# Elazer R Edelman

#### List of Publications by Citations

Source: https://exaly.com/author-pdf/6143767/elazer-r-edelman-publications-by-citations.pdf

Version: 2024-04-25

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

69 17,340 329 122 h-index g-index citations papers 6.63 19,362 352 9.1 L-index avg, IF ext. citations ext. papers

#	Paper	IF	Citations
329	Role of endothelial shear stress in the natural history of coronary atherosclerosis and vascular remodeling: molecular, cellular, and vascular behavior. <i>Journal of the American College of Cardiology</i> , <b>2007</b> , 49, 2379-93	15.1	986
328	Antisense c-myb oligonucleotides inhibit intimal arterial smooth muscle cell accumulation in vivo. <i>Nature</i> , <b>1992</b> , 359, 67-70	50.4	691
327	Overexpression of the HDL receptor SR-BI alters plasma HDL and bile cholesterol levels. <i>Nature</i> , <b>1997</b> , 387, 414-7	50.4	624
326	Stent thrombogenicity early in high-risk interventional settings is driven by stent design and deployment and protected by polymer-drug coatings. <i>Circulation</i> , <b>2011</b> , 123, 1400-9	16.7	547
325	Endovascular stent design dictates experimental restenosis and thrombosis. <i>Circulation</i> , <b>1995</b> , 91, 2995	5- <b>36</b> 0⁄1	372
324	Local perivascular delivery of basic fibroblast growth factor in patients undergoing coronary bypass surgery: results of a phase I randomized, double-blind, placebo-controlled trial. <i>Circulation</i> , <b>1999</b> , 100, 1865-71	16.7	364
323	Physiological transport forces govern drug distribution for stent-based delivery. <i>Circulation</i> , <b>2001</b> , 104, 600-5	16.7	349
322	Controlled and modulated release of basic fibroblast growth factor. <i>Biomaterials</i> , <b>1991</b> , 12, 619-26	15.6	321
321	Prediction of the localization of high-risk coronary atherosclerotic plaques on the basis of low endothelial shear stress: an intravascular ultrasound and histopathology natural history study. <i>Circulation</i> , <b>2008</b> , 117, 993-1002	16.7	292
320	In vivo and in vitro tracking of erosion in biodegradable materials using non-invasive fluorescence imaging. <i>Nature Materials</i> , <b>2011</b> , 10, 704-9	27	286
319	Kruppel-like factor 4 regulates endothelial inflammation. <i>Journal of Biological Chemistry</i> , <b>2007</b> , 282, 13	7 <del>6</del> 9 <sub>4</sub> 79	258
318	Drug-eluting stents in preclinical studies: recommended evaluation from a consensus group. <i>Circulation</i> , <b>2002</b> , 106, 1867-73	16.7	247
317	Increased thrombosis after arterial injury in human C-reactive protein-transgenic mice. <i>Circulation</i> , <b>2003</b> , 108, 512-5	16.7	245
316	Neointimal thickening after stent delivery of paclitaxel: change in composition and arrest of growth over six months. <i>Journal of the American College of Cardiology</i> , <b>2000</b> , 36, 2325-32	15.1	242
315	Kinetics of basic fibroblast growth factor binding to its receptor and heparan sulfate proteoglycan: a mechanism for cooperactivity. <i>Biochemistry</i> , <b>1992</b> , 31, 8876-83	3.2	216
314	Arterial paclitaxel distribution and deposition. Circulation Research, 2000, 86, 879-84	15.7	215
313	Dabigatran and rivaroxaban use in atrial fibrillation patients on hemodialysis. <i>Circulation</i> , <b>2015</b> , 131, 97	2 <b>-£</b> 6.7	204

#### (2011-1996)

312	Regulation by adrenocorticotropic hormone of the in vivo expression of scavenger receptor class B type I (SR-BI), a high density lipoprotein receptor, in steroidogenic cells of the murine adrenal gland. <i>Journal of Biological Chemistry</i> , <b>1996</b> , 271, 33545-9	5.4	199
311	Specific binding to intracellular proteins determines arterial transport properties for rapamycin and paclitaxel. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2004</b> , 101, 9463-7	11.5	198
310	Therapeutic angiogenesis with basic fibroblast growth factor: technique and early results. <i>Annals of Thoracic Surgery</i> , <b>1998</b> , 65, 1540-4	2.7	197
309	Decreased neointimal formation in Mac-1(-/-) mice reveals a role for inflammation in vascular repair after angioplasty. <i>Journal of Clinical Investigation</i> , <b>2000</b> , 105, 293-300	15.9	192
308	Pathobiologic responses to stenting. American Journal of Cardiology, 1998, 81, 4E-6E	3	189
307	Vascular Tissue Engineering: Progress, Challenges, and Clinical Promise. <i>Cell Stem Cell</i> , <b>2018</b> , 22, 340-35	418	185
306	Balloon-artery interactions during stent placement: a finite element analysis approach to pressure, compliance, and stent design as contributors to vascular injury. <i>Circulation Research</i> , <b>1999</b> , 84, 378-83	15.7	185
305	Stent and artery geometry determine intimal thickening independent of arterial injury. <i>Circulation</i> , <b>2000</b> , 101, 812-8	16.7	184
304	Strut position, blood flow, and drug deposition: implications for single and overlapping drug-eluting stents. <i>Circulation</i> , <b>2005</b> , 111, 2958-65	16.7	163
303	Dual targeted immunotherapy via delivery of biohybrid RNAi-peptide nanoparticles to tumour-associated macrophages and cancer cells. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 4183-4194	15.6	153
302	Endogenous cell seeding. Remnant endothelium after stenting enhances vascular repair. <i>Circulation</i> , <b>1996</b> , 94, 2909-14	16.7	149
301	Natural history of experimental coronary atherosclerosis and vascular remodeling in relation to endothelial shear stress: a serial, in vivo intravascular ultrasound study. <i>Circulation</i> , <b>2010</b> , 121, 2092-101	16.7	140
300	Efficacy of a device to narrow the coronary sinus in refractory angina. <i>New England Journal of Medicine</i> , <b>2015</b> , 372, 519-27	59.2	138
299	Enhanced T-helper-1 lymphocyte activation patterns in acute coronary syndromes. <i>Journal of the American College of Cardiology</i> , <b>2005</b> , 45, 1939-45	15.1	138
298	Monocyte recruitment and neointimal hyperplasia in rabbits. Coupled inhibitory effects of heparin. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , <b>1996</b> , 16, 1312-8	9.4	138
297	Tissue engineering therapy for cardiovascular disease. <i>Circulation Research</i> , <b>2003</b> , 92, 1068-78	15.7	131
296	Augmented expression and activity of extracellular matrix-degrading enzymes in regions of low endothelial shear stress colocalize with coronary atheromata with thin fibrous caps in pigs. <i>Circulation</i> , <b>2011</b> , 123, 621-30	16.7	119
295	Stromal endothelial cells directly influence cancer progression. <i>Science Translational Medicine</i> , <b>2011</b> , 3, 66ra5	17.5	116

