Laszlo Vigh

List of Publications by Year
in descending order

118 papers	7,113 citations	61984 43 h-index	60623 81 g-index
118 all docs	118 docs citations	118 times ranked	8118 citing authors

#	Article	IF	Citations
1	Distinct Cellular Tools of Mild Hyperthermia-Induced Acquired Stress Tolerance in Chinese Hamster Ovary Cells. Biomedicines, 2022, 10, 1172.	3.2	1
2	The Small Heat Shock Protein, HSPB1, Interacts with and Modulates the Physical Structure of Membranes. International Journal of Molecular Sciences, 2022, 23, 7317.	4.1	6
3	Neuroinflammatory processes are augmented in mice overexpressing human heat-shock protein B1 following ethanol-induced brain injury. Journal of Neuroinflammation, 2021, 18, 22.	7.2	13
4	Male and Female Animals Respond Differently to High-Fat Diet and Regular Exercise Training in a Mouse Model of Hyperlipidemia. International Journal of Molecular Sciences, 2021, 22, 4198.	4.1	17
5	Heat therapy shows benefit in patients with type 2 diabetes mellitus: a systematic review and meta-analysis. International Journal of Hyperthermia, 2021, 38, 1650-1659.	2.5	9
6	Lipids and Trehalose Actively Cooperate in Heat Stress Management of Schizosaccharomyces pombe. International Journal of Molecular Sciences, 2021, 22, 13272.	4.1	12
7	Sustained maternal smoking-associated changes in the physico-chemical properties of fetal RBC membranes might serve as early markers for vascular comorbidities. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2020, 1865, 158615.	2.4	4
8	Cerebrospinal fluid lipidomic biomarker signatures of demyelination for multiple sclerosis and GuillainÃ¢â‚¬â€œBarrÃ© syndrome. Scientific Reports, 2020, 10, 18380.	3.3	13
9	Membrane-Associated Heat Shock Proteins in Oncology: From Basic Research to New Theranostic Targets. Cells, 2020, 9, 1263.	4.1	46
10	Delineating the Rules for Structural Adaptation of Membrane-Associated Proteins to Evolutionary Changes in Membrane Lipidome. Current Biology, 2020, 30, 367-380.e8.	3.9	36
11	Modulation of Plasma Membrane Composition and Microdomain Organization Impairs Heat Shock Protein Expression in B16-F10 Mouse Melanoma Cells. Cells, 2020, 9, 951.	4.1	6
12	Lipid and protein tumor markers for head and neck squamous cell carcinoma identified by imaging mass spectrometry. Oncotarget, 2020, 11, 2702-2717.	1.8	7
13	Hsp70 interactions with membrane lipids regulate cellular functions in health and disease. Progress in Lipid Research, 2019, 74, 18-30.	11.6	67
14	The impact of dihydropyridine derivatives on the cerebral blood flow response to somatosensory stimulation and spreading depolarization. British Journal of Pharmacology, 2019, 176, 1222-1234.	5.4	17
15	Prediabetes Induced by Fructose-Enriched Diet Influences Cardiac Lipidome and Proteome and Leads to Deterioration of Cardiac Function prior to the Development of Excessive Oxidative Stress and Cell Damage. Oxidative Medicine and Cellular Longevity, 2019, 2019, 1-21.	4.0	22
16	Cerebrovascular Pathology in Hypertriglyceridemic APOB-100 Transgenic Mice. Frontiers in Cellular Neuroscience, 2018, 12, 380.	3.7	9
17	Chemotherapy induced PRL3 expression promotes cancer growth via plasma membrane remodeling and specific alterations of caveolae-associated signaling. Cell Communication and Signaling, 2018, 16, 51.	6.5	8
18	Dihydropyridines Allosterically Modulate Hsp90 Providing a Novel Mechanism for Heat Shock Protein Co-induction and Neuroprotection. Frontiers in Molecular Biosciences, 2018, 5, 51.	3.5	27

