

# Timothy A Gilbertson

## List of Publications by Citations

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58  
papers

2,944  
citations

29  
h-index

54  
g-index

62  
ext. papers

3,162  
ext. citations

5.9  
avg, IF

5.01  
L-index

#	Paper	IF	Citations
58	Fatty acid modulation of K <sup>+</sup> channels in taste receptor cells: gustatory cues for dietary fat. <i>American Journal of Physiology - Cell Physiology</i> , <b>1997</b> , 272, C1203-10	5.4	245
57	The molecular physiology of taste transduction. <i>Current Opinion in Neurobiology</i> , <b>2000</b> , 10, 519-27	7.6	210
56	Permeation of calcium ions through non-NMDA glutamate channels in retinal bipolar cells. <i>Science</i> , <b>1991</b> , 251, 1613-5	33.3	191
55	Cellular mechanisms of taste transduction. <i>Annual Review of Physiology</i> , <b>1999</b> , 61, 873-900	23.1	178
54	Proton currents through amiloride-sensitive Na channels in hamster taste cells. Role in acid transduction. <i>Journal of General Physiology</i> , <b>1992</b> , 100, 803-24	3.4	152
53	Glucose transporters and ATP-gated K <sup>+</sup> (KATP) metabolic sensors are present in type 1 taste receptor 3 (T1r3)-expressing taste cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 5431-6	11.5	150
52	Proton currents through amiloride-sensitive Na <sup>+</sup> channels in isolated hamster taste cells: enhancement by vasopressin and cAMP. <i>Neuron</i> , <b>1993</b> , 10, 931-42	13.9	140
51	Gustatory mechanisms for the detection of fat. <i>Current Opinion in Neurobiology</i> , <b>1998</b> , 8, 447-52	7.6	127
50	Distribution and characterization of functional amiloride-sensitive sodium channels in rat tongue. <i>Journal of General Physiology</i> , <b>1996</b> , 107, 545-54	3.4	121
49	Distribution of gustatory sensitivities in rat taste cells: whole-cell responses to apical chemical stimulation. <i>Journal of Neuroscience</i> , <b>2001</b> , 21, 4931-41	6.6	117
48	Dietary fat preferences are inversely correlated with peripheral gustatory fatty acid sensitivity. <i>Annals of the New York Academy of Sciences</i> , <b>1998</b> , 855, 165-8	6.5	107
47	Fatty acid responses in taste cells from obesity-prone and -resistant rats. <i>Physiology and Behavior</i> , <b>2005</b> , 86, 681-90	3.5	101
46	Taste receptor cells express pH-sensitive leak K <sup>+</sup> channels. <i>Journal of Neurophysiology</i> , <b>2004</b> , 92, 2909-19	3.2	90
45	Transient receptor potential channel type M5 is essential for fat taste. <i>Journal of Neuroscience</i> , <b>2011</b> , 31, 8634-42	6.6	80
44	Cell signaling mechanisms of oro-gustatory detection of dietary fat: advances and challenges. <i>Progress in Lipid Research</i> , <b>2014</b> , 53, 82-92	14.3	67
43	TRPM5 is critical for linoleic acid-induced CCK secretion from the enteroendocrine cell line, STC-1. <i>American Journal of Physiology - Cell Physiology</i> , <b>2012</b> , 302, C210-9	5.4	50
42	Taste transduction: appetizing times in gustation. <i>NeuroReport</i> , <b>2003</b> , 14, 905-11	1.7	50

41	Expression and characterization of delayed rectifying K <sup>+</sup> channels in anterior rat taste buds. <i>American Journal of Physiology - Cell Physiology</i> , <b>2005</b> , 289, C868-80	5.4	49
40	Anti-hypervariable region antibody induced by a defined peptide: an approach for studying the structural correlates of idiotypes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1984</b> , 81, 1784-8	11.5	49
39	The physiology of vertebrate taste reception. <i>Current Opinion in Neurobiology</i> , <b>1993</b> , 3, 532-9	7.6	43
38	Self-inhibition in amiloride-sensitive sodium channels in taste receptor cells. <i>Journal of General Physiology</i> , <b>1998</b> , 111, 667-77	3.4	36
37	Orosensory detection of fatty acids by obesity-prone and obesity-resistant rats: strain and sex differences. <i>Chemical Senses</i> , <b>2008</b> , 33, 449-60	4.8	35
36	From channels to behavior: an integrative model of NaCl taste. <i>Neuron</i> , <b>1999</b> , 22, 213-5	13.9	35
35	Amiloride reduces the aversiveness of acids in preference tests. <i>Physiology and Behavior</i> , <b>1994</b> , 56, 649-54	5.5	35
34	Insulin activates epithelial sodium channel (ENaC) via phosphoinositide 3-kinase in mammalian taste receptor cells. <i>American Journal of Physiology - Cell Physiology</i> , <b>2011</b> , 300, C860-71	5.4	34
33	Taste transduction: appetizing times in gustation. <i>NeuroReport</i> , <b>2003</b> , 14, 905-911	1.7	34
32	Subcellular spectroscopic markers, topography and nanomechanics of human lung cancer and breast cancer cells examined by combined confocal Raman microspectroscopy and atomic force microscopy. <i>Analyst, The</i> , <b>2013</b> , 138, 787-97	5	30
31	Characterization of sodium transport in gustatory epithelia from the hamster and rat. <i>Chemical Senses</i> , <b>1998</b> , 23, 283-93	4.8	30
30	The effects of glycine and GABA on isolated horizontal cells from the salamander retina. <i>Journal of Neurophysiology</i> , <b>1991</b> , 66, 2002-13	3.2	29
29	Expression of aquaporin water channels in rat taste buds. <i>Chemical Senses</i> , <b>2007</b> , 32, 411-21	4.8	27
28	Making sense of chemicals. <i>Chemistry and Biology</i> , <b>1996</b> , 3, 233-7		27
27	Hypoosmotic stimuli activate a chloride conductance in rat taste cells. <i>Chemical Senses</i> , <b>2002</b> , 27, 383-94	4.8	25
26	Distribution of amiloride-sensitive sodium channels in the oral cavity of the hamster. <i>Chemical Senses</i> , <b>1998</b> , 23, 495-9	4.8	25
25	IgM rheumatoid factor autoantibody and immunoglobulin-producing precursor cells in the bone marrow of humans. <i>Cellular Immunology</i> , <b>1985</b> , 95, 157-72	4.4	18
24	Activation of oral trigeminal neurons by fatty acids is dependent upon intracellular calcium. <i>Pflugers Archiv European Journal of Physiology</i> , <b>2012</b> , 464, 227-37	4.6	17

