Vladimir G Fast

List of Publications by Year
in descending order

55 papers	3,135 citations	172207 29 h-index	168136 53 g-index
57 all docs	57 docs citations	57 times ranked	2894 citing authors

#	Article	IF	Citations
1	Fabrication and characterization of a thick, viable bi-layered stem cell-derived surrogate for future myocardial tissue regeneration. Biomedical Materials (Bristol), 2021, 16, 035007.	1.7	5
2	Layer-By-Layer Fabrication of Large and Thick Human Cardiac Muscle Patch Constructs With Superior Electrophysiological Properties. Frontiers in Cell and Developmental Biology, 2021, 9, 670504.	1.8	12
3	Bioreactor Suspension Culture: Differentiation and Production of Cardiomyocyte Spheroids From Human Induced Pluripotent Stem Cells. Frontiers in Bioengineering and Biotechnology, 2021, 9, 674260.	2.0	7
4	N-cadherin overexpression enhances the reparative potency of human-induced pluripotent stem cell-derived cardiac myocytes in infarcted mouse hearts. Cardiovascular Research, 2020, 116, 671-685.	1.8	25
5	Abstract 103: TBX20 Activates Cardiac Maturation Gene Programs Promoting Direct Human Cardiac Reprogramming. Circulation Research, 2020, 127, .	2.0	1
6	Maturation of three-dimensional, hiPSC-derived cardiomyocyte spheroids utilizing cyclic, uniaxial stretch and electrical stimulation. PLoS ONE, 2019, 14, e0219442.	1.1	67
7	Cardiomyocytes from CCND2-overexpressing human induced-pluripotent stem cells repopulate the myocardial scar in mice: A 6-month study. Journal of Molecular and Cellular Cardiology, 2019, 137, 25-33.	0.9	19
8	Large Cardiac Muscle Patches Engineered From Human Induced-Pluripotent Stem Cellâ€"Derived Cardiac Cells Improve Recovery From Myocardial Infarction in Swine. Circulation, 2018, 137, 1712-1730.	1.6	332
9	The stress kinase JNK regulates gap junction Cx43 gene expression and promotes atrial fibrillation in the aged heart. Journal of Molecular and Cellular Cardiology, 2018, 114, 105-115.	0.9	49
10	Hemodynamic Stimulation Using the Biomimetic Cardiac Tissue Model (BCTM) Enhances Maturation of Human Induced Pluripotent Stem Cell-Derived Cardiomyocytes. Cells Tissues Organs, 2018, 206, 82-94.	1.3	10
11	Human Leukocyte Antigen Class I and II Knockout Human Induced Pluripotent Stem Cellâ€"Derived Cells: Universal Donor for Cell Therapy. Journal of the American Heart Association, 2018, 7, e010239.	1.6	103
12	Spheroids of cardiomyocytes derived from human-induced pluripotent stem cells improve recovery from myocardial injury in mice. American Journal of Physiology - Heart and Circulatory Physiology, 2018, 315, H327-H339.	1.5	65
13	Myocardial Tissue Engineering With Cells Derived From Human-Induced Pluripotent Stem Cells and a Native-Like, High-Resolution, 3-Dimensionally Printed Scaffold. Circulation Research, 2017, 120, 1318-1325.	2.0	254
14	Electrophysiological Properties and Viability of Neonatal Rat Ventricular Myocyte Cultures with Inducible ChR2 Expression. Scientific Reports, 2017, 7, 1531.	1.6	23
15	Biomimetic Cardiac Tissue Model Enables the Adaption of Human Induced Pluripotent Stem Cell Cardiomyocytes to Physiological Hemodynamic Loads. Analytical Chemistry, 2016, 88, 9862-9868.	3.2	24
16	Voltage and Calcium Dual Channel Optical Mapping of Cultured HL-1 Atrial Myocyte Monolayer. Journal of Visualized Experiments, 2015, , .	0.2	6
17	The role of dye affinity in optical measurements of Ca_i²⁺ transients in cardiac muscle. American Journal of Physiology - Heart and Circulatory Physiology, 2014, 307, H73-H79.	1.5	12
18	c-Jun N-terminal kinase activation contributes to reduced connexin43 and development of atrial arrhythmias. Cardiovascular Research, 2013, 97, 589-597.	1.8	64