#	Article	IF	Citations
19	Heat Shock Proteins and Autophagy Pathways in Neuroprotection: From Molecular Bases to Pharmacological Interventions. International Journal of Molecular Sciences, 2018, 19, 325.	4.1	68
20	The Role of Lipids and Membranes in the Pathogenesis of Alzheimer's Disease: A Comprehensive View. Current Alzheimer Research, 2018, 15, 1191-1212.	1.4	42
21	The SH3 domain of Caskin1 binds to lysophosphatidic acid suggesting a direct role for the lipid in intracellular signaling. Cellular Signalling, 2017, 32, 66-75.	3.6	8
22	Chaperone co-inducer BGP-15 inhibits histone deacetylases and enhances the heat shock response through increased chromatin accessibility. Cell Stress and Chaperones, 2017, 22, 717-728.	2.9	11
23	Nanotubes connecting B lymphocytes: High impact of differentiation-dependent lipid composition on their growth and mechanics. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2017, 1862, 991-1000.	2.4	15
24	Lipid polymorphism in chloroplast thylakoid membranes â€“ as revealed by 31P-NMR and time-resolved merocyanine fluorescence spectroscopy. Scientific Reports, 2017, 7, 13343.	3.3	41
25	Metabolic crosstalk between membrane and storage lipids facilitates heat stress management in Schizosaccharomyces pombe. PLoS ONE, 2017, 12, e0173739.	2.5	26
26	Dihydropyridine Derivatives Modulate Heat Shock Responses and have a Neuroprotective Effect in a Transgenic Mouse Model of Alzheimerâ€™s Disease. Journal of Alzheimer's Disease, 2016, 53, 557-571.	2.6	34
27	Bacterial Sepsis Increases Survival in Metastatic Melanoma: Chlamydophila Pneumoniae Induces Macrophage Polarization and Tumor Regression. Journal of Investigative Dermatology, 2016, 136, 862-865.	0.7	11
28	The chaperone co-inducer BGP-15 alleviates ventilation-induced diaphragm dysfunction. Science Translational Medicine, 2016, 8, 350ra103.	12.4	53
29	Reduced expression of CDP-DAG synthase changes lipid composition and leads to male sterility in<i>Drosophila</i>. Open Biology, 2016, 6, 150169.	3.6	26
30	7DHC-induced changes of Kv1.3 operation contributes to modified T cell function in Smith-Lemli-Opitz syndrome. Pflugers Archiv European Journal of Physiology, 2016, 468, 1403-1418.	2.8	15
31	7-Dehydrocholesterol Modifies the Operation of Kv1.3 Channels in T Cells Isolated from Smith-Lemli-Opitz Syndrome Patients. Biophysical Journal, 2016, 110, 278a-279a.	0.5	0
32	The central role of heat shock factor 1 in synaptic fidelity and memory consolidation. Cell Stress and Chaperones, 2016, 21, 745-753.	2.9	36
33	Involvement of small heat shock proteins, trehalose, and lipids in the thermal stress management in Schizosaccharomyces pombe. Cell Stress and Chaperones, 2016, 21, 327-338.	2.9	36
34	Cultured cells of the bloodâ€“brain barrier from apolipoprotein B-100 transgenic mice: effects of oxidized low-density lipoprotein treatment. Fluids and Barriers of the CNS, 2015, 12, 17.	5.0	26
35	Membrane fluidity in the center of fever-enhanced immunity. Cell Cycle, 2015, 14, 3014-3015.	2.6	2
36	Lipidomic analysis reveals a radiosensitizing role of gamma-linolenic acid in glioma cells. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2015, 1851, 1271-1282.	2.4	22

