Michael Zaugg

List of Publications by Citations

94 papers	4,884 citations	37 h-index	69 g-index
104 ext. papers	5,377 ext. citations	5.6 avg, IF	4.97 L-index

#	Paper	IF	Citations
94	General anesthetic actions in vivo strongly attenuated by a point mutation in the GABA(A) receptor beta3 subunit. *FASEB Journal*, **2003**, 17, 250-2	0.9	478
93	Preconditioning by sevoflurane decreases biochemical markers for myocardial and renal dysfunction in coronary artery bypass graft surgery: a double-blinded, placebo-controlled, multicenter study. *Anesthesiology*, **2003**, 98, 1315-27	4.3	289
92	New insights into doxorubicin-induced cardiotoxicity: the critical role of cellular energetics. *Journal of Molecular and Cellular Cardiology*, **2006**, 41, 389-405	5.8	241
91	Volatile anesthetics mimic cardiac preconditioning by priming the activation of mitochondrial K(ATP) channels via multiple signaling pathways. *Anesthesiology*, **2002**, 97, 4-14	4.3	225
90	Beneficial effects from beta-adrenergic blockade in elderly patients undergoing noncardiac surgery. *Anesthesiology*, **1999**, 91, 1674-86	4.3	190
89	Beta-adrenergic receptor subtypes differentially affect apoptosis in adult rat ventricular myocytes. *Circulation*, **2000**, 102, 344-50	16.7	180
88	Isoflurane postconditioning prevents opening of the mitochondrial permeability transition pore through inhibition of glycogen synthase kinase 3beta. *Anesthesiology*, **2005**, 103, 987-95	4.3	162
87	Cardiac insulin-resistance and decreased mitochondrial energy production precede the development of systolic heart failure after pressure-overload hypertrophy. *Circulation: Heart Failure*, **2013**, 6, 1039-48	7.6	142
86	Translocation of protein kinase C isoforms to subcellular targets in ischemic and anesthetic preconditioning. *Anesthesiology*, **2003**, 99, 138-47	4.3	125
85	Ischemic postconditioning protects remodeled myocardium via the PI3K-PKB/Akt reperfusion injury salvage kinase pathway. *Cardiovascular Research*, **2006**, 72, 152-62	9.9	121
84	Differential effects of anesthetics on mitochondrial K(ATP) channel activity and cardiomyocyte protection. *Anesthesiology*, **2002**, 97, 15-23	4.3	117
83	Remote ischemic preconditioning applied during isoflurane inhalation provides no benefit to the myocardium of patients undergoing on-pump coronary artery bypass graft surgery: lack of synergy or evidence of antagonism in cardioprotection?. *Anesthesiology*, **2012**, 116, 296-310	4.3	115
82	Antiproliferative effects of local anesthetics on mesenchymal stem cells: potential implications for tumor spreading and wound healing. *Anesthesiology*, **2012**, 116, 841-56	4.3	114
81	Acute toxicity of doxorubicin on isolated perfused heart: response of kinases regulating energy supply. *American Journal of Physiology - Heart and Circulatory Physiology*, **2005**, 289, H37-47	5.2	108
80	Perioperative beta-adrenergic receptor blockade: physiologic foundations and clinical controversies. *Anesthesiology*, **2004**, 100, 170-5	4.3	104
79	Respiratory function in the elderly. *Anesthesiology Clinics*, **2000**, 18, 47-58, vi		96
78	Sevoflurane inhalation at sedative concentrations provides endothelial protection against ischemia-reperfusion injury in humans. *Anesthesiology*, **2007**, 106, 262-8	4.3	91