23	Citrate ions enhance behavioral and cellular responses to taste stimuli. <i>Physiology and Behavior</i> , <b>1997</b> , 62, 491-500	3.5	15
22	Role of the taste system in ingestive behavior. Studies in NaCl and fatty acid transduction. <i>Annals of the New York Academy of Sciences</i> , <b>1998</b> , 855, 860-7	6.5	14
21	Water taste: the importance of osmotic sensing in the oral cavity. <i>Journal of Water and Health</i> , <b>2006</b> , 4, 35-40	2.2	14
20	Use of Surface-Enhanced Raman Scattering (SERS) Probes to Detect Fatty Acid Receptor Activity in a Microfluidic Device. <i>Sensors</i> , <b>2019</b> , 19,	3.8	13
19	Validation of a rat behavioral avoidance model from a drug delivery perspective. <i>International Journal of Pharmaceutics</i> , <b>2005</b> , 303, 31-6	6.5	13
18	Biophysical assessment of single cell cytotoxicity: diesel exhaust particle-treated human aortic endothelial cells. <i>PLoS ONE</i> , <b>2012</b> , 7, e36885	3.7	13
17	Investigation of free fatty acid associated recombinant membrane receptor protein expression in HEK293 cells using Raman spectroscopy, calcium imaging, and atomic force microscopy. <i>Analytical Chemistry</i> , <b>2013</b> , 85, 1374-81	7.8	11
16	Effects of poly-(lactide-co-glycolide) nanoparticles on electrophysiological properties of enteroendocrine cells. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2011</b> , 11, 3533-42	1.3	11
15	The effects of restraint stress on intake of preferred and nonpreferred solutions in rodents. <i>Physiology and Behavior</i> , <b>1999</b> , 65, 697-704	3.5	11
14	SERS-fluorescence bimodal nanoprobe for in vitro imaging of fatty acid responsive receptor GPR120. <i>Analytical Methods</i> , <b>2018</b> , 10, 22-29	3.2	10
13	Chapter 18 Amiloride-Sensitive Sodium Channels in Taste. <i>Current Topics in Membranes</i> , <b>1999</b> , 47, 315-336	3.2	10
12	Spatiotemporal dynamic monitoring of fatty acid-receptor interaction on single living cells by multiplexed Raman imaging. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 3518-3527	11.5	9
11	Targeted biodegradable nanoparticles for drug delivery to smooth muscle cells. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2012</b> , 12, 236-44	1.3	9
10	Water taste: the importance of osmotic sensing in the oral cavity. <i>Journal of Water and Health</i> , <b>2006</b> , 4 Suppl 1, 35-40	2.2	9
9	Do polyunsaturated fatty acids protect against bone loss in our aging and osteoporotic population?. <i>Bone</i> , <b>2021</b> , 143, 115736	4.7	8
8	Sensing biophysical alterations of human lung epithelial cells (A549) in the context of toxicity effects of diesel exhaust particles. <i>Cell Biochemistry and Biophysics</i> , <b>2013</b> , 67, 1147-56	3.2	3
7	High-Fat Diet Alters the Orosensory Sensitivity to Fatty Acids in Obesity-Resistant but not Obesity-Prone Rats. <i>Journal of Molecular and Genetic Medicine: an International Journal of Biomedical Research</i> , <b>2015</b> , 9,	2.5	3
6	Sex differences in fat taste responsiveness are modulated by estradiol. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , <b>2021</b> , 320, E566-E580	6	3

5	Chemoreception of Fat. <i>ACS Symposium Series</i> , <b>2002</b> , 180-191	0.4	2
4	Ghrelin Receptors Enhance Fat Taste Responsiveness in Female Mice. <i>Nutrients</i> , <b>2021</b> , 13,	6.7	2
3	Gustatory Mechanisms for Fat Detection. <i>Frontiers in Neuroscience</i> , <b>2009</b> , 83-104		1
2	GPR84 Is Essential for the Taste of Medium Chain Saturated Fatty Acids. <i>Journal of Neuroscience</i> , <b>2021</b> , 41, 5219-5228	6.6	1
1	Animal models of obesity and type 2 diabetes <b>2015</b> , 519-528		