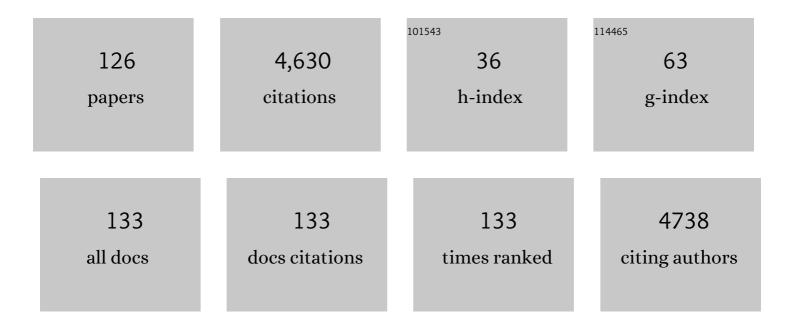
Filip Van petegem

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	The role of phosphorylation in atrial fibrillation: a focus on mass spectrometry approaches. Cardiovascular Research, 2022, 118, 1205-1217.	3.8	1
2	Calcium-release channels: structure and function of IP ₃ receptors and ryanodine receptors. Physiological Reviews, 2022, 102, 209-268.	28.8	93
3	Cell Surface Xyloglucan Recognition and Hydrolysis by the Human Gut Commensal Bacteroides uniformis. Applied and Environmental Microbiology, 2022, 88, AEM0156621.	3.1	5
4	Cardiac ryanodine receptor N-terminal region biosensors identify novel inhibitors via FRET-based high-throughput screening. Journal of Biological Chemistry, 2022, 298, 101412.	3.4	2
5	Structural basis for diamide modulation of ryanodine receptor. Journal of General Physiology, 2022, 154, .	1.9	0
6	Multiple regions within junctin drive its interaction with calsequestrin-1 and its localization to triads in skeletal muscle. Journal of Cell Science, 2022, 135, .	2.0	3
7	Cryo-EM studies of ryanodine receptor disease mutant and modulation by calmodulin. Biophysical Journal, 2022, 121, 175a.	0.5	0
8	Structures of PKA–phospholamban complexes reveal a mechanism of familial dilated cardiomyopathy. ELife, 2022, 11, .	6.0	5
9	Structures of the junctophilin/voltage-gated calcium channel interface reveal hot spot for cardiomyopathy mutations. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2120416119.	7.1	17
10	Altered cyclic nucleotide binding and pore opening in a diseased human HCN4 channel. Biophysical Journal, 2022, 121, 1166-1183.	0.5	1
11	Structural and electrophysiological basis for the modulation of KCNQ1 channel currents by ML277. Nature Communications, 2022, 13, .	12.8	15
12	It takes two to tango: Rycals and ATP snuggle up to bind ryanodine receptors. Structure, 2022, 30, 919-921.	3.3	0
13	Binding of calcium and magnesium to human cardiac troponin C. Journal of Biological Chemistry, 2021, 296, 100350.	3.4	13
14	Distinct protein architectures mediate species-specific beta-glucan binding and metabolism in the human gut microbiota. Journal of Biological Chemistry, 2021, 296, 100415.	3.4	17
15	Pathological conformations of disease mutant Ryanodine Receptors revealed by cryo-EM. Nature Communications, 2021, 12, 807.	12.8	38
16	Structural Insights into the Diamide Modulation of Ryanodine Receptor. Biophysical Journal, 2021, 120, 149a.	0.5	0
17	Homozygous <i>SCN1B</i> variants causing early infantile epileptic encephalopathy 52 affect voltageâ€gated sodium channel function. Epilepsia, 2021, 62, e82-e87.	5.1	9
18	Orthogonal Active-Site Labels for Mixed-Linkage endo-β-Glucanases. ACS Chemical Biology, 2021, 16, 1968-1984.	3.4	6

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19	Structure and function of STAC proteins: Calcium channel modulators and critical components of muscle excitation–contraction coupling. Journal of Biological Chemistry, 2021, 297, 100874.	3.4	18
20	Functional characterization of a cellulose synthase, CtCESA1, from the marine red alga Calliarthron tuberculosum (Corallinales). Journal of Experimental Botany, 2021, , .	4.8	4
21	Cryo-EM structures of the ABCA4 importer reveal mechanisms underlying substrate binding and Stargardt disease. Nature Communications, 2021, 12, 5902.	12.8	25
22	Using hiPSC Ms to Examine Mechanisms of Catecholaminergic Polymorphic Ventricular Tachycardia. Current Protocols, 2021, 1, e320.	2.9	3
