Vanden Broeck, Jozef

List of Publications by Year
in descending order

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124 papers	5,697 citations	76196 40 h-index	91712 69 g-index
125 all docs	125 docs citations	125 times ranked	4046 citing authors

#	Article	IF	Citations
1	Neuropeptides and their precursors in the fruitfly, Drosophila melanogasterâ˜†. Peptides, 2001, 22, 241-254.	1.2	306
2	Insulin/IGF signaling in Drosophila and other insects: factors that regulate production, release and post-release action of the insulin-like peptides. Cellular and Molecular Life Sciences, 2016, 73, 271-290.	2.4	269
3	Identification and validation of housekeeping genes in brains of the desert locust Schistocerca gregaria under different developmental conditions. BMC Molecular Biology, 2009, 10, 56.	3.0	207
4	RNA Interference in Insects: Protecting Beneficials and Controlling Pests. Frontiers in Physiology, 2018, 9, 1912.	1.3	153
5	Peptides in the Locusts, Locusta migratoria and Schistocerca gregaria. Peptides, 1997, 18, 145-156.	1.2	149
6	Drosophilamolting neurohormone bursicon is a heterodimer and the natural agonist of the orphan receptor DLGR2. FEBS Letters, 2005, 579, 2171-2176.	1.3	144
7	The role of octopamine in locusts and other arthropods. Journal of Insect Physiology, 2010, 56, 854-867.	0.9	142
8	Identification, functional characterization and phylogenetic analysis of double stranded RNA degrading enzymes present in the gut of the desert locust, Schistocerca gregaria. Insect Biochemistry and Molecular Biology, 2014, 46, 1-8.	1.2	138
9	Eat to reproduce: a key role for the insulin signaling pathway in adult insects. Frontiers in Physiology, 2013, 4, 202.	1.3	137
10	Knockdown of nuclease activity in the gut enhances RNAi efficiency in the Colorado potato beetle, Leptinotarsa decemlineata , but not in the desert locust, Schistocerca gregaria. Insect Biochemistry and Molecular Biology, 2017, 81, 103-116.	1.2	133
11	Control of ecdysteroidogenesis in prothoracic glands of insects: A review. Peptides, 2010, 31, 506-519.	1.2	130
12	From Molecules to Management: Mechanisms and Consequences of Locust Phase Polyphenism. Advances in Insect Physiology, 2017, 53, 167-285.	1.1	101
13	Final steps in juvenile hormone biosynthesis in the desert locust, Schistocerca gregaria. Insect Biochemistry and Molecular Biology, 2011, 41, 219-227.	1.2	98
14	An evolutionary comparison of leucine-rich repeat containing G protein-coupled receptors reveals a novel LGR subtype. Peptides, 2012, 34, 193-200.	1.2	95
15	Myoinhibiting peptides are the ancestral ligands of the promiscuous Drosophila sex peptide receptor. Cellular and Molecular Life Sciences, 2010, 67, 3511-3522.	2.4	93
16	Transcriptome Analysis of the Desert Locust Central Nervous System: Production and Annotation of a Schistocerca gregaria EST Database. PLoS ONE, 2011, 6, e17274.	1.1	90
17	RNA interference of insulin-related peptide and neuroparsins affects vitellogenesis in the desert locust Schistocerca gregaria. Peptides, 2011, 32, 573-580.	1.2	86
18	Insect G protein-coupled receptors and signal transduction. Archives of Insect Biochemistry and Physiology, 2001, 48, 1-12.	0.6	85

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19	Role of the Halloween genes, Spook and Phantom in ecdysteroidogenesis in the desert locust, Schistocerca gregaria. Journal of Insect Physiology, 2011, 57, 1240-1248.	0.9	83
20	Tissue-dependence and sensitivity of the systemic RNA interference response in the desert locust, Schistocerca gregaria. Insect Biochemistry and Molecular Biology, 2012, 42, 911-917.	1.2	83
21	Extracellular nutrient digestion and absorption in the insect gut. Cell and Tissue Research, 2019, 377, 397-414.	1.5	81
22	Characterization and distribution of NKD, a receptor for Drosophila tachykinin-related peptide 6. Peptides, 2009, 30, 545-556.	1.2	78
23	Influence of Freeze-Drying and Oven-Drying Post Blanching on the Nutrient Composition of the Edible Insect Ruspolia differens. Insects, 2017, 8, 102.	1.0	78
24	Endocrinology of reproduction and phase transition in locusts. General and Comparative Endocrinology, 2009, 162, 79-92.	0.8	73
25	Neuroparsins, a family of conserved arthropod neuropeptides. General and Comparative Endocrinology, 2007, 153, 64-71.	0.8	71
26	Critical role for protein kinase A in the acquisition of gregarious behavior in the desert locust. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E381-7.	3.3	69
27	Tachykinin-like Peptides and Their Receptors: A Review. Annals of the New York Academy of Sciences, 1999, 897, 374-387.	1.8	68
28	Comparative genomics of leucine-rich repeats containing G protein-coupled receptors and their ligands. General and Comparative Endocrinology, 2008, 155, 14-21.	0.8	68
29	The pleiotropic allatoregulatory neuropeptides and their receptors: A mini-review. Journal of Insect Physiology, 2015, 80, 2-14.	0.9	67
30	Purification and characterization of an insulin-related peptide in the desert locust, Schistocerca gregaria: immunolocalization, cDNA cloning, transcript profiling and interaction with neuroparsin. Journal of Molecular Endocrinology, 2008, 40, 137-150.	1.1	66
31	Regulation of feeding by Neuropeptide F in the desert locust, Schistocerca gregaria. Insect Biochemistry and Molecular Biology, 2013, 43, 102-114.	1.2	63
32	Biological Mechanisms Determining the Success of RNA Interference in Insects. International Review of Cell and Molecular Biology, 2014, 312, 139-167.	1.6	63
33	Receptors for Neuronal or Endocrine Signalling Molecules as Potential Targets for the Control of Insect Pests. Advances in Insect Physiology, 2014, 46, 167-303.	1.1	56
34	The possible impact of persistent virus infection on the function of the RNAi machinery in insects: a hypothesis. Frontiers in Physiology, 2013, 4, 319.	1.3	55
35	Isolation and functional characterization of an allatotropin receptor from Manduca sexta. Insect Biochemistry and Molecular Biology, 2011, 41, 804-814.	1.2	50
36	Functional Characterization of the Short Neuropeptide F Receptor in the Desert Locust, Schistocerca gregaria. PLoS ONE, 2013, 8, e53604.	1.1	50

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37	The ecdysone receptor complex is essential for the reproductive success in the female desert locust, Schistocerca gregaria. Scientific Reports, 2019, 9, 15.	1.6	49
38	The evolution of animal Argonautes: evidence for the absence of antiviral AGO Argonautes in vertebrates. Scientific Reports, 2017, 7, 9230.	1.6	46
39	CRF-Like Diuretic Hormone Negatively Affects Both Feeding and Reproduction in the Desert Locust, Schistocerca gregaria. PLoS ONE, 2012, 7, e31425.	1.1	44
40	RNAi-mediated knockdown of Shade negatively affects ecdysone-20-hydroxylation in the desert locust, Schistocerca gregaria. Journal of Insect Physiology, 2012, 58, 890-896.	0.9	44
41	The ecdysis triggering hormone system is essential for successful moulting of a major hemimetabolous pest insect, Schistocerca gregaria. Scientific Reports, 2017, 7, 46502.	1.6	44
42	Generation of Virus- and dsRNA-Derived siRNAs with Species-Dependent Length in Insects. Viruses, 2019, 11, 738.	1.5	43
43	Design of Novel Neurokinin 1 Receptor Antagonists Based on Conformationally Constrained Aromatic Amino Acids and Discovery of a Potent Chimeric Opioid Agonist-Neurokinin 1 Receptor Antagonist. Journal of Medicinal Chemistry, 2011, 54, 2467-2476.	2.9	41
44	Ecdysteroid signalling components in metamorphosis and development of the desert locust, Schistocerca gregaria. Insect Biochemistry and Molecular Biology, 2016, 75, 10-23.	1.2	40
45	Characterization of an allatotropin-like peptide receptor in the red flour beetle, Tribolium castaneum. Insect Biochemistry and Molecular Biology, 2011, 41, 815-822.	1.2	39
46	Neuropeptidergic regulation of reproduction in insects. General and Comparative Endocrinology, 2013, 188, 23-34.	0.8	39
47	The cloning, phylogenetic relationship and distribution pattern of two new putative GPCR-type octopamine receptors in the desert locust (Schistocerca gregaria). Journal of Insect Physiology, 2010, 56, 868-875.	0.9	38
48	Orcokinin neuropeptides regulate ecdysis in the hemimetabolous insect Rhodnius prolixus. Insect Biochemistry and Molecular Biology, 2017, 81, 91-102.	1.2	38
49	Neuropeptide Receptors as Possible Targets for Development of Insect Pest Control Agents. Advances in Experimental Medicine and Biology, 2010, 692, 211-226.	0.8	38
50	Effects of different dietary conditions on the expression ofÂtrypsin-Âand chymotrypsin-like protease genes in the digestiveÂsystem of the migratory locust, Locusta migratoria. Insect Biochemistry and Molecular Biology, 2014, 48, 100-109.	1.2	37
51	Analysis of Peptide Ligand Specificity of Different Insect Adipokinetic Hormone Receptors. International Journal of Molecular Sciences, 2018, 19, 542.	1.8	37
52	PIWI pathway against viruses in insects. Wiley Interdisciplinary Reviews RNA, 2019, 10, e1555.	3.2	37
53	Neuropeptide F regulates male reproductive processes in the desert locust, Schistocerca gregaria. Insect Biochemistry and Molecular Biology, 2013, 43, 252-259.	1.2	36
54	Identification of the short neuropeptide F precursor in the desert locust: Evidence for an inhibitory role of sNPF in the control of feeding. Peptides, 2014, 53, 134-139.	1.2	36

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55	Lipophorins can adhere to dsRNA, bacteria and fungi present in the hemolymph of the desert locust: A role as general scavenger for pathogens in the open body cavity. Journal of Insect Physiology, 2014, 64, 7-13.	0.9	36
56	Microarray-Based Transcriptomic Analysis of Differences between Long-Term Gregarious and Solitarious Desert Locusts. PLoS ONE, 2011, 6, e28110.	1.1	36
57	The role of hemocytes, serine protease inhibitors and pathogen-associated patterns in prophenoloxidase activation in the desert locust, Schistocerca gregaria. Peptides, 2008, 29, 235-241.	1.2	35
58	Neuroparsin transcripts as molecular markers in the process of desert locust (Schistocerca gregaria) phase transition. Biochemical and Biophysical Research Communications, 2006, 341, 599-606.	1.0	34
59	Characterisation and pharmacological analysis of a crustacean G protein-coupled receptor: the red pigment-concentrating hormone receptor of Daphnia pulex. Scientific Reports, 2017, 7, 6851.	1.6	34
60	First draft genome assembly of the desert locust, Schistocerca gregaria. F1000Research, 2020, 9, 775.	0.8	34
61	Pharmacological Characterization of a 5-HT1-Type Serotonin Receptor in the Red Flour Beetle, Tribolium castaneum. PLoS ONE, 2013, 8, e65052.	1.1	33
62	Sulfakinin is an important regulator of digestive processes in the migratory locust, Locusta migratoria. Insect Biochemistry and Molecular Biology, 2015, 61, 8-16.	1.2	32
63	Cloning, constitutive activity and expression profiling of two receptors related to relaxin receptors in Drosophila melanogaster. Peptides, 2015, 68, 83-90.	1.2	31
64	Peptides in insect oogenesis. Current Opinion in Insect Science, 2019, 31, 58-64.	2.2	31
65	Analgesic Properties of Opioid/NK1 Multitarget Ligands with Distinct in Vitro Profiles in Naive and Chronic Constriction Injury Mice. ACS Chemical Neuroscience, 2017, 8, 2315-2324.	1.7	30
66	Identification and Expression of the CCAP Receptor in the Chagasâ€™ Disease Vector, Rhodnius prolixus, and Its Involvement in Cardiac Control. PLoS ONE, 2013, 8, e68897.	1.1	28
67	In vivo effect of Neuropeptide F on ecdysteroidogenesis in adult female desert locusts (Schistocerca) Tj ETQq1 1 0.784314 rgBT /Ove	0.9	27
68	Synthesis and biological evaluation of compact, conformationally constrained bifunctional opioid agonist â€“ Neurokinin-1 antagonist peptidomimetics. European Journal of Medicinal Chemistry, 2015, 92, 64-77.	2.6	27
69	Pharmacological characterization of STKR, an insect G protein-coupled receptor for tachykinin-like peptides. Archives of Insect Biochemistry and Physiology, 2001, 48, 39-49.	0.6	26
70	Regulation ofSchistocerca gregaria neuroparsin transcript levels by juvenile hormone and 20-hydroxyecdysone. Archives of Insect Biochemistry and Physiology, 2006, 62, 107-115.	0.6	26
71	Functional comparison of two evolutionary conserved insect neurokinin-like receptors. Peptides, 2007, 28, 103-108.	1.2	26
72	Silencing D. melanogaster lgr1 impairs transition from larval to pupal stage. General and Comparative Endocrinology, 2014, 209, 135-147.	0.8	26

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73	Insights into RNAi-based antiviral immunity in Lepidoptera: acute and persistent infections in Bombyx mori and Trichoplusia ni cell lines. Scientific Reports, 2018, 8, 2423.	1.6	26
74	Systemic RNA interference in locusts: reverse genetics and possibilities for locust pest control. Current Opinion in Insect Science, 2014, 6, 9-14.	2.2	25
75	First draft genome assembly of the desert locust, Schistocerca gregaria. F1000Research, 2020, 9, 775.	0.8	24
76	Pharmacological and signalling properties of a D2-like dopamine receptor (Dop3) in Tribolium castaneum. Insect Biochemistry and Molecular Biology, 2015, 56, 9-20.	1.2	23
77	Persistent RNA virus infection of lepidopteran cell lines: Interactions with the RNAi machinery. Journal of Insect Physiology, 2016, 93-94, 81-93.	0.9	23
78	Accelerated delivery of dsRNA in lepidopteran midgut cells by a Galanthus nivalis lectin (GNA)-dsRNA-binding domain fusion protein. Pesticide Biochemistry and Physiology, 2021, 175, 104853.	1.6	23
79	Analysis of C-terminally substituted tachykinin-like peptide agonists by means of aequorin-based luminescent assays for human and insect neurokinin receptors. Biochemical Pharmacology, 2002, 63, 1675-1682.	2.0	22
80	Sex peptides and MIPs can activate the same G protein-coupled receptor. General and Comparative Endocrinology, 2013, 188, 137-143.	0.8	21
81	Juvenile Hormone receptor Met is essential for ovarian maturation in the Desert Locust, Schistocerca gregaria. Scientific Reports, 2019, 9, 10797.	1.6	21
82	Characterisation of a functional allatotropin receptor in the bumblebee, Bombus terrestris (Hymenoptera, Apidae). General and Comparative Endocrinology, 2013, 193, 193-200.	0.8	20
83	Dual Alleviation of Acute and Neuropathic Pain by Fused Opioid Agonist-Neurokinin 1 Antagonist Peptidomimetics. ACS Medicinal Chemistry Letters, 2015, 6, 1209-1214.	1.3	20
84	Role of peptide hormones in insect gut physiology. Current Opinion in Insect Science, 2020, 41, 71-78.	2.2	20
85	Transcriptional Analysis of The Adaptive Digestive System of The Migratory Locust in Response to Plant Defensive Protease Inhibitors. Scientific Reports, 2016, 6, 32460.	1.6	19
86	Substitution of conserved glycine residue by alanine in natural and synthetic neuropeptide ligands causes partial agonism at the stomoxytachykinin receptor. Journal of Neurochemistry, 2004, 90, 472-478.	2.1	18
87	Insect Neuropeptides and Their Receptors. Trends in Endocrinology and Metabolism, 1997, 8, 321-326.	3.1	17
88	Pharmacology of stomoxytachykinin receptor depends on second messenger system. Peptides, 2005, 26, 109-114.	1.2	17
89	The presence of extracellular microRNAs in the media of cultured Drosophila cells. Scientific Reports, 2018, 8, 17312.	1.6	17
90	Short-term persistence precedes pathogenic infection: Infection kinetics of cricket paralysis virus in silkworm-derived Bm5 cells. Journal of Insect Physiology, 2019, 115, 1-11.	0.9	17

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91	Microbial quality of edible grasshoppers Ruspolia differens (Orthoptera: Tettigoniidae): From wild harvesting to fork in the Kagera Region, Tanzania. Journal of Food Safety, 2019, 39, e12549.	1.1	17
92	Functional analysis of a pancreatic secretory trypsin inhibitor-like protein in insects: Silencing effects resemble the human pancreatic autodigestion phenotype. Insect Biochemistry and Molecular Biology, 2011, 41, 688-695.	1.2	16
93	Mode of action of allatostatins in the regulation of juvenile hormone biosynthesis in the cockroach, Diploptera punctata. Insect Biochemistry and Molecular Biology, 2014, 54, 61-68.	1.2	16
94	Signaling Properties and Pharmacological Analysis of Two Sulfakinin Receptors from the Red Flour Beetle, Tribolium castaneum. PLoS ONE, 2014, 9, e94502.	1.1	16
95	Comparison of antagonist activity of spantide family at human neurokinin receptors measured by aequorin luminescence-based functional calcium assay. Regulatory Peptides, 2005, 131, 23-28.	1.9	15
96	Molecular cloning and characterization of the SIFamide precursor and receptor in a hymenopteran insect, Bombus terrestris. General and Comparative Endocrinology, 2018, 258, 39-52.	0.8	15
97	Molecular cloning and characterization of the allatotropin precursor and receptor in the desert locust, Schistocerca gregaria. Frontiers in Neuroscience, 2015, 9, 84.	1.4	14
98	Nutrient-dependent control of short neuropeptide F transcript levels via components of the insulin/IGF signaling pathway in the desert locust, Schistocerca gregaria. Insect Biochemistry and Molecular Biology, 2016, 68, 64-70.	1.2	14
99	Drosha, Dicer-1 and Argonaute-1 in the desert locust: Phylogenetic analyses, transcript profiling and regulation during phase transition and feeding. Journal of Insect Physiology, 2015, 75, 20-29.	0.9	12
100	Extracellular vesicles spread the RNA interference signal of Tribolium castaneum TcA cells. Insect Biochemistry and Molecular Biology, 2020, 122, 103377.	1.2	12
101	Role of the venus kinase receptor in the female reproductive physiology of the desert locust, Schistocerca gregaria. Scientific Reports, 2017, 7, 11730.	1.6	11
102	Affordable Processing of Edible Orthopterans Provides a Highly Nutritive Source of Food Ingredients. Foods, 2021, 10, 144.	1.9	11
103	Crucial Role of Juvenile Hormone Receptor Components Methoprene-Tolerant and Taiman in Sexual Maturation of Adult Male Desert Locusts. Biomolecules, 2021, 11, 244.	1.8	11
