

CURRICULUM VITAE

Date of Preparation 2022/03/30

Current position:

Associate Professor in Cardiovascular Surgery,
Kindai University, Osaka, Japan



A. General Information

Name: Kazuma Okamoto
Birth date: June 22, 1973
Age: 48
Birthplace: Mie, Japan
Citizenship: Japan
Family: Married

B. Address and Phone Number

Office address: Ohno-Higashi 377-2, Osaka-Sayama, Osaka, 589-8511
Office phone: +81-72-366-0221
Office Fax: +81-72-367-8657
Home Address: Sumiyoshi Yamate 4-8-30, Higashinada, Hyogo, 658-0063, Japan
Home phone: +81-90-8815-7430
Home Fax: not available
Email: kazuma_okamoto@mac.com

C. Educational Background

1993-1999 Medical School Education
Keio University School of Medicine, Tokyo, Japan
2002-2006 Keio University Graduate School of Medicine, Tokyo, Japan
(Withdrawal from the Doctoral Program with the Completion of Course Requirements)
2009 Ph.D. (Medicine, Keio university) (Issued on November 9, 2009)

D. Licensure

1999 Medical Board of Japan (No.343200, Issued on June 4, 1999)

E. Speciality Certification

2005 Board of Surgery
(No. 1911476, Japan Surgical Society)
2011 Board of Cardiovascular Surgery
(No. 5000458, The Japanese Board of Cardiovascular Surgery)

F. Professional Positions

Postdoctoral Training:

- 1999 – 2000 Resident in Surgery,
Keio University, School of Medicine, Tokyo, Japan
- 2000 – 2001 Resident in Surgery,
Ohtawara Red Cross Hospital, Tochigi, Japan
- 2001 – 2002 Resident in Surgery,
Kasumigaura National Hospital, Ibaragi, Japan
- 2002 – 2003 Resident in Cardiovascular Surgery,
Keio University School of Medicine, Tokyo, Japan
- 2003 – 2004 Resident in Cardiovascular Surgery,
Saiseikai Utsunomiya Hospital, Tochigi, Japan
- 2004 – 2006 Reserch Resident in Department of Reproductive Biology and
Pathology
National Research Institute for Child Health and Development, Tokyo,
Japan
- 2006 – 2007 Chief Resident in Cardiovascular Surgery,
Keio University School of Medicine, Tokyo, Japan
- 2007 – 2008 Clinical Fellow in Department of Thoracic and Cardiovascular Surgery,
OLV Clinic, Aalst, Belgium
- 2008 – 2009 Clinical Fellow in Department of Cardiac Surgery,
IRCCS Istituto Policlinico San Donato, San Donato Milanese, Italy
- 2009 Assistant Professor in Cardiovascular Surgery,
Keio University School of Medicine, Tokyo, Japan
- 2010 Clinical Fellow in Department of Cardiovascular Surgery,
Chiang Mai University, Thailand

Faculty of division:

- 2010 – Assistant Professor in Cardiovascular Surgery,
Keio University Hospital, Tokyo, Japan
- 2012 – 2016 Associate Professor in Cardiovascular Surgery,
Keio University Hospital, Tokyo, Japan
- 2016 – Chief of the Akashi Institute of Minimally Invasive Cardiovascular
Intervention
Akashi Medical Center, Akashi, Japan
- 2021– Associate Professor in Cardiovascular Surgery,
Kindai University, Osaka, Japan

Academic appointments:

- 2004 – 2005 Research Assistant of 21st Century Center of Excellence (COE)
Program
Keio University Graduate School of Medicine, Tokyo, Japan
- 2006 – 2007 Visiting Scientist in Department of Reproductive Biology and Pathology
National Research Institute for Child Health and Development, Tokyo,
Japan

G. Professional Memberships

American Heart Association

Fellow of the American Heart Association (FAHA)

The Society of Thoracic Surgeons

European Association For Cardio–Thoracic Surgery (No. 4950)

The Asian Society for Cardiovascular and Thoracic Surgery

ASCVTS Home Page Working Group

The international society for minimally invasive cardiothoracic surgery

The Society for Heart Valve Disease

Japan Surgical Society

The Japanese Society for Cardiovascular Surgery

The Japanese Association for Thoracic Surgery

Japanese Society for Pediatric Cardiology and Cardiac Surgery

The Japanese Circulation Society

The Japanese Society for Regenerative Medicine

CCT (Complex Cardiovascular Therapeutics)

Surgical Course Director

Japanese Association for Minimally Invasive Cardiac Surgery

Board Member

Japanese Association of Young Cardiac Surgeons

Vice president

CCT (Complex Cardiovascular Therapeutics)

Surgical Course Director

Japanese Association for Minimally Invasive Cardiac Surgery

H. Peer Review Primary Papers

1. Okamoto K, Miyoshi S, Toyoda M, Hida N, Ikegami Y, Makino H, Nishiyama N, Tsuji H, Cui CH, Segawa K, Uyama T, Kami D, Miyado K, Asada H, Matsumoto K, Saito H, Yoshimura Y, Ogawa S, Aeba R, Yozu R and Umezawa A*: 'Working' cardiomyocytes exhibiting plateau action potentials from human placenta–derived extraembryonic mesodermal cells. *Experimental Cell Research* 313(12): 2550–2562, 2007
2. Nishiyama N, Miyoshi S*, Hida N, Uyama T, Okamoto K, Ikegami Y, Miyado K, Segawa K, Terai M, Sakamoto M, Ogawa S and Umezawa A: The significant cardiomyogenic potential of human umbilical cord blood–derived mesenchymal stem cells in vitro. *Stem Cells* 25(8): 2017–2024, 2007
3. Ikegami Y, Miyoshi S*, Nishiyama N, Hida N, Okamoto K, Miyado K, Segawa K, Ogawa S and Umezawa A: Serum–independent cardiomyogenic transdifferentiation in human endometrium–derived mesenchymal cells. *Artificial Organs* 34(4): 280–288, 2010
4. Okamoto K*, Shimizu H, Ueda T and Yozu R: Aggressive surgical strategy should be used for the treatment of thoracic aortic disease in patients with end–stage

- renal disease. *Interactive Cardiovascular and Thoracic Surgery* 12(3): 384–388, 2011
5. Yozu R, Okamoto K*, Kudo M, Nonaka H and Adams DH: New innovative instruments facilitate both direct–vision and endoscopic–assisted mini–mitral valve surgery. *The Journal of Thoracic and Cardiovascular Surgery* 143(4 Suppl): S82–S85, 2012
 6. Okamoto K*, Kudo M and Yozu R: Loop–in–loop technique in mitral valve repair via mini–thoracotomy. *The Annals of Thoracic Surgery* 93(4): 1329–1330, 2012
 7. Aeba R*, Kudo M, Okamoto K and Yozu R: Bridging annuloplasty for left atrioventricular valve of partial atrioventricular septal defect. *The Annals of Thoracic Surgery* 93(5): e137–9, 2012
 8. Kimura T, Miyoshi S*, Okamoto K, Fukumoto K, Tanimoto K, Soejima K, Takatsuki S and Fukuda K: The effectiveness of rigid pericardial endoscopy for minimally invasive minor surgeries: cell transplantation, epicardial pacemaker lead implantation, and epicardial ablation. *Journal of Cardiothoracic Surgery* 7(1): 117, 2012
 9. Misfeld M*, Borger M, Byrne JG, Chitwood WR, Cohn L, Galloway A, Garbade J, Glauber M, Greco E, Hargrove CW, Holzhey DM, Krakor R, Loulmet D, Mishra Y, Modi P, Murphy D, Nifong LW, Okamoto K, Seeburger J, Tian DH, Vollroth M and Yan TD: Cross–sectional survey on minimally invasive mitral valve surgery. *Annals of Cardiothoracic Surgery* 2(6): 733–738, 2013
 10. Lorsomradee S*, Lorsomradee S, Okamoto K, Yamada T, Morisaki H and Yozu R: The difference between arterial pressure waveform cardiac output versus thermo dilution cardiac output as a perioperative dynamic evaluation of the severity of aortic insufficiency. *EC Anaesthesia* 2(3): 131–138, 2015
 11. Kitahara H, Okamoto K*, Kudo M, Yoshitake A, Ito T, Hayashi K, Inaba Y, Akamatsu Y and Shimizu H: Alternative peripheral perfusion strategies for safe cardiopulmonary bypass in atrial septal defect closure via a right minithoracotomy approach. *General Thoracic and Cardiovascular Surgery* 2016 Mar;64(3):131–7.
 12. Kitahara H, Murata M*, Okamoto K, Kudo M, Yoshitake A, Tsuruta H, Itabashi Y, Fukuda K, Yozu R and Shimizu H: Preserving mobility of the posterior mitral leaflet after mitral valve repair with neo–chordae creations using loop technique. *Circulation Journal* 2016;80(3):663–7.
 13. Kitahara H, Yagi H*, Tajima K, Okamoto K, Yoshitake A, Aeba R, Kudo M, Kashima I, Kawaguchi S, Hirano A, Kasai M, Akamatsu Y, Oka H, Kitagawa Y, Shimizu H: Heterotopic transplantation of a decellularized and recellularized whole porcine heart. *Interact Cardiovasc Thorac Surg*. 2016;22(5):571–9.
 14. Yoshitake A*, Hachiya T, Okamoto K, Kitahara H, Kawaguchi S, Nakatsuka S, Inoue M, Jinzaki M, Shimizu H. Postoperative stroke after debranching with thoracic endovascular aortic repair. *Ann Vasc Surg*. 2016;36:132–138.
 15. Yanagisawa R, Hayashida K, Yamada Y, Tanaka M, Yashima F, Inohara T, Arai T, Kawakami T, Maekawa Y, Tsuruta H, Itabashi Y, Murata M, Sano M, Okamoto K, Yoshitake A, Shimizu H, Jinzaki M. and Fukuda K. Incidence, Predictors, and Mid–Term Outcomes of Possible Leaflet Thrombosis After TAVR. *JACC Cardiovasc Imaging*. 2016.

16. Kodaira M, Kawamura A, Okamoto K, Kanazawa H, Minakata Y, Murata M, Shimizu H, and Fukuda K. Comparison of Clinical Outcomes After Transcatheter vs. Minimally Invasive Cardiac Surgery Closure for Atrial Septal Defect. *Circ J*. 2017.
17. Kakefuda Y, Hayashida K, Yamada Y, Yashima F, Inohara T, Yanagisawa R, Tanaka M, Arai T, Kawakami T, Maekawa Y, Tsuruta H, Itabashi Y, Murata M, Sano M, Okamoto K, Yoshitake A, Shimizu H, Jinzaki M, Fukuda K. Impact of Subclinical Vascular Complications Detected by Systematic Postprocedural Multidetector Computed Tomography After Transcatheter Aortic Valve Implantation Using Balloon-Expandable Edwards SAPIEN XT Heart Valve. *The American journal of cardiology*. 2017.
18. Yoshitake A, Okamoto K, Yamazaki M, Kimura N, Hirano A, Iida Y, Abe T, Shimizu H. Comparison of aortic arch repair using the endovascular technique, total arch replacement and staged surgery. *Eur J Cardiothorac Surg* 2017;51(6):1142–1148.
19. Tabei R, Kawaguchi S, Kanazawa H, Tohyama S, Hirano A, Handa N, Hishikawa S, Teratani T, Kunita S, Fukuda J, Mugishima Y, Suzuki T, Nakajima K, Seki T, Kishino Y, Okada M, Yamazaki M, Okamoto K, Shimizu H, Kobayashi E, Tabata Y, Fujita J, Fukuda K. Development of a transplant injection device for optimal distribution and retention of human induced pluripotent stem cell-derived cardiomyocytes. *The Journal of heart and lung transplantation : the official publication of the International Society for Heart Transplantation* 2019;38(2):203–214.
20. Nishi, H., Yokoyama, H., Yaku, H., Doi, K., Nishimura, Y., Abe, K., Tsukui, H., Tabata, M., Okamoto, K., Park, Y. K. and Matsuda, H. Efficacy of simulation training for beating heart coronary anastomosis using BEAT + YOUCAN simulator. *Asian Cardiovasc Thorac Ann*. 2021:2184923211060214.

I. Editorial and Review

1. Okamoto K* and Yozu R: Designing innovative retractors and devices to facilitate mitral valve repair surgery. *Annals of Cardiothoracic Surgery* 4(4): 364–369, 2015
2. Okamoto K. Minimally invasive cardiac surgery in Japan: History and current status. *Gen Thorac Cardiovasc Surg* 2018;66(9):504–508.

J. Case Report

1. Okamoto K*, Kiso I, Inoue Y, Matayoshi H, Takahashi R and Umezu Y: Left ventricular outflow obstruction after mitral valve replacement preserving native anterior leaflet. *The Annals of Thoracic Surgery* 82(2): 735–737, 2006
2. Okamoto K, Casselman FP*, De Geest R and Vanermen H: Giant left coronary ostial aneurysm after modified Bentall procedure in a Marfan patient. *Interactive Cardiovascular and Thoracic Surgery* 7(6): 1164–1166, 2008
3. Aeba R*, Okamoto K and Yozu R: Ross-Konno operation for patients with Shone complex. *Texas Heart Institute Journal* 37(2): 240–241, 2010

4. Shimizu H*, Okamoto K, Yamabe K, Kotani S and Yozu R: Hybrid treatment of a ruptured aneurysm in the distal aortic arch: report of a case. *Surgery Today* 42 (10): 1019–1021, 2012
5. Kudo M*, Yozu R and Okamoto K: Recurrent mitral regurgitation due to ruptured ePTFE neochordae after mitral valve repair by the loop technique: A report of case. *Annals of Thoracic and Cardiovascular Surgery* 20 Suppl: 746–749, 2014
6. Shirakawa K, Egashira T*, Ieda M, Kawaguchi S, Okamoto K, Kudo M, Yokoyama K, Tsuruta H, Murata M, Mikami S, Anzai A, Hayashida K, Kohno T, Maekawa Y, Sano M, Yozu R and Fukuda K: Multidisciplinary approach to the treatment of cardiac AA amyloidosis and aortic stenosis due to Castleman's disease: A hybrid therapy with tocilizumab and aortic valve replacement. *International Journal of Cardiology* 173(2): e9–e11, 2014
7. Okamoto K*, Arai S, Hirabayashi N, Morita M, Kudo M, Yozu R and Shimizu H: Cerebral protection during mitral valve repair in a patient with moyamoya syndrome. *The Annals of Thoracic Surgery* 99(6): 2208–2210, 2015
8. Kitahara H*, Kudo M, Okamoto K, Inaba Y, Sasaki A and Shimizu H: Management of right atrial hemangioma in a patient with antithrombin deficiency. *The Annals of Thoracic Surgery*. 99(3): e53–55, 2015
9. Kitahara H, Okamoto K*, Kudo M, Yoshitake A, Hayashi K, Inaba Y, Ai K, Suzuki T, Morisaki H and Shimizu H: Successful management of severe unilateral re-expansion pulmonary edema after mitral valve repair with mini-thoracotomy using extracorporeal membrane oxygenation. *General Thoracic and Cardiovascular Surgery* 2015 [Epub ahead of print]
10. Kitahara H*, Yoshitake A, Hachiya T, Okamoto K, Hirano A, Kasai M, Akamatsu Y, Oka H and Shimizu H: Hybrid Thoracic Endovascular Aortic Repair for Intercostal Patch Aneurysm after Thoracoabdominal Aortic Replacement. *Annals of Vascular Diseases* 8(4):340–342, 2015
11. Okamoto K*, Kudo M, Hayashi K, and Shimizu H: Endoscopic-assisted minimally invasive resection of a papillary muscle blood cyst in an adult patient. *Interactive Cardiovascular and Thoracic Surgery* 2016 22(2):231–232.
12. Kitahara H*, Yoshitake A, Hachiya T, Okamoto K, Kawaguchi S and Shimizu H: Kinked Graft and Anastomotic Stenosis-induced Hemolytic Anemia Requiring Reoperation. *Annals of vascular surgