Siegfried Roth

List of Publications by Year
in descending order

84 papers	6,848 citations	81743 39 h-index	64668 79 g-index
141 all docs	141 docs citations	141 times ranked	5614 citing authors

#	Article	IF	Citations
1	The genome of the model beetle and pest Tribolium castaneum. Nature, 2008, 452, 949-955.	13.7	1,255
2	A gradient of nuclear localization of the dorsal protein determines dorsoventral pattern in the Drosophila embryo. Cell, 1989, 59, 1189-1202.	13.5	652
3	cornichon and the EGF receptor signaling process are necessary for both anterior-posterior and dorsal-ventral pattern formation in Drosophila. Cell, 1995, 81, 967-978.	13.5	477
4	The polarity of the dorsoventral axis in the drosophila embryo is defined by an extracellular signal. Cell, 1991, 65, 725-735.	13.5	252
5	The Drosophila Gene brinker Reveals a Novel Mechanism of Dpp Target Gene Regulation. Cell, 1999, 96, 563-573.	13.5	241
6	Dorsoventral Axis Formation in the Drosophila Embryoâ€"Shaping and Transducing a Morphogen Gradient. Current Biology, 2005, 15, R887-R899.	1.8	214
7	Polar Transport in the Drosophila Oocyte Requires Dynein and Kinesin I Cooperation. Current Biology, 2002, 12, 1971-1981.	1.8	205
8	The Drosophila cell cycle gene fizzy is required for normal degradation of cyclins A and B during mitosis and has homology to the CDC20 gene of Saccharomyces cerevisiae.. Journal of Cell Biology, 1995, 129, 725-737.	2.3	185
9	Distinct Functions of the Tribolium zerknÃ¼llt Genes in Serosa Specification and Dorsal Closure. Current Biology, 2005, 15, 624-636.	1.8	176
10	Symmetry Breaking During Drosophila Oogenesis. Cold Spring Harbor Perspectives in Biology, 2009, 1, a001891-a001891.	2.3	141
11	The iBeetle large-scale RNAi screen reveals gene functions for insect development and physiology. Nature Communications, 2015, 6, 7822.	5.8	139
12	Tribolium embryogenesis: a SEM study of cell shapes and movements from blastoderm to serosal closure. Development Genes and Evolution, 2000, 210, 167-179.	0.4	117
13	Molecular evolutionary trends and feeding ecology diversification in the Hemiptera, anchored by the milkweed bug genome. Genome Biology, 2019, 20, 64.	3.8	114
14	The maternal and early embryonic transcriptome of the milkweed bug Oncopeltus fasciatus. BMC Genomics, 2011, 12, 61.	1.2	110
15	Sog/Chordin is required for ventral-to-dorsal Dpp/BMP transport and head formation in a short germ insect. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 16307-16312.	3.3	102
16	The evolution of dorsalâ€"ventral patterning mechanisms in insects. Genes and Development, 2011, 25, 107-118.	2.7	98
17	Local Gurken signaling and dynamic MAPK activation during Drosophila oogenesis. Mechanisms of Development, 1999, 81, 75-88.	1.7	97
18	Tribolium castaneum twist: gastrulation and mesoderm formation in a short-germ beetle. Development Genes and Evolution, 2005, 215, 13-31.	0.4	93

