Joan T Richtsmeier

List of Publications by Year
in descending order

145	7,045	53794	74163
papers	citations	45 h-index	75 g-index

158	158	158	5138
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Embryonic and early postnatal cranial bone volume and tissue mineral density values for C57BL / 6J laboratory mice. Developmental Dynamics, 2022, , .	1.8	2
2	A transchromosomic rat model with human chromosome 21 shows robust Down syndrome features. American Journal of Human Genetics, 2022, 109, 328-344.	6.2	16
3	Meckelâ€™s Cartilage in Mandibular Development and Dysmorphogenesis. Frontiers in Genetics, 2022, 13, .	2.3	3
4	An Analysis of Anatomy Education Before and During Covidâ€19: Mayâ€“August 2020. Anatomical Sciences Education, 2021, 14, 132-147.	3.7	108
5	Single-cell analysis identifies a key role for Hhip in murine coronal suture development. Nature Communications, 2021, 12, 7132.	12.8	14
6	Phosphotungstic acidâ€enhanced microCT: Optimized protocols for embryonic and early postnatal mice. Developmental Dynamics, 2020, 249, 573-585.	1.8	40
7	Computational Morphogenesis of Embryonic Bone Development: Past, Present, and Future. , 2020, , 197-219.		3
8	Identifying the Misshapen Head: Craniosynostosis and Related Disorders. Pediatrics, 2020, 146, .	2.1	20
9	Phenotypes, Developmental Basis, and Genetics of Pierre Robin Complex. Journal of Developmental Biology, 2020, 8, 30.	1.7	10
10	Cartilage Segmentation in High-Resolution 3D Micro-CT Images via Uncertainty-Guided Self-training with Very Sparse Annotation. Lecture Notes in Computer Science, 2020, 12261, 802-812.	1.3	17
11	A non-mosaic transchromosomic mouse model of Down syndrome carrying the long arm of human chromosome 21. ELife, 2020, 9, .	6.0	65
12	It takes two: Building the vertebrate skull from chondrocranium and dermatocranium. Vertebrate Zoology, 2020, 70, 587-600.	2.0	7
13	Nonsyndromic craniosynostosis: novel coding variants. Pediatric Research, 2019, 85, 463-468.	2.3	14
14	Mandibular dysmorphology due to abnormal embryonic osteogenesis in FGFR2-related craniosynostosis mice. DMM Disease Models and Mechanisms, 2019, 12, .	2.4	19
15	A coupled reactionâ€“diffusionâ€“strain model predicts cranial vault formation in development and disease. Biomechanics and Modeling in Mechanobiology, 2019, 18, 1197-1211.	2.8	10
16	Craniofacial skeletal response to encephalization: How do we know what we think we know?. American Journal of Physical Anthropology, 2019, 168, 27-46.	2.1	18
17	Exploring Mechanisms of Cranial Vault Development using a Coupled Turingâ€Biomechanical Model. FASEB Journal, 2019, 33, 326.2.	0.5	0
18	First Systematic Documentation of Sex Differences in Craniofacial Norms of Nigerian Children. FASEB Journal, 2019, 33, 452.10.	0.5	0

