



Message From the Editor-in-Chief

Hiroaki Shimokawa, MD, PhD

Dear Colleagues,

On behalf of the *Circulation Journal*, I am pleased to report the most frequently quoted CJ papers in 2013 by category that substantially contributed to the 2012 impact factor of the Journal.

The Most Frequently Quoted CJ Papers (2011–2012) in 2013 by Category

The following papers, published in 2011–2012, were among the most frequently quoted papers in 2013 by category, thereby substantially contributing to the 2013 Impact Factor of the Journal (number in the parenthesis denotes the number of quotation in 2011–2012).

1. Arrhythmia/Electrophysiology

1. (23) Kaseno K, Naito S, Nakamura K, Sakamoto T, Sasaki T, Tsukada N, et al. Efficacy and safety of periprocudural dabigatran in patients undergoing catheter ablation of atrial fibrillation. *Circ J* 2012; **76**: 2337–2342.
2. (19) Hori M, Matsumoto M, Tanahashi N, Momomura S, Uchiyama S, Goto S, et al; on behalf of the J-ROCKET AF study investigators. Rivaroxaban vs. warfarin in Japanese patients with atrial fibrillation: The J-ROCKET AF Study. *Circ J* 2012; **76**: 2104–2111.
3. (15) Atarashi H, Inoue H, Okumura K, Yamashita T, Kumagai N, Origasa H; the J-RHYTHM Registry Investigators. Present status of anticoagulation treatment in Japanese patients with atrial fibrillation: A report from the J-RHYTHM Registry. *Circ J* 2011; **75**: 1328–1333.
4. (14) Ogawa S, Shinohara Y, Kanmuri K. Safety and efficacy of the oral direct factor Xa inhibitor apixaban in Japanese patients with nonvalvular atrial fibrillation: The ARISTOTLE-J study. *Circ J* 2011; **75**: 1852–1859.
5. (9) Kim SK, Park JH, Kim JY, Choi JI, Joung B, Lee MH, et al. High plasma concentrations of transforming growth factor-beta and tissue inhibitor of metalloproteinase-1: Potential non-invasive predictors for electroanatomical remodeling of atrium in patients with non-valvular atrial fibrillation. *Circ J* 2011; **75**: 557–564.

2. Cardiovascular Intervention

1. (11) Sawada T, Shinke T, Shite J, Honjo T, Haraguchi Y, Nishio R, et al. Impact of cytochrome P450 2C19*2 polymorphism on intra-stent thrombus after drug-eluting stent implantation in Japanese patients receiving clopidogrel. *Circ J* 2011; **75**: 99–105.
2. (7) Funakoshi S, Furukawa Y, Ehara N, Morimoto T, Kaji S, Yamamuro A, et al. Clinical characteristics and outcomes of Japanese women undergoing coronary revascularization therapy. *Circ J* 2011; **75**: 1358–1367.
3. (6) Shiomi H, Tamura T, Niki S, Tada T, Tazaki J, Toma M, et al. Inter- and intra-observer variability for assessment of the synergy between percutaneous coronary intervention with TAXUS and cardiac surgery (SYNTAX) score and association of the SYNTAX score with clinical outcome in patients undergoing unprotected left main stenting in the real world. *Circ J* 2011; **75**: 1130–1137.
- (6) Chung JW, Park KH, Lee MH, Parrk KW, Kang HJ, Koo BK, et al. Benefit of complete revascularization in patients with multivessel coronary disease in the drug-eluting stent era. *Circ J* 2012; **76**: 1624–1630.
- (6) Tanaka S, Sakata R, Marui A, Furukawa Y, Kita T, Kimura T; CREDO-Kyoto Investigators. Predicting long-term mortality after first coronary revascularization: The Kyoto model. *Circ J* 2012; **76**: 328–334.

3. Cardiovascular Surgery

1. (11) Hatano M, Kinugawa K, Shiga T, Kato N, Endo M, Hisagi M, et al. Less frequent opening of the aortic valve and a continuous flow pump are risk factors for postoperative onset of aortic insufficiency in patients with a left ventricular assist device. *Circ J* 2011; **75**: 1147–1155.
2. (9) Yoshioka D, Sakaguchi T, Saito S, Miyagawa S, Nishi H, Yoshikawa Y, et al. Predictor of early mortality for severe heart failure patients with left ventricular assist device implantation: Significance of INTERMACS level and renal function. *Circ J* 2012; **76**: 1631–1638.
3. (8) Wu Q, Gui P, Wu J, Ding D, Purusram G, Dong N, et al. Effect of limb ischemic preconditioning on myocardial injury in patients undergoing mitral valve replacement surgery: A randomized controlled trial. *Circ J* 2011; **75**: 1885–1889.