23	Molecular interactions between sex hormone–binding globulin and nonsteroidal ligands that enhance androgen activity. Journal of Biological Chemistry, 2020, 295, 1202-1211.	3.4	7
24	Interleukin-10 and Small Molecule SHIP1 Allosteric Regulators Trigger Anti-inflammatory Effects through SHIP1/STAT3 Complexes. IScience, 2020, 23, 101433.	4.1	20
25	Sorcin is an early marker of neurodegeneration, Ca2+ dysregulation and endoplasmic reticulum stress associated to neurodegenerative diseases. Cell Death and Disease, 2020, 11, 861.	6.3	29
26	A multi-dimensional analysis of genotype–phenotype discordance in malignant hyperthermia susceptibility. British Journal of Anaesthesia, 2020, 125, 995-1001.	3.4	5
27	Biophysical Investigation of Sodium Channel Interaction with β-Subunit Variants Associated with Arrhythmias. Bioelectricity, 2020, 2, 269-278.	1.1	1
28	Structural basis for diamide modulation of ryanodine receptor. Nature Chemical Biology, 2020, 16, 1246-1254.	8.0	75
29	The arrhythmogenic N53I variant subtly changes the structure and dynamics in the calmodulin N-terminal domain, altering its interaction with the cardiac ryanodine receptor. Journal of Biological Chemistry, 2020, 295, 7620-7634.	3.4	21
30	A rare CACNA1H variant associated with amyotrophic lateral sclerosis causes complete loss of Cav3.2 T-type channel activity. Molecular Brain, 2020, 13, 33.	2.6	14
31	Multiple Sequence Variants in STAC3 Affect Interactions with CaV1.1 and Excitation-Contraction Coupling. Structure, 2020, 28, 922-932.e5.	3.3	17
32	Crystal Structures of Calcium-Loaded Calmodulin in Complex with C-Terminal Domains of Voltage-Gated Sodium Channels. Biophysical Journal, 2020, 118, 576a.	0.5	0
33	Cardiac arrest in a mother and daughter and the identification of a novel <i>RYR2</i> variant, predisposing to low penetrant catecholaminergic polymorphic ventricular tachycardia in a fourâ€generation Canadian family. Molecular Genetics & Genomic Medicine, 2020, 8, e1151.	1.2	3
34	Nanodisc technology facilitates identification of monoclonal antibodies targeting multi-pass membrane proteins. Scientific Reports, 2020, 10, 1130.	3.3	11
35	Arrhythmia mutations in calmodulin can disrupt cooperativity of Ca2+binding and cause misfolding. Journal of Physiology, 2020, 598, 1169-1186.	2.9	26
36	Synergy between Cell Surface Glycosidases and Glycan-Binding Proteins Dictates the Utilization of Specific Beta(1,3)-Glucans by Human Gut <i>Bacteroides</i> . MBio, 2020, 11, .	4.1	58

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37	Cardiac ryanodine receptor distribution is dynamic and changed by auxiliary proteins and post-translational modification. ELife, 2020, 9, .	6.0	44
38	Molecular interactions between sex hormone–binding globulin and nonsteroidal ligands that enhance androgen activity. Journal of Biological Chemistry, 2020, 295, 1202-1211.	3.4	13
39	Type 8 long QT syndrome: pathogenic variants in CACNA1C-encoded Cav1.2 cluster in STAC protein binding site. Europace, 2019, 21, 1725-1732.	1.7	15
40	Slaying a giant: Structures of calmodulin and protein kinase a bound to the cardiac ryanodine receptor. Cell Calcium, 2019, 83, 102079.	2.4	5
41	Binding and structural asymmetry governs ligand sensitivity in a cyclic nucleotide–gated ion channel. Journal of General Physiology, 2019, 151, 1190-1212.	1.9	5
42	The Cardiac Ryanodine Receptor Phosphorylation Hotspot Embraces PKA in a Phosphorylation-Dependent Manner. Molecular Cell, 2019, 75, 39-52.e4.	9.7	31
43	Crystal structures of Ca ²⁺ –calmodulin bound to Na _V C-terminal regions suggest role for EF-hand domain in binding and inactivation. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 10763-10772.	7.1	35
44	Surface glycan-binding proteins are essential for cereal beta-glucan utilization by the human gut symbiont Bacteroides ovatus. Cellular and Molecular Life Sciences, 2019, 76, 4319-4340.	5.4	35
45	In vitro analyses of suspected arrhythmogenic thin filament variants as a cause of sudden cardiac death in infants. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 6969-6974.	7.1	16
46	Structural Insights into Recognition of Ryanodine Receptors by PKA. Biophysical Journal, 2019, 116, 153a-154a.	0.5	0
47	Reply to Pitt and Lee: Occupancies of Ca2+in complexes of calmodulin with voltage-gated sodium channels. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 26152-26152.	7.1	0
48	Subtle Changes in the Combining Site of the Chlamydiaceae-Specific mAb S25-23 Increase the Antibody–Carbohydrate Binding Affinity by an Order of Magnitude. Biochemistry, 2019, 58, 714-726.	2.5	2
49	Ca2+-dependent calmodulin binding to cardiac ryanodine receptor (RyR2) calmodulin-binding domains. Biochemical Journal, 2019, 476, 193-209.	3.7	24
50	Cardiac hypertrophy and arrhythmia in mice induced by a mutation in ryanodine receptor 2. JCI Insight, 2019, 4, .	5.0	18
51	STAC proteins associate to the IQ domain of Ca _V 1.2 and inhibit calcium-dependent inactivation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 1376-1381.	7.1	40
52	The voltage-gated sodium channel EF-hands form an interaction with the III-IV linker that is disturbed by disease-causing mutations. Scientific Reports, 2018, 8, 4483.	3.3	25
53	The clinical and genetic spectrum of catecholaminergic polymorphic ventricular tachycardia: findings from an international multicentre registry. Europace, 2018, 20, 541-547.	1.7	91
54	Structural Insights into the STAC Adaptor Protein and Voltage-Gated Calcium Channel Interaction. Biophysical Journal, 2018, 114, 40a.	0.5	0

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55	Catecholaminergic polymorphic ventricular tachycardia patients with multiple genetic variants in the PACES CPVT Registry. PLoS ONE, 2018, 13, e0205925.	2.5	31
56	Arrhythmia mutations in calmodulin cause conformational changes that affect interactions with the cardiac voltage-gated calcium channel. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E10556-E10565.	7.1	36
57	Calcium Channelopathies: Structural Insights into Disorders of the Muscle Excitation–Contraction Complex. Annual Review of Genetics, 2018, 52, 373-396.	7.6	25
58	Ryanodine Receptor (RyR). , 2018, , 4786-4792.		0
59	Ligand binding to Ryanodine Receptors revealed through cryo-electron microscopy. Cell Calcium, 2017, 61, 50-52.	2.4	4
60	The Arrhythmogenic Calmodulin p.Phe142Leu Mutation Impairs C-domain Ca2+ Binding but Not Calmodulin-dependent Inhibition of the Cardiac Ryanodine Receptor. Journal of Biological Chemistry, 2017, 292, 1385-1395.	3.4	35
61	Structural insights into binding of STAC proteins to voltage-gated calcium channels. Proceedings of the United States of America, 2017, 114, E9520-E9528.	7.1	63
62	Catecholaminergic polymorphic ventricular tachycardia. Current Opinion in Cardiology, 2017, 32, 78-85.	1.8	19
63	Crystallographic insight into the evolutionary origins of xyloglucan endotransglycosylases and endohydrolases. Plant Journal, 2017, 89, 651-670.	5.7	33
64	A novel RYR2 loss-of-function mutation (I4855M) is associated with left ventricular non-compaction and atypical catecholaminergic polymorphic ventricular tachycardia. Journal of Electrocardiology, 2017, 50, 227-233.	0.9	47
65	CPVT-associated cardiac ryanodine receptor mutation G357S with reduced penetrance impairs Ca2+ release termination and diminishes protein expression. PLoS ONE, 2017, 12, e0184177.	2.5	12
66	Characterization of Zebrafish Cardiac and Slow Skeletal Troponin C Paralogs by MD Simulation andÂITC. Biophysical Journal, 2016, 111, 38-49.	0.5	16
67	How to open a Ryanodine Receptor. Cell Research, 2016, 26, 1073-1074.	12.0	9
68	Defining the stoichiometry of inositol 1,4,5-trisphosphate binding required to initiate Ca ²⁺ release. Science Signaling, 2016, 9, ra35.	3.6	140
69	Identification of Avian Corticosteroid-binding Globulin (SerpinA6) Reveals the Molecular Basis of Evolutionary Adaptations in SerpinA6 Structure and Function as a Steroid-binding Protein. Journal of Biological Chemistry, 2016, 291, 11300-11312.	3.4	16
70	Cyclic Purine and Pyrimidine Nucleotides Bind to the HCN2 Ion Channel and Variably Promote C-Terminal Domain Interactions and Opening. Structure, 2016, 24, 1629-1642.	3.3	16
71	Ryanodine receptors under the magnifying lens: Insights and limitations of cryo-electron microscopy and X-ray crystallography studies. Cell Calcium, 2016, 59, 209-227.	2.4	52
72	Binary architecture of the Nav1.2- \hat{l}^2 2 signaling complex. ELife, 2016, 5, .	6.0	37

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73	The H29D Mutation Does Not Enhance Cytosolic Ca2+ Activation of the Cardiac Ryanodine Receptor. PLoS ONE, 2015, 10, e0139058.	2.5	4
74	Roles of the NH2-terminal Domains of Cardiac Ryanodine Receptor in Ca2+ Release Activation and Termination. Journal of Biological Chemistry, 2015, 290, 7736-7746.	3.4	17
75	Crystal structures of ryanodine receptor SPRY1 and tandem-repeat domains reveal a critical FKBP12 binding determinant. Nature Communications, 2015, 6, 7947.	12.8	56
76	Paramagnetic Ligand Tagging To Identify Protein Binding Sites. Journal of the American Chemical Society, 2015, 137, 11391-11398.	13.7	34
77	Ryanodine Receptors: Allosteric Ion Channel Giants. Journal of Molecular Biology, 2015, 427, 31-53.	4.2	137
78	Deciphering the Binding of Caveolin-1 to Client Protein Endothelial Nitric-oxide Synthase (eNOS). Journal of Biological Chemistry, 2014, 289, 13273-13283.	3.4	54
79	Mapping the sevofluraneâ€binding sites of calmodulin. Pharmacology Research and Perspectives, 2014, 2, 5.	2.4	5
80	Lobe-Specific Calmodulin Binding to Different Ryanodine Receptor Isoforms. Biochemistry, 2014, 53, 932-946.	2.5	43
81	Crystal structures of wild type and disease mutant forms of the ryanodine receptor SPRY2 domain. Nature Communications, 2014, 5, 5397.	12.8	58
82	The Cardiac Ryanodine Receptor N-Terminal Region Contains an Anion Binding Site that Is Targeted by Disease Mutations. Structure, 2013, 21, 1440-1449.	3.3	51
83	Talin Autoinhibition Is Required for Morphogenesis. Current Biology, 2013, 23, 1825-1833.	3.9	43
84	Conformational Dynamics inside Amino-Terminal Disease Hotspot of Ryanodine Receptor. Structure, 2013, 21, 2051-2060.	3.3	25
85	The General Anaesthetic Binding Site of Calmodulin Disrupts Ryanodine Peptide Binding. Biophysical Journal, 2013, 104, 445a.	O.5	1
86	Type 2 Ryanodine Receptor Domain A Contains a Unique and Dynamic α-Helix That Transitions to a β-Strand in a Mutant Linked with a Heritable Cardiomyopathy. Journal of Molecular Biology, 2013, 425, 4034-4046.	4.2	38
