

Kiyotaka Fukamachi

List of Publications by Citations

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

140
papers

2,410
citations

25
h-index

44
g-index

153
ext. papers

2,789
ext. citations

2.7
avg, IF

4.52
L-index

#	Paper	IF	Citations
140	Axial and centrifugal continuous-flow rotary pumps: a translation from pump mechanics to clinical practice. <i>Journal of Heart and Lung Transplantation</i> , 2013 , 32, 1-11	5.8	243
139	Predictors of severe right ventricular failure after implantable left ventricular assist device insertion: analysis of 245 patients. <i>Circulation</i> , 2002 , 106, 1198-202	16.7	228
138	Preoperative risk factors for right ventricular failure after implantable left ventricular assist device insertion. <i>Annals of Thoracic Surgery</i> , 1999 , 68, 2181-4	2.7	203
137	Predictors of Severe Right Ventricular Failure After Implantable Left Ventricular Assist Device Insertion: Analysis of 245 Patients. <i>Circulation</i> , 2002 , 106,	16.7	87
136	Device-based change in left ventricular shape: a new concept for the treatment of dilated cardiomyopathy. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2001 , 122, 482-90	1.5	79
135	Reduced pulsatility induces periarteritis in kidney: role of the local renin-angiotensin system. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2008 , 136, 150-8	1.5	74
134	Duration of inotropic support after left ventricular assist device implantation: risk factors and impact on outcome. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2006 , 131, 447-54	1.5	71
133	Does pulsatility matter in the era of continuous-flow blood pumps?. <i>Journal of Heart and Lung Transplantation</i> , 2015 , 34, 999-1004	5.8	65
132	An innovative, sensorless, pulsatile, continuous-flow total artificial heart: device design and initial in vitro study. <i>Journal of Heart and Lung Transplantation</i> , 2010 , 29, 13-20	5.8	63
131	In vivo acute performance of the Cleveland Clinic self-regulating, continuous-flow total artificial heart. <i>Journal of Heart and Lung Transplantation</i> , 2010 , 29, 21-6	5.8	45
130	Off-pump mitral valve repair using the Coapsys device: a pilot study in a pacing-induced mitral regurgitation model. <i>Annals of Thoracic Surgery</i> , 2004 , 77, 688-92; discussion 692-3	2.7	41
129	Initial safety and feasibility clinical trial of the myosplint device. <i>Journal of Cardiac Surgery</i> , 2005 , 20, S43-7	1.3	40
128	Chest tube selection in cardiac and thoracic surgery: a survey of chest tube-related complications and their management. <i>Journal of Cardiac Surgery</i> , 2009 , 24, 503-9	1.3	39
127	The Coapsys device to treat functional mitral regurgitation: in vivo long-term canine study. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2004 , 127, 1068-76; discussion 1076-7	1.5	39
126	Incidence of chest tube clogging after cardiac surgery: a single-centre prospective observational study. <i>European Journal of Cardio-thoracic Surgery</i> , 2013 , 44, 1029-36	3	36
125	Speed modulation of the continuous-flow total artificial heart to simulate a physiologic arterial pressure waveform. <i>ASAIO Journal</i> , 2010 , 56, 403-9	3.6	36
124	First report of 90-day support of 2 calves with a continuous-flow total artificial heart. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2015 , 150, 687-93.e1	1.5	33