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19	Ionic mechanism of shock-induced arrhythmias: Role of intracellular calcium. Heart Rhythm, 2012, 9, 96-104.	0.3	19
20	Intramural optical mapping of <i>V</i>_m and Ca_i²⁺ during long-duration ventricular fibrillation in canine hearts. American Journal of Physiology - Heart and Circulatory Physiology, 2012, 302, H1294-H1305.	1.5	12
21	A New Optrode Design for Intramural Optical Recordings. IEEE Transactions on Biomedical Engineering, 2011, 58, 3130-3134.	2.5	5
22	Transmural Heterogeneity and Remodeling of Ventricular Excitation-Contraction Coupling in Human Heart Failure. Circulation, 2011, 123, 1881-1890.	1.6	134
23	Mechanisms of Defibrillation. Annual Review of Biomedical Engineering, 2010, 12, 233-258.	5.7	66
24	Optical Mapping of Impulse Propagation in Engineered Cardiac Tissue. Tissue Engineering - Part A, 2009, 15, 851-860.	1.6	52
25	Change in Conduction Velocity due to Fiber Curvature in Cultured Neonatal Rat Ventricular Myocytes. IEEE Transactions on Biomedical Engineering, 2009, 56, 855-861.	2.5	12
26	The Role of Microscopic Tissue Structure in Defibrillation. , 2009, , 255-281.		0
27	Transmural optical measurements of Vm dynamics during long-duration ventricular fibrillation in canine hearts. Heart Rhythm, 2009, 6, 796-802.	0.3	19
28	Shock-induced changes of Cai2+ and Vm in myocyte cultures and computer model: Dependence on the timing of shock application. Cardiovascular Research, 2007, 73, 101-110.	1.8	12
29	Optical mapping of V m and Cai 2+ in a model of arrhythmias induced by local catecholamine application in patterned cell cultures. Pflugers Archiv European Journal of Physiology, 2007, 453, 871-877.	1.3	4
30	Optical measurements of intramural action potentials in isolated porcine hearts using optrodes. Heart Rhythm, 2007, 4, 1430-1436.	0.3	24
31	Role of intramural virtual electrodes in shock-induced activation of left ventricle: Optical measurements from the intact epicardial surface. Heart Rhythm, 2006, 3, 1063-1073.	0.3	17
32	Role of Microscopic Tissue Structure in Shock-Induced Activation Assessed by Optical Mapping in Myocyte Cultures. Journal of Cardiovascular Electrophysiology, 2005, 16, 991-1000.	0.8	7
33	Simultaneous optical imaging of membrane potential and intracellular calcium. Journal of Electrocardiology, 2005, 38, 107-112.	0.4	44
34	Recording Action Potentials Using Voltage-Sensitive Dyes. , 2005, , 233-255.		9
35	Nonlinear Changes of Transmembrane Potential During Electrical Shocks. Circulation Research, 2004, 94, 208-214.	2.0	44
36	Intramural Virtual Electrodes in Ventricular Wall. Circulation, 2004, 109, 2349-2356.	1.6	20

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37	Effects of Electrical Shocks on Ca i 2+ and V m in Myocyte Cultures. Circulation Research, 2004, 94, 1589-1597.	2.0	42
38	High-resolution optical mapping of intramural virtual electrodes in porcine left ventricular wall. Cardiovascular Research, 2004, 64, 448-456.	1.8	30
39	Cellular Mechanisms of Defibrillation. , 2004, , 407-416.		2
40	Optical Mapping of Transmural Activation Induced by Electrical Shocks in Isolated Left Ventricular Wall Wedge Preparations. Journal of Cardiovascular Electrophysiology, 2003, 14, 1215-1222.	0.8	39
41	Development of an Optrode for Intramural Multisite Optical Recordings of Vmin the Heart. Journal of Cardiovascular Electrophysiology, 2003, 14, 1196-1202.	0.8	37
42	Modulation of triggered activity by uncoupling in the ischemic border A model study with phase 1b-like conditions. Cardiovascular Research, 2002, 56, 381-392.	1.8	38
43	Optical Mapping of Arrhythmias Induced by Strong Electrical Shocks in Myocyte Cultures. Circulation Research, 2002, 90, 664-670.	2.0	46
44	Intramural Virtual Electrodes During Defibrillation Shocks in Left Ventricular Wall Assessed by Optical Mapping of Membrane Potential. Circulation, 2002, 106, 1007-1014.	1.6	66
45	Mechanism of Ventricular Defibrillation. Circulation, 2000, 101, 2438-2445.	1.6	35
46	Simultaneous Optical Mapping of Transmembrane Potential and Intracellular Calcium in Myocyte Cultures. Journal of Cardiovascular Electrophysiology, 2000, 11, 547-556.	0.8	70
47	Nonlinear changes of transmembrane potential caused by defibrillation shocks in strands of cultured myocytes. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 278, H688-H697.	1.5	43
48	Nonlinear Changes of Transmembrane Potential During Defibrillation Shocks. Circulation Research, 2000, 87, 453-459.	2.0	49
49	Activation of Cardiac Tissue by Extracellular Electrical Shocks. Circulation Research, 1998, 82, 375-385.	2.0	133
50	Role of wavefront curvature in propagation of cardiac impulse. Cardiovascular Research, 1997, 33, 258-271.	1.8	242
51	Paradoxical Improvement of Impulse Conduction in Cardiac Tissue by Partial Cellular Uncoupling. Science, 1997, 275, 841-844.	6.0	289
52	Anisotropic Activation Spread in Heart Cell Monolayers Assessed by High-Resolution Optical Mapping. Circulation Research, 1996, 79, 115-127.	2.0	99
53	Functional and Structural Assessment of Intercellular Communication. Circulation Research, 1996, 79, 174-183.	2.0	140
54	Spatial Changes in Transmembrane Potential During Extracellular Electrical Shocks in Cultured Monolayers of Neonatal Rat Ventricular Myocytes. Circulation Research, 1996, 79, 676-690.	2.0	106

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55	Shift and Termination of Functional Reentry in Isolated Ventricular Preparations with Quinidine-Induced Inhomogeneity in Refractory Period. Journal of Cardiovascular Electrophysiology, 1992, 3, 255-265.	0.8	27