294	Cardiology is flow. Circulation, 2006, 113, 2679-82	16.7	113
293	Neutrophil, not macrophage, infiltration precedes neointimal thickening in balloon-injured arteries. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , <b>2000</b> , 20, 2553-8	9.4	112
292	miRNAs in atherosclerotic plaque initiation, progression, and rupture. <i>Trends in Molecular Medicine</i> , <b>2015</b> , 21, 307-18	11.5	107
291	Single-Cell Analysis of the Normal Mouse Aorta Reveals Functionally Distinct Endothelial Cell Populations. <i>Circulation</i> , <b>2019</b> , 140, 147-163	16.7	104
<b>29</b> 0	Thrombosis modulates arterial drug distribution for drug-eluting stents. <i>Circulation</i> , <b>2005</b> , 111, 1619-26	5 16.7	104
289	Intravascular ultrasound guidance to minimize the use of iodine contrast in percutaneous coronary intervention: the MOZART (Minimizing cOntrast utiliZation With IVUS Guidance in coRonary angioplasTy) randomized controlled trial. <i>JACC: Cardiovascular Interventions</i> , <b>2014</b> , 7, 1287-93	5	99
288	Uremic serum and solutes increase post-vascular interventional thrombotic risk through altered stability of smooth muscle cell tissue factor. <i>Circulation</i> , <b>2013</b> , 127, 365-76	16.7	96
287	Intravascular drug release kinetics dictate arterial drug deposition, retention, and distribution. <i>Journal of Controlled Release</i> , <b>2007</b> , 123, 100-8	11.7	96
286	Arterial ultrastructure influences transport of locally delivered drugs. <i>Circulation Research</i> , <b>2002</b> , 90, 826-32	15.7	96
285	Antisense oligonucleotide inhibition of PDGFR-beta receptor subunit expression directs suppression of intimal thickening. <i>Circulation</i> , <b>1997</b> , 95, 669-76	16.7	95
284	Aldehyde-amine chemistry enables modulated biosealants with tissue-specific adhesion. <i>Advanced Materials</i> , <b>2009</b> , 21, 3399-403	24	94
283	Gold-coated NIR stents in porcine coronary arteries. <i>Circulation</i> , <b>2001</b> , 103, 429-34	16.7	94
282	Systemic inflammation induced by lipopolysaccharide increases neointimal formation after balloon and stent injury in rabbits. <i>Circulation</i> , <b>2002</b> , 105, 2917-22	16.7	94
281	Coronary artery disease and diabetes mellitus. Cardiology Clinics, 2014, 32, 439-55	2.5	92
280	Innervation patterns may limit response to endovascular renal denervation. <i>Journal of the American College of Cardiology</i> , <b>2014</b> , 64, 1079-87	15.1	91
279	Carrier proteins determine local pharmacokinetics and arterial distribution of paclitaxel. <i>Journal of Pharmaceutical Sciences</i> , <b>2001</b> , 90, 1324-35	3.9	90
278	Luminal flow patterns dictate arterial drug deposition in stent-based delivery. <i>Journal of Controlled Release</i> , <b>2009</b> , 133, 24-30	11.7	88
277	Liposomal alendronate inhibits systemic innate immunity and reduces in-stent neointimal hyperplasia in rabbits. <i>Circulation</i> , <b>2003</b> , 108, 2798-804	16.7	87

276	Vascular tissue engineering : designer arteries. Circulation Research, 1999, 85, 1115-7	15.7	86
275	Transdermal delivery of heparin by skin electroporation. <i>Nature Biotechnology</i> , <b>1995</b> , 13, 1205-9	44.5	85
274	Cellular response to transforming growth factor-beta1 and basic fibroblast growth factor depends on release kinetics and extracellular matrix interactions. <i>Journal of Biological Chemistry</i> , <b>1996</b> , 271, 2982	<u> 5</u> :4	82
273	The role of low endothelial shear stress in the conversion of atherosclerotic lesions from stable to unstable plaque. <i>Current Opinion in Cardiology</i> , <b>2009</b> , 24, 580-90	2.1	8o
272	Stent elution rate determines drug deposition and receptor-mediated effects. <i>Journal of Controlled Release</i> , <b>2012</b> , 161, 918-26	11.7	79
271	The total quasi-steady-state approximation is valid for reversible enzyme kinetics. <i>Journal of Theoretical Biology</i> , <b>2004</b> , 226, 303-13	2.3	78
270	The Aryl Hydrocarbon Receptor is a Critical Regulator of Tissue Factor Stability and an Antithrombotic Target in Uremia. <i>Journal of the American Society of Nephrology: JASN</i> , <b>2016</b> , 27, 189-207	1 <sup>12.7</sup>	75
269	Effects of amide and amine plasma-treated ePTFE vascular grafts on endothelial cell lining in an artificial circulatory system. <i>Journal of Biomedical Materials Research Part B</i> , <b>1998</b> , 42, 188-98		75
268	c-myc in vasculoproliferative disease. <i>Circulation Research</i> , <b>1995</b> , 76, 176-82	15.7	74
267	Equilibrium and non-equilibrium phase transitions in copolymer polyelectrolyte hydrogels. <i>Journal of Chemical Physics</i> , <b>1997</b> , 107, 1645-1654	3.9	73
266	Dysfunctional endothelial cells directly stimulate cancer inflammation and metastasis. <i>International Journal of Cancer</i> , <b>2013</b> , 133, 1334-44	7.5	72
265	Endothelial implants inhibit intimal hyperplasia after porcine angioplasty. <i>Circulation Research</i> , <b>1999</b> , 84, 384-91	15.7	72
264	Expert recommendations on the assessment of wall shear stress in human coronary arteries: existing methodologies, technical considerations, and clinical applications. <i>European Heart Journal</i> , <b>2019</b> , 40, 3421-3433	9.5	70
263	Syndecan-4 proteoliposomes enhance fibroblast growth factor-2 (FGF-2)-induced proliferation, migration, and neovascularization of ischemic muscle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 1679-84	11.5	69
262	Perivascular graft heparin delivery using biodegradable polymer wraps. <i>Biomaterials</i> , <b>2000</b> , 21, 2279-86	15.6	69
261	Thin-capped atheromata with reduced collagen content in pigs develop in coronary arterial regions exposed to persistently low endothelial shear stress. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , <b>2013</b> , 33, 1494-504	9.4	67
260	Mortality and Paclitaxel-Coated Devices: An Individual Patient Data Meta-Analysis. <i>Circulation</i> , <b>2020</b> , 141, 1859-1869	16.7	66
259	Endothelial cells provide feedback control for vascular remodeling through a mechanosensitive autocrine TGF-beta signaling pathway. <i>Circulation Research</i> , <b>2008</b> , 103, 289-97	15.7	66

258	Biomechanical Modeling to Improve Coronary Artery Bifurcation Stenting: Expert Review Document on Techniques and Clinical Implementation. <i>JACC: Cardiovascular Interventions</i> , <b>2015</b> , 8, 128	1-1296	65
257	Preclinical evaluation of drug-eluting stents for peripheral applications: recommendations from an expert consensus group. <i>Circulation</i> , <b>2004</b> , 110, 2498-505	16.7	65
256	Mechanisms of transmural heparin transport in the rat abdominal aorta after local vascular delivery. <i>Circulation Research</i> , <b>1995</b> , 77, 1143-50	15.7	63
255	Lesion complexity determines arterial drug distribution after local drug delivery. <i>Journal of Controlled Release</i> , <b>2010</b> , 142, 332-8	11.7	62
254	Impact of transport and drug properties on the local pharmacology of drug-eluting stents. <i>International Journal of Cardiovascular Interventions</i> , <b>2003</b> , 5, 7-12		62
253	Leukocyte recruitment and expression of chemokines following different forms of vascular injury. <i>Vascular Medicine</i> , <b>2003</b> , 8, 1-7	3.3	61
252	Endothelial cell delivery for cardiovascular therapy. Advanced Drug Delivery Reviews, 2000, 42, 139-61	18.5	61
251	Enhanced drug delivery capabilities from stents coated with absorbable polymer and crystalline drug. <i>Journal of Controlled Release</i> , <b>2012</b> , 162, 561-7	11.7	59
250	Effect of pre-adsorbed proteins on attachment, proliferation, and function of endothelial cells. <i>Journal of Cellular Physiology</i> , <b>2002</b> , 191, 155-61	7	59
249	Target-responsive DNA/RNA nanomaterials for microRNA sensing and inhibition: the jack-of-all-trades in cancer nanotheranostics?. <i>Advanced Drug Delivery Reviews</i> , <b>2015</b> , 81, 169-83	18.5	58
248	Characterization of star adhesive sealants based on PEG/dextran hydrogels. <i>Macromolecular Bioscience</i> , <b>2009</b> , 9, 754-65	5.5	57
247	Vascular bed origin dictates flow pattern regulation of endothelial adhesion molecule expression. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2007</b> , 292, H2167-75	5.2	54
246	Vascular neointimal formation and signaling pathway activation in response to stent injury in insulin-resistant and diabetic animals. <i>Circulation Research</i> , <b>2005</b> , 97, 725-33	15.7	54
245	Mechanisms of tissue uptake and retention in zotarolimus-coated balloon therapy. <i>Circulation</i> , <b>2013</b> , 127, 2047-55	16.7	53
244	Perivascular endothelial implants inhibit intimal hyperplasia in a model of arteriovenous fistulae: a safety and efficacy study in the pig. <i>Journal of Vascular Research</i> , <b>2002</b> , 39, 524-33	1.9	53
243	Monocyte-endothelial cell interactions in the regulation of vascular sprouting and liver regeneration in mouse. <i>Journal of Hepatology</i> , <b>2015</b> , 63, 917-25	13.4	52
242	Calcified plaque modification alters local drug delivery in the treatment of peripheral atherosclerosis. <i>Journal of Controlled Release</i> , <b>2017</b> , 264, 203-210	11.7	52
241	Revascularization for coronary artery disease in diabetes mellitus: angioplasty, stents and coronary artery bypass grafting. <i>Reviews in Endocrine and Metabolic Disorders</i> , <b>2010</b> , 11, 75-86	10.5	52

