# Shun-ichiro Kawabata

List of Publications by Year
in descending order

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Version: 2024-02-01

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|---|---|---|---|
| 84 papers | 4,589 citations | 81743 39 h-index | 98622 67 g-index |
| 89 all docs | 89 docs citations | 89 times ranked | 3985 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Proteolytic cascades and their involvement in invertebrate immunity. Trends in Biochemical Sciences, 2010, 35, 575-583. | 3.7 | 308 |
| 2 | Highly sensitive peptide-4-methylcoumaryl-7-amide substrates for blood-clotting proteases and trypsin. FEBS Journal, 1988, 172, 17-25. | 0.2 | 235 |
| 3 | Staphylocoagulase is a prototype for the mechanism of cofactor-induced zymogen activation. Nature, 2003, 425, 535-539. | 13.7 | 234 |
| 4 | Influenza A virus protein PB1-F2 translocates into mitochondria via Tom40 channels and impairs innate immunity. Nature Communications, 2014, 5, 4713. | 5.8 | 181 |
| 5 | Functional Conversion of Hemocyanin to Phenoloxidase by Horseshoe Crab Antimicrobial Peptides. Journal of Biological Chemistry, 2001, 276, 27166-27170. | 1.6 | 176 |
| 6 | A Novel Big Defensin Identified in Horseshoe Crab Hemocytes: Isolation, Amino Acid Sequence, and Antibacterial Activity1. Journal of Biochemistry, 1995, 117, 1131-1137. | 0.9 | 169 |
| 7 | Tachylectin-2: crystal structure of a specific GlcNAc/GalNAc-binding lectin involved in the innate immunity host defense of the Japanese horseshoe crab Tachypleus tridentatus. EMBO Journal, 1999, 18, 2313-2322. | 3.5 | 161 |
| 8 | A Link between Blood Coagulation and Prophenol Oxidase Activation in Arthropod Host Defense. Journal of Biological Chemistry, 2000, 275, 29264-29267. | 1.6 | 147 |
| 9 | Chitin-binding Proteins in Invertebrates and Plants Comprise a Common Chitin-binding Structural Motif. Journal of Biological Chemistry, 2000, 275, 17929-17932. | 1.6 | 131 |
| 10 | In vitro activation of pro-phenol-oxidase by two kinds of pro-phenol-oxidase-activating factors isolated from hemolymph of coleopteran, Holotrichia diomphalia larvae. FEBS Journal, 1998, 254, 50-57. | 0.2 | 128 |
| 11 | Tachycitin, a Small Granular Component in Horseshoe Crab Hemocytes, Is an Antimicrobial Protein with Chitin-Binding Activity. Journal of Biochemistry, 1996, 120, 1253-1260. | 0.9 | 126 |
| 12 | Recognition of pathogens and activation of immune responses in Drosophila and horseshoe crab innate immunity. Immunobiology, 2006, 211, 237-249. | 0.8 | 108 |
| 13 | Molecular cloning of cDNA for pro-phenol-oxidase-activating factor I, a serine protease is induced by lipopolysaccharide or 1,3-beta-glucan in coleopteran insect, Holotrichia diomphalia larvae. FEBS Journal, 1998, 257, 615-621. | 0.2 | 106 |
| 14 | Horseshoe Crab Hemocyte-derived Antimicrobial Polypeptides, Tachystatins, with Sequence Similarity to Spider Neurotoxins. Journal of Biological Chemistry, 1999, 274, 26172-26178. | 1.6 | 104 |
| 15 | A Newly Identified Horseshoe Crab Lectin with Binding Specificity to O-antigen of Bacterial Lipopolysaccharides. Journal of Biological Chemistry, 1997, 272, 30703-30708. | 1.6 | 95 |
| 16 | Evolution and phylogeny of defense molecules associated with innate immunity in horseshoe crab. Frontiers in Bioscience - Landmark, 1998, 3, d973-984. | 3.0 | 89 |
| 17 | A Novel Type of limulus Lectin-L6. PURIFICATION, PRIMARY STRUCTURE, AND ANTIBACTERIAL ACTIVITY. Journal of Biological Chemistry, 1995, 270, 14493-14499. | 1.6 | 83 |
| 18 | A serine protease zymogen functions as a pattern-recognition receptor for lipopolysaccharides. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 953-958. | 3.3 | 83 |

