Assocâ€prof Eivind A B Undheim

List of Publications by Year
in descending order

86 papers	3,826 citations	117625 34 h-index	144013 57 g-index
90 all docs	90 docs citations	90 times ranked	3204 citing authors

#	Article	IF	Citations
1	Selective spider toxins reveal a role for the Nav1.1 channel in mechanical pain. Nature, 2016, 534, 494-499.	27.8	239
2	Discovery of a selective Na _V 1.7 inhibitor from centipede venom with analgesic efficacy exceeding morphine in rodent pain models. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 17534-17539.	7.1	164
3	Production of Recombinant Disulfide-Rich Venom Peptides for Structural and Functional Analysis via Expression in the Periplasm of E. coli. PLoS ONE, 2013, 8, e63865.	2.5	140
4	The Diversity of Venom: The Importance of Behavior and Venom System Morphology in Understanding Its Ecology and Evolution. Toxins, 2019, 11, 666.	3.4	135
5	Intraspecific venom variation in the medically significant Southern Pacific Rattlesnake (Crotalus) Tj ETQq1 1 0.784314 rgBT /Overlock 10 99, 68-83.	2.4	114
6	Three-Fingered RAVERs: Rapid Accumulation of Variations in Exposed Residues of Snake Venom Toxins. Toxins, 2013, 5, 2172-2208.	3.4	111
7	On the venom system of centipedes (Chilopoda), a neglected group of venomous animals. Toxicon, 2011, 57, 512-524.	1.6	110
8	Selective Na _V 1.1 activation rescues Dravet syndrome mice from seizures and premature death. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E8077-E8085.	7.1	105
9	Clawing through Evolution: Toxin Diversification and Convergence in the Ancient Lineage Chilopoda (Centipedes). Molecular Biology and Evolution, 2014, 31, 2124-2148.	8.9	100
10	Convergent evolution of pain-inducing defensive venom components in spitting cobras. Science, 2021, 371, 386-390.	12.6	96
11	Centipede Venom: Recent Discoveries and Current State of Knowledge. Toxins, 2015, 7, 679-704.	3.4	84
12	Differential Evolution and Neofunctionalization of Snake Venom Metalloprotease Domains. Molecular and Cellular Proteomics, 2013, 12, 651-663.	3.8	83
13	Spider venomics: implications for drug discovery. Future Medicinal Chemistry, 2014, 6, 1699-1714.	2.3	81
14	Venom peptides as therapeutics: advances, challenges and the future of venom-peptide discovery. Expert Review of Proteomics, 2017, 14, 931-939.	3.0	81
15	Evolution Stings: The Origin and Diversification of Scorpion Toxin Peptide Scaffolds. Toxins, 2013, 5, 2456-2487.	3.4	79
16	Toxin structures as evolutionary tools: Using conserved 3D folds to study the evolution of rapidly evolving peptides. BioEssays, 2016, 38, 539-548.	2.5	76
17	A comprehensive portrait of the venom of the giant red bull ant, <i>Myrmecia gulosa</i> , reveals a hyperdiverse hymenopteran toxin gene family. Science Advances, 2018, 4, eaau4640.	10.3	69
18	A Proteomics and Transcriptomics Investigation of the Venom from the Barychelid Spider Trittame loki (Brush-Foot Trapdoor). Toxins, 2013, 5, 2488-2503.	3.4	68