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19	A century of development. American Journal of Physical Anthropology, 2018, 165, 726-740.	2.1	5
20	Choanal Atresia and Craniosynostosis: Development and Disease. Plastic and Reconstructive Surgery, 2018, 141, 156-168.	1.4	14
21	A quantitative method for staging mouse embryos based on limb morphometry. Development (Cambridge), 2018, 145, .	2.5	16
22	Additive genetic variation in the craniofacial skeleton of baboons (genus Papio) and its relationship to body and cranial size. American Journal of Physical Anthropology, 2018, 165, 269-285.	2.1	21
23	Itâ€™s about Time: Ossification Center Formation in C57BL/6 Mice from E12â€“E16. Journal of Developmental Biology, 2018, 6, 31.	1.7	8
24	Midface and upper airway dysgenesis in FGFR2-craniosynostosis involves multiple tissue-specific and cell cycle effects. Development (Cambridge), 2018, 145, .	2.5	22
25	Identification of a Novel Vomer Phenotype in the Fgfr2c C342Y/+ Mouse Model of Crouzon Syndrome. FASEB Journal, 2018, 32, 776.12.	0.5	0
26	Association of the Chondrocranium and Dermatocranium in Early Skull Formation. , 2017, , 52-78.		22
27	Structural and Mechanical Changes in Trabecular Bone during Early Development in the Human Femur and Humerus. , 2017, , 281-302.		19
28	A COMPUTATIONAL ANALYSIS OF BONE FORMATION IN THE CRANIAL VAULT USING A COUPLED REACTIONâ€“DIFFUSION-STRAIN MODEL. Journal of Mechanics in Medicine and Biology, 2017, 17, 1750073.	0.7	12
29	The Influence of trisomy 21 on facial form and variability. American Journal of Medical Genetics, Part A, 2017, 173, 2861-2872.	1.2	21
30	Integration of Brain and Skull in Prenatal Mouse Models of Apert and Crouzon Syndromes. Frontiers in Human Neuroscience, 2017, 11, 369.	2.0	30
31	A Critical Evaluation of the Down Syndrome Diagnosis for LB1, Type Specimen of Homo floresiensis. PLoS ONE, 2016, 11, e0155731.	2.5	13
32	Understanding craniosynostosis as a growth disorder. Wiley Interdisciplinary Reviews: Developmental Biology, 2016, 5, 429-459.	5.9	80
33	Chronic upâ€regulation of sonic hedgehog has little effect on postnatal craniofacial morphology of euploid and trisomic mice. Developmental Dynamics, 2016, 245, 114-122.	1.8	9
34	<scp>D</scp>evelopmental and <scp>E</scp>volutionary <scp>S</scp>ignificance of the <scp>Z</scp>ygomatic <scp>B</scp>one. Anatomical Record, 2016, 299, 1616-1630.	1.4	11
35	Inside Cover Image, Volume 5, Issue 4. Wiley Interdisciplinary Reviews: Developmental Biology, 2016, 5, ii-ii.	5.9	0
36	Mutation Screening of Candidate Genes in Patients with Nonsyndromic Sagittal Craniosynostosis. Plastic and Reconstructive Surgery, 2016, 137, 952-961.	1.4	27

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37	Facing up to the challenges of advancing Craniofacial Research. American Journal of Medical Genetics, Part A, 2015, 167, 1451-1454.	1.2	19
38	A Computational Analysis of Bone Formation in the Cranial Vault in the Mouse. Frontiers in Bioengineering and Biotechnology, 2015, 3, 24.	4.1	10
39	Acute upregulation of hedgehog signaling in mice causes differential effects on cranial morphology. DMM Disease Models and Mechanisms, 2015, 8, 271-9.	2.4	12
40	Overlapping trisomies for human chromosome 21 orthologs produce similar effects on skull and brain morphology of Dp(16)1Yey and Ts65Dn mice. American Journal of Medical Genetics, Part A, 2014, 164, 1981-1990.	1.2	42
41	Quantification of facial skeletal shape variation in fibroblast growth factor receptorâ€related craniosynostosis syndromes. Birth Defects Research Part A: Clinical and Molecular Teratology, 2014, 100, 250-259.	1.6	21
42	Embryonic craniofacial bone volume and bone mineral density in Fgfr2^{+/P253R} and nonmutant mice. Developmental Dynamics, 2014, 243, 541-551.	1.8	18
43	Craniofacial divergence by distinct prenatal growth patterns in Fgfr2 mutant mice. BMC Developmental Biology, 2014, 14, 8.	2.1	37
44	Morphological comparison of the craniofacial phenotypes of mouse models expressing the Apert FGFR2 S252W mutation in neural crest- or mesoderm-derived tissues. Bone, 2014, 63, 101-109.	2.9	35
45	Closing the Gap: Genetic and Genomic Continuum from Syndromic to Nonsyndromic Craniosynostoses. Current Genetic Medicine Reports, 2014, 2, 135-145.	1.9	72
46	A Multiscale Computational Model for the Growth of the Cranial Vault in Craniosynostosis. , 2014, 2014, .		2
47	The society of craniofacial genetics and developmental biology 35th annual meeting. American Journal of Medical Genetics, Part A, 2013, 161, 2938-2952.	1.2	0
48	Hand in glove: brain and skull in development and dysmorphogenesis. Acta Neuropathologica, 2013, 125, 469-489.	7.7	188
49	Tissueâ€specific responses to aberrant FGF signaling in complex head phenotypes. Developmental Dynamics, 2013, 242, C1.	1.8	2
50	Tissueâ€specific responses to aberrant FGF signaling in complex head phenotypes. Developmental Dynamics, 2013, 242, 80-94.	1.8	51
51	Angiogenesis and intramembranous osteogenesis. Developmental Dynamics, 2013, 242, 909-922.	1.8	189
52	Postnatal brain and skull growth in an Apert syndrome mouse model. American Journal of Medical Genetics, Part A, 2013, 161, 745-757.	1.2	29
53	From shape to cells: mouse models reveal mechanisms altering palate development in Apert syndrome. DMM Disease Models and Mechanisms, 2013, 6, 768-79.	2.4	29
54	Trisomy 21 and facial developmental instability. American Journal of Physical Anthropology, 2013, 151, 49-57.	2.1	30