123	Progress on the design and development of the continuous-flow total artificial heart. <i>Artificial Organs</i> , 2012 , 36, 705-13	2.6	33
122	Preload sensitivity in cardiac assist devices. <i>Annals of Thoracic Surgery</i> , 2013 , 95, 373-80	2.7	32
121	Implantable continuous-flow right ventricular assist device: lessons learned in the development of a cleveland clinic device. <i>Annals of Thoracic Surgery</i> , 2012 , 93, 1746-52	2.7	28
120	Mechanical circulatory support for heart failure: past, present and a look at the future. <i>Expert Review of Medical Devices</i> , 2013 , 10, 55-71	3.5	27
119	Limitations to Chronic Right Ventricular Assist Device Support. <i>Annals of Thoracic Surgery</i> , 2016 , 102, 651-8	2.7	26
118	Changes in mitral annular and left ventricular dimensions and left ventricular pressure-volume relations after off-pump treatment of mitral regurgitation with the Coapsys device. <i>European Journal of Cardio-thoracic Surgery</i> , 2004 , 25, 352-7	3	26
117	Preclinical readiness testing of the Arrow International CorAide left ventricular assist system. <i>Annals of Thoracic Surgery</i> , 2004 , 77, 2103-10	2.7	25
116	The PediPump: a new ventricular assist device for children. <i>Artificial Organs</i> , 2005 , 29, 527-30	2.6	25
115	Acute in vivo evaluation of an implantable continuous flow biventricular assist system. <i>ASAIO Journal</i> , 2008 , 54, 20-4	3.6	24
114	Novel device to change left ventricular shape for heart failure treatment: device design and implantation procedure. <i>ASAIO Journal</i> , 2001 , 47, 244-8	3.6	24
113	In vivo hemodynamic performance of the Cleveland Clinic CorAide blood pump in calves. <i>Annals of Thoracic Surgery</i> , 2001 , 72, 747-52	2.7	23
112	Development of a small implantable right ventricular assist device. <i>ASAIO Journal</i> , 2005 , 51, 730-5	3.6	21
111	Mechanism of Self-Regulation and In Vivo Performance of the Cleveland Clinic Continuous-Flow Total Artificial Heart. <i>Artificial Organs</i> , 2017 , 41, 411-417	2.6	19
110	Development of DexAide right ventricular assist device: update II. <i>ASAIO Journal</i> , 2008 , 54, 589-93	3.6	18
109	Comparison of pulsatile and non-pulsatile cardiopulmonary bypass on regional renal blood flow in sheep. <i>Scandinavian Cardiovascular Journal</i> , 2004 , 38, 59-63	2	17
108	Transcatheter heart valve with variable geometric configuration: in vitro evaluation. <i>Artificial Organs</i> , 2011 , 35, 1151-9	2.6	16
107	Development of the DexAide right ventricular assist device inflow cannula. <i>ASAIO Journal</i> , 2008 , 54, 31-6	3.6	16
106	Chronic evaluation of the Cleveland Clinic CorAide left ventricular assist system in calves. <i>Artificial Organs</i> , 2002 , 26, 529-33	2.6	16

105	The Cleveland Clinic-Nimbus total artificial heart. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 1994 , 108, 420-428	1.5	16
104	Superior chest drainage with an active tube clearance system: evaluation of a downsized chest tube. <i>Annals of Thoracic Surgery</i> , 2011 , 91, 580-3	2.7	15
103	New technologies for mechanical circulatory support: current status and future prospects of CorAide and MagScrew technologies. <i>Journal of Artificial Organs</i> , 2004 , 7, 45-57	1.8	15
102	The pedipump: development status of a new pediatric ventricular assist device. <i>ASAIO Journal</i> , 2005 , 51, 536-9	3.6	14
101	Advanced ventricular assist device with pulse augmentation and automatic regurgitant-flow shut-off. <i>Journal of Heart and Lung Transplantation</i> , 2016 , 35, 1519-1521	5.8	14
100	Early in vivo experience with the pediatric continuous-flow total artificial heart. <i>Journal of Heart and Lung Transplantation</i> , 2018 , 37, 1029-1034	5.8	13
99	Human Fitting Studies of Cleveland Clinic Continuous-Flow Total Artificial Heart. <i>ASAIO Journal</i> , 2015 , 61, 424-8	3.6	13
98	Sensorless Suction Recognition in the Self-Regulating Cleveland Clinic Continuous-Flow Total Artificial Heart. <i>ASAIO Journal</i> , 2015 , 61, 726-8	3.6	13
97	Percutaneous and off-pump treatments for functional mitral regurgitation. <i>Journal of Artificial Organs</i> , 2008 , 11, 12-8	1.8	13
96	Optimal mitral annular and subvalvular shape change created by the Coapsys device to treat functional mitral regurgitation. <i>ASAIO Journal</i> , 2005 , 51, 17-21	3.6	13
95	Cleveland clinic CorAide blood pump circulatory support without anticoagulation. <i>ASAIO Journal</i> , 2002 , 48, 249-52	3.6	13
94	The CorAid blood pump. <i>Annals of Thoracic Surgery</i> , 2001 , 71, S191	2.7	13
93	The Cleveland Clinic PediPump: virtual fitting studies in children using three-dimensional reconstructions of cardiac computed tomography scans. <i>ASAIO Journal</i> , 2008 , 54, 133-7	3.6	12
92	MagScrew total artificial heart in vivo performance above 200 beats per minute. <i>Annals of Thoracic Surgery</i> , 2005 , 79, 1378-83; discussion 1383	2.7	12
91	Towards active tracking of beating heart motion in the presence of arrhythmia for robotic assisted beating heart surgery. <i>PLoS ONE</i> , 2014 , 9, e102877	3.7	12
90	Left atrial assist device to treat patients with heart failure with preserved ejection fraction: Initial in vitro study. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2021 , 162, 120-126	1.5	12
89	In vitro hemodynamic characterization of HeartMate II at 6000 rpm: Implications for weaning and recovery. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2015 , 150, 343-8	1.5	11
88	Introduction of fixed-flow mode in the DexAide right ventricular assist device. <i>Journal of Heart and Lung Transplantation</i> , 2010 , 29, 32-6	5.8	11