# (2010-2008)

240	Viscoelastic adhesive mechanics of aldehyde-mediated soft tissue sealants. <i>Biomaterials</i> , <b>2008</b> , 29, 458	<b>4-<del>95</del>1</b> 6	52	
239	Glucose modulates basement membrane fibroblast growth factor-2 via alterations in endothelial cell permeability. <i>Journal of Biological Chemistry</i> , <b>2007</b> , 282, 14635-44	5.4	52	
238	Luminal flow amplifies stent-based drug deposition in arterial bifurcations. <i>PLoS ONE</i> , <b>2009</b> , 4, e8105	3.7	50	
237	Heparanase alters arterial structure, mechanics, and repair following endovascular stenting in mice. <i>Circulation Research</i> , <b>2009</b> , 104, 380-7	15.7	50	
236	Embolic protection with filtering or occlusion balloons during saphenous vein graft stenting retrieves identical volumes and sizes of particulate debris. <i>Circulation</i> , <b>2004</b> , 109, 1735-40	16.7	50	
235	Regulation of dendrimer/dextran material performance by altered tissue microenvironment in inflammation and neoplasia. <i>Science Translational Medicine</i> , <b>2015</b> , 7, 272ra11	17.5	49	
234	Pulsatility and high shear stress deteriorate barrier phenotype in brain microvascular endothelium. Journal of Cerebral Blood Flow and Metabolism, <b>2017</b> , 37, 2614-2625	7.3	49	
233	Heparanase regulates thrombosis in vascular injury and stent-induced flow disturbance. <i>Journal of the American College of Cardiology</i> , <b>2012</b> , 59, 1551-60	15.1	49	
232	Physical nanoscale conduit-mediated communication between tumour cells and the endothelium modulates endothelial phenotype. <i>Nature Communications</i> , <b>2015</b> , 6, 8671	17.4	47	
231	Tissue-engineered endothelial and epithelial implants differentially and synergistically regulate airway repair. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2008</b> , 105, 7046-51	11.5	47	
230	Cells in fluidic environments are sensitive to flow frequency. <i>Journal of Cellular Physiology</i> , <b>2005</b> , 204, 329-35	7	47	
229	Hydrogel Nanocomposites with Independently Tunable Rheology and Mechanics. <i>ACS Nano</i> , <b>2017</b> , 11, 2598-2610	16.7	46	
228	Arterial microanatomy determines the success of energy-based renal denervation in controlling hypertension. <i>Science Translational Medicine</i> , <b>2015</b> , 7, 285ra65	17.5	46	
227	Methodological standardization for the pre-clinical evaluation of renal sympathetic denervation. <i>JACC: Cardiovascular Interventions</i> , <b>2014</b> , 7, 1184-93	5	46	
226	The effect of substrate modulus on the growth and function of matrix-embedded endothelial cells. <i>Biomaterials</i> , <b>2013</b> , 34, 677-84	15.6	46	
225	Thrombus causes fluctuations in arterial drug delivery from intravascular stents. <i>Journal of Controlled Release</i> , <b>2008</b> , 131, 173-80	11.7	46	
224	Dynamic flow alterations dictate leukocyte adhesion and response to endovascular interventions. Journal of Clinical Investigation, <b>2004</b> , 113, 1607-14	15.9	46	
223	Smooth muscle cells orchestrate the endothelial cell response to flow and injury. <i>Circulation</i> , <b>2010</b> , 121, 2192-9	16.7	43	

222	Adventitial endothelial implants reduce matrix metalloproteinase-2 expression and increase luminal diameter in porcine arteriovenous grafts. <i>Journal of Vascular Surgery</i> , <b>2007</b> , 46, 548-556	3.5	43
221	Regulation of heparanase expression in coronary artery disease in diabetic, hyperlipidemic swine. <i>Atherosclerosis</i> , <b>2010</b> , 213, 436-42	3.1	42
220	Cellular bridges: Routes for intercellular communication and cell migration. <i>Communicative and Integrative Biology</i> , <b>2010</b> , 3, 215-20	1.7	41
219	Endothelial implants provide long-term control of vascular repair in a porcine model of arterial injury. <i>Journal of Surgical Research</i> , <b>2001</b> , 99, 228-34	2.5	41
218	Stents: Biomechanics, Biomaterials, and Insights from Computational Modeling. <i>Annals of Biomedical Engineering</i> , <b>2017</b> , 45, 853-872	4.7	40
217	Extent of flow recirculation governs expression of atherosclerotic and thrombotic biomarkers in arterial bifurcations. <i>Cardiovascular Research</i> , <b>2014</b> , 103, 37-46	9.9	40
216	Risk stratification of individual coronary lesions using local endothelial shear stress: a new paradigm for managing coronary artery disease. <i>Current Opinion in Cardiology</i> , <b>2007</b> , 22, 552-64	2.1	40
215	In vivo and in vitro evaluation of a biodegradable magnesium vascular stent designed by shape optimization strategy. <i>Biomaterials</i> , <b>2019</b> , 221, 119414	15.6	39
214	Fabrication of Bioactive Surfaces by Plasma Polymerization Techniques Using a Novel Acrylate-Derived Monomer. <i>Plasma Processes and Polymers</i> , <b>2005</b> , 2, 605-611	3.4	39
213	Polyelectrolyte hydrogel instabilities in ionic solutions. <i>Journal of Chemical Physics</i> , <b>1996</b> , 105, 10606-10	0613	39
212	Impact of flow pulsatility on arterial drug distribution in stent-based therapy. <i>Journal of Controlled Release</i> , <b>2013</b> , 168, 115-24	11.7	38
211	Intravascular fibrin molecular imaging improves the detection of unhealed stents assessed by optical coherence tomography in vivo. <i>European Heart Journal</i> , <b>2017</b> , 38, 447-455	9.5	37
210	Optimizing Glutaraldehyde-Fixed Tissue Heart Valves with Chondroitin Sulfate Hydrogel for Endothelialization and Shielding against Deterioration. <i>Biomacromolecules</i> , <b>2018</b> , 19, 1234-1244	6.9	36
209	Transapical mitral implantation of the Tiara bioprosthesis: pre-clinical results. <i>JACC: Cardiovascular Interventions</i> , <b>2014</b> , 7, 154-162	5	35
208	Treatment with chondroitin sulfate to modulate inflammation and atherogenesis in obesity. <i>Atherosclerosis</i> , <b>2016</b> , 245, 82-7	3.1	34
207	Regulation of endothelial cell proliferation by primary monocytes. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , <b>2008</b> , 28, 97-104	9.4	33
206	Randomized Comparison of Ridaforolimus- and Zotarolimus-Eluting Coronary Stents in Patients With Coronary Artery Disease: Primary Results From the BIONICS Trial (BioNIR Ridaforolimus-Eluting Coronary Stent System in Coronary Stenosis). <i>Circulation</i> , <b>2017</b> , 136, 1304-1314	16.7	32
205	Strain-induced accelerated asymmetric spatial degradation of polymeric vascular scaffolds.  Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2640-2645	11.5	31