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55	Early craniofacial bone growth and maturation of Fgfr2 +/P253R mice and littermates. FASEB Journal, 2013, 27, 963.1.	0.5	0
56	p38 Inhibition ameliorates skin and skull abnormalities in Fgfr2 Beare-Stevenson mice. Journal of Clinical Investigation, 2012, 122, 2153-2164.	8.2	47
57	A genome-wide association study identifies susceptibility loci for nonsyndromic sagittal craniosynostosis near BMP2 and within BBS9. Nature Genetics, 2012, 44, 1360-1364.	21.4	120
58	The effect of a <scp>B</scp>eareâ€<scp>S</scp>tevenson syndrome <scp>Fgfr2 Y</scp>394<scp>C</scp> mutation on early craniofacial bone volume and relative bone mineral density in mice. Journal of Anatomy, 2012, 221, 434-442.	1.5	13
59	The Skeletal siteâ€specific role of connective tissue growth factor in prenatal osteogenesis. Developmental Dynamics, 2012, 241, 1944-1959.	1.8	32
60	The Developmental Basis of Quantitative Craniofacial Variation in Humans and Mice. Evolutionary Biology, 2012, 39, 554-567.	1.1	41
61	Unilateral and bilateral expression of a quantitative trait: asymmetry and symmetry in coronal craniosynostosis. Journal of Experimental Zoology Part B: Molecular and Developmental Evolution, 2012, 318, 109-122.	1.3	38
62	Developmental Origins of and Covariation Between Metric and Nonmetric Cranial Traits. , 2012, , 61-84.		3
63	FGF/FGFR Signaling Coordinates Skull Development by Modulating Magnitude of Morphological Integration: Evidence from Apert Syndrome Mouse Models. PLoS ONE, 2011, 6, e26425.	2.5	51
64	Intracranial Volume and Whole Brain Volume in Infants with Unicoronal Craniosynostosis. Cleft Palate-Craniofacial Journal, 2011, 48, 394-398.	0.9	29
65	Morphological integration of soft-tissue facial morphology in down syndrome and siblings. American Journal of Physical Anthropology, 2011, 146, 560-568.	2.1	24
66	Brain phenotypes in two FGFR2 mouse models for Apert syndrome. Developmental Dynamics, 2010, 239, 987-997.	1.8	42
67	Beyond the closed suture in apert syndrome mouse models: Evidence of primary effects of FGFR2 signaling on facial shape at birth. Developmental Dynamics, 2010, 239, 3058-3071.	1.8	60
68	Genetic and environmental contributions to variation in baboon cranial morphology. American Journal of Physical Anthropology, 2010, 143, 1-12.	2.1	33
69	Activation of p38 MAPK pathway in the skull abnormalities of Apert syndrome Fgfr2+P253R mice. BMC Developmental Biology, 2010, 10, 22.	2.1	70
70	New insights into the relationship between suture closure and craniofacial dysmorphology in sagittal nonsyndromic craniosynostosis. Journal of Anatomy, 2010, 217, 85-96.	1.5	52
71	Complex contributions of Ets2 to craniofacial and thymus phenotypes of trisomic â€œDown syndromeâ€•mice. American Journal of Medical Genetics, Part A, 2009, 149A, 2158-2165.	1.2	29
72	What are genes â€œforâ€•or where are traits â€œfromâ€? What is the question?. BioEssays, 2009, 31, 198-208.	2.5	37