77	Adrenergic receptor genotype but not perioperative bisoprolol therapy may determine cardiovascular outcome in at-risk patients undergoing surgery with spinal block: the Swiss Beta Blocker in Spinal Anesthesia (BBSA) study: a double-blinded, placebo-controlled, multicenter trial with 1-year follow-up. *Anesthesiology*, **2007**, 107, 33-44	4.3	86
76	Phosphoproteome analysis of isoflurane-protected heart mitochondria: phosphorylation of adenine nucleotide translocator-1 on Tyr194 regulates mitochondrial function. *Cardiovascular Research*, **2008**, 80, 20-9	9.9	85
75	Trigger-dependent gene expression profiles in cardiac preconditioning: evidence for distinct genetic programs in ischemic and anesthetic preconditioning. *Anesthesiology*, **2004**, 100, 474-88	4.3	83
74	TMX1 determines cancer cell metabolism as a thiol-based modulator of ER-mitochondria Ca2+ flux. *Journal of Cell Biology*, **2016**, 214, 433-44	7.3	81
73	Gene regulatory control of myocardial energy metabolism predicts postoperative cardiac function in patients undergoing off-pump coronary artery bypass graft surgery: inhalational versus intravenous anesthetics. *Anesthesiology*, **2007**, 106, 444-57	4.3	76
72	Anabolic-androgenic steroids induce apoptotic cell death in adult rat ventricular myocytes. *Journal of Cellular Physiology*, **2001**, 187, 90-5	7	76
71	Video-assisted thoracoscopic volume reduction surgery in patients with diffuse pulmonary emphysema: gas exchange and anesthesiological management. *Anesthesia and Analgesia*, **1997**, 84, 845-51	3.9	71
70	Extrapulmonary and disseminated infections due to Mycobacterium malmoense: case report and review. *Clinical Infectious Diseases*, **1993**, 16, 540-9	11.6	70
69	Norepinephrine-induced apoptosis is inhibited in adult rat ventricular myocytes exposed to volatile anesthetics. *Anesthesiology*, **2000**, 93, 209-18	4.3	64
68	Inhibition of LINE-1 expression in the heart decreases ischemic damage by activation of Akt/PKB signaling. *Physiological Genomics*, **2006**, 25, 314-24	3.6	62
67	Substantial changes in arterial blood gases during thoracoscopic surgery can be missed by conventional intermittent laboratory blood gas analyses. *Anesthesia and Analgesia*, **1998**, 87, 647-53	3.9	61
66	Accidental pleural puncture by a thoracic epidural catheter. *Anaesthesia*, **1998**, 53, 69-71	6.6	60
65	Differential activation of mitogen-activated protein kinases in ischemic and anesthetic preconditioning. *Anesthesiology*, **2004**, 100, 59-69	4.3	60
64	Infarct-remodeled myocardium is receptive to protection by isoflurane postconditioning: role of protein kinase B/Akt signaling. *Anesthesiology*, **2006**, 104, 1004-14	4.3	58
63	Signaling and cellular mechanisms in cardiac protection by ischemic and pharmacological preconditioning. *Journal of Muscle Research and Cell Motility*, **2003**, 24, 219-49	3.5	57
62	Tyrosine phosphorylation by Src within the cavity of the adenine nucleotide translocase 1 regulates ADP/ATP exchange in mitochondria. *American Journal of Physiology - Cell Physiology*, **2010**, 298, C740-8	5.4	49
61	Fatal air embolism in an airplane passenger with a giant intrapulmonary bronchogenic cyst. *American Journal of Respiratory and Critical Care Medicine*, **1998**, 157, 1686-9	10.2	48
60	Video-Assisted Thoracoscopic Volume Reduction Surgery in Patients with Diffuse Pulmonary Emphysema. *Anesthesia and Analgesia*, **1997**, 84, 845-851	3.9	44