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19	The assassin bug Pristhesancus plagipennis produces two distinct venoms in separate gland lumens. Nature Communications, 2018, 9, 755.	12.8	67
20	Weaponization of a Hormone: Convergent Recruitment of Hyperglycemic Hormone into the Venom of Arthropod Predators. Structure, 2015, 23, 1283-1292.	3.3	66
21	Revisiting venom of the sea anemone Stichodactyla haddoni : Omics techniques reveal the complete toxin arsenal of a well-studied sea anemone genus. Journal of Proteomics, 2017, 166, 83-92.	2.4	64
22	Molecular Phylogeny and Evolution of the Proteins Encoded by Coleoid (Cuttlefish, Octopus, and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.8	62
23	Dracula's children: Molecular evolution of vampire bat venom. Journal of Proteomics, 2013, 89, 95-111.	2.4	61
24	Structural venomics reveals evolution of a complex venom by duplication and diversification of an ancient peptide-encoding gene. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 11399-11408.	7.1	59
25	Production and packaging of a biological arsenal: Evolution of centipede venoms under morphological constraint. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4026-4031.	7.1	56
26	Molecular Evolution of Vertebrate Neurotrophins: Co-Option of the Highly Conserved Nerve Growth Factor Gene into the Advanced Snake Venom Arsenalf. PLoS ONE, 2013, 8, e81827.	2.5	56
27	Venom proteomic characterization and relative antivenom neutralization of two medically important Pakistani elapid snakes (Bungarus sindanus and Naja naja). Journal of Proteomics, 2013, 89, 15-23.	2.4	55
28	Venom Down Under: Dynamic Evolution of Australian Elapid Snake Toxins. Toxins, 2013, 5, 2621-2655.	3.4	55
29	Sea Anemone Toxins: A Structural Overview. Marine Drugs, 2019, 17, 325.	4.6	54
30	Melt With This Kiss: Paralyzing and Liquefying Venom of The Assassin Bug Pristhesancus plagipennis (Hemiptera: Reduviidae). Molecular and Cellular Proteomics, 2017, 16, 552-566.	3.8	53
31	Squeezers and Leaf-cutters: Differential Diversification and Degeneration of the Venom System in Toxicoferan Reptiles. Molecular and Cellular Proteomics, 2013, 12, 1881-1899.	3.8	52
32	Diversification of a single ancestral gene into a successful toxin superfamily in highly venomous Australian funnel-web spiders. BMC Genomics, 2014, 15, 177.	2.8	49
33	A process of convergent amplification and tissueâ€specific expression dominates the evolution of toxin and toxinâ€like genes in sea anemones. Molecular Ecology, 2019, 28, 2272-2289.	3.9	48
34	Solenodon genome reveals convergent evolution of venom in eulipotyphlan mammals. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 25745-25755.	7.1	42
35	True Lies: Using Proteomics to Assess the Accuracy of Transcriptome-Based Venomics in Centipedes Uncovers False Positives and Reveals Startling Intraspecific Variation in Scolopendra subspinipes. Toxins, 2018, 10, 96.	3.4	40
36	Multifunctional warheads: Diversification of the toxin arsenal of centipedes via novel multidomain transcripts. Journal of Proteomics, 2014, 102, 1-10.	2.4	36