# (2001-2017)

204	Targeting STUB1-tissue factor axis normalizes hyperthrombotic uremic phenotype without increasing bleeding risk. <i>Science Translational Medicine</i> , <b>2017</b> , 9,	17.5	31
203	The role of scaffold microarchitecture in engineering endothelial cell immunomodulation. <i>Biomaterials</i> , <b>2012</b> , 33, 7019-27	15.6	31
202	C-reactive protein promotes monocyte-platelet aggregation: an additional link to the inflammatory-thrombotic intricacy. <i>European Journal of Haematology</i> , <b>2007</b> , 78, 246-52	3.8	31
201	Matrix embedding alters the immune response against endothelial cells in vitro and in vivo. <i>Circulation</i> , <b>2005</b> , 112, 189-95	16.7	31
200	Tuning adhesion failure strength for tissue-specific applications. <i>Acta Biomaterialia</i> , <b>2011</b> , 7, 67-74	10.8	30
199	Drug clearance and arterial uptake after local perivascular delivery to the rat carotid artery. <i>Journal of the American College of Cardiology</i> , <b>1997</b> , 29, 1645-50	15.1	29
198	The c-Cbl ubiquitin ligase regulates nuclear Eatenin and angiogenesis by its tyrosine phosphorylation mediated through the Wnt signaling pathway. <i>Journal of Biological Chemistry</i> , <b>2015</b> , 290, 12537-46	5.4	28
197	Synergistic effect of local endothelial shear stress and systemic hypercholesterolemia on coronary atherosclerotic plaque progression and composition in pigs. <i>International Journal of Cardiology</i> , <b>2013</b> , 169, 394-401	3.2	28
196	Attenuation of inflammation and expansive remodeling by Valsartan alone or in combination with Simvastatin in high-risk coronary atherosclerotic plaques. <i>Atherosclerosis</i> , <b>2009</b> , 203, 387-94	3.1	28
195	Proangiogenic stimulation of bone marrow endothelium engages mTOR and is inhibited by simultaneous blockade of mTOR and NF-kappaB. <i>Blood</i> , <b>2006</b> , 107, 285-92	2.2	28
194	Natural tissue microenvironmental conditions modulate adhesive material performance. <i>Langmuir</i> , <b>2012</b> , 28, 15402-9	4	27
193	Augmentation of postswelling surgical sealant potential of adhesive hydrogels. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2010</b> , 95, 1159-69	5.4	27
192	A tunable delivery platform to provide local chemotherapy for pancreatic ductal adenocarcinoma. <i>Biomaterials</i> , <b>2016</b> , 93, 71-82	15.6	27
191	Structural Mechanics Predictions Relating to Clinical Coronary Stent Fracture in a 5 Year Period in FDA MAUDE Database. <i>Annals of Biomedical Engineering</i> , <b>2016</b> , 44, 391-403	4.7	26
190	Transgenic expression of human C-reactive protein suppresses endothelial nitric oxide synthase expression and bioactivity after vascular injury. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2007</b> , 293, H489-95	5.2	26
189	Phosphorylation-induced conformational changes in a mitogen-activated protein kinase substrate. Implications for tyrosine hydroxylase activation. <i>Journal of Biological Chemistry</i> , <b>2002</b> , 277, 47653-61	5.4	26
188	Primary monocytes regulate endothelial cell survival through secretion of angiopoietin-1 and activation of endothelial Tie2. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , <b>2011</b> , 31, 870-5	9.4	24
187	Oral heparin prevents neointimal hyperplasia after arterial injury: inhibitory potential depends on type of vascular injury. <i>Circulation</i> , <b>2001</b> , 104, 3121-4	16.7	24

186	Local drug delivery: an emerging approach in the treatment of restenosis. <i>Vascular Medicine</i> , <b>2000</b> , 5, 97-102	3.3	24
185	Predicting response to endovascular therapies: dissecting the roles of local lesion complexity, systemic comorbidity, and clinical uncertainty. <i>Journal of Biomechanics</i> , <b>2014</b> , 47, 908-21	2.9	23
184	A structural model that explains the effects of hyperglycemia on collagenolysis. <i>Biophysical Journal</i> , <b>2003</b> , 85, 2198-204	2.9	23
183	Local and systemic drug competition in drug-eluting stent tissue deposition properties. <i>Journal of Controlled Release</i> , <b>2005</b> , 109, 236-43	11.7	23
182	How do we prevent the vulnerable atherosclerotic plaque from rupturing? Insights from in vivo assessments of plaque, vascular remodeling, and local endothelial shear stress. <i>Journal of Cardiovascular Pharmacology and Therapeutics</i> , <b>2015</b> , 20, 261-75	2.6	22
181	Drug deposition in coronary arteries with overlapping drug-eluting stents. <i>Journal of Controlled Release</i> , <b>2016</b> , 238, 1-9	11.7	22
180	On the validity of the quasi-steady state approximation of bimolecular reactions in solution. <i>Journal of Theoretical Biology</i> , <b>2005</b> , 233, 343-50	2.3	22
179	Arterial heparin deposition: role of diffusion, convection, and extravascular space. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>1998</b> , 275, H2236-42	5.2	22
178	Measurement of drug distribution in vascular tissue using quantitative fluorescence microscopy. Journal of Pharmaceutical Sciences, <b>1999</b> , 88, 822-9	3.9	22
177	Targeted anti-inflammatory systemic therapy for restenosis: the Biorest Liposomal Alendronate with Stenting sTudy (BLAST)-a double blind, randomized clinical trial. <i>American Heart Journal</i> , <b>2013</b> , 165, 234-40.e1	4.9	21
176	The evolution of endothelial regulatory paradigms in cancer biology and vascular repair. <i>Cancer Research</i> , <b>2011</b> , 71, 7339-44	10.1	21
175	Tubular bridges for bronchial epithelial cell migration and communication. <i>PLoS ONE</i> , <b>2010</b> , 5, e8930	3.7	21
174	Matrix adherence of endothelial cells attenuates immune reactivity: induction of hyporesponsiveness in allo- and xenogeneic models. <i>FASEB Journal</i> , <b>2007</b> , 21, 1515-26	0.9	21
173	Analysis of compartmental models of ligand-induced endocytosis. <i>Journal of Theoretical Biology</i> , <b>2004</b> , 229, 127-38	2.3	21
172	Endothelial heparan sulfate is necessary but not sufficient for control of vascular smooth muscle cell growth. <i>Journal of Cellular Physiology</i> , <b>2000</b> , 184, 93-100	7	21
171	Graphene-Dendrimer Nanostars for Targeted Macrophage Overexpression of Metalloproteinase 9 and Hepatic Fibrosis Precision Therapy. <i>Nano Letters</i> , <b>2018</b> , 18, 5839-5845	11.5	20
170	Endothelial cell-matrix interactions determine maturation of dendritic cells. <i>European Journal of Immunology</i> , <b>2007</b> , 37, 1773-84	6.1	20
169	Environmental influences on endovascular stent platelet reactivity: an in vitro comparison of stainless steel and gold surfaces. <i>Journal of Biomedical Materials Research Part B</i> , <b>2004</b> , 70, 186-93		20

### (2015-2016)

168	Aortic Shear Stress After Intervention in Patients With Mild Coarctation. <i>JACC: Cardiovascular Interventions</i> , <b>2016</b> , 9, 1953-65	5	20
167	Taking paclitaxel coated balloons to a higher level: Predicting coating dissolution kinetics, tissue retention and dosing dynamics. <i>Journal of Controlled Release</i> , <b>2019</b> , 310, 94-102	11.7	19
166	Pheochromocytoma-induced cardiomyopathy is modulated by the synergistic effects of cell-secreted factors. <i>Circulation: Heart Failure</i> , <b>2009</b> , 2, 121-8	7.6	19
165	Amyloid beta toxicity dependent upon endothelial cell state. <i>Neuroscience Letters</i> , <b>2008</b> , 441, 319-22	3.3	19
164	The effect of three-dimensional matrix-embedding of endothelial cells on the humoral and cellular immune response. <i>Seminars in Immunology</i> , <b>2008</b> , 20, 117-22	10.7	18
163	Cell-matrix contact prevents recognition and damage of endothelial cells in states of heightened immunity. <i>Circulation</i> , <b>2006</b> , 114, I233-8	16.7	18
162	Angiogenic potential of perivascularly delivered aFGF in a porcine model of chronic myocardial ischemia. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>1998</b> , 274, H930-6	5.2	18
161	A geometrically adaptable heart valve replacement. Science Translational Medicine, 2020, 12,	17.5	18
160	Rat arterial wall retains myointimal hyperplastic potential long after arterial injury. <i>Circulation</i> , <b>1997</b> , 96, 1291-8	16.7	18
159	The role of aortic compliance in determination of coarctation severity: Lumped parameter modeling, in vitro study and clinical evaluation. <i>Journal of Biomechanics</i> , <b>2015</b> , 48, 4229-37	2.9	17
158	Assessment of material by-product fate from bioresorbable vascular scaffolds. <i>Annals of Biomedical Engineering</i> , <b>2012</b> , 40, 955-65	4.7	17
157	Drug delivery models transported to a new level. <i>Nature Biotechnology</i> , <b>1998</b> , 16, 136-7	44.5	17
156	Pushing drug-eluting stents into uncharted territory: simpler than you thinkmore complex than you imagine. <i>Circulation</i> , <b>2006</b> , 113, 2262-5	16.7	17
155	Optimized Computer-Aided Segmentation and Three-Dimensional Reconstruction Using Intracoronary Optical Coherence Tomography. <i>IEEE Journal of Biomedical and Health Informatics</i> , <b>2018</b> , 22, 1168-1176	7.2	16
154	Chondroitin Sulphate Attenuates Atherosclerosis in ApoE Knockout Mice Involving Cellular Regulation of the Inflammatory Response. <i>Thrombosis and Haemostasis</i> , <b>2018</b> , 118, 1329-1339	7	16
153	High concentrations of drug in target tissues following local controlled release are utilized for both drug distribution and biologic effect: an example with epicardial inotropic drug delivery. <i>Journal of Controlled Release</i> , <b>2013</b> , 171, 201-7	11.7	16
152	Procedural and Anatomical Determinants of Multielectrode Renal Denervation Efficacy. <i>Hypertension</i> , <b>2019</b> , 74, 546-554	8.5	15
151	The Impact of Blood Rheology on Drug Transport in Stented Arteries: Steady Simulations. <i>PLoS ONE</i> , <b>2015</b> , 10, e0128178	3.7	15

150	J waves of Osborn revisited. Journal of the American College of Cardiology, 2010, 55, 2287	15.1	15
149	Elevated fibroblast growth factor-2 increases tumor necrosis factor-alpha induced endothelial cell death in high glucose. <i>Journal of Cellular Physiology</i> , <b>2008</b> , 217, 86-92	7	15
148	Endothelial immunogenicity 🖪 matter of matrix microarchitecture. <i>Thrombosis and Haemostasis</i> , <b>2007</b> , 98, 278-282	7	15
147	Ventricular stroke work and vascular impedance refine the characterization of patients with aortic stenosis. <i>Science Translational Medicine</i> , <b>2019</b> , 11,	17.5	14
146	Mixed Valvular Disease Following Transcatheter Aortic Valve Replacement: Quantification and Systematic Differentiation Using Clinical Measurements and Image-Based Patient-Specific In Silico Modeling. <i>Journal of the American Heart Association</i> , <b>2020</b> , 9, e015063	6	14
145	Comparison of the Absorbable Polymer Sirolimus-Eluting Stent (MiStent) to the Durable Polymer Everolimus-Eluting Stent (Xience) (from the DESSOLVE I/II and ISAR-TEST-4 Studies). <i>American Journal of Cardiology</i> , <b>2016</b> , 117, 532-538	3	14
144	De la investigacifi no clítica a los ensayos y registros clíticos: retos y oportunidades en la investigacifi biomílica. <i>Revista Espanola De Cardiologia</i> , <b>2017</b> , 70, 1121-1133	1.5	14
143	Delivery site of perivascular endothelial cell matrices determines control of stenosis in a porcine femoral stent model. <i>Journal of Vascular and Interventional Radiology</i> , <b>2009</b> , 20, 1617-24	2.4	14
142	Polymeric endovascular strut and lumen detection algorithm for intracoronary optical coherence tomography images. <i>Journal of Biomedical Optics</i> , <b>2018</b> , 23, 1-14	3.5	14
141	A Mechanical Approach for Smooth Surface Fitting to Delineate Vessel Walls in Optical Coherence Tomography Images. <i>IEEE Transactions on Medical Imaging</i> , <b>2019</b> , 38, 1384-1397	11.7	14
140	Effect of working environment and procedural strategies on mechanical performance of bioresorbable vascular scaffolds. <i>Acta Biomaterialia</i> , <b>2018</b> , 82, 34-43	10.8	14
139	Enhancing physiologic simulations using supervised learning on coarse mesh solutions. <i>Journal of the Royal Society Interface</i> , <b>2015</b> , 12, 20141073	4.1	13
138	Could antiretrovirals be treating EBV in MS? A case report. <i>Multiple Sclerosis and Related Disorders</i> , <b>2018</b> , 22, 19-21	4	13
137	NF-kappaB activity in endothelial cells is modulated by cell substratum interactions and influences chemokine-mediated adhesion of natural killer cells. <i>Cell Transplantation</i> , <b>2009</b> , 18, 261-73	4	13
136	Structural biomechanics modulate intramuscular distribution of locally delivered drugs. <i>Journal of Biomechanics</i> , <b>2008</b> , 41, 2884-91	2.9	13
135	Endosomal receptor kinetics determine the stability of intracellular growth factor signalling complexes. <i>Biochemical Journal</i> , <b>2007</b> , 402, 537-49	3.8	13
134	Low background, pulsatile, in vitro flow circuit for modeling coronary implant thrombosis. <i>Journal of Biomechanical Engineering</i> , <b>2002</b> , 124, 662-8	2.1	13
133	Quantification of insulin release from implantable polymer-based delivery systems and augmentation of therapeutic effect with simultaneous release of somatostatin. <i>Journal of Pharmaceutical Sciences</i> , <b>1996</b> , 85, 1271-5	3.9	13

132	Mechanical deformation of polymer matrix controlled release devices modulates drug release. Journal of Biomedical Materials Research Part B, <b>1992</b> , 26, 1619-31		13	
131	Constraining OCT with Knowledge of Device Design Enables High Accuracy Hemodynamic Assessment of Endovascular Implants. <i>PLoS ONE</i> , <b>2016</b> , 11, e0149178	3.7	13	
130	Assessment of the Angiogenic Potential of 2-Deoxy-D-Ribose Using a Novel 3D Dynamic Model in Comparison With Established Assays. <i>Frontiers in Bioengineering and Biotechnology</i> , <b>2019</b> , 7, 451	5.8	13	
129	Effects of Low Endothelial Shear Stress After Stent Implantation on Subsequent Neointimal Hyperplasia and Clinical Outcomes in Humans. <i>Journal of the American Heart Association</i> , <b>2016</b> , 5,	6	13	
128	Endothelial immunogenicitya matter of matrix microarchitecture. <i>Thrombosis and Haemostasis</i> , <b>2007</b> , 98, 278-82	7	13	
127	Vascular Dilation, Tachycardia, and Increased Inotropy Occur Sequentially with Increasing Epinephrine Dose Rate, Plasma and Myocardial Concentrations, and cAMP. <i>Heart Lung and Circulation</i> , <b>2015</b> , 24, 912-8	1.8	12	
126	Anatomical and procedural determinants of catheter-based renal denervation. <i>Cardiovascular Revascularization Medicine</i> , <b>2016</b> , 17, 474-479	1.6	12	
125	Coronary Artery Disease and Diabetes Mellitus. <i>Heart Failure Clinics</i> , <b>2016</b> , 12, 117-33	3.3	12	
124	Sustained Efficacy and Arterial Drug Retention by a Fast Drug Eluting Cross-Linked Fatty Acid Coronary Stent Coating. <i>Annals of Biomedical Engineering</i> , <b>2016</b> , 44, 276-86	4.7	12	
123	Multilayer flow modulator enhances vital organ perfusion in patients with type B aortic dissection. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2018</b> , 315, H1182-H1193	5.2	12	
122	Vascular regeneration by local growth factor release is self-limited by microvascular clearance. <i>Circulation</i> , <b>2009</b> , 119, 2928-35	16.7	12	
121	Controlled Release of Fibroblast Growth Factor: Activity in Cell Culture. <i>Materials Research Society Symposia Proceedings</i> , <b>1991</b> , 252, 273		12	
120	Control of drug release from polymer matrices impregnated with magnetic beads I proposed mechanism and model for enhanced release. <i>Journal of Controlled Release</i> , <b>1984</b> , 1, 143-147	11.7	12	
119	Particulates from hydrophilic-coated guiding sheaths embolise to the brain. <i>EuroIntervention</i> , <b>2016</b> , 11, 1435-41	3.1	12	
118	Vascular Response to Experimental Stent Malapposition and Under-Expansion. <i>Annals of Biomedical Engineering</i> , <b>2016</b> , 44, 2251-60	4.7	11	
117	Arterial Stiffening in Perspective: Advances in Physical and Physiological Science Over Centuries. <i>American Journal of Hypertension</i> , <b>2016</b> , 29, 785-91	2.3	11	
116	Matrix-embedded endothelial cells are protected from the uremic milieu. <i>Nephrology Dialysis Transplantation</i> , <b>2011</b> , 26, 3858-65	4.3	11	
115	Local epicardial inotropic drug delivery allows targeted pharmacologic intervention with preservation of myocardial loading conditions. <i>Journal of Pharmaceutical Sciences</i> , <b>2011</b> , 100, 4993-5006	53.9	11	

114	A deep learning approach to classify atherosclerosis using intracoronary optical coherence tomography <b>2019</b> ,		11
113	Modifications of microvascular EC surface modulate phototoxicity of a porphycene anti-ICAM-1 immunoconjugate; therapeutic implications. <i>Langmuir</i> , <b>2013</b> , 29, 9734-43	4	10
112	Mechanisms of heparin transport through expanded poly(tetrafluoroethylene) vascular grafts. Journal of Biomedical Materials Research Part B, <b>2000</b> , 49, 112-9		10
111	Controlled Release of Heparin Reduces Neointimal Hyperplasia in Stented Rabbit Arteries: Ramifications for Local Therapy. <i>Journal of Interventional Cardiology</i> , <b>1992</b> , 5, 195-202	1.8	10
110	Case 30-2020: A 54-Year-Old Man with Sudden Cardiac Arrest. <i>New England Journal of Medicine</i> , <b>2020</b> , 383, 1263-1275	59.2	10
109	Position Paper Computational Cardiology. <i>IEEE Journal of Biomedical and Health Informatics</i> , <b>2019</b> , 23, 4-11	7.2	10
108	Impact of concomitant vasoactive treatment and mechanical left ventricular unloading in a porcine model of profound cardiogenic shock. <i>Critical Care</i> , <b>2020</b> , 24, 95	10.8	9
107	Rapamycin activates TGF receptor independently of its ligand: implications for endothelial dysfunction. <i>Clinical Science</i> , <b>2018</b> , 132, 437-447	6.5	9
106	Defining drug and target protein distributions after stent-based drug release: Durable versus deployable coatings. <i>Journal of Controlled Release</i> , <b>2018</b> , 274, 102-108	11.7	9
105	Monocyte activation state regulates monocyte-induced endothelial proliferation through Met signaling. <i>Blood</i> , <b>2010</b> , 115, 3407-12	2.2	9
104	A Domain Enriched Deep Learning Approach to Classify Atherosclerosis using Intravascular Ultrasound Imaging. <i>IEEE Journal on Selected Topics in Signal Processing</i> , <b>2020</b> , 14, 1210-1220	7.5	8
103	Anatomical and procedural determinants of ambulatory blood pressure lowering following catheter-based renal denervation using radiofrequency. <i>Cardiovascular Revascularization Medicine</i> , <b>2018</b> , 19, 845-851	1.6	8
102	Mechanical circulatory support device-heart hysteretic interaction can predict left ventricular end diastolic pressure. <i>Science Translational Medicine</i> , <b>2018</b> , 10,	17.5	8
101	Ultrasound-guided percutaneous delivery of tissue-engineered endothelial cells to the adventitia of stented arteries controls the response to vascular injury in a porcine model. <i>Journal of Vascular Surgery</i> , <b>2012</b> , 56, 1078-88	3.5	8
100	Intramuscular drug transport under mechanical loading: resonance between tissue function and uptake. <i>Journal of Controlled Release</i> , <b>2009</b> , 136, 99-109	11.7	8
99	Function and mode of regulation of endothelial major histocompatibility complex class II. <i>Cell Transplantation</i> , <b>2009</b> , 18, 255-9	4	8
98	Neointimal formation is reduced after arterial injury in human crp transgenic mice. <i>Atherosclerosis</i> , <b>2008</b> , 201, 85-91	3.1	8
97	Dose model for stent-based delivery of a radioactive compound for the treatment of restenosis in coronary arteries. <i>Medical Physics</i> , <b>2003</b> , 30, 2622-8	4.4	8

# (2012-2002)

96	Activation of EphB2 and its ligands promotes vascular smooth muscle cell proliferation. <i>Journal of Biological Chemistry</i> , <b>2002</b> , 277, 1924-7	5.4	8
95	Evaluation of an intramedullary bone stabilization system using a light-curable monomer in sheep. Journal of Biomedical Materials Research - Part B Applied Biomaterials, <b>2016</b> , 104, 291-9	3.5	8
94	Biocompatibility, bone healing, and safety evaluation in rabbits with an IlluminOss bone stabilization system. <i>Journal of Orthopaedic Research</i> , <b>2017</b> , 35, 2181-2190	3.8	7
93	Tenofovir prodrugs potently inhibit Epstein-Barr virus lytic DNA replication by targeting the viral DNA polymerase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 12368-12374	11.5	7
92	Arterial Remodeling and Endothelial Shear Stress Exhibit Significant Longitudinal Heterogeneity Along the Length of Coronary Plaques. <i>JACC: Cardiovascular Imaging</i> , <b>2016</b> , 9, 1007-9	8.4	7
91	Sex differences in the outcomes of stent implantation in mini-swine model. <i>PLoS ONE</i> , <b>2018</b> , 13, e01920	0947	7
90	Randomized trials of invasive cardiovascular interventions that include a placebo control: a systematic review and meta-analysis. <i>European Heart Journal</i> , <b>2020</b> , 41, 2556-2569	9.5	7
89	Paclitaxel Drug-Coated Balloon Angioplasty Suppresses Progression and Inflammation of Experimental Atherosclerosis in Rabbits. <i>JACC Basic To Translational Science</i> , <b>2020</b> , 5, 685-695	8.7	7
88	Atherosclerotic plaque behind the stent changes after bare-metal and drug-eluting stent implantation in humans: Implications for late stent failure?. <i>Atherosclerosis</i> , <b>2016</b> , 252, 9-14	3.1	7
87	Myocardial drug distribution generated from local epicardial application: potential impact of cardiac capillary perfusion in a swine model using epinephrine. <i>Journal of Controlled Release</i> , <b>2014</b> , 194, 257-65	11.7	6
86	Use of pressure-volume conductance catheters in real-time cardiovascular experimentation. <i>Heart Lung and Circulation</i> , <b>2014</b> , 23, 1059-69	1.8	6
85	Vascular growth factor binding kinetics to the endothelial cell basement membrane, with a kinetics-based correction for substrate binding. <i>Cytotechnology</i> , <b>2009</b> , 60, 33	2.2	6
84	Balloon-based drug coating delivery to the artery wall is dictated by coating micro-morphology and angioplasty pressure gradients. <i>Biomaterials</i> , <b>2020</b> , 260, 120337	15.6	6
83	Twenty-Four-Hour Ex Vivo Perfusion with Acellular Solution Enables Successful Replantation of Porcine Forelimbs. <i>Plastic and Reconstructive Surgery</i> , <b>2019</b> , 144, 608e-618e	2.7	6
82	Non-invasive estimation of relative pressure for intracardiac flows using virtual work-energy. <i>Medical Image Analysis</i> , <b>2021</b> , 68, 101948	15.4	6
81	Hemodynamic consequences of a multilayer flow modulator in aortic dissection. <i>Medical and Biological Engineering and Computing</i> , <b>2019</b> , 57, 1861-1874	3.1	5
80	Quantification of thrombus formation in malapposed coronary stents deployed in vitro through imaging analysis. <i>Journal of Biomechanics</i> , <b>2018</b> , 71, 296-301	2.9	5
79	Engineered arterial models to correlate blood flow to tissue biological response. <i>Annals of the New York Academy of Sciences</i> , <b>2012</b> , 1254, 51-6	6.5	5