87	Disease mutations in the ryanodine receptor N-terminal region couple to a mobile intersubunit interface. Nature Communications, 2013, 4, 1506.	12.8	74
88	The CPVT-associated RyR2 mutation G230C enhances store overloadinduced Ca2+ release and destabilizes the N-terminal domains. Biochemical Journal, 2013, 454, 123-131.	3.7	25
89	Crystallographic insights into sodium-channel modulation by the β4 subunit. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E5016-24.	7.1	79
90	Structures and allosteric motions of Ryanodine Receptor Domains. FASEB Journal, 2013, 27, 590.6.	0.5	0

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91	Crystallographic basis for calcium regulation of sodium channels. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 3558-3563.	7.1	128
92	Seeing the Forest through the Trees: towards a Unified View on Physiological Calcium Regulation of Voltage-Gated Sodium Channels. Biophysical Journal, 2012, 103, 2243-2251.	0.5	52
93	Conformational Dynamics Inside Amino-Terminal Disease Hotspot of Ryanodine Receptor. Biophysical Journal, 2012, 102, 304a.	0.5	1
94	Ryanodine Receptors: Structure and Function. Journal of Biological Chemistry, 2012, 287, 31624-31632.	3.4	205
95	Energetics of Cyclic AMP Binding to HCN Channel C Terminus Reveal Negative Cooperativity. Journal of Biological Chemistry, 2012, 287, 600-606.	3.4	39
96	The Ryanodine Receptor N-Terminal Disease Hot Spot Intersubunit Interface is Disrupted by Channel Opening and Affected by Disease Mutations Acting via Long-Range Structural Changes. Biophysical Journal, 2012, 102, 304a.	0.5	0
97	Molecular and structural characterization of the <scp>SH</scp> 3 domain of <scp>AHI</scp> â€1 in regulation of cellular resistance of <scp>BCR</scp> â€ <scp>ABL</scp> ⁺ chronic myeloid leukemia cells to tyrosine kinase inhibitors. Proteomics, 2012, 12, 2094-2106.	2.2	8
98	Disease Mutations in the Ryanodine Receptor Central Region: Crystal Structures of a Phosphorylation Hot Spot Domain. Structure, 2012, 20, 1201-1211.	3.3	97
99	The Deletion of Exon 3 in the Cardiac Ryanodine Receptor Is Rescued by \hat{I}^2 Strand Switching. Structure, 2011, 19, 790-798.	3.3	47
100	The structural biology of ryanodine receptors. Science China Life Sciences, 2011, 54, 712-724.	4.9	39
101	Common allosteric mechanisms between ryanodine and inositol-1,4,5-trisphosphate receptors. Channels, 2011, 5, 120-123.	2.8	14
102	Molecular and Structural Characterization of the SH3 Domain of AHI-1 in Regulation of Cellular Resistance of BCR-ABL+ Chronic Myeloid Leukemia Cells to Tyrosine Kinase Inhibitors. Blood, 2011, 118, 966-966.	1.4	0
103	Folding properties of the hepatitis B core as a carrier protein for vaccination research. Amino Acids, 2010, 38, 1617-1626.	2.7	14
104	Multiple C-terminal tail Ca2+/CaMs regulate CaV1.2 function but do not mediate channel dimerization. EMBO Journal, 2010, 29, 3924-3938.	7.8	66
105	Multiple C-terminal tail Ca2+/CaMs regulate CaV1.2 function but do not mediate channel dimerization. EMBO Journal, 2010, 29, 4062-4062.	7.8	1
106	The amino-terminal disease hotspot of ryanodine receptors forms a cytoplasmic vestibule. Nature, 2010, 468, 585-588.	27.8	190
107	AnhE, a Metallochaperone Involved in the Maturation of a Cobalt-dependent Nitrile Hydratase. Journal of Biological Chemistry, 2010, 285, 25126-25133.	3.4	30