59	The mechanism of Intralipid -mediated cardioprotection complex IV inhibition by the active metabolite, palmitoylcarnitine, generates reactive oxygen species and activates reperfusion injury salvage kinases. *PLoS ONE*, **2014**, 9, e87205	3.7	43
58	Integration of calcium with the signaling network in cardiac myocytes. *Journal of Molecular and Cellular Cardiology*, **2006**, 41, 183-214	5.8	42
57	Preconditioning by isoflurane retains its protection against ischemia-reperfusion injury in postinfarct remodeled rat hearts. *Anesthesia and Analgesia*, **2008**, 106, 17-23, table of contents	3.9	32
56	Molecular evidence of late preconditioning after sevoflurane inhalation in healthy volunteers. *Anesthesia and Analgesia*, **2007**, 105, 629-40	3.9	32
55	Ischemic but not pharmacological preconditioning elicits a gene expression profile similar to unprotected myocardium. *Physiological Genomics*, **2004**, 20, 117-30	3.6	32
54	Anesthetic cardioprotection in clinical practice from proof-of-concept to clinical applications. *Current Pharmaceutical Design*, **2014**, 20, 5706-26	3.3	32
53	Early mitochondrial dysfunction in glycolytic muscle, but not oxidative muscle, of the fructose-fed insulin-resistant rat. *American Journal of Physiology - Endocrinology and Metabolism*, **2014**, 306, E658-67	6	29
52	Early effects of doxorubicin in perfused heart: transcriptional profiling reveals inhibition of cellular stress response genes. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2010**, 298, R1075-88	3.2	29
51	Candidate genes and mechanisms for 2-methoxyestradiol-mediated vasoprotection. *Hypertension*, **2010**, 56, 964-72	8.5	26
50	Metabolic profiling of hearts exposed to sevoflurane and propofol reveals distinct regulation of fatty acid and glucose oxidation: CD36 and pyruvate dehydrogenase as key regulators in anesthetic-induced fuel shift. *Anesthesiology*, **2010**, 113, 541-51	4.3	25
49	Infarct-remodelled hearts with limited oxidative capacity boost fatty acid oxidation after conditioning against ischaemia/reperfusion injury. *Cardiovascular Research*, **2013**, 97, 251-61	9.9	24
48	Stem cell-like human endothelial progenitors show enhanced colony-forming capacity after brief sevoflurane exposure: preconditioning of angiogenic cells by volatile anesthetics. *Anesthesia and Analgesia*, **2009**, 109, 1117-26	3.9	24
47	External irradiation of macroinvasive pituitary adenomas with telecobalt: a retrospective study with long-term follow-up in patients irradiated with doses mostly of between 40-45 Gy. *International Journal of Radiation Oncology Biology Physics*, **1995**, 32, 671-80	4	24
46	Helium breathing provides modest antiinflammatory, but no endothelial protection against ischemia-reperfusion injury in humans in vivo. *Anesthesia and Analgesia*, **2009**, 109, 101-8	3.9	22
45	Cardiac remodelling hinders activation of cyclooxygenase-2, diminishing protection by delayed pharmacological preconditioning: role of HIF1 alpha and CREB. *Cardiovascular Research*, **2008**, 78, 98-107	9.9	20
44	Choice of anesthetic combination determines Ca2+ leak after ischemia-reperfusion injury in the working rat heart: favorable versus adverse combinations. *Anesthesiology*, **2012**, 116, 648-57	4.3	18
43	Atenolol may not modify anesthetic depth indicators in elderly patients--a second look at the data. *Canadian Journal of Anaesthesia*, **2003**, 50, 638-42	3	18
42	Alterations in fatty acid metabolism and sirtuin signaling characterize early type-2 diabetic hearts of fructose-fed rats. *Physiological Reports*, **2017**, 5, e13388	2.6	17