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73	Comparison of Mandibular Phenotypic and Genetic Integration between Baboon and Mouse. Evolutionary Biology, 2009, 36, 19-36.	1.1	38
74	GENETIC VARIATION IN BABOON CRANIOFACIAL SEXUAL DIMORPHISM. Evolution; International Journal of Organic Evolution, 2009, 63, 799-806.	2.3	17
75	Fluctuating Asymmetry and Developmental Instability in Sagittal Craniosynostosis. Cleft Palate-Craniofacial Journal, 2009, 46, 187-196.	0.9	15
76	Threeâ€dimensional morphometric analysis of craniofacial shape in the unaffected relatives of individuals with nonsyndromic orofacial clefts: A possible marker for genetic susceptibility. American Journal of Medical Genetics, Part A, 2008, 146A, 409-420.	1.2	48
77	A quantitative method for the evaluation of three-dimensional structure of temporal bone pneumatization. Journal of Human Evolution, 2008, 55, 682-690.	2.6	20
78	Comparison of Craniofacial Phenotype in Craniosynostotic Rabbits Treated with Antiâ€“Tgf-Î²2 at Suturectomy Site. Cleft Palate-Craniofacial Journal, 2008, 45, 571-582.	0.9	15
79	Preoperative Osseous Dysmorphology in Unilateral Complete Cleft Lip and Palate: A Quantitative Analysis of Computed Tomography Data. Plastic and Reconstructive Surgery, 2007, 119, 1295-1301.	1.4	24
80	Microstructure of trabecular bone in a mouse model for down syndrome. Anatomical Record, 2007, 290, 414-421.	1.4	18
81	Differential effects of trisomy on brain shape and volume in related aneuploid mouse models. American Journal of Medical Genetics, Part A, 2007, 143A, 1060-1070.	1.2	64
82	Effects of aneuploidy on skull growth in a mouse model of Down syndrome. Journal of Anatomy, 2007, 210, 394-405.	1.5	34
83	Phenotypic Variability: Its Components, Measurement and Underlying Developmental Processes. Evolutionary Biology, 2007, 34, 99-120.	1.1	112
84	Phenotypic integration of neurocranium and brain. Journal of Experimental Zoology Part B: Molecular and Developmental Evolution, 2006, 306B, 360-378.	1.3	143
85	Relationship of brain and skull in pre- and postoperative sagittal synostosis. Journal of Anatomy, 2005, 206, 373-385.	1.5	73
86	Brain morphology in nonsyndromic unicoronal craniosynostosis. The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology, 2005, 285A, 690-698.	2.0	64
87	Precision and error of three-dimensional phenotypic measures acquired from 3dMD photogrammetric images. American Journal of Medical Genetics, Part A, 2005, 138A, 247-253.	1.2	310
88	Abnormalities in cartilage and bone development in the Apert syndrome FGFR2+/S252W mouse. Development (Cambridge), 2005, 132, 3537-3548.	2.5	172
89	Landmark Morphometrics and the Analysis of Variation. , 2005, , 49-69.		22
90	An Invariant Approach to the Study of Fluctuating Asymmetry: Developmental Instability in a Mouse Model for Down Syndrome. , 2005, , 187-212.		10