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|---|---|---|---|
| 19 | Molecular Cloning of Limulusalpha2-Macroglobulin. FEBS Journal, 1996, 242, 822-831. | 0.2 | 75 |
| 20 | Limulus factor D, a 43-kDa protein isolated from horseshoe crab hemocytes, is a serine protease homologue with antimicrobial activity. FEBS Letters, 1996, 398, 146-150. | 1.3 | 71 |
| 21 | Molecular basis of non-self recognition by the horseshoe crab tachylectins. Biochimica Et Biophysica Acta - General Subjects, 2002, 1572, 414-421. | 1.1 | 69 |
| 22 | Purification, Characterization, and cDNA Cloning of a 27-kDa Lectin (L10) from Horseshoe Crab Hemocytes. Journal of Biological Chemistry, 1995, 270, 31008-31015. | 1.6 | 68 |
| 23 | Enzymatic Properties of Staphylothrombin, an Active Molecular Complex Formed between Staphylocoagulase and Human Prothrombin12. Journal of Biochemistry, 1985, 98, 1603-1614. | 0.9 | 66 |
| 24 | Interaction between tachyplesin I, an antimicrobial peptide derived from horseshoe crab, and lipopolysaccharide. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2014, 1844, 527-534. | 1.1 | 64 |
| 25 | Crosslinking of a Peritrophic Matrix Protein Protects Gut Epithelia from Bacterial Exotoxins. PLoS Pathogens, 2015, 11, e1005244. | 2.1 | 63 |
| 26 | A Newly Identified Horseshoe Crab Lectin with Specificity for Blood Group A Antigen Recognizes Specific O-Antigens of Bacterial Lipopolysaccharides. Journal of Biological Chemistry, 1999, 274, 3272-3278. | 1.6 | 61 |
| 27 | A Limulus Intracellular Coagulation Inhibitor Type 2. Journal of Biological Chemistry, 1995, 270, 558-565. | 1.6 | 60 |
| 28 | Factor C Acts as a Lipopolysaccharide-Responsive C3 Convertase in Horseshoe Crab Complement Activation. Journal of Immunology, 2008, 181, 7994-8001. | 0.4 | 59 |
| 29 | A Structural Perspective on the Interaction between Lipopolysaccharide and Factor C, a Receptor Involved in Recognition of Gram-negative Bacteria. Journal of Biological Chemistry, 2007, 282, 3962-3967. | 1.6 | 55 |
| 30 | Functional and structural diversities of C-reactive proteins present in horseshoe crab hemolymph plasma. FEBS Journal, 1999, 264, 314-326. | 0.2 | 54 |
| 31 | Proline-rich Cell Surface Antigens of Horseshoe Crab Hemocytes Are Substrates for Protein Cross-linking with a Clotting Protein Coagulin. Journal of Biological Chemistry, 2002, 277, 40084-40090. | 1.6 | 51 |
| 32 | Duplicated Binding Sites for (1â†'3)-Î²-d-Glucan in the Horseshoe Crab Coagulation Factor G. Journal of Biological Chemistry, 2002, 277, 14281-14287. | 1.6 | 50 |
| 33 | A Toll-like receptor in horseshoe crabs. Immunological Reviews, 2004, 198, 106-115. | 2.8 | 49 |
| 34 | Limulus Intracellular Coagulation Inhibitor Type 3. Journal of Biological Chemistry, 1996, 271, 23768-23774. | 1.6 | 46 |
| 35 | Transglutaminase-Catalyzed Protein-Protein Cross-Linking Suppresses the Activity of the NF-ÎºBâ€"Like Transcription Factor Relish. Science Signaling, 2013, 6, ra61. | 1.6 | 44 |
| 36 | A Novel Î²-Defensin Structure: A Potential Strategy of Big Defensin for Overcoming Resistance by Gram-Positive Bacteria. Biochemistry, 2008, 47, 10611-10619. | 1.2 | 43 |

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|---|---|---|---|
| 37 | Protein Crosslinking by Transglutaminase Controls Cuticle Morphogenesis in Drosophila. PLoS ONE, 2010, 5, e13477. | 1.1 | 43 |
| 38 | Role of Hemocyte-Derived Granular Components in Invertebrate Defense. Annals of the New York Academy of Sciences, 1994, 712, 102-116. | 1.8 | 42 |
| 39 | Structure of the Antimicrobial Peptide Tachystatin A. Journal of Biological Chemistry, 2002, 277, 23651-23657. | 1.6 | 41 |
| 40 | A Cysteine Protease Inhibitor Stored in the Large Granules of Horseshoe Crab Hemocytes: Purification, Characterization, cDNA Cloning and Tissue Localization. Journal of Biochemistry, 1996, 119, 85-94. | 0.9 | 39 |
| 41 | The Complete Amino Acid Sequence of Coagulogen Isolated from Southeast Asian Horseshoe Crab, Carcinoscorpius rotundicauda1. Journal of Biochemistry, 1985, 98, 305-318. | 0.9 | 38 |
| 42 | Comprehensive sequence analysis of horseshoe crab cuticular proteins and their involvement in transglutaminase-dependent cross-linking. FEBS Journal, 2005, 272, 4774-4786. | 2.2 | 38 |
| 43 | Activated phenoloxidase from Tenebrio molitor larvae enhances the synthesis of melanin by using a vitellogenin-like protein in the presence of dopamine. FEBS Journal, 2000, 267, 3695-3703. | 0.2 | 37 |
| 44 | Sadaaki Iwanaga: discovery of the lipopolysaccharide- and Â-1,3-D-glucan-mediated proteolytic cascade and unique proteins in invertebrate immunity. Journal of Biochemistry, 2010, 147, 611-618. | 0.9 | 37 |
| 45 | Head-to-Tail Polymerization of Coagulin, a Clottable Protein of the Horseshoe Crab. Journal of Biological Chemistry, 2000, 275, 35297-35301. | 1.6 | 35 |
| 46 | Purification and identification of a tributyltinâ€binding protein from serum of Japanese flounder, Paralichthys olivaceus. Environmental Toxicology and Chemistry, 2002, 21, 1229-1235. | 2.2 | 35 |
| 47 | Immunocompetent Molecules and Their Response Network in Horseshoe Crabs. Advances in Experimental Medicine and Biology, 2010, 708, 122-136. | 0.8 | 34 |
| 48 | ppGpp functions as an alarmone in metazoa. Communications Biology, 2020, 3, 671. | 2.0 | 34 |
| 49 | Drosophila TG-A transglutaminase is secreted via an unconventional Golgi-independent mechanism involving exosomes and two types of fatty acylations. Journal of Biological Chemistry, 2017, 292, 10723-10734. | 1.6 | 26 |
| 50 | Genetic engineering approach to develop next-generation reagents for endotoxin quantification. Innate Immunity, 2017, 23, 136-146. | 1.1 | 25 |
| 51 | Purification, Characterization, and Amino Acid Sequence of an Embryonic Lectin in Perivitelline Fluid of the Horseshoe Crab. Journal of Biological Chemistry, 1999, 274, 37673-37678. | 1.6 | 24 |
| 52 | Secondary structural features of modules M2 and M3 of barnase in solution by NMR experiment and distance geometry calculation. Proteins: Structure, Function and Bioinformatics, 1993, 16, 341-356. | 1.5 | 23 |
| 53 | An Arthropod Cuticular Chitin-binding Protein Endows Injured Sites with Transglutaminase-dependent Mesh. Journal of Biological Chemistry, 2007, 282, 37316-37324. | 1.6 | 23 |
| 54 | A Cysteine-rich Protein from an Arthropod Stabilizes Clotting Mesh and Immobilizes Bacteria at Injury Sites. Journal of Biological Chemistry, 2007, 282, 33545-33552. | 1.6 | 23 |