#	Article	IF	Citations
37	Membrane lipid therapy: Modulation of the cell membrane composition and structure as a molecular base for drug discovery and new disease treatment. Progress in Lipid Research, 2015, 59, 38-53.	11.6	181
38	Cell surface localised Hsp70 is a cancer specific regulator of clathrinâ€independent endocytosis. FEBS Letters, 2015, 589, 2747-2753.	2.8	37
39	Rac1 Participates in Thermally Induced Alterations of the Cytoskeleton, Cell Morphology and Lipid Rafts, and Regulates the Expression of Heat Shock Proteins in B16F10 Melanoma Cells. PLoS ONE, 2014, 9, e89136.	2.5	26
40	Alcohol stress, membranes, and chaperones. Cell Stress and Chaperones, 2014, 19, 299-309.	2.9	43
41	The importance of the cellular stress response in the pathogenesis and treatment of type 2 diabetes. Cell Stress and Chaperones, 2014, 19, 447-464.	2.9	91
42	Improvement of Insulin Sensitivity by a Novel Drug Candidate, BGP-15, in Different Animal Studies. Metabolic Syndrome and Related Disorders, 2014, 12, 125-131.	1.3	33
43	Membrane fluidity matters: Hyperthermia from the aspects of lipids and membranes. International Journal of Hyperthermia, 2013, 29, 491-499.	2.5	53
44	Synergetic Insulin Sensitizing Effect of Rimonabant and BGP-15 in Zucker-Obes Rats. Pathology and Oncology Research, 2013, 19, 571-575.	1.9	6
45	Key role of lipids in heat stress management. FEBS Letters, 2013, 587, 1970-1980.	2.8	137
46	Hydroximic Acid Derivatives: Pleiotropic Hsp Co-Inducers Restoring Homeostasis and Robustness. Current Pharmaceutical Design, 2013, 19, 309-346.	1.9	61
47	Lysosomal Rerouting of Hsp70 Trafficking as a Potential Immune Activating Tool for Targeting Melanoma. Current Pharmaceutical Design, 2013, 19, 430-440.	1.9	22
48	A Novel Insulin Sensitizer Drug Candidateâ€"BGP-15â€"Can Prevent Metabolic Side Effects of Atypical Antipsychotics. Pathology and Oncology Research, 2012, 18, 1071-1076.	1.9	10
49	Nutritional lipid supply can control the heat shock response of B16 melanoma cells in culture. Molecular Membrane Biology, 2012, 29, 274-289.	2.0	16
50	The HSP co-inducer BGP-15 can prevent the metabolic side effects of the atypical antipsychotics. Cell Stress and Chaperones, 2012, 17, 517-521.	2.9	27
51	Insulin resistance occurs in parallel with sensory neuropathy in streptozotocin-induced diabetes in rats: differential response to early vs late insulin supplementation. Metabolism: Clinical and Experimental, 2012, 61, 776-786.	3.4	8
52	Docosahexaenoic Acid Reduces Amyloid Î² Production via Multiple Pleiotropic Mechanisms. Journal of Biological Chemistry, 2011, 286, 14028-14039.	3.4	201
53	Targeting membrane heat-shock protein 70 (Hsp70) on tumors by cmHsp70.1 antibody. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 733-738.	7.1	191
54	The Novel Hydroxylamine Derivative NG-094 Suppresses Polyglutamine Protein Toxicity in Caenorhabditis elegans. Journal of Biological Chemistry, 2011, 286, 18784-18794.	3.4	27

#	ARTICLE	IF	CITATIONS
55	Heat Stress Causes Spatially-Distinct Membrane Re-Modelling in K562 Leukemia Cells. PLoS ONE, 2011, 6, e21182.	2.5	59
56	Membrane-Lipid Therapy in Operation: The HSP Co-Inducer BGP-15 Activates Stress Signal Transduction Pathways by Remodeling Plasma Membrane Rafts. PLoS ONE, 2011, 6, e28818.	2.5	71
57	Neuroprotective effect of small heat shock protein, Hsp27, after acute and chronic alcohol administration. Cell Stress and Chaperones, 2010, 15, 807-817.	2.9	28
58	Xenohormesis: health benefits from an eon of plant stress response evolution. Cell Stress and Chaperones, 2010, 15, 761-770.	2.9	75
59	Membrane lipid composition affects plant heat sensing and modulates Ca²⁺-dependent heat shock response. Plant Signaling and Behavior, 2010, 5, 1530-1533.	2.4	89
60	Changes in Membrane Fluid State and Heat Shock Response Cause Attenuation of Virulence. Journal of Bacteriology, 2010, 192, 1999-2005.	2.2	15
61	Live Cell Segmentation in Fluorescence Microscopy via Graph Cut. , 2010, , .		12
62	Imaging of Mobile Long-lived Nanoplatforms in the Live Cell Plasma Membrane. Journal of Biological Chemistry, 2010, 285, 41765-41771.	3.4	102
63	Genetic Modification of the<i>Salmonella</i>Membrane Physical State Alters the Pattern of Heat Shock Response. Journal of Bacteriology, 2010, 192, 1988-1998.	2.2	16
64	Lipidomics reveals membrane lipid remodelling and release of potential lipid mediators during early stress responses in a murine melanoma cell line. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2010, 1801, 1036-1047.	2.4	63
65	Stability in times of stress. Nature, 2010, 463, 436-438.	27.8	34
66	The role of lipopolysaccharide moieties in macrophage response to Escherichia coli. Biochemical and Biophysical Research Communications, 2009, 389, 46-51.	2.1	30
67	Regulation of desaturase gene expression, changes in membrane lipid composition and freezing tolerance in potato plants. Molecular Breeding, 2008, 21, 15-26.	2.1	68
68	Membranes: a meeting point for lipids, proteins and therapies. Journal of Cellular and Molecular Medicine, 2008, 12, 829-875.	3.6	348
69	Membrane-associated stress proteins: More than simply chaperones. Biochimica Et Biophysica Acta - Biomembranes, 2008, 1778, 1653-1664.	2.6	193
70	HSP72 protects against obesity-induced insulin resistance. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 1739-1744.	7.1	477
71	A Mutant Small Heat Shock Protein with Increased Thylakoid Association Provides an Elevated Resistance Against UV-B Damage in Synechocystis 6803. Journal of Biological Chemistry, 2008, 283, 22983-22991.	3.4	53
72	Hyperfluidization-coupled membrane microdomain reorganization is linked to activation of the heat shock response in a murine melanoma cell line. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 7945-7950.	7.1	107