87	In vitro controllability of the MagScrew total artificial heart system. <i>ASAIO Journal</i> , 2002 , 48, 606-11	3.6	11
86	Is a pulse absolutely necessary during cardiopulmonary bypass?. <i>Expert Review of Medical Devices</i> , 2017 , 14, 27-35	3.5	10
85	Initial in vitro testing of a paediatric continuous-flow total artificial heart. <i>Interactive Cardiovascular and Thoracic Surgery</i> , 2018 , 26, 897-901	1.8	10
84	Progress in the development of the DexAide right ventricular assist device. <i>ASAIO Journal</i> , 2006 , 52, 630-3	3.6	10
83	Cardioscopy-guided surgery: intracardiac mitral and tricuspid valve repair under direct visualization in the beating heart. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2011 , 142, 199-202	1.5	9
82	Reduction of mitral regurgitation using the Coapsys device: a novel ex vivo method using excised recipients hearts. <i>ASAIO Journal</i> , 2005 , 51, 82-4	3.6	9
81	MagScrew TAH: an update. <i>ASAIO Journal</i> , 2005 , 51, xxxvi-xlvi	3.6	9
80	Median Sternotomy or Right Thoracotomy Techniques for Total Artificial Heart Implantation in Calves. <i>Artificial Organs</i> , 2016 , 40, 1022-1027	2.6	9
79	Current status of mechanical circulatory support for treatment of advanced end-stage heart failure: successes, shortcomings and needs. <i>Expert Review of Cardiovascular Therapy</i> , 2017 , 15, 377-387	2.5	8
78	Future Prospects for the Total Artificial Heart. <i>Expert Review of Medical Devices</i> , 2016 , 13, 191-201	3.5	8
77	Overview of current sutureless and transcatheter mitral valve replacement technology. <i>Expert Review of Medical Devices</i> , 2013 , 10, 73-83	3.5	8
76	The PediPump: a versatile, implantable pediatric ventricular assist device-update III. <i>ASAIO Journal</i> , 2007 , 53, 730-3	3.6	8
75	Initial in vivo evaluation of the DexAide right ventricular assist device. <i>ASAIO Journal</i> , 2005 , 51, 739-42	3.6	8
74	The Contribution to Hemodynamics Even at Very Low Pump Speeds in the HVAD. <i>Annals of Thoracic Surgery</i> , 2016 , 101, 2260-4	2.7	8
73	Advantages of Integrating Pressure-Regulating Devices Into Mechanical Circulatory Support Pumps. <i>ASAIO Journal</i> , 2019 , 65, e1-e3	3.6	8
72	Generating pulsatility by pump speed modulation with continuous-flow total artificial heart in awake calves. <i>Journal of Artificial Organs</i> , 2017 , 20, 381-385	1.8	7
71	Anatomical study of the Cleveland Clinic continuous-flow total artificial heart in adult and pediatric configurations. <i>Journal of Artificial Organs</i> , 2018 , 21, 383-386	1.8	7
70	Device-based left ventricular geometry change for heart failure treatment: developmental work and current status. <i>Journal of Cardiac Surgery</i> , 2003 , 18 Suppl 2, S43-7	1.3	7