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| 55 | The solution structure of horseshoe crab antimicrobial peptide tachystatin B with an inhibitory cystine-knot motif. Journal of Peptide Science, 2007, 13, 269-279. | 0.8 | 23 |
| 56 | cDNA Cloning, Tissue Distribution, and Subcellular Localization of Horseshoe Crab Big Defensin. Biological Chemistry, 1997, 378, 289-292. | 1.2 | 22 |
| 57 | An antimicrobial peptide tachyplesin acts as a secondary secretagogue and amplifies lipopolysaccharide-induced hemocyte exocytosis. FEBS Journal, 2005, 272, 3863-3871. | 2.2 | 21 |
| 58 | Microbe-Specific C3b Deposition in the Horseshoe Crab Complement System in a C2/Factor B-Dependent or -Independent Manner. PLoS ONE, 2012, 7, e36783. | 1.1 | 21 |
| 59 | Structureâ€Function Relationships of Tachyplesins and their Analogues. Novartis Foundation Symposium, 1994, 186, 160-175. | 1.2 | 19 |
| 60 | Factor B Is the Second Lipopolysaccharide-binding Protease Zymogen in the Horseshoe Crab Coagulation Cascade. Journal of Biological Chemistry, 2015, 290, 19379-19386. | 1.6 | 18 |
| 61 | Insecticidal activity of the metalloprotease AprA occurs through suppression of host cellular and humoral immunity. Developmental and Comparative Immunology, 2018, 81, 116-126. | 1.0 | 17 |
| 62 | The N-terminal Arg Residue Is Essential for Autocatalytic Activation of a Lipopolysaccharide-responsive Protease Zymogen. Journal of Biological Chemistry, 2014, 289, 25987-25995. | 1.6 | 16 |
| 63 | RNA Interference Directed against the Transglutaminase Gene Triggers Dysbiosis of Gut Microbiota in Drosophila. Journal of Biological Chemistry, 2016, 291, 25077-25087. | 1.6 | 16 |
| 64 | Transglutaminase-catalyzed incorporation of polyamines masks the DNA-binding region of the transcription factor Relish. Journal of Biological Chemistry, 2017, 292, 6369-6380. | 1.6 | 16 |
| 65 | Intermolecular autocatalytic activation of serine protease zymogen factor C through an active transition state responding to lipopolysaccharide. Journal of Biological Chemistry, 2018, 293, 11589-11599. | 1.6 | 14 |
| 66 | Factor G Utilizes a Carbohydrate-Binding Cleft That Is Conserved between Horseshoe Crab and Bacteria for the Recognition of Î²-1,3-<scp>d</scp>-Glucans. Journal of Immunology, 2009, 183, 3810-3818. | 0.4 | 11 |
| 67 | Tissue Distribution and Subcellular Localization of Rabbit Liver Metalloendopeptidase. Journal of Histochemistry and Cytochemistry, 1997, 45, 41-47. | 1.3 | 9 |
| 68 | Pluripotency and a secretion mechanism of Drosophila transglutaminase. Journal of Biochemistry, 2018, 163, 165-176. | 0.9 | 8 |
| 69 | Roles of the clip domains of two protease zymogens in the coagulation cascade in horseshoe crabs. Journal of Biological Chemistry, 2020, 295, 8857-8866. | 1.6 | 8 |
| 70 | Limulus kexin: a new type of Kex2-like endoprotease specifically expressed in hemocytes of the horseshoe crab. FEBS Letters, 1996, 386, 201-204. | 1.3 | 7 |
| 71 | Difference in Enzymatic Properties between "Staphylothrombin" and Free ?-Thrombin. Annals of the New York Academy of Sciences, 1986, 485, 27-40. | 1.8 | 6 |
| 72 | Cloning, Sequencing, and Functional Expression in Escherichia coli of Chaperonin (groESL) Genes from Vibrio cholerae. Microbiology and Immunology, 1999, 43, 513-520. | 0.7 | 6 |

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| 73 | Molecular basis of non-self recognition by the horseshoe crab lectins. Journal of Endotoxin Research, 2002, 8, 437-439. | 2.5 | 3 |
| 74 | New insights into the hemolymph coagulation cascade of horseshoe crabs initiated by autocatalytic activation of a lipopolysaccharide-sensitive zymogen. Developmental and Comparative Immunology, 2022, 135, 104491. | 1.0 | 3 |
| 75 | Transglutaminase in Invertebrates. , 2015, , 117-127. | | 2 |
| 76 | A mutant equipped with a regenerated disulphide for the missing His loop of a serine protease zymogen in the horseshoe crab coagulation cascade. Journal of Biochemistry, 2021, 170, 489-500. | 0.9 | 2 |
| 77 | Chlorophyll Deficiency Caused by a Specific Blockage of the C<sub>5</sub>-Pathway in Seedlings of Virescent Mutant Rice. Plant and Cell Physiology, 1994, , . | 1.5 | 1 |
| 78 | 2S9-1 Characterization of a beta-1,3-D-gulucan-recognition unit of horseshoe crab pattern-recognition protein factor G(2S9 Structural Biology of Innate Immunity,The 46th Annual Meeting of the) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 537 T | | |
| 79 | 1P302 A structural analysis of the MAVS-regulatory mechanism using BRET(27. Bioimaging,Poster,The) Tj ETQq1 1 0.784314 rgBT /Over | 0.0 | 0 |
| 80 | Processing Enzyme for Vitamin K-Dependent Proteins. Japanese Journal of Thrombosis and Hemostasis, 1992, 3, 284-287. | 0.1 | 0 |
| 81 | A Preparation Method of Egg Yolk Antibody in Immunized Hens.. Japanese Journal of Thrombosis and Hemostasis, 1998, 9, 435-439. | 0.1 | 0 |
| 82 | Purification and Assays of Tachylectin-5. Methods in Molecular Biology, 2020, 2132, 277-283. | 0.4 | 0 |
| 83 | Purification and Assays of Tachylectin-2. Methods in Molecular Biology, 2020, 2132, 309-316. | 0.4 | 0 |
| 84 | Purification and Assays of Tachycitin. Methods in Molecular Biology, 2020, 2132, 317-323. | 0.4 | 0 |