#	Article	IF	Citations
73	Can the stress protein response be controlled by â€˜membrane-lipid therapyâ€™?. Trends in Biochemical Sciences, 2007, 32, 357-363.	7.5	119
74	Membrane Regulation of the Stress Response from Prokaryotic Models to Mammalian Cells. Annals of the New York Academy of Sciences, 2007, 1113, 40-51.	3.8	76
75	Membrane-Regulated Stress Response. , 2007, 594, 114-131.		46
76	Native folding of aggregation-prone recombinant proteins in Escherichia coli by osmolytes, plasmid- or benzyl alcoholâ€"overexpressed molecular chaperones. Cell Stress and Chaperones, 2005, 10, 329.	2.9	140
77	Heat shock proteins as emerging therapeutic targets. British Journal of Pharmacology, 2005, 146, 769-780.	5.4	337
78	The hyperfluidization of mammalian cell membranes acts as a signal to initiate the heat shock protein response. FEBS Journal, 2005, 272, 6077-6086.	4.7	130
79	Membrane fluidization triggers membrane remodeling which affects the thermotolerance in Escherichia coli. Biochemical and Biophysical Research Communications, 2005, 328, 1216-1223.	2.1	76
80	The significance of lipid composition for membrane activity: New concepts and ways of assessing function. Progress in Lipid Research, 2005, 44, 303-344.	11.6	201
81	â€œHeat shock lipidâ€•in cyanobacteria during heat/light-acclimation. Archives of Biochemistry and Biophysics, 2005, 436, 346-354.	3.0	64
82	Cholesterol and cholesterol plus DHA diet-induced gene expression and fatty acid changes in mouse eye and brain. Biochimie, 2004, 86, 817-824.	2.6	42
83	Effect of classic preconditioning on the gene expression pattern of rat hearts: a DNA microarray study. FEBS Letters, 2003, 536, 35-40.	2.8	76
84	Only one dnaK homolog, dnaK2, is active transcriptionally and is essential in Synechocystis. Biochemical and Biophysical Research Communications, 2003, 305, 641-648.	2.1	18
85	Bimoclomol, a heat shock protein co-inducer, acts by the prolonged activation of heat shock factor-1. Biochemical and Biophysical Research Communications, 2003, 307, 689-695.	2.1	145
86	Heat shock protein coinducers with no effect on protein denaturation specifically modulate the membrane lipid phase. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3131-3136.	7.1	96
87	Small heat-shock proteins regulate membrane lipid polymorphism. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 13504-13509.	7.1	294
88	Hyperlipidemia Induced by High Cholesterol Diet Inhibits Heat Shock Response in Rat Hearts. Biochemical and Biophysical Research Communications, 2002, 290, 1535-1538.	2.1	58
89	Lipid unsaturation determines the interaction of AFP type I with model membranes during thermotropic phase transitions. Cryobiology, 2002, 45, 135-142.	0.7	22
90	The Chaperonins of Synechocystis PCC 6803 Differ in Heat Inducibility and Chaperone Activity. Biochemical and Biophysical Research Communications, 2001, 289, 908-915.	2.1	38

#	Article	IF	Citations
91	The effect of arbutin on membrane integrity during drying is mediated by stabilization of the lamellar phase in the presence of nonbilayer-forming lipids. Chemistry and Physics of Lipids, 2001, 111, 37-57.	3.2	48
92	The Synechocystis model of stress: from molecular chaperones to membranes. Plant Physiology and Biochemistry, 1999, 37, 1-12.	5.8	78
93	Membranes in Stress and Adaptation. Annals of the New York Academy of Sciences, 1998, 851, 162-168.	3.8	6
94	Does the membrane's physical state control the expression of heat shock and other genes?. Trends in Biochemical Sciences, 1998, 23, 369-374.	7.5	338
95	Chaperonin Genes of theSynechocystisPCC 6803 Are Differentially Regulated under Lightâ€“Dark Transition during Heat Stress. Biochemical and Biophysical Research Communications, 1997, 239, 291-297.	2.1	56
96	Bimoclomol: A nontoxic, hydroxylamine derivative with stress protein-inducing activity and cytoprotective effects. Nature Medicine, 1997, 3, 1150-1154.	30.7	278
97	Colloidal metal dispersions as catalysts for selective surface hydrogenation of biomembranes. Part 2. Preparation of nanosize platinum metal catalysts and characterization in hydrogenation of water soluble olefins and synthetic biomembrane models. Applied Catalysis A: General, 1997, 162, 57-69.	4.3	13
98	Colloidal metal dispersions as catalysts for selective surface hydrogenation of biomembranes, 1. Preparation and characterization of palladium catalysts. Reaction Kinetics and Catalysis Letters, 1996, 59, 227-233.	0.6	4
99	Fluorescence Detection of Symmetric GroEL14(GroES7)2 Heterooligomers Involved in Protein Release during the Chaperonin Cycle. Journal of Biological Chemistry, 1996, 271, 16180-16186.	3.4	29
100	The temperatureâ€dependent expression of the desaturase gene <i>desA</i> in <i>Synechocystis</i> PCC6803. FEBS Letters, 1993, 318, 57-60.	2.8	104
101	Differential Accessibility of a Hydrogenation Catalyst to Acyl Lipids in Thylakoid Membranes from Atrazine-Resistant and Susceptible Solarium nigrum Biotypes. Plant and Cell Physiology, 1992, 33, 209-215.	3.1	4
102	Hydrogenation of biological membranes using a polymer-anchored colloidal palladium catalyst. Reaction Kinetics and Catalysis Letters, 1992, 48, 619-625.	0.6	7
103	Complex hydrogenation/oxidation reactions of the water-soluble hydrogenation catalyst palladium di (sodium alizarinmonosulfonate) and details of homogeneous hydrogenation of lipids in isolated biomembranes and living cells. Analytical Biochemistry, 1991, 194, 34-40.	2.4	46
104	Hydrogenation of membrane lipids by catalyzed hydrogen transfer from ascorbate. Journal of Molecular Catalysis, 1988, 49, L1-L5.	1.2	17
105	Lipid Saturation Induced Microviscosity Increase Has No Effect on the Reducibility of Flash-Oxidized Cytochrome <i>f</i> in Pea Thylakoids. Plant Physiology, 1988, 86, 335-337.	4.8	14
106	Choline induced chill-tolerance in mung bean (Vigna radiata L. Wilcz.). Plant Science, 1987, 53, 223-228.	3.6	4
107	Nitrate starvation induces homeoviscous regulation of lipids in the cell envelope of the blue-green alga, Anacystis nidulans. FEBS Journal, 1987, 165, 461-465.	0.2	13
108	Homogeneous catalytic hydrogenation of the polar lipids of pea chloroplasts in situ and the effects on lipid polymorphism. Chemistry and Physics of Lipids, 1986, 39, 251-264.	3.2	30

#	Article	IF	Citations
109	Drought stress-induced changes in the composition and physical state of phospholipids in wheat. Physiologia Plantarum, 1986, 67, 92-96.	5.2	32
110	Primary Role of the Cytoplasmic Membrane in Thermal Acclimation Evidenced in Nitrate-Starved Cells of the Blue-Green Alga, <i>Anacystis nidulans</i>. Plant Physiology, 1986, 80, 415-419.	4.8	38
111	Modulation of membrane fluidity in living protoplasts of Nicotiana plumbaginifolia by catalytic hydrogenation. FEBS Journal, 1985, 146, 241-244.	0.2	43
112	Selective modification of cytoplasmic membrane fluidity by catalytic hydrogenation provides evidence on its primary role in chilling susceptibility of the blue-green alga, Anacystis nidulans. FEBS Letters, 1985, 191, 200-204.	2.8	38
113	Modulation of chloroplast membrane lipids by homogeneous catalytic hydrogenation. FEBS Journal, 1985, 147, 477-481.	0.2	45
114	Isolation of a Wheat Cell Line with Altered Membrane Properties. Plant Physiology, 1982, 69, 572-574.	4.8	7
115	Effect of alpha-tocopherol on growth, membrane-bound adenosine triphosphatase activity of the roots, membrane fluidity and potassium uptake in rice plants. Physiologia Plantarum, 1982, 55, 289-295.	5.2	7
116	Stomatal behaviour and cuticular properties of maize leaves of different chilling-resistance during cold treatment. Physiologia Plantarum, 1981, 51, 287-290.	5.2	22
117	Relation of Raman order parameters to spin labeling parameters. Chemistry and Physics of Lipids, 1980, 27, 237-250.	3.2	12
118	Radiation-induced improvement of the freeze-resistance of a cold-sensitive wheat variety: Freeze-tolerance and fatty acid patterns. Physiologia Plantarum, 1980, 48, 340-346.	5.2	0