nature, 2008, 451, 340-344.	27.8	643
89	Defining Hair Follicles in the Age of Stem Cell Bioengineering. Journal of Investigative Dermatology, 2007, 127, 2098-2100.	0.7	47
90	Molecular signaling in feather morphogenesis. Current Opinion in Cell Biology, 2006, 18, 730-741.	5.4	86

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91	Wnt3a gradient converts radial to bilateral feather symmetry via topological arrangement of epithelia. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 951-955.	7.1	91
92	DEVELOPMENTAL BIOLOGY: The Turing Model Comes of Molecular Age. Science, 2006, 314, 1397-1398.	12.6	175
93	Mapping stem cell activities in the feather follicle. Nature, 2005, 438, 1026-1029.	27.8	128
94	Engineering Stem Cells into Organs: Topobiological Transformations Demonstrated by Beak, Feather, and Other Ectodermal Organ Morphogenesis. Current Topics in Developmental Biology, 2005, 72, 237-274.	2.2	39
95	Evo-Devo of amniote integuments and appendages.. International Journal of Developmental Biology, 2004, 48, 249-270.	0.6	180
96	The biology of feather follicles.. International Journal of Developmental Biology, 2004, 48, 181-191.	0.6	143
97	Integument pattern formation involves genetic and epigenetic controls: feather arrays simulated by digital hormone models.. International Journal of Developmental Biology, 2004, 48, 117-135.	0.6	113
98	Sculpting Skin Appendages Out of Epidermal Layers Via Temporally and Spatially Regulated Apoptotic Events. Journal of Investigative Dermatology, 2004, 122, 1348-1355.	0.7	42
99	Rooster feathering, androgenic alopecia, and hormone-dependent tumor growth: What is in common?. Differentiation, 2004, 72, 474-488.	1.9	26
100	Distinct Wnt members regulate the hierarchical morphogenesis of skin regions (spinal tract) and individual feathers. Mechanisms of Development, 2004, 121, 157-171.	1.7	104
101	Molecular Shaping of the Beak. Science, 2004, 305, 1465-1466.	12.6	224
102	Morpho-Regulation of Ectodermal Organs. American Journal of Pathology, 2004, 164, 1099-1114.	3.8	127
103	The biology of feather follicles. International Journal of Developmental Biology, 2004, 48, 181-91.	0.6	85
104	Evo-Devo of amniote integuments and appendages. International Journal of Developmental Biology, 2004, 48, 249-70.	0.6	100
105	Integument pattern formation involves genetic and epigenetic controls: feather arrays simulated by digital hormone models. International Journal of Developmental Biology, 2004, 48, 117-35.	0.6	43
106	Development and evolution of the amniote integument: Current landscape and future horizon. The Journal of Experimental Zoology, 2003, 298B, 1-11.	1.4	28
107	Adaptation to the sky: Defining the feather with integument fossils from mesozoic China and experimental evidence from molecular laboratories. The Journal of Experimental Zoology, 2003, 298B, 42-56.	1.4	66
108	Molecular biology of feather morphogenesis: A testable model for evo-devo research. The Journal of Experimental Zoology, 2003, 298B, 109-122.	1.4	69

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109	Shift of Localized Growth Zones Contributes to Skin Appendage Morphogenesis: Role of the Wnt/Î²-catenin Pathway. Journal of Investigative Dermatology, 2003, 120, 20-26.	0.7	71
110	Synergistic Coactivator Function by Coactivator-associated Arginine Methyltransferase (CARM) 1 and Î²-Catenin with Two Different Classes of DNA-binding Transcriptional Activators. Journal of Biological Chemistry, 2002, 277, 26031-26035.	3.4	110
111	The morphogenesis of feathers. Nature, 2002, 420, 308-312.	27.8	212
112	Skin Morphogenesis: Embryonic Chicken Skin Explant Cultures. , 2000, 136, 101-106.		9
113	Î²-catenin in Epithelial Morphogenesis: Conversion of Part of Avian Foot Scales into Feather Buds with a Mutated Î²-Catenin. Developmental Biology, 2000, 219, 98-114.	2.0	153
114	Evo-Devo of feathers and scales: building complex epithelial appendages. Current Opinion in Genetics and Development, 2000, 10, 449-456.	3.3	144
115	Generation of Full-Length cDNA Library from Single Human Prostate Cancer Cells. BioTechniques, 1999, 27, 410-414.	1.8	16
116	Successive formative stages of precartilaginous mesenchymal condensations in vitro: Modulation of cell adhesion by Wnt-7A and BMP-2. Journal of Cellular Physiology, 1999, 180, 314-324.	4.1	84
117	Local Inhibitory Action of BMPs and Their Relationships with Activators in Feather Formation: Implications for Periodic Patterning. Developmental Biology, 1998, 196, 11-23.	2.0	362
118	Asymmetric Expression of Notch/Delta/Serrate Is Associated with the Anteriorâ€"Posterior Axis of Feather Buds. Developmental Biology, 1997, 188, 181-187.	2.0	68
119	Molecular histology in skin appendage morphogenesis. Microscopy Research and Technique, 1997, 38, 452-465.	2.2	47
120	Activation of protein kinase A is a pivotal step involved in both BMP-2- and cyclic AMP-induced chondrogenesis. , 1997, 170, 153-165.		77
121	Local Delivery of TGF Î²2 Can Substitute for Placode Epithelium to Induce Mesenchymal Condensation during Skin Appendage Morphogenesis. Developmental Biology, 1996, 179, 347-359.	2.0	52
122	Sonic hedgehogin feather morphogenesis: Induction of mesenchymal condensation and association with cell death. Developmental Dynamics, 1996, 207, 157-170.	1.8	132
123	Early Events During Avian Skin Appendage Regeneration: Dependence on Epithelial-Mesenchymal Interaction and order of Molecular Reappearance. Journal of Investigative Dermatology, 1996, 107, 639-646.	0.7	113
124	Sonic hedgehog in feather morphogenesis: Induction of mesenchymal condensation and association with cell death. Developmental Dynamics, 1996, 207, 157-170.	1.8	2
125	Effect of in ovo retinoic acid exposure on forebrain neural crest: In vitro analysis reveals up-regulation of N-CAM and loss of mesenchymal phenotype. Developmental Dynamics, 1994, 200, 89-102.	1.8	11
126	The making of a feather: Homeoproteins, retinoids and adhesion molecules. BioEssays, 1993, 15, 513-521.	2.5	119

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127	Tenascin is associated with articular cartilage development. Developmental Dynamics, 1993, 198, 123-134.	1.8	75
128	Adhesion molecules in skeletogenesis: II. Neural cell adhesion molecules mediate precartilaginous mesenchymal condensations and enhance chondrogenesis. Journal of Cellular Physiology, 1993, 156, 399-411.	4.1	155
129	Mechanism of skin morphogenesis. I. Analyses with antibodies to adhesion molecules tenascin, N-CAM, and integrin. Developmental Biology, 1992, 150, 82-98.	2.0	97
130	Adhesion molecules in skeletogenesis: I. transient expression of neural cell adhesion molecules (NCAM) in osteoblasts during endochondral and intramembranous ossification. Journal of Bone and Mineral Research, 1992, 7, 1435-1446.	2.8	54
131	Adhesion Molecules in Skin Development: Morphogenesis of Feather and Hair^a. Annals of the New York Academy of Sciences, 1991, 642, 263-280.	3.8	42
132	Simulating self-organization for multi-robot systems. , 0, , .		15