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19	The significance and scope of evolutionary developmental biology: a vision for the 21st century. Evolution & Development, 2015, 17, 198-219.	1.1	92
20	A Serpin Regulates Dorsal-Ventral Axis Formation in the Drosophila Embryo. Current Biology, 2003, 13, 2097-2102.	1.8	90
21	Drosophila Cornichon acts as cargo receptor for ER export of the TGFÎ±-like growth factor Gurken. Development (Cambridge), 2006, 133, 459-470.	1.2	85
22	The origin of dorsoventral polarity in Drosophila. Philosophical Transactions of the Royal Society B: Biological Sciences, 2003, 358, 1317-1329.	1.8	84
23	Enhanced genome assembly and a new official gene set for Tribolium castaneum. BMC Genomics, 2020, 21, 47.	1.2	84
24	Toll Genes Have an Ancestral Role in Axis Elongation. Current Biology, 2016, 26, 1609-1615.	1.8	81
25	Self-Regulatory Circuits in Dorsoventral Axis Formation of the Short-Germ Beetle Tribolium castaneum. Developmental Cell, 2008, 14, 605-615.	3.1	80
26	The Phylogenetic Origin of oskar Coincided with the Origin of Maternally Provisioned Germ Plasm and Pole Cells at the Base of the Holometabola. PLoS Genetics, 2011, 7, e1002029.	1.5	71
27	EGF Signaling and the Origin of Axial Polarity among the Insects. Current Biology, 2010, 20, 1042-1047.	1.8	70
28	The functional domains of the Drosophila morphogen dorsal: evidence from the analysis of mutants.. Genes and Development, 1992, 6, 619-630.	2.7	68
29	DrosophilaStathmin: A Microtubule-destabilizing Factor Involved in Nervous System Formation. Molecular Biology of the Cell, 2002, 13, 698-710.	0.9	66
30	TGFÎ² signaling in Tribolium: vertebrate-like components in a beetle. Development Genes and Evolution, 2008, 218, 203-213.	0.4	63
31	Dorsoventral patterning in Drosophila oogenesis. Current Opinion in Genetics and Development, 1994, 4, 502-507.	1.5	59
32	Stable Anterior Anchoring of the Oocyte Nucleus Is Required to Establish Dorsoventral Polarity of the Drosophila Egg. Developmental Biology, 2001, 237, 93-106.	0.9	56
33	PIP5K-dependent production of PIP2 sustains microtubule organization to establish polarized transport in the<i>Drosophila</i>oocyte. Development (Cambridge), 2008, 135, 3829-3838.	1.2	56
34	Chicken Acidic Leucine-rich EGF-like Domain Containing Brain Protein (CALEB), a Neural Member of the EGF Family of Differentiation Factors, Is Implicated in Neurite Formation. Journal of Cell Biology, 1997, 136, 895-906.	2.3	51
35	The Drosophila KASH domain proteins Msp-300 and Klarsicht and the SUN domain protein Klaroid have no essential function during oogenesis. Fly, 2008, 2, 82-91.	0.9	47
36	Drosophila oogenesis: Coordinating germ line and soma. Current Biology, 2001, 11, R779-R781.	1.8	45

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37	Biochemical characterization of polypeptide components involved in neurite fasciculation and elongation. FEBS Journal, 1987, 168, 551-561.	0.2	43
38	Evolution of extracellular Dpp modulators in insects: The roles of tolloid and twisted-gastrulation in dorsoventral patterning of the Tribolium embryo. Developmental Biology, 2010, 345, 80-93.	0.9	43
39	The role of Dpp and its inhibitors during eggshell patterning in Drosophila. Development (Cambridge), 2007, 134, 2261-2271.	1.2	41
40	Mathematics and biology: a Kantian view on the history of pattern formation theory. Development Genes and Evolution, 2011, 221, 255-279.	0.4	41
41	Developmental Gene Discovery in a Hemimetabolous Insect: De Novo Assembly and Annotation of a Transcriptome for the Cricket Gryllus bimaculatus. PLoS ONE, 2013, 8, e61479.	1.1	41
42	Dynamic BMP signaling polarized by Toll patterns the dorsoventral axis in a hemimetabolous insect. ELife, 2015, 4, e05502.	2.8	40
43	Dorsoventral Polarity of the Nasonia Embryo Primarily Relies on a BMP Gradient Formed without Input from Toll. Current Biology, 2014, 24, 2393-2398.	1.8	38
44	Juvenile hormone signaling promotes ovulation and maintains egg shape by inducing expression of extracellular matrix genes. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	37
45	Patterning the dorsalâ€“ventral axis of the wasp Nasonia vitripennis. Developmental Biology, 2013, 381, 189-202.	0.9	36
46	Mechanisms of Gurken-dependentpiperegulation and the robustness of dorsoventral patterning inDrosophila. Development (Cambridge), 2002, 129, 2965-2975.	1.2	35
47	High plasticity in epithelial morphogenesis during insect dorsal closure. Biology Open, 2013, 2, 1108-1118.	0.6	34
48	Toll homolog expression in the beetle Tribolium suggests a different mode of dorsoventral patterning than in Drosophila embryos. Mechanisms of Development, 1999, 83, 107-114.	1.7	33
49	Epithelial reorganization events during late extraembryonic development in a hemimetabolous insect. Developmental Biology, 2010, 340, 100-115.	0.9	29
50	A novel role for Ets4 in axis specification and cell migration in the spider Parasteatoda tepidariorum. ELife, 2017, 6, .	2.8	26
51	Genome wide identification of<i>Tribolium</i>dorsoventral patterning genes. Development (Cambridge), 2016, 143, 2443-54.	1.2	24
52	Axis Determination: Proteolytic generation of a morphogen. Current Biology, 1994, 4, 755-757.	1.8	23
53	<i>Drosophila</i>tubulin-binding cofactor B is required for microtubule network formation and for cell polarity. Molecular Biology of the Cell, 2012, 23, 3591-3601.	0.9	22
54	Evolution of axis formation: mRNA localization, regulatory circuits and posterior specification in non-model arthropods. Current Opinion in Genetics and Development, 2009, 19, 404-411.	1.5	20