78	From Nonclinical Research to Clinical Trials and Patient-registries: Challenges and Opportunities in Biomedical Research. <i>Revista Espanola De Cardiologia (English Ed )</i> , <b>2017</b> , 70, 1121-1133	0.7	5
77	T-helper 2 cells are essential for modulation of vascular repair by allogeneic endothelial cells. <i>Journal of Heart and Lung Transplantation</i> , <b>2010</b> , 29, 479-86	5.8	5
76	Optimal control of blood glucose: the diabetic patient or the machine?. <i>Science Translational Medicine</i> , <b>2010</b> , 2, 27ps18	17.5	5
75	Clinician-investigators as translational bioscientists: shaping a seamless identity. <i>Science Translational Medicine</i> , <b>2012</b> , 4, 135fs14	17.5	5
74	A Computational Fluid Dynamics Study of the Extracorporeal Membrane Oxygenation-Failing Heart Circulation. <i>ASAIO Journal</i> , <b>2021</b> , 67, 276-283	3.6	5
73	False lumen pressure estimation in type B aortic dissection using 4D flow cardiovascular magnetic resonance: comparisons with aortic growth. <i>Journal of Cardiovascular Magnetic Resonance</i> , <b>2021</b> , 23, 51	6.9	5
72	Fracture in drug-eluting stents increases focal intimal hyperplasia in the atherosclerosed rabbit iliac artery. <i>Catheterization and Cardiovascular Interventions</i> , <b>2019</b> , 93, 278-285	2.7	5
71	Nickel-Titanium peripheral stents: Which is the best criterion for the multi-axial fatigue strength assessment?. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2021</b> , 113, 104142	4.1	5
70	1⊉5-Dihydroxyvitamin D Encapsulated in Nanoparticles Prevents Venous Neointimal Hyperplasia and Stenosis in Porcine Arteriovenous Fistulas. <i>Journal of the American Society of Nephrology: JASN</i> , <b>2021</b> ,	12.7	5
69	Noninvasive quantification of cerebrovascular pressure changes using 4D Flow MRI. <i>Magnetic Resonance in Medicine</i> , <b>2021</b> , 86, 3096-3110	4.4	5
68	Implantation of healthy matrix-embedded endothelial cells rescues dysfunctional endothelium and ischaemic tissue in liver engraftment. <i>Gut</i> , <b>2017</b> , 66, 1297-1305	19.2	4
67	Estimating the internal elastic membrane cross-sectional area of coronary arteries autonomously using optical coherence tomography images <b>2017</b> ,		4
66	Leveraging Device-Arterial Coupling to Determine Cardiac and Vascular State. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2019</b> , 66, 2800-2808	5	4
65	Role of CABG in the management of obstructive coronary arterial disease in patients with diabetes mellitus. <i>Current Opinion in Pharmacology</i> , <b>2012</b> , 12, 134-41	5.1	4
64	Importance of receptor-targeted systems in the battle against atherosclerosis. <i>Current Pharmaceutical Design</i> , <b>2013</b> , 19, 5897-903	3.3	4
63	Tenuous Tether. New England Journal of Medicine, 2015, 373, 2199-201	59.2	4
62	Feasibility of remote speech analysis in evaluation of dynamic fluid overload in heart failure patients undergoing haemodialysis treatment. <i>ESC Heart Failure</i> , <b>2021</b> , 8, 2467-2472	3.7	4
61	Vascular Lesion-Specific Drug Delivery Systems: JACC State-of-the-Art Review. <i>Journal of the American College of Cardiology</i> , <b>2021</b> , 77, 2413-2431	15.1	4

### (2021-2019)

60	Subendothelial matrix components influence endothelial cell apoptosis in vitro. <i>American Journal of Physiology - Cell Physiology</i> , <b>2019</b> , 316, C210-C222	5.4	4
59	Engagement of the medical-technology sector with society. Science Translational Medicine, 2017, 9,	17.5	3
58	assessment of the effects of material on stent deployment. <i>Proceedings IEEE International Symposium on Bioinformatics and Bioengineering</i> , <b>2017</b> , 2017, 462-467	1	3
57	Resonance energy transfer for assessing the molecular integrity of proteins for local delivery. <i>Biotechnology and Bioengineering</i> , <b>2004</b> , 85, 406-12	4.9	3
56	Remote Speech Analysis in the Evaluation of Hospitalized Patients With Acute Decompensated Heart Failure <i>JACC: Heart Failure</i> , <b>2022</b> , 10, 41-49	7.9	3
55	Orphan nuclear receptor COUP-TFII enhances myofibroblast glycolysis leading to kidney fibrosis. <i>EMBO Reports</i> , <b>2021</b> , 22, e51169	6.5	3
54	Understanding TAVR device expansion as it relates to morphology of the bicuspid aortic valve: A simulation study. <i>PLoS ONE</i> , <b>2021</b> , 16, e0251579	3.7	3
53	Endovascular drug-delivery and drug-elution systems <b>2021</b> , 595-631		3
52	Vessel centerline reconstruction from non-isocentric and non-orthogonal paired monoplane angiographic images. <i>International Journal of Cardiovascular Imaging</i> , <b>2018</b> , 34, 673-682	2.5	3
51	A platform for high-fidelity patient-specific structural modelling of atherosclerotic arteries: from intravascular imaging to three-dimensional stress distributions. <i>Journal of the Royal Society Interface</i> , <b>2021</b> , 18, 20210436	4.1	3
50	Matrix-Embedded Endothelial Cells Attain a Progenitor-Like Phenotype. Advanced Biology, 2017, 1, 170	00957	3
49	Application of Arterial Hemodynamics to Clinical Practice: A Testament to Medical Science in London. <i>Artery Research</i> , <b>2017</b> , 18, 81-86	2.2	2
48	William Heberden and reverse translation. Science Translational Medicine, 2015, 7, 287fs20	17.5	2
47	Cell matrix contact modifies endothelial major histocompatibility complex class II expression in high-glucose environment. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2013</b> , 305, H1592-9	5.2	2
46	Response to Letter Regarding Article, Stent Thrombogenicity Early in High-Risk Interventional Settings Is Driven by Stent Design and Deployment and Protected by Polymer-Drug Coatings Circulation, <b>2011</b> , 124,	16.7	2
45	Smooth Muscle Cell Ingrowth of a Surface-Modified ePTFE Vascular Graft. <i>Key Engineering Materials</i> , <b>2005</b> , 288-289, 367-372	0.4	2
44	and surreal antisense?. <i>Nature Medicine</i> , <b>1996</b> , 2, 131-2	50.5	2
43	An inverse method for mechanical characterization of heterogeneous diseased arteries using intravascular imaging. <i>Scientific Reports</i> , <b>2021</b> , 11, 22540	4.9	2