4. (5) Shiga T, Kinugawa K, Hatano M, Yao A, Nishimura T, Endo M, et al. Age and preoperative total bilirubin level can stratify prognosis after extracorporeal pulsatile left ventricular assist device implantation. *Circ J* 2011; **75**: 121–128.
- (5) Kainuma S, Taniguchi K, Toda K, Funatsu T, Kondoh H, Nishino M, et al. Restrictive mitral annuloplasty for functional mitral regurgitation: Acute hemodynamics and serial echocardiography. *Circ J* 2011; **75**: 571–579.

4. Heart Failure

1. (9) Fukushima Y, Nakanishi M, Nonogi H, Goto Y, Iwai N. Assessment of plasma miRNAs in congestive heart failure. *Circ J* 2011; **75**: 336–340.
- (9) Kato N, Kinugawa K, Seki S, Shiga T, Hatano M, Yao A, et al. Quality of life as an independent predictor for cardiac events and death in patients with heart failure. *Circ J* 2011; **75**: 1661–1669.
- (9) Aoki T, Fukumoto Y, Sugimura K, Oikawa M, Satoh K, Nakano M, et al. Prognostic impact of myocardial interstitial fibrosis in non-ischemic heart failure: Comparison between preserved and reduced ejection fraction heart failure. *Circ J* 2011; **75**: 2605–2613.
4. (8) Momomura S, Tsutsui H, Sugawara Y, Ito M, Mitsuhashi T, Fukamizu S, et al; MOMIJI Study Investigators. Clinical efficacy of cardiac resynchronization therapy with an implantable defibrillator in a Japanese population: Results of the MIRACLE-ICD outcome measured in Japanese indication (MOMIJI) study. *Circ J* 2012; **76**: 1911–1919.
5. (7) Hamaguchi S, Kinugawa S, Goto D, Tsuchihashi-Makaya M, Yokota T, Yamada S, et al. Predictors of long-term adverse outcomes in elderly patients over 80 years hospitalized with heart failure: A report from the Japanese Cardiac Registry of Heart Failure in Cardiology (JCARE-CARD). *Circ J* 2011; **75**: 2403–2410.

5. Imaging

1. (9) Ozaki Y, Kitabata H, Tsujioka H, Hosokawa S, Kashiwagi M, Ishibashi K, et al. Comparison of contrast media and low-molecular-weight dextran for frequency-domain optical coherence tomography. *Circ J* 2012; **76**: 922–927.
2. (8) Ohta M, Kawasaki M, Ismail TF, Hattori K, Serruys PW, Ozaki Y. A histological and clinical comparison of new and conventional integrated backscatter intravascular ultrasound (IB-IVUS). *Circ J* 2012; **76**: 1678–1686.
3. (7) Kume T, Okura H, Miyamoto Y, Yamada R, Saito K, Tamada T, et al. Natural history of stent edge dissection, tissue protrusion and incomplete stent apposition detectable only on optical coherence tomography after stent implantation: Preliminary observation. *Circ J* 2012; **76**: 698–703.
4. (6) Fukuda S, Watanabe H, Daimon M, Abe Y, Hirashiki A, Hirata K, et al. Normal values of real-time 3-dimensional echocardiographic parameters in a healthy Japanese population: The JAMP-3D study. *Circ J* 2012; **76**: 1177–1181.
5. (5) Soeda T, Uemura S, Okayama S, Kawakami R, Sugawara Y, Nakagawa H, et al. Intensive lipid-lowering therapy with rosuvastatin stabilizes lipid-rich coronary plaques: Evaluation using dual-source computed tomography. *Circ J* 2011; **75**: 2621–2627.

6. Ischemic Heart Disease

1. (11) Domei T, Yokoi H, Kuramitsu S, Soga Y, Arita T, Ando K, et al. Ratio of serum n-3 to n-6 polyunsaturated fatty acids and the incidence of major adverse cardiac events in patients undergoing percutaneous coronary intervention. *Circ J* 2012; **76**: 423–429.
2. (8) Hanada K, Higuma T, Nishizaki F, Sukekawa T, Yokota T, Yamada M, et al. Randomized study on the efficacy and safety of landiolol, an ultra-short-acting β 1-adrenergic blocker, in patients with acute myocardial infarction undergoing primary percutaneous coronary intervention. *Circ J* 2012; **76**: 439–445.
3. (7) Kovarnik T, Mintz GS, Skalicka H, Kral A, Horak J, Skulec R, et al. Virtual histology evaluation of atherosclerosis regression during atorvastatin and ezetimibe administration: HEAVEN study. *Circ J* 2012; **76**: 176–183.
- (7) Kobayashi N, Hata N, Kume N, Yokoyama S, Shinada T, Tomita K, et al. Matrix metalloproteinase-9 for the earliest stage acute coronary syndrome: Comparison with high-sensitivity troponin T. *Circ J* 2011; **75**: 2853–2861.
- (7) Kunita E, Yamamoto H, Kitagawa T, Ohashi N, Utsunomiya H, Oka T, et al. Association between plasma high-molecular-weight adiponectin and coronary plaque characteristics assessed by computed tomography angiography in conditions of visceral adipose accumulation. *Circ J* 2012; **76**: 1687–1696.

7. Molecular Cardiology/Myocardial Disease

1. (11) Kawahara C, Tsutamoto T, Nishiyama K, Yamaji M, Sakai H, Fujii M, et al. Prognostic role of high-sensitivity cardiac troponin T in patients with nonischemic dilated cardiomyopathy. *Circ J* 2011; **75**: 656–661. (Myocardial Disease)
- (11) Mathur S, Walley KR, Wang Y, Indrambarya T, Boyd JH. Extracellular heat shock protein 70 induces cardiomyocyte inflammation and contractile dysfunction via TLR2. *Circ J* 2011; **75**: 2445–2452. (Myocardial Disease)
- (11) Otsuka H, Arimura T, Abe T, Kawai H, Aizawa Y, Kubo T, et al. Prevalence and distribution of sarcomeric gene mutations in Japanese patients with familial hypertrophic cardiomyopathy. *Circ J* 2012; **76**: 453–461. (Myocardial Disease)

4. (8) Mano Y, Anzai T, Kaneko H, Nagatomo Y, Nagai T, Anzai A, et al. Overexpression of human C-reactive protein exacerbates left ventricular remodeling in diabetic cardiomyopathy. *Circ J* 2011; **75**: 1717–1727. (Myocardial Disease)
- (8) Takeuchi F, Isono M, Nabika T, Katsuya T, Sugiyama T, Yamaguchi S, et al. Confirmation of ALDH2 as a major locus of drinking behavior and of its variants regulating multiple metabolic phenotypes in a Japanese population. *Circ J* 2011; **75**: 911–918. (Molecular Cardiology)

8. Pediatric Cardiology and Adult Congenital Heart Disease

1. (7) Ueda H, Yanagi S, Nakamura H, Ueno K, Gatayama R, Asou T, et al. Device closure of atrial septal defect: Immediate and mid-term results. *Circ J* 2012; **76**: 1229–1234.
2. (6) Sugimoto M, Ota K, Kajihama A, Nakau K, Manabe H, Kajino H. Volume overload and pressure overload due to left-to-right shunt-induced myocardial injury: Evaluation using a highly sensitive cardiac Troponin-I assay in children with congenital heart disease. *Circ J* 2011; **75**: 2213–2219.
3. (5) Chen L, Wang L, Sun J, Qin J, Tang C, Jin H, et al. Midodrine hydrochloride is effective in the treatment of children with postural orthostatic tachycardia syndrome. *Circ J* 2011; **75**: 927–931.

9. Peripheral Vascular Disease/Pulmonary Circulation

1. (8) Lee CH, Cheng CL, Lin LJ, Tsai LM, Yang YH. Epidemiology and predictors of short-term mortality in symptomatic venous thromboembolism: A Nationwide Population-Based Study. *Circ J* 2011; **75**: 1998–2004. (Peripheral Vascular Disease)
- (8) Suzuki K, Iida O, Soga Y, Hirano K, Inoue N, Uematsu M, et al. Long-term results of the S.M.A.R.T. Control™ stent for superficial femoral artery lesions, J-SMART registry. *Circ J* 2011; **75**: 939–944. (Peripheral Vascular Disease)
3. (7) Tatebe S, Fukumoto Y, Sugimura K, Miyamichi-Yamamoto S, Aoki T, Miura Y, et al. Clinical significance of reactive post-capillary pulmonary hypertension in patients with left heart disease. *Circ J* 2012; **76**: 1235–1244. (Pulmonary Circulation)
4. (5) Satoh T, Saji T, Watanabe H, Ogawa S, Takehara K, Tanabe N, et al. A phase III, multicenter, collaborative, open-label clinical trial of sildenafil in Japanese patients with pulmonary arterial hypertension. *Circ J* 2011; **75**: 677–682. (Pulmonary Circulation)
- (5) Chida A, Shintani M, Nakayama T, Furutani Y, Hayama E, Inai K, et al. Missense mutations of the *BMPRI1B* (*ALK6*) gene in childhood idiopathic pulmonary arterial hypertension. *Circ J* 2012; **76**: 1501–1508. (Pulmonary Circulation)

10. Reviews/Editorials

1. (29) Manabe I. Chronic inflammation links cardiovascular, metabolic and renal diseases. *Circ J* 2011; **75**: 2739–2748. (Review)
2. (25) Curcio A, Torella D, Indolfi C. Mechanisms of smooth muscle cell proliferation and endothelial regeneration after vascular injury and stenting: Approach to therapy. *Circ J* 2011; **75**: 1287–1296. (Review)
3. (23) Berne P, Brugada J. Brugada syndrome 2012. *Circ J* 2012; **76**: 1563–1571. (Review)
4. (20) Antzelevitch C. Genetic, molecular and cellular mechanisms underlying the J wave syndromes. *Circ J* 2012; **76**: 1054–1065. (Review)
5. (18) Auricchio A, Prinzen FW. Non-responders to cardiac resynchronization therapy: The magnitude of the problem and the issues. *Circ J* 2011; **75**: 521–527. (Review)
- (18) Fukumoto Y, Shimokawa H. Recent progress in the management of pulmonary hypertension. *Circ J* 2011; **75**: 1801–1810. (Review)
7. (16) Saito I. Epidemiological evidence of type 2 diabetes mellitus, metabolic syndrome, and cardiovascular disease in Japan. *Circ J* 2012; **76**: 1066–1073. (Review)
8. (15) Kumagai K. Catheter ablation of atrial fibrillation: State of the art. *Circ J* 2011; **75**: 2305–2311. (Review)
9. (14) New SEP, Aikawa E. Cardiovascular calcification: An inflammatory disease. *Circ J* 2011; **75**: 1305–1313. (Review)
- (14) Choi SH, Jung SY, Kwon SM, Baek SH. Perspectives on stem cell therapy for cardiac regeneration: Advances and challenges. *Circ J* 2012; **76**: 1307–1312. (Review)
- (14) Minamino T. Cardioprotection from ischemia/reperfusion injury: Basic and translational research. *Circ J* 2012; **76**: 1074–1082. (Review)
12. (11) Ago T, Kuroda J, Kamouchi M, Sadoshima J, Kitazono T. Pathophysiological roles of NADPH oxidase/Nox family proteins in the vascular system: Review and perspective. *Circ J* 2011; **75**: 1791–1800. (Review)
13. (10) Kinugawa K. How to treat stage D heart failure?: When to implant left ventricular assist devices in the era of continuous flow pumps? *Circ J* 2011; **75**: 2038–2045. (Review)
- (10) Ogawa S, Koretsune Y, Yasaka M, Aizawa Y, Atarashi H, Inoue H, et al. Antithrombotic therapy in atrial fibrillation: Evaluation and positioning of new oral anticoagulant agents. *Circ J* 2011; **75**: 1539–1547. (Review)

- (10) Mogi M, Horiuchi M. Neurovascular coupling in cognitive impairment associated with diabetes mellitus. *Circ J* 2011; **75**: 1042–1048. (Review)
16. (9) Heo KS, Fujiwara K, Abe J. Disturbed-flow-mediated vascular reactive oxygen species induce endothelial dysfunction. *Circ J* 2011; **75**: 2722–2730. (Review)
- (9) Nair AP, Timoh T, Fuster V. Contemporary medical management of systolic heart failure. *Circ J* 2012; **76**: 268–277. (Review)
- (9) Kubo T, Tanaka A, Kitabata H, Ino Y, Tanimoto T, Akasaka T. Application of optical coherence tomography in percutaneous coronary intervention. *Circ J* 2012; **76**: 2076–2083. (Review)
19. (8) Wang N, Yin R, Liu Y, Mao G, Xi F. Role of peroxisome proliferator-activated receptor- γ in atherosclerosis: An update. *Circ J* 2011; **75**: 528–535. (Review)
- (8) Fujita T, Ishikawa Y. Apoptosis in heart failure: The role of the β -adrenergic receptor-mediated signaling pathway and p53-mediated signaling pathway in the apoptosis of cardiomyocytes. *Circ J* 2011; **75**: 1811–1818. (Review)