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91	A Chromosome 21 Critical Region Does Not Cause Specific Down Syndrome Phenotypes. Science, 2004, 306, 687-690.	12.6	289
92	Growth-related shape changes in the fetal craniofacial complex of humans (Homo sapiens) and pigtailed macaques (Macaca nemestrina): A 3D-CT comparative analysis. American Journal of Physical Anthropology, 2003, 120, 339-351.	2.1	32
93	Comparison of mandibular landmarks from computed tomography and 3D digitizer data. Clinical Anatomy, 2003, 16, 494-500.	2.7	57
94	Craniofacial phenotypes in segmentally trisomic mouse models for Down syndrome. American Journal of Medical Genetics Part A, 2002, 107, 317-324.	2.4	121
95	The promise of geometric morphometrics. American Journal of Physical Anthropology, 2002, 119, 63-91.	2.1	256
96	Central nervous system phenotypes in craniosynostosis. Journal of Anatomy, 2002, 201, 31-39.	1.5	96
97	The Effect of Neurocranial Surgery on Basicranial Morphology in Isolated Sagittal Craniosynostosis. Cleft Palate-Craniofacial Journal, 2001, 38, 134-146.	0.9	11
98	The Effect of Neurocranial Surgery on Basicranial Morphology in Isolated Sagittal Craniosynostosis. Cleft Palate-Craniofacial Journal, 2001, 38, 134-146.	0.9	17
99	Too much of a good thing: mechanisms of gene action in Down syndrome. Trends in Genetics, 2001, 17, 83-88.	6.7	128
100	Parallels of craniofacial maldevelopment in down syndrome and Ts65Dn mice. Developmental Dynamics, 2000, 217, 137-145.	1.8	219
101	Volume morphing and renderingâ€"An integrated approach. Computer Aided Geometric Design, 2000, 17, 59-81.	1.2	20
102	Discovery and genetic localization of Down syndrome cerebellar phenotypes using the Ts65Dn mouse. Human Molecular Genetics, 2000, 9, 195-202.	2.9	246
103	Three-Dimensional Analysis of Craniofacial Form in a Familial Rabbit Model of Nonsyndromic Coronal Suture Synostosis Using Euclidean Distance Matrix Analysis. Cleft Palate-Craniofacial Journal, 1999, 36, 196-206.	0.9	20
104	Three-dimensional morphological analysis of isolated metopic synostosis. , 1999, 256, 177-188.		35
105	Three-Dimensional Analysis of Craniofacial Form in a Familial Rabbit Model of Nonsyndromic Coronal Suture Synostosis Using Euclidean Distance Matrix Analysis. Cleft Palate-Craniofacial Journal, 1999, 36, 196-206.	0.9	16
106	Capturing data from three-dimensional surfaces using fuzzy landmarks. American Journal of Physical Anthropology, 1998, 107, 113-124.	2.1	72
107	A simple method for visualization of influential landmarks when using euclidean distance matrix analysis. , 1998, 107, 273-283.		21
108	Capturing data from threeâ€dimensional surfaces using fuzzy landmarks. American Journal of Physical Anthropology, 1998, 107, 113-124.	2.1	1

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109	Brief communication: A sample of pediatric skulls available for study. American Journal of Physical Anthropology, 1997, 103, 415-416.	2.1	19
110	Brief communication: A sample of pediatric skulls available for study. , 1997, 103, 415.		1
111	Precision, Repeatability, and Validation of the Localization of Cranial Landmarks Using Computed Tomography Scans. Cleft Palate-Craniofacial Journal, 1995, 32, 217-227.	0.9	90
112	Precision, Repeatability, and Validation of the Localization of Cranial Landmarks Using Computed Tomography Scans. Cleft Palate-Craniofacial Journal, 1995, 32, 217-227.	0.9	91
113	Euclidean distance matrix analysis: Confidence intervals for form and growth differences. American Journal of Physical Anthropology, 1995, 98, 73-86.	2.1	82
114	Interaction of Craniofacial Dysmorphology, Growth, and Prediction of Surgical Outcome. Journal of Craniofacial Surgery, 1995, 6, 270-281.	0.7	23
115	Cleft Palate with Autosomal Recessive Transmission in Brittany Spaniels. Cleft Palate-Craniofacial Journal, 1994, 31, 364-371.	0.9	24
116	Cleft Palate with Autosomal Recessive Transmission in Brittany Spaniels. Cleft Palate-Craniofacial Journal, 1994, 31, 364-371.	0.9	24
117	Perspectives on Craniofacial Growth. Clinics in Plastic Surgery, 1994, 21, 489-499.	1.5	17
118	Cranial growth and growth dimorphism inAteles geoffroyi. American Journal of Physical Anthropology, 1993, 92, 371-394.	2.1	28
119	Sexual dimorphism of ontogeny in the crab-eating macaque (Macaca fascicularis). Journal of Human Evolution, 1993, 25, 1-30.	2.6	62
120	A COORDINATEâ€FREE APPROACH TO THE ANALYSIS OF GROWTH PATTERNS: MODELS AND THEORETICAL CONSIDERATIONS. Biological Reviews, 1993, 68, 381-411.	10.4	87
121	The Role of Postnatal Growth Pattern in the Production of Facial Morphology. Systematic Biology, 1993, 42, 307-330.	5.6	64
122	The Role of Postnatal Growth Pattern in the Production of Facial Morphology. Systematic Biology, 1993, 42, 307.	5.6	8
123	A Morphometric Study of Facial Growth. , 1993, , 391-410.		23
124	Advances in Anthropological Morphometrics. Annual Review of Anthropology, 1992, 21, 283-305.	1.5	97
125	Experiments of Nature: Premature Unicoronal Cranial Synostosis in Mantled Howler Monkeys (Alouatta palliata). Cleft Palate-Craniofacial Journal, 1992, 29, 143-151.	0.9	6
126	Experiments of Nature: Premature Unicoronal Cranial Synostosis in Mantled Howler Monkeys (Alouatta palliata). Cleft Palate-Craniofacial Journal, 1992, 29, 143-151.	0.9	9