42	Ultra-hydrophilic stent platforms promote early vascular healing and minimise late tissue response: a potential alternative to second-generation drug-eluting stents. <i>EuroIntervention</i> , <b>2017</b> , 12, 2148-215	6 <sup>3.1</sup>	2
41	Three dimensional reconstruction of coronary artery stents from optical coherence tomography: experimental validation and clinical feasibility. <i>Scientific Reports</i> , <b>2021</b> , 11, 12252	4.9	2
40	Multimodal Loading Environment Predicts Bioresorbable Vascular Scaffolds' Durability. <i>Annals of Biomedical Engineering</i> , <b>2021</b> , 49, 1298-1307	4.7	2
39	3D matrix-embedding inhibits cycloheximide-mediated sensitization to TNF-alpha-induced apoptosis of human endothelial cells. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , <b>2018</b> , 12, 1085-1096	4.4	2
38	Dynamic Modulation of Device-Arterial Coupling to Determine Cardiac Output and Vascular Resistance. <i>Annals of Biomedical Engineering</i> , <b>2020</b> , 48, 2333-2342	4.7	1
37	Topographic Pattern of Valve Calcification: A New Determinant of Disease Severity in Aortic Valve Stenosis. <i>JACC: Cardiovascular Imaging</i> , <b>2018</b> , 11, 1032-1035	8.4	1
36	Osterix-mCherry Expression Allows for Early Bone Detection in a Calvarial Defect Model. <i>Advanced Biology</i> , <b>2019</b> , 3, e1900184	3.5	1
35	Automated Segmentation of Bioresorbable Vascular Scaffold Struts in Intracoronary Optical Coherence Tomography Images. International Conference on Bioinformatics and Biomedical Engineering: [proceedings] International Conference on Bioinformatics and Biomedical Engineering,		1
34	Convective and Diffusive Transport in Drug Delivery <b>2013</b> , 573-606		1
33	Echocardiographic capture of right ventricular wall rupture during inferior wall acute myocardial infarction. <i>American Journal of Cardiology</i> , <b>2009</b> , 103, 1478-80	3	1
32	Images in cardiovascular medicine. Acute ST depressions in a patient with idiopathic hypertrophic subaortic stenosis and normal coronary arteries. <i>Circulation</i> , <b>2002</b> , 106, 757-8	16.7	1
31	Effect of anatomical variation on extracorporeal membrane oxygenation circulatory support: A computational study <i>Computers in Biology and Medicine</i> , <b>2021</b> , 141, 105178	7	1
30	Novel Lesional Transcriptional Signature Separates Atherosclerosis With and Without Diabetes in Yorkshire Swine and Humans. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , <b>2021</b> , 41, 1487-1503	9.4	1
29	Validation study to determine the accuracy of central blood pressure measurement using the SphygmoCor XCEL cuff device in patients with severe aortic stenosis undergoing transcatheter aortic valve replacement. <i>Journal of Clinical Hypertension</i> , <b>2021</b> , 23, 1165-1175	2.3	1
29	SphygmoCor XCEL cuff device in patients with severe aortic stenosis undergoing transcatheter	2.3	1
	SphygmoCor XCEL cuff device in patients with severe aortic stenosis undergoing transcatheter aortic valve replacement. <i>Journal of Clinical Hypertension</i> , <b>2021</b> , 23, 1165-1175  Simulation of Fluid-Structure Interaction in Extracorporeal Membrane Oxygenation Circulatory		
28	SphygmoCor XCEL cuff device in patients with severe aortic stenosis undergoing transcatheter aortic valve replacement. <i>Journal of Clinical Hypertension</i> , <b>2021</b> , 23, 1165-1175  Simulation of Fluid-Structure Interaction in Extracorporeal Membrane Oxygenation Circulatory Support Systems. <i>Journal of Cardiovascular Translational Research</i> , <b>2021</b> , 1  Improving Automated Tissue Characterization in Optical Coherence Tomography by Melding		1

24	Effects of amide and amine plasma-treated ePTFE vascular grafts on endothelial cell lining in an artificial circulatory system <b>1998</b> , 42, 188		1
23	Impact and implications of mixed plaque class in automated characterization of complex atherosclerotic lesions <i>Computerized Medical Imaging and Graphics</i> , <b>2022</b> , 97, 102051	7.6	1
22	Tracking of Drug Release and Material Fate for Naturally Derived Omega-3 Fatty Acid Biomaterials. <i>Annals of Biomedical Engineering</i> , <b>2016</b> , 44, 782-92	4.7	O
21	The fiber of modern society. <i>Science Translational Medicine</i> , <b>2011</b> , 3, 89cm14	17.5	O
20	: Intravascular Devices with a Higher Risk of Polymer Emboli: The Need for Particulate Generation Testing. <i>Biomedical Instrumentation and Technology</i> , <b>2020</b> , 54, 37-43	0.4	O
19	Acute Stent-Induced Endothelial Denudation: Biomechanical Predictors of Vascular Injury. <i>Frontiers in Cardiovascular Medicine</i> , <b>2021</b> , 8, 733605	5.4	О
18	Artificial intelligence to generate medical images: augmenting the cardiologists visual clinical workflow. <i>European Heart Journal Digital Health</i> , <b>2021</b> , 2, 539-544	2.3	O
17	Accelerated neutral atom beam (ANAB) modified polyethylene for decreased wear and reduced bacteria colonization: An in vitro study <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , <b>2022</b> , 102540	6	O
16	B'reshith. Journal of Controlled Release, 2018, 285, 252-257	11.7	
15	Paracrine Regulation from Tissue Engineered Constructs <b>2015</b> , 169-184		
14	Endothelial insights: the Florian dialectic. Science Translational Medicine, 2014, 6, 239fs24	17.5	
13	Models of Human Vascular Disease: Is There an Animal of La Mancha?: Modelos de la enfermedad vascular humana: ¿hay un animal de La Mancha?. <i>Revista Espanola De Cardiologia (English Ed )</i> , <b>2011</b> , 64, 739-742	0.7	
12	Encapsulated pheochromocytoma cells secrete potent noncatecholamine factors. <i>Tissue Engineering - Part A</i> , <b>2009</b> , 15, 1719-28	3.9	
11	Letter by Joynt and Edelman regarding article, "latrogenic giant Osborn waves". <i>Circulation</i> , <b>2011</b> , 123, e390; author reply e391	16.7	
10	Oral Heparin Prevents Neointimal Growth Following Vascular Injury: Implications for Potential Clinical Use. <i>ACS Symposium Series</i> , <b>2003</b> , 33-46	0.4	
9	Heparin and Gene Microarrays as a New Pharmacodynamic Tool. ACS Symposium Series, 2003, 15-32	0.4	
8	Biocompatibility Comparison of Stainless Steel, Gold-Coated, and Heat-Treated Gold-Coated Endovascular Stents. <i>Materials Research Society Symposia Proceedings</i> , <b>2001</b> , 711, 1		
7	Morphometric analysis of the human common hepatic artery reveals a rich and accessible target for sympathetic liver denervation <i>Scientific Reports</i> , <b>2022</b> , 12, 1413	4.9	

6	Glucose modulates basement membrane fibroblast growth factor-2 via changes in endothelial cell permeability. <i>FASEB Journal</i> , <b>2007</b> , 21, A268	0.9
5	Elevated glucose increases tumor necrosis factor-#Induced endothelial cell death via fibroblast growth factor-2 release. <i>FASEB Journal</i> , <b>2008</b> , 22, 743.12	0.9
4	A Novel Algorithm to Quantify Coronary Remodeling Using Inferred Normal Dimensions. <i>Arquivos Brasileiros De Cardiologia</i> , <b>2015</b> , 105, 390-8	1.2
3	The Role of Syndecan-1 in Arterial Mechanotransduction. <i>FASEB Journal</i> , <b>2010</b> , 24, 480.1	0.9
2	Endothelium exposed to atheroprone flow promotes monocyte transmigration and specification. <i>FASEB Journal</i> , <b>2013</b> , 27, 379.4	0.9
1	Hysteretic device characteristics indicate cardiac contractile state for guiding mechanical circulatory support device use <i>Intensive Care Medicine Experimental</i> , <b>2021</b> , 9, 62	3.7