69	Mitral valve repair without cardiopulmonary bypass or atriotomy using the coapsys device: device design and implantation procedure in canine functional mitral regurgitation model. <i>Heart Surgery Forum</i> , 2004 , 7, E117-21	0.7	7
68	Device-based treatment options for heart failure with preserved ejection fraction. <i>Heart Failure Reviews</i> , 2021 , 26, 749-762	5	7
67	Use of a Mechanical Circulatory Support Simulation to Study Pump Interactions With the Variable Hemodynamic Environment. <i>Artificial Organs</i> , 2018 , 42, E420-E427	2.6	7
66	Impact of a refined advanced design for left atrial appendage exclusion. <i>European Journal of Cardio-thoracic Surgery</i> , 2017 , 52, 1098-1103	3	6
65	Human clinical fitting study of the DexAide right ventricular assist device. <i>Artificial Organs</i> , 2009 , 33, 558-61	2.6	6
64	In vivo biocompatibility evaluation of a new resilient, hard-carbon, thin-film coating for ventricular assist devices. <i>Artificial Organs</i> , 2010 , 34, 1158-63	2.6	6
63	Cleveland Clinic PediPump lamb cadaver fitting studies. <i>Artificial Organs</i> , 2007 , 31, 405-8	2.6	6
62	Cadaver fitting study of the DexAide right ventricular assist device. <i>Artificial Organs</i> , 2007 , 31, 646-8	2.6	6
61	Simulated Performance of the Cleveland Clinic Continuous-Flow Total Artificial Heart Using the Virtual Mock Loop. <i>ASAIO Journal</i> , 2019 , 65, 565-572	3.6	6
60	The design modification of advanced ventricular assist device to enhance pulse augmentation and regurgitant flow shut-off. <i>Artificial Organs</i> , 2019 , 43, 961-965	2.6	5
59	Effects of continuous and pulsatile flows generated by ventricular assist devices on renal function and pathology. <i>Expert Review of Medical Devices</i> , 2018 , 15, 171-182	3.5	5
58	Mechanical circulatory support in pediatrics. <i>Expert Review of Medical Devices</i> , 2016 , 13, 507-14	3.5	5
57	The PediPump: a versatile, implantable pediatric ventricular assist device--update IV. <i>Artificial Organs</i> , 2009 , 33, 1005-8	2.6	5
56	Hemodynamic and metabolic changes during exercise in calves with total artificial hearts of different sizes yet similar output. <i>Artificial Organs</i> , 2007 , 31, 667-76	2.6	5
55	Unlocking the box: basic requirements for an ideal ventricular assist device controller. <i>Expert Review of Medical Devices</i> , 2017 , 14, 393-400	3.5	4
54	Deairing Techniques for Double-Ended Centrifugal Total Artificial Heart Implantation. <i>Artificial Organs</i> , 2017 , 41, 568-572	2.6	4
53	Motion-activated prevention of clogging and maintenance of patency of indwelling chest tubes. <i>Interactive Cardiovascular and Thoracic Surgery</i> , 2014 , 19, 1-5	1.8	4
52	Short-term in vivo performance of the Cleveland clinic PediPump left ventricular assist device. <i>Artificial Organs</i> , 2014 , 38, 374-82	2.6	4