41	Genomics in cardiac metabolism. *Cardiovascular Research*, **2008**, 79, 218-27	9.9	17
40	Genetic modulation of adrenergic activity in the heart and vasculature: implications for perioperative medicine. *Anesthesiology*, **2005**, 102, 429-46	4.3	17
39	Substantial Changes in Arterial Blood Gases During Thoracoscopic Surgery Can Be Missed by Conventional Intermittent Laboratory Blood Gas Analyses. *Anesthesia and Analgesia*, **1998**, 87, 647-653	3.9	15
38	Patterns of changes in arterial PO2 during one-lung ventilation: a comparison between patients with severe pulmonary emphysema and patients with preserved lung function. *Journal of Cardiothoracic and Vascular Anesthesia*, **2005**, 19, 479-84	2.1	14
37	Propofol (Diprivan) and Intralipid exacerbate insulin resistance in type-2 diabetic hearts by impairing GLUT4 trafficking. *Anesthesia and Analgesia*, **2015**, 120, 329-40	3.9	13
36	The ER chaperone calnexin controls mitochondrial positioning and respiration. *Science Signaling*, **2020**, 13,	8.8	13
35	Is protection by inhalation agents volatile? Controversies in cardioprotection. *British Journal of Anaesthesia*, **2007**, 99, 603-6	5.4	12
34	Unraveling Interactions Between Anesthetics and the Endothelium: Update and Novel Insights. *Anesthesia and Analgesia*, **2016**, 122, 330-48	3.9	11
33	Delayed inhibition of agonist-induced granulocyte-platelet aggregation after low-dose sevoflurane inhalation in humans. *Anesthesia and Analgesia*, **2008**, 106, 1749-58	3.9	11
32	Differential Effects of Anesthetics and Opioid Receptor Activation on Cardioprotection Elicited by Reactive Oxygen Species-Mediated Postconditioning in Sprague-Dawley Rat Hearts. *Anesthesia and Analgesia*, **2018**, 126, 1739-1746	3.9	10
31	Interleukin balance and early recovery from anesthesia in elderly surgical patients exposed to beta-adrenergic antagonism. *Journal of Clinical Anesthesia*, **2003**, 15, 170-8	1.9	10
30	Postconditioning with Intralipid emulsion protects against reperfusion injury in post-infarct remodeled rat hearts by activation of ROS-Akt/Erk signaling. *Translational Research*, **2017**, 186, 36-51.e2	11	9
29	Loss of Intralipid - but not sevoflurane-mediated cardioprotection in early type-2 diabetic hearts of fructose-fed rats: importance of ROS signaling. *PLoS ONE*, **2014**, 9, e104971	3.7	9
28	2-Methoxyestradiol blocks the RhoA/ROCK1 pathway in human aortic smooth muscle cells. *American Journal of Physiology - Endocrinology and Metabolism*, **2015**, 309, E995-1007	6	8
27	Remote ischemic preconditioning is redundant in patients undergoing coronary artery bypass graft surgery who are already protected by volatile anesthetics. *Circulation Research*, **2012**, 110, e42-3; author reply e44-5	15.7	8
26	How often should we perform arterial blood gas analysis during thoracoscopic surgery?. *Journal of Clinical Anesthesia*, **2007**, 19, 569-75	1.9	7
25	Sudden Respiratory Arrest Resulting From Brainstem Embolism in a Patient Undergoing Endovascular Abdominal Aortic Aneurysm Repair. *Anesthesia and Analgesia*, **2001**, 92, 335-337	3.9	7
24	Enhanced myocardial protection in cardiac donation after circulatory death using Intralipid postconditioning in a porcine model. *Canadian Journal of Anaesthesia*, **2019**, 66, 672-685	3	6