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55	Ancient and diverged TGF-Î² signaling components in Nasonia vitripennis. Development Genes and Evolution, 2014, 224, 223-233.	0.4	20
56	Striking parallels between dorsoventral patterning in Drosophila and Gryllus reveal a complex evolutionary history behind a model gene regulatory network. ELife, 2021, 10, .	2.8	20
57	Fog signaling has diverse roles in epithelial morphogenesis in insects. ELife, 2019, 8, .	2.8	20
58	Mechanisms of Gurken-dependent pipe regulation and the robustness of dorsoventral patterning in Drosophila. Development (Cambridge), 2002, 129, 2965-75.	1.2	20
59	Development of Tribolium castaneum. Development Genes and Evolution, 2008, 218, 115-118.	0.4	18
60	Drosophila development: The secrets of delayed induction. Current Biology, 1998, 8, R906-R910.	1.8	16
61	Axis Determination in Insect Embryos. Novartis Foundation Symposium, 1989, 144, 37-64.	1.2	16
62	Co-option of a coordinate system defined by the EGFr and Dpp pathways in the evolution of a morphological novelty. EvoDevo, 2013, 4, 7.	1.3	15
63	Chaotic dynamics of two coupled biochemical oscillators. Physica D: Nonlinear Phenomena, 1987, 26, 215-224.	1.3	14
64	Generation of distinct signaling modes via diversification of the Egfr ligand-processing cassette. Development (Cambridge), 2010, 137, 3427-3437.	1.2	14
65	A Genome-Wide Screen for Dendritically Localized RNAs Identifies Genes Required for Dendrite Morphogenesis. G3: Genes, Genomes, Genetics, 2016, 6, 2397-2405.	0.8	14
66	Sharp peaks from shallow sources. Nature, 2002, 419, 261-262.	13.7	13
67	Global analysis of dorsoventral patterning in the wasp Nasonia reveals extensive incorporation of novelty in a regulatory network. BMC Biology, 2016, 14, 63.	1.7	13
68	Does the Bicoid Gradient Matter?. Cell, 2012, 149, 511-512.	13.5	11
69	Screens in fly and beetle reveal vastly divergent gene sets required for developmental processes. BMC Biology, 2022, 20, 38.	1.7	11
70	Molecular mechanisms of EGF signaling-dependent regulation of pipe, a gene crucial for dorsoventral axis formation in Drosophila. Development Genes and Evolution, 2012, 222, 1-17.	0.4	9
71	The Role of the dpp-Group Genes in Dorsoventral Patterning of the Drosophila Embryo. Advances in Developmental Biology (1992), 1996, 4, 27-82.	1.1	8
72	Convergent Adaptation of Ootheca Formation as a Reproductive Strategy in Polyneoptera. Molecular Biology and Evolution, 2022, 39, .	3.5	8

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73	Deep, Staged Transcriptomic Resources for the Novel Coleopteran Models Atrachya menetriesi and Callosobruchus maculatus. PLoS ONE, 2016, 11, e0167431.	1.1	7
74	Making Waves for Segments. Science, 2012, 336, 306-307.	6.0	4
75	Development: Getting into the Groove, or Evolving off the Rails?. Current Biology, 2013, 23, R1101-R1103.	1.8	4
76	16. Kant und die Biologie seiner Zeit (Â§Â§ 79â€"81). , 2008, , 275-287.		3
77	Kant, Polanyi, and Molecular Biology. , 2014, , 275-292.		3
78	Axis Formation: Microtubules Push in the Right Direction. Current Biology, 2012, 22, R537-R539.	1.8	2
79	Vertebrate rel proteins exhibit dorsal-like activities in earlyDrosophila embryogenesis. Developmental Dynamics, 2006, 235, 949-957.	0.8	1
80	PIP5K-dependent production of PIP2 sustains microtubule organization to establish polarized transport in the Drosophila oocyte. Development (Cambridge), 2008, 135, 3970-3970.	1.2	1
81	Hans Meinhardt (1938â€"2016). Current Biology, 2016, 26, R448-R449.	1.8	1
82	Evolution und Fortschritt Zum Problem der HÃ¶herentwicklung in der organischen Evolution. , 2011, , 195-247.		1
83	Expression and Function of Toll Pathway Components in the Early Development of the Wasp Nasonia vitripennis. Journal of Developmental Biology, 2022, 10, 7.	0.9	1
84	Generation of distinct signaling modes via diversification of the Egfr ligand-processing cassette. Journal of Cell Science, 2010, 123, e1-e1.	1.2	0