104	Characterization of a novel brain barrier ex vivo insectâ€based Pâ€glycoprotein screening model. Pharmacology Research and Perspectives, 2014, 2, e00050.	1.1	10
105	Schistocerca neuropeptides â€“ An update. Journal of Insect Physiology, 2022, 136, 104326.	0.9	10
106	Pleiotropic and novel phenotypes in the Drosophila gut caused by mutation of drop-dead. Journal of Insect Physiology, 2018, 105, 76-84.	0.9	8
107	Precocious Downregulation of KrÃ¼ppel-Homolog 1 in the Migratory Locust, Locusta migratoria, Gives Rise to An Adultoid Phenotype with Accelerated Ovarian Development but Disturbed Mating and Oviposition. International Journal of Molecular Sciences, 2020, 21, 6058.	1.8	8
108	Oxytocin/vasopressin-like neuropeptide signaling in insects. Vitamins and Hormones, 2020, 113, 29-53.	0.7	8

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109	Prothoracicostatic Activity of the Ecdysis-Regulating Neuropeptide Crustacean Cardioactive Peptide (CCAP) in the Desert Locust. International Journal of Molecular Sciences, 2021, 22, 13465.	1.8	8
110	RNAi-Mediated Knockdown of Transcription Factor E93 in Nymphs of the Desert Locust (Schistocerca) Tj ETQq0 0 0 rgBT /Overlock 10 T Journal of Molecular Sciences, 2020, 21, 7518.	1.8	7
111	PIWI Proteins Play an Antiviral Role in Lepidopteran Cell Lines. Viruses, 2022, 14, 1442.	1.5	7
112	Conformational analysis of a cyclic AKH neuropeptide analog that elicits selective activity on locust versus honeybee receptor. Insect Biochemistry and Molecular Biology, 2020, 125, 103362.	1.2	6
113	RNAs on the Go: Extracellular Transfer in Insects with Promising Prospects for Pest Management. Plants, 2021, 10, 484.	1.6	5
114	Assaying Visual Memory in the Desert Locust. Insects, 2015, 6, 409-418.	1.0	3
115	Can BRET-based biosensors be used to characterize G-protein mediated signaling pathways of an insect GPCR, the Schistocerca gregaria CRF-related diuretic hormone receptor?. Insect Biochemistry and Molecular Biology, 2020, 122, 103392.	1.2	3
116	Knockdown of ecdysone receptor in male desert locusts affects relative weight of accessory glands and mating behavior. Journal of Insect Physiology, 2022, 138, 104368.	0.9	3
117	Identification and profiling of stable microRNAs in hemolymph of young and old Locusta migratoria fifth instars. Current Research in Insect Science, 2022, 2, 100041.	0.8	2
118	Preface: Insect signal transduction systems: Current knowledge and future directions. Archives of Insect Biochemistry and Physiology, 2006, 62, 105-106.	0.6	0
119	Editorial â€“ Special issue of the 28th Conference of European Comparative Endocrinologists (CECE-2016) â€“ Golden Jubilee of the European Society for Comparative Endocrinology (ESCE). General and Comparative Endocrinology, 2018, 258, 1-3.	0.8	0
120	General and comparative endocrinology: Special issue on insect neuroendocrinology and neurobiology. General and Comparative Endocrinology, 2019, 280, 192-193.	0.8	0
121	General and Comparative Endocrinology: Special issue on Insect Neuroendocrinology and Neurobiology. General and Comparative Endocrinology, 2019, 278, 1-2.	0.8	0
122	Effects of Pergularia tomentosa active fraction on the oogenesis of the desert locust, Schistocerca gregaria : ovarian biochemical composition, and effects on the ecdysteroid pathway. Physiological Entomology, 2021, 46, 70-81.	0.6	0
123	Special issue on Invertebrate Peptides. Peptides, 2022, 151, 170750.	1.2	0
124	Structural and biochemical assessment of the molecular binding of hexylresorcinol to insect immune phenoloxidase: A quest for a new insecticidal activity. Entomological Research, 0, , .	0.6	0