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37	Mapping Enzyme Activity on Tissue by Functional Mass Spectrometry Imaging. Angewandte Chemie - International Edition, 2020, 59, 3855-3858.	13.8	35
38	PHAB toxins: a unique family of predatory sea anemone toxins evolving via intra-gene concerted evolution defines a new peptide fold. Cellular and Molecular Life Sciences, 2018, 75, 4511-4524.	5.4	34
39	A Dipteranâ€™s Novel Sucker Punch: Evolution of Arthropod Atypical Venom with a Neurotoxic Component in Robber Flies (Asilidae, Diptera). Toxins, 2018, 10, 29.	3.4	33
40	Australian funnel-web spiders evolved human-lethal Î´-hexatoxins for defense against vertebrate predators. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 24920-24928.	7.1	32
41	Proteomic comparison of Hypnale hypnale (Hump-Nosed Pit-Viper) and Calloselasma rhodostoma (Malayan Pit-Viper) venoms. Journal of Proteomics, 2013, 91, 338-343.	2.4	30
42	Venom on ice: First insights into Antarctic octopus venoms. Toxicon, 2010, 56, 897-913.	1.6	28
43	Centipede venoms as a source of drug leads. Expert Opinion on Drug Discovery, 2016, 11, 1139-1149.	5.0	28
44	Characterising Functional Venom Profiles of Anthozoans and Medusozoans within Their Ecological Context. Marine Drugs, 2020, 18, 202.	4.6	28
45	Genetic identification of Southern Ocean octopod samples using mtCOI. Comptes Rendus - Biologies, 2010, 333, 395-404.	0.2	27
46	Three Peptide Modulators of the Human Voltage-Gated Sodium Channel 1.7, an Important Analgesic Target, from the Venom of an Australian Tarantula. Toxins, 2015, 7, 2494-2513.	3.4	27
47	Venomics of Remipede Crustaceans Reveals Novel Peptide Diversity and Illuminates the Venomâ€™s Biological Role. Toxins, 2017, 9, 234.	3.4	27
48	A complicated complex: Ion channels, voltage sensing, cell membranes and peptide inhibitors. Neuroscience Letters, 2018, 679, 35-47.	2.1	27
49	Structure-Activity Relationship of Chlorotoxin-Like Peptides. Toxins, 2016, 8, 36.	3.4	26
50	Deep venomics of the Pseudonaja genus reveals inter- and intra-specific variation. Journal of Proteomics, 2016, 133, 20-32.	2.4	26
51	Deadly Proteomes: A Practical Guide to Proteotranscriptomics of Animal Venoms. Proteomics, 2020, 20, e1900324.	2.2	26
52	Toxins from scratch? Diverse, multimodal gene origins in the predatory robber fly Dasypogon diadema indicate a dynamic venom evolution in dipteran insects. GigaScience, 2019, 8, .	6.4	25
53	Parallel Evolution of Complex Centipede Venoms Revealed by Comparative Proteotranscriptomic Analyses. Molecular Biology and Evolution, 2019, 36, 2748-2763.	8.9	24
54	Modulation of Ion Channels by Cysteine-Rich Peptides. Advances in Pharmacology, 2017, 79, 199-223.	2.0	22

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55	Extreme venom variation in Middle Eastern vipers: A proteomics comparison of Eristicophis macmahonii, Pseudocerastes fieldi and Pseudocerastes persicus. Journal of Proteomics, 2015, 116, 106-113.	2.4	21
56	Mutual enlightenment: A toolbox of concepts and methods for integrating evolutionary and clinical toxinology via snake venomics and the contextual stance. Toxicon: X, 2021, 9-10, 100070.	2.9	21
57	Venoms for all occasions: The functional toxin profiles of different anatomical regions in sea anemones are related to their ecological function. Molecular Ecology, 2022, 31, 866-883.	3.9	21
58	The Use of Imaging Mass Spectrometry to Study Peptide Toxin Distribution in Australian Sea Anemones. Australian Journal of Chemistry, 2017, 70, 1235.	0.9	20
59	Structural and Molecular Diversification of the Anguimorpha Lizard Mandibular Venom Gland System in the Arboreal Species Abronia graminea. Journal of Molecular Evolution, 2012, 75, 168-183.	1.8	19
60	A selective NaV1.1 activator with potential for treatment of Dravet syndrome epilepsy. Biochemical Pharmacology, 2020, 181, 113991.	4.4	19
61	Functional characterization on invertebrate and vertebrate tissues of tachykinin peptides from octopus venoms. Peptides, 2013, 47, 71-76.	2.4	18
62	An Integrated Proteomic and Transcriptomic Analysis Reveals the Venom Complexity of the Bullet Ant Paraponera clavata. Toxins, 2020, 12, 324.	3.4	18
63	Comparative analyses of glycerotoxin expression unveil a novel structural organization of the bloodworm venom system. BMC Evolutionary Biology, 2017, 17, 64.	3.2	17
64	Can we resolve the taxonomic bias in spider venom research?. Toxicon: X, 2019, 1, 100005.	2.9	17
65	A Centipede Toxin Family Defines an Ancient Class of CSÎ±Î² Defensins. Structure, 2019, 27, 315-326.e7.	3.3	17
66	Missiles of Mass Disruption: Composition and Glandular Origin of Venom Used as a Projectile Defensive Weapon by the Assassin Bug Platymeris rhadamanthus. Toxins, 2019, 11, 673.	3.4	16
67	Secreted Cysteine-Rich Repeat Proteins â€œSCREPsâ€: A Novel Multi-Domain Architecture. Frontiers in Pharmacology, 2018, 9, 1333.	3.5	15
68	Phylogenetic analyses suggest centipede venom arsenals were repeatedly stocked by horizontal gene transfer. Nature Communications, 2021, 12, 818.	12.8	15
69	A peptide toxin in ant venom mimics vertebrate EGF-like hormones to cause long-lasting hypersensitivity in mammals. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	15
70	CHAPTER 1. Seeing the Woods for the Trees: Understanding Venom Evolution as a Guide for Biodiscovery. RSC Drug Discovery Series, 2015, , 1-36.	0.3	13
71	Vintage venoms: Proteomic and pharmacological stability of snake venoms stored for up to eight decades. Journal of Proteomics, 2014, 105, 285-294.	2.4	12
72	Tentacle Morphological Variation Coincides with Differential Expression of Toxins in Sea Anemones. Toxins, 2021, 13, 452.	3.4	12