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127	Oculoauriculovertebral anomaly: Segregation analysis. American Journal of Medical Genetics Part A, 1992, 43, 913-917.	2.4	79
128	On comparing biological shapes: Detection of influential landmarks. American Journal of Physical Anthropology, 1992, 87, 49-65.	2.1	64
129	Cranial growth in the squirrel monkey(Saimiri sciureus): A quantitative analysis using three dimensional coordinate data. American Journal of Physical Anthropology, 1992, 87, 67-81.	2.1	45
130	Growth of the Cranial Base in Craniosynostosis. Cleft Palate-Craniofacial Journal, 1991, 28, 55-67.	0.9	37
131	The Effect of Rigid Fixation on Growth of the Neurocranium. Plastic and Reconstructive Surgery, 1991, 88, 395-403.	1.4	78
132	Growth of the Cranial Base in Craniosynostosis. Cleft Palate-Craniofacial Journal, 1991, 28, 55-67.	0.9	46
133	Morphometric analysis of craniofacial growth inCebus apella. American Journal of Physical Anthropology, 1991, 84, 323-342.	2.1	64
134	Euclidean distance matrix analysis: A coordinate-free approach for comparing biological shapes using landmark data. American Journal of Physical Anthropology, 1991, 86, 415-427.	2.1	284
135	Statistical Models in Morphometrics: Are They Realistic?. Systematic Zoology, 1990, 39, 60.	1.6	34
136	Applications of Finite-Element Scaling Analysis in Primatology. Folia Primatologica, 1989, 53, 50-64.	0.7	9
137	Microtia and associated anomalies: Statistical analysis. American Journal of Medical Genetics Part A, 1989, 34, 574-578.	2.4	58
138	Craniofacial Growth in Apert Syndrome as Measured by Finite-Element Scaling Analysis. Cells Tissues Organs, 1988, 133, 50-56.	2.3	29
139	Comparative study of normal, Crouzon, and Apert craniofacial morphology using finite element scaling analysis. American Journal of Physical Anthropology, 1987, 74, 473-493.	2.1	64
140	Finite-Element Scaling Applied to Sexual Dimorphism in Rhesus Macaque (Macaca mulatta) Facial Growth. Systematic Zoology, 1986, 35, 381.	1.6	86
141	Quantitative genetics of cranial nonmetric traits in randombred mice: Heritability and etiology. American Journal of Physical Anthropology, 1986, 69, 51-58.	2.1	19
142	The relationship between cranial metric and nonmetric traits in the rhesus macaques from Cayo Santiago. American Journal of Physical Anthropology, 1984, 64, 213-222.	2.1	23
143	Cranial Vault Dysmorphology and Growth in Craniosynostosis. , 0, , 321-341.		8
144	The Contribution of Angiogenesis to Variation in Bone Development and Evolution. , 0, , 26-51.		0

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145	A dysmorphic mouse model reveals developmental interactions of chondrocranium and dermatocranium. ELife, 0, 11, .	6.0	6