108	A Double Tyrosine Motif in the Cardiac Sodium Channel Domain III-IV Linker Couples Calcium-dependent Calmodulin Binding to Inactivation Gating. Journal of Biological Chemistry, 2009, 284, 33265-33274.	3.4	49

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109	Crystal Structures of the N-Terminal Domains of Cardiac and Skeletal Muscle Ryanodine Receptors: Insights into Disease Mutations. Structure, 2009, 17, 1505-1514.	3.3	109
110	Crystal Structure of the Talin Integrin Binding Domain 2. Journal of Molecular Biology, 2009, 387, 787-793.	4.2	6
111	Alanine-Scanning Mutagenesis Defines a Conserved Energetic Hotspot in the CaVα1 AID-CaVβ Interaction Site that Is Critical for Channel Modulation. Structure, 2008, 16, 280-294.	3.3	73
112	Structures of CaV2 Ca2+/CaM-IQ Domain Complexes Reveal Binding Modes that Underlie Calcium-Dependent Inactivation and Facilitation. Structure, 2008, 16, 1455-1467.	3.3	96
113	Crystal structure of Sulfolobus acidocaldarius aspartate carbamoyltransferase in complex with its allosteric activator CTP. Biochemical and Biophysical Research Communications, 2008, 372, 40-44.	2.1	3
114	Understanding Nicotinamide Dinucleotide Cofactor and Substrate Specificity in Class I Flavoprotein Disulfide Oxidoreductases: Crystallographic Analysis of a Glutathione Amide Reductase. Journal of Molecular Biology, 2007, 374, 883-889.	4.2	9
115	The structural biology of voltage-gated calcium channel function and regulation. Biochemical Society Transactions, 2006, 34, 887-893.	3.4	39
116	Insights into voltage-gated calcium channel regulation from the structure of the CaV1.2 IQ domain–Ca2+/calmodulin complex. Nature Structural and Molecular Biology, 2005, 12, 1108-1115.	8.2	221
117	Structure of a complex between a voltage-gated calcium channel β-subunit and an α-subunit domain. Nature, 2004, 429, 671-675.	27.8	402
118	Protein Dynamics in the Region of the Sixth Ligand Methionine Revealed by Studies of Imidazole Binding To Rhodobacter capsulatus Cytochrome c2 Hinge Mutants,. Biochemistry, 2004, 43, 7717-7724.	2.5	19
119	Crystal Structure of T State Aspartate Carbamoyltransferase of the Hyperthermophilic Archaeon Sulfolobus acidocaldarius. Journal of Molecular Biology, 2004, 339, 887-900.	4.2	11
120	Crystal structures of a psychrophilic metalloprotease reveal new insights into catalysis by cold-adapted proteases. Proteins: Structure, Function and Bioinformatics, 2003, 50, 636-647.	2.6	106
121	The Structure of a Cold-adapted Family 8 Xylanase at 1.3 Ã Resolution. Journal of Biological Chemistry, 2003, 278, 7531-7539.	3.4	124
122	Atomic resolution structure of the major endoglucanase from Thermoascus aurantiacus. Biochemical and Biophysical Research Communications, 2002, 296, 161-166.	2.1	22
123	Crystallization and preliminary X-ray crystallographic analysis of glutathione amide reductase fromChromatium gracile. Acta Crystallographica Section D: Biological Crystallography, 2002, 58, 339-340.	2.5	2
124	Crystallization and preliminary X-ray analysis of a xylanase from the psychrophilePseudoalteromonas haloplanktis. Acta Crystallographica Section D: Biological Crystallography, 2002, 58, 1494-1496.	2.5	14
125	Trichoderma reesei α-1,2-mannosidase: structural basis for the cleavage of four consecutive mannose residues 1 1Edited by I. A. Wilson. Journal of Molecular Biology, 2001, 312, 157-165.	4.2	34
126	A DNA ligase from the psychrophile Pseudoalteromonas haloplanktis gives insights into the adaptation of proteins to low temperatures. FEBS Journal, 2000, 267, 3502-3512.	0.2	63