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73	Multipurpose peptides: The venoms of Amazonian stinging ants contain anthelmintic ponericins with diverse predatory and defensive activities. Biochemical Pharmacology, 2021, 192, 114693.	4.4	10
74	A Versatile and Robust Serine Protease Inhibitor Scaffold from Actinia tenebrosa. Marine Drugs, 2019, 17, 701.	4.6	9
75	Mapping Enzyme Activity on Tissue by Functional Mass Spectrometry Imaging. Angewandte Chemie, 2020, 132, 3883-3886.	2.0	8
76	Evolution, Expression Patterns, and Distribution of Novel Ribbon Worm Predatory and Defensive Toxins. Molecular Biology and Evolution, 2022, 39, .	8.9	8
77	CHAPTER 3. Venoms-Based Drug Discovery: Proteomic and Transcriptomic Approaches. RSC Drug Discovery Series, 2015, , 80-96.	0.3	7
78	A pain-causing and paralytic ant venom glycopeptide. IScience, 2021, 24, 103175.	4.1	7
79	Natural history of the slaty grey snake (Stegonotus cucullatus) (Serpentes:Colubridae) from tropical north Queensland, Australia. Australian Journal of Zoology, 2009, 57, 119.	1.0	7
80	Multitarget nociceptor sensitization by a promiscuous peptide from the venom of the King Baboon spider. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	7
81	Editorial: Animal Toxins as Comprehensive Pharmacological Tools to Identify Diverse Ion Channels. Frontiers in Pharmacology, 2019, 10, 423.	3.5	6
82	AsKC11, a Kunitz Peptide from Anemonia sulcata, Is a Novel Activator of G Protein-Coupled Inward-Rectifier Potassium Channels. Marine Drugs, 2022, 20, 140.	4.6	6
83	Physiological constraints dictate toxin spatial heterogeneity in snake venom glands. BMC Biology, 2022, 20, .	3.8	4
84	Differential Evolution and Neofunctionalization of Snake Venom Metalloprotease Domains. Molecular and Cellular Proteomics, 2013, 12, 1488.	3.8	1
85	Biochemical Modulation of Venom by Spiders is Achieved Via Compartmentalized Toxin Production and Storage. SSRN Electronic Journal, 0, , .	0.4	1
86	A Centipede Toxin Family Defines a New Ancient Class of CSSS Defensins. SSRN Electronic Journal, 0, , .	0.4	0