Stig W Omholt

List of Publications by Year
in descending order

52 papers	5,512 citations	136950 32 h-index	182427 51 g-index
54 all docs	54 docs citations	54 times ranked	5926 citing authors

#	Article	IF	Citations
1	The Atlantic salmon genome provides insights into rediploidization. Nature, 2016, 533, 200-205.	27.8	1,021
2	Social exploitation of vitellogenin. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 1799-1802.	7.1	338
3	Trait Variation in Yeast Is Defined by Population History. PLoS Genetics, 2011, 7, e1002111.	3.5	311
4	Hormonal control of the yolk precursor vitellogenin regulates immune function and longevity in honeybees. Experimental Gerontology, 2004, 39, 767-773.	2.8	304
5	Sequencing the genome of the Atlantic salmon (Salmo salar). Genome Biology, 2010, 11, 403.	8.8	250
6	Disruption of vitellogenin gene function in adult honeybees by intra-abdominal injection of double-stranded RNA. BMC Biotechnology, 2003, 3, 1.	3.3	243
7	A mathematical framework for describing and analysing gene regulatory networks. Journal of Theoretical Biology, 1995, 176, 291-300.	1.7	241
8	The hive bee to forager transition in honeybee colonies: the double repressor hypothesis. Journal of Theoretical Biology, 2003, 223, 451-464.	1.7	237
9	A dense SNP-based linkage map for Atlantic salmon (Salmo salar) reveals extended chromosome homeologies and striking differences in sex-specific recombination patterns. BMC Genomics, 2011, 12, 615.	2.8	226
10	The Regulatory Anatomy of Honeybee Lifespan. Journal of Theoretical Biology, 2002, 216, 209-228.	1.7	222
11	Interstitial solute transport in 3D reconstructed neuropil occurs by diffusion rather than bulk flow. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 9894-9899.	7.1	216
12	Gene Regulatory Networks Generating the Phenomena of Additivity, Dominance and Epistasis. Genetics, 2000, 155, 969-980.	2.9	143
13	Altered Physiology in Worker Honey Bees (Hymenoptera: Apidae) Infested with the Mite <I>Varroa destructor</I> (Acari: Varroidae): A Factor in Colony Loss During Overwintering?. Journal of Economic Entomology, 2004, 97, 741-747.	1.8	141
14	FEEDBACK LOOPS, STABILITY AND MULTISTATIONARITY IN DYNAMICAL SYSTEMS. Journal of Biological Systems, 1995, 03, 409-413.	1.4	111
15	Evolution evolves: physiology returns to centre stage. Journal of Physiology, 2014, 592, 2237-2244.	2.9	102
16	Statistical Epistasis Is a Generic Feature of Gene Regulatory Networks. Genetics, 2007, 175, 411-420.	2.9	99
17	Functional Annotation of All Salmonid Genomes (FAASG): an international initiative supporting future salmonid research, conservation and aquaculture. BMC Genomics, 2017, 18, 484.	2.8	99
18	Life-History Evolution and the Polyphenic Regulation of Somatic Maintenance and Survival. Quarterly Review of Biology, 2013, 88, 185-218.	0.1	97

#	Article	IF	Citations
19	Concerted Evolution of Life Stage Performances Signals Recent Selection on Yeast Nitrogen Use. Molecular Biology and Evolution, 2015, 32, 153-161.	8.9	86
20	A methodological basis for description and analysis of systems with complex switch-like interactions. Journal of Mathematical Biology, 1998, 36, 321-348.	1.9	85
21	Ancient Evolutionary Trade-Offs between Yeast Ploidy States. PLoS Genetics, 2013, 9, e1003388.	3.5	85
22	Life History Shapes Trait Heredity by Accumulation of Loss-of-Function Alleles in Yeast. Molecular Biology and Evolution, 2012, 29, 1781-1789.	8.9	76
23	Bridging the genotypeâ€"phenotype gap: what does it take?. Journal of Physiology, 2013, 591, 2055-2066.	2.9	62
24	Epigenetic Regulation of Aging in Honeybee Workers. Science of Aging Knowledge Environment: SAGE KE, 2004, 2004, pe28-pe28.	0.8	61
25	Electrodiffusive Model for Astrocytic and Neuronal Ion Concentration Dynamics. PLoS Computational Biology, 2013, 9, e1003386.	3.2	51
26	Hierarchical Cluster-based Partial Least Squares Regression (HC-PLSR) is an efficient tool for metamodelling of nonlinear dynamic models. BMC Systems Biology, 2011, 5, 90.	3.0	48
27	Arterial Stiffening Provides Sufficient Explanation for Primary Hypertension. PLoS Computational Biology, 2014, 10, e1003634.	3.2	42
28	Cardiovascular models for personalised medicine: Where now and where next?. Medical Engineering and Physics, 2019, 72, 38-48.	1.7	42
29	Thermoregulation in the winter cluster of the honeybee, Apis Mellifera. Journal of Theoretical Biology, 1987, 128, 219-231.	1.7	41
30	The Regulatory Basis of Melanogenic Switching. Journal of Theoretical Biology, 2002, 215, 449-468.	1.7	38
31	High-Throughput Biochemical Fingerprinting of Saccharomyces cerevisiae by Fourier Transform Infrared Spectroscopy. PLoS ONE, 2015, 10, e0118052.	2.5	38
32	Threshold-dominated regulation hides genetic variation in gene expression networks. BMC Systems Biology, 2007, 1, 57.	3.0	34
33	A computational analysis of the long-term regulation of arterial pressure. F1000Research, 2013, 2, 208.	1.6	34
34	Roadmap for cardiovascular circulation model. Journal of Physiology, 2016, 594, 6909-6928.	2.9	33
35	Parameters in Dynamic Models of Complex Traits are Containers of Missing Heritability. PLoS Computational Biology, 2012, 8, e1002459.	3.2	24
36	A new method for rearing genetically manipulated honey bee workers. Apidologie, 2005, 36, 293-299.	2.0	22

#	Article	IF	Citations
37	When Parameters in Dynamic Models Become Phenotypes: A Case Study on Flesh Pigmentation in the Chinook Salmon (Oncorhynchus tshawytscha). Genetics, 2008, 179, 1113-1118.	2.9	19
38	Allele Interaction â€" Single Locus Genetics Meets Regulatory Biology. PLoS ONE, 2010, 5, e9379.	2.5	19
39	Monotonicity is a key feature of genotype-phenotype maps. Frontiers in Genetics, 2013, 4, 216.	2.3	19
40	A novel role for pigment genes in the stress response in rainbow trout (Oncorhynchus mykiss). Scientific Reports, 2016, 6, 28969.	3.3	19
41	Relationships between worker longevity and the intracolonial population dynamics of the honeybee. Journal of Theoretical Biology, 1988, 130, 275-284.	1.7	16
42	Genotype-phenotype map characteristics of an in silico heart cell. Frontiers in Physiology, 2011, 2, 106.	2.8	16
43	Description and Analysis of Switchlike Regulatory Networks Exemplified by a Model of Cellular Iron Homeostasis. Journal of Theoretical Biology, 1998, 195, 339-350.	1.7	15
44	From sequence to consequence and back. Progress in Biophysics and Molecular Biology, 2013, 111, 75-82.	2.9	13
45	A computational pipeline for quantification of mouse myocardial stiffness parameters. Computers in Biology and Medicine, 2014, 53, 65-75.	7.0	13
46	Nonlinear regulation enhances the phenotypic expression of trans- acting genetic polymorphisms. BMC Systems Biology, 2007, 1, 32.	3.0	12
47	Disentangling genetic and epigenetic determinants of ultrafast adaptation. Molecular Systems Biology, 2016, 12, 892.	7.2	9
48	Aging as a consequence of selection to reduce the environmental risk of dying. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	9
49	Genetically controlled mtDNA deletions prevent ROS damage by arresting oxidative phosphorylation. ELife, 0, 11, .	6.0	9
50	Effect of Regulatory Architecture on Broad versus Narrow Sense Heritability. PLoS Computational Biology, 2013, 9, e1003053.	3.2	6
51	Propagation of genetic variation in gene regulatory networks. Physica D: Nonlinear Phenomena, 2013, 256-257, 7-20.	2.8	5
52	Towards causally cohesive genotypeâ€"phenotype modelling for characterization of the soft-tissue mechanics of the heart in normal and pathological geometries. Journal of the Royal Society Interface, 2015, 12, 20141166.	3.4	2