11. LBCT/LBCS/Rapid

1. (12) Hori M, Connolly SJ, Ezekowitz MD, Reilly PA, Yusuf S, Wallentin L; the RE-LY Investigators. Efficacy and safety of dabigatran vs. warfarin in patients with atrial fibrillation: Sub-analysis in Japanese population in RE-LY trial. *Circ J* 2011; **75**: 800–805. (LBCT)
2. (7) Shiba N, Nochioka K, Miura M, Kohno H, Shimokawa H; on behalf of the CHART-2 Investigators. Trend of westernization of etiology and clinical characteristics of heart failure patients in Japan: First report from the CHART-2 Study. *Circ J* 2011; **75**: 823–833. (LBCT)
- (7) Yokoyama H, Nagao K, Hase M, Tahara Y, Hazui H, Arimoto H, et al; for the J-PULSE-Hypo Investigators. Impact of therapeutic hypothermia in the treatment of patients with out-of-hospital cardiac arrest from the J-PULSE-HYPO study registry. *Circ J* 2011; **75**: 1063–1070. (LBCT)
4. (6) Koyama T, Watanabe H, Igarashi G, Terada S, Makabe S, Ito H. Short-term prognosis of adaptive servo-ventilation therapy in patients with heart failure. *Circ J* 2011; **75**: 710–712. (Rapid)
- (6) Sugimura K, Fukumoto Y, Satoh K, Nochioka K, Miura Y, Aoki T, et al. Percutaneous transluminal pulmonary angioplasty markedly improves pulmonary hemodynamics and long-term prognosis in patients with chronic thromboembolic pulmonary hypertension. *Circ J* 2012; **76**: 485–488. (Rapid)

12. Other Categories

1. (13) Hayashi Y, Iwami T, Kitamura T, Nishiuchi T, Kajino K, Sakai T, et al. Impact of early intravenous epinephrine administration on outcomes following out-of-hospital cardiac arrest. *Circ J* 2012; **76**: 1639–1645. (Critical Care)
2. (12) Saku K, Zhang B, Noda K; on behalf of the PATROL Trial Investigators. Randomized head-to-head comparison of pitavastatin, atorvastatin, and rosuvastatin for safety and efficacy (quantity and quality of LDL): The PATROL trial. *Circ J* 2011; **75**: 1493–1505. (Vascular Medicine)
3. (11) Ohigashi H, Haraguchi G, Konishi M, Tezuka D, Kamiishi T, Ishihara T, et al. Improved prognosis of Takayasu arteritis over the past decade: Comprehensive analysis of 106 patients. *Circ J* 2012; **76**: 1004–1011. (Vascular Medicine)
4. (10) Kubozono T, Miyata M, Ueyama K, Hamasaki S, Kusano K, Kubozono O, et al. Acute and chronic effects of smoking on arterial stiffness. *Circ J* 2011; **75**: 698–702. (Vascular Medicine)
- (10) Okura H, Takada Y, Yamabe A, Ozaki T, Yamagishi H, Toda I, et al. Prevalence and correlates of physiological valvular regurgitation in healthy subjects: A color Doppler echocardiographic study in the current era. *Circ J* 2011; **75**: 2699–2704. (Valvular Heart Disease)
6. (9) Nakanishi C, Nagaya N, Ohnishi S, Yamahara K, Takabatake S, Konno T, et al. Gene and protein expression analysis of mesenchymal stem cells derived from rat adipose tissue and bone marrow. *Circ J* 2011; **75**: 2260–2268. (Regenerative Medicine)
- (9) Ying Y, Yang K, Liu Y, Chen QJ, Shen WF, Lu L, et al. A uremic solute, P-cresol, inhibits the proliferation of endothelial progenitor cells via the p38 pathway. *Circ J* 2011; **75**: 2252–2259. (Regenerative Medicine)
- (9) Yu XH, Jiang HL, Chen WJ, Yin K, Zhao GJ, Mo ZC, et al. Interleukin-18 and interleukin-12 together downregulate ATP-binding cassette transporter A1 expression through the interleukin-18R/nuclear factor- κ B signaling pathway in THP-1 macrophage-derived foam cells. *Circ J* 2012; **76**: 1780–1791. (Vascular Biology and Vascular Medicine)

The Editorial Team looks forward to receiving manuscripts with high scientific impact from all over the world.

Hiroaki Shimokawa, MD, PhD

Editor-in-Chief

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