23	A Large Trial Is Vital to Prove Perioperative -blockade Effectiveness and Safety before Widespread Use. *Anesthesiology*, **2004**, 101, 804-805	4.3	6
22	Pragmatic treatment versus elaborative but incomplete testing: a Hobson's choice?. *Anesthesiology*, **2007**, 107, 526-9	4.3	6
21	Nutritional Lipids and Mucosal Inflammation. *Molecular Nutrition and Food Research*, **2021**, 65, e1901269	5.9	6
20	Letter by Zaugg and Lucchinetti regarding article, "Randomized comparison of sevoflurane versus propofol to reduce perioperative myocardial ischemia in patients undergoing noncardiac surgery". *Circulation*, **2013**, 127, e875	16.7	5
19	Quantitative profiling of inflammatory and pro-resolving lipid mediators in human adolescents and mouse plasma using UHPLC-MS/MS. *Clinical Chemistry and Laboratory Medicine*, **2021**, 59, 1811-1823	5.9	5
18	Sevoflurane--compared with propofol-based anesthesia reduces the need for inotropic support in patients undergoing abdominal aortic aneurysm repair: evidence of cardioprotection by volatile anesthetics in noncardiac surgery. *Anesthesiology*, **2014**, 120, 1289-90	4.3	4
17	Lipid Emulsion Containing High Amounts of n3 Fatty Acids (Omegaven) as Opposed to n6 Fatty Acids (Intralipid) Preserves Insulin Signaling and Glucose Uptake in Perfused Rat Hearts. *Anesthesia and Analgesia*, **2020**, 130, 37-48	3.9	4
16	Sudden respiratory arrest resulting from brainstem embolism in a patient undergoing endovascular abdominal aortic aneurysm repair. *Anesthesia and Analgesia*, **2001**, 92, 335-7	3.9	2
15	Novel Strategies to Prevent Total Parenteral Nutrition-Induced Gut and Liver Inflammation, and Adverse Metabolic Outcomes. *Molecular Nutrition and Food Research*, **2021**, 65, e1901270	5.9	2
14	Choice of Lipid Emulsion Determines Inflammation of the Gut-Liver Axis, Incretin Profile, and Insulin Signaling in a Murine Model of Total Parenteral Nutrition. *Molecular Nutrition and Food Research*, **2021**, 65, e2000412	5.9	1
13	Diet and Inflammatory Bowel Disease: What Quality Standards Should Be Applied in Clinical and Laboratory Studies?. *Molecular Nutrition and Food Research*, **2021**, 65, e2000514	5.9	1
12	Is Continuous Intraarterial Blood Gas Monitoring Reliable During One-Lung Ventilation?. *Anesthesia and Analgesia*, **1999**, 88, 1192-1193	3.9	0
11	Leberchirurgische Eingriffe aus anästhesiologischer Sicht. *Gastroenterologe*, **2009**, 4, 294-300	0.1	
10	Is There Any Reason to Withhold 2Agonists from Patients with Coronary Disease during Surgery?. *Anesthesiology*, **2004**, 101, 1245-1245	4.3	
9	Is Continuous Intraarterial Blood Gas Monitoring Reliable During One-Lung Ventilation?. *Anesthesia and Analgesia*, **1999**, 88, 1192-1193	3.9	
8	Heart rate control and ischemia. *Anesthesia and Analgesia*, **1999**, 89, 801	3.9	
7	Heart Rate Control and Ischemia. *Anesthesia and Analgesia*, **1999**, 89, 801	3.9	
6	Limitations of Genetic Findings That Are Not in Hardy-Weinberg Equilibrium. *Anesthesiology*, **2008**, 108, 338-339	4.3	

List of Publications

5	Diabetic Rat Hearts Show More Favorable Metabolic Adaptation to Omegaven Containing High Amounts of n3 Fatty Acids Than Intralipid Containing n6 Fatty Acids. *Anesthesia and Analgesia*, **2020** , 131, 943-954	3.9
4	Comment on Kolwicz et al. Enhancing Cardiac Triacylglycerol Metabolism Improves Recovery From Ischemic Stress. Diabetes 2015;64:2817-2827. *Diabetes*, **2016**, 65, e18	0.9
3	Metabolite Palmitoylcarnitine Mediates Intralipid Cardioprotection Rather Than Membrane Receptors. *Anesthesiology*, **2019**, 130, 518-519	4.3
2	A brief history of M. C. Schaub legacies: a life dedicated to heart and muscle research : In memoriam Marcus C. Schaub (1936-2018). *Journal of Muscle Research and Cell Motility*, **2018**, 39, 61-63	3.5
1	Daytime variations in perioperative myocardial injury. *Lancet, The*, **2018**, 391, 2104-2105	40