51	Hemodynamic differences between the awake and anesthetized conditions in normal calves. <i>Journal of Artificial Organs</i> , 2012 , 15, 225-30	1.8	4
50	Use of zirconia ceramic in the DexAide right ventricular assist device journal bearing. <i>Artificial Organs</i> , 2010 , 34, 146-9	2.6	4
49	In vivo evaluation of zirconia ceramic in the DexAide right ventricular assist device journal bearing. <i>Artificial Organs</i> , 2010 , 34, 512-6	2.6	4
48	Median sternotomy approach for chronic bovine experiments. <i>ASAIO Journal</i> , 2008 , 54, 585-8	3.6	4
47	Clinical Courses of HeartMate II Left Ventricular Assist Device Thrombosis. <i>ASAIO Journal</i> , 2020 , 66, 153-159	3.59	4
46	Acute Response of Human Aortic Endothelial Cells to Loss of Pulsatility as Seen during Cardiopulmonary Bypass. <i>Cells Tissues Organs</i> , 2021 , 1-11	2.1	4
45	New Technology Mimics Physiologic Pulsatile Flow During Cardiopulmonary Bypass. <i>Artificial Organs</i> , 2018 , 42, 231-235	2.6	4
44	Post-explant visualization of thrombi in outflow grafts and their junction to a continuous-flow total artificial heart using a high-definition miniaturized camera. <i>Journal of Artificial Organs</i> , 2015 , 18, 354-7	1.8	3
43	Anatomy of the bovine ascending aorta and brachiocephalic artery found unfavorable for total artificial heart implant. <i>Journal of Artificial Organs</i> , 2015 , 18, 358-60	1.8	3
42	Left atrial assist device function at various heart rates using a mock circulation loop. <i>International Journal of Artificial Organs</i> , 2021 , 44, 465-470	1.9	3
41	A simulation tool for mechanical circulatory support device interaction with diseased states. <i>Journal of Artificial Organs</i> , 2020 , 23, 124-132	1.8	3
40	Novel technique for airless connection of artificial heart to vascular conduits. <i>Journal of Artificial Organs</i> , 2017 , 20, 386-389	1.8	3
39	Innovative, replaceable heart valve: concept, in vitro study, and acute in vivo study. <i>Artificial Organs</i> , 2008 , 32, 226-9	2.6	3
38	The Effects of Preserving Mitral Valve Function on a Left Atrial Assist Device: An In Vitro Mock Circulation Loop Study. <i>ASAIO Journal</i> , 2021 , 67, 567-572	3.6	3
37	Left atrial assist device for heart failure with preserved ejection fraction: initial results with torque control mode in diastolic heart failure model. <i>Heart Failure Reviews</i> , 2021 , 1	5	3
36	Effects of blood pump orientation on performance: In vitro assessment of universal advanced ventricular assist device. <i>Artificial Organs</i> , 2020 , 44, 1055-1060	2.6	2
35	Development of a circulatory mock loop for biventricular device testing with various heart conditions. <i>International Journal of Artificial Organs</i> , 2020 , 43, 600-605	1.9	2
34	The axial continuous-flow blood pump: Bench evaluation of changes in flow associated with changes of inflow cannula angle. <i>Journal of Heart and Lung Transplantation</i> , 2017 , 36, 106-112	5.8	2

33	Thrombotic Depositions on Right Impeller of Double-Ended Centrifugal Total Artificial Heart In Vivo. <i>Artificial Organs</i> , 2017 , 41, 476-481	2.6	2
32	Functional mitral regurgitation: modern concepts for ventricular geometry reshaping. <i>Expert Review of Medical Devices</i> , 2012 , 9, 131-8	3.5	2
31	First In Vivo Experience With Biventricular Circulatory Assistance Using a Single Continuous Flow Pump. <i>Seminars in Thoracic and Cardiovascular Surgery</i> , 2020 , 32, 456-465	1.7	2
30	Recent Advances and Patents on Chest Drainage Systems. <i>Recent Patents on Biomedical Engineering</i> , 2010 , 3, 115-120		2
29	Quantification of ocular surface microcirculation by computer assisted video microscopy and diffuse reflectance spectroscopy. <i>Experimental Eye Research</i> , 2020 , 201, 108312	3.7	1
28	Continuous-flow total artificial heart port-to-port connection technique using dedicated de-airing sleeve. <i>Perfusion (United Kingdom)</i> , 2020 , 35, 861-864	1.9	1
27	Acute Swine Model for Assessing Biocompatibility of Biomedical Interface Materials. <i>Tissue Engineering - Part C: Methods</i> , 2018 , 24, 69-73	2.9	1
26	Double-wire sternal closure technique in bovine animal models for total artificial heart implant. <i>International Journal of Artificial Organs</i> , 2015 , 38, 465-7	1.9	1
25	Reply to Tavlaloglu et al. <i>European Journal of Cardio-thoracic Surgery</i> , 2014 , 45, 590	3	1
24	Analysis of Cleveland Clinic continuous-flow total artificial heart performance using the Virtual Mock Loop: Comparison with an in vivo study. <i>Artificial Organs</i> , 2020 , 44, 375-383	2.6	1
23	Transient power elevation during iron dextran infusion in a patient with a continuous-flow left ventricular assist device. <i>International Journal of Artificial Organs</i> , 2019 , 42, 318-320	1.9	1
22	Continuous-flow total artificial heart: hemodynamic and pump-related changes associated with posture in a chronic calf model. <i>Journal of Artificial Organs</i> , 2019 , 22, 256-259	1.8	0
21	An advanced universal circulatory assist device for left and right ventricular support: First report of an acute in vivo implant. <i>JTCVS Open</i> , 2020 , 3, 140-148	0.2	0
20	Development and Evaluation of Motion-activated System for Improved Chest Drainage: Bench, In Vivo Results, and Pilot Clinical Use of Technology. <i>Surgical Innovation</i> , 2020 , 27, 507-514	2	0
19	Large animal models to test mechanical circulatory support devices. <i>Drug Discovery Today: Disease Models</i> , 2017 , 24, 47-53	1.3	0
18	Large animal models of heart failure with preserved ejection fraction. <i>Heart Failure Reviews</i> , 2021 , 1	5	0
17	Options for Modeling and Simulations Used in Mechanical Circulatory Support Development 2020 , 449-465		0
16	New Cardioscope-Based Platform for Minimally Invasive and Percutaneous Beating Heart Interventions. <i>Seminars in Thoracic and Cardiovascular Surgery</i> , 2019 , 31, 209-215	1.7	0

- 15 Moderate hypothermia technique for chronic implantation of a total artificial heart in calves. *Journal of Artificial Organs*, **2017**, 20, 182-185 1.8
- 14 Modeling of Virtual Mechanical Circulatory Hemodynamics for Biventricular Heart Failure Support. *Cardiovascular Engineering and Technology*, **2020**, 11, 699-707 2.2
- 13 Use of a Virtual Mock Loop model to evaluate a new left ventricular assist device for transapical insertion. *International Journal of Artificial Organs*, **2020**, 43, 677-683 1.9
- 12 Lumbar muscle atrophy caused by harness replacement in a chronic calf model of total artificial heart implantation. *Journal of Artificial Organs*, **2018**, 21, 482-485 1.8
- 11 Possible Magnetic Field Effects From an Innovative, Replaceable Magnetic Heart Valve. *Artificial Organs*, **2008**, 32, 999-1000 2.6
- 10 Progress on Total Artificial Heart for Pediatric Patients **2020**, 599-608
- 9 Anti-clogging mechanisms of a motion-activated chest tube patency maintenance system: Histology and high-speed camera assessment. *Artificial Organs*, **2020**, 44, 1162-1170 2.6
- 8 The Development of Advanced Ventricular Assist Device as a Next Generation Ventricular Assist Device **2020**, 481-492
- 7 Cleveland Clinic Total Artificial Heart **2020**, 493-504
- 6 Artificial Hearts and Cardiac Assist Devices: The Spectrum of the New Era **2015**, 287-304
- 5 Reply to Rescigno et al. *European Journal of Cardio-thoracic Surgery*, **2018**, 54, 197-198 3
- 4 Research and Development for Creating a Universal Ventricular Assist Device **2022**, 121-135
- 3 Advanced Approaches for Total Artificial Heart Development **2022**, 145-165
- 2 Intraoperative Cardiac Deairing: New Concept and Technology **2022**, 377-390
- 1 Demand for Mechanical Circulatory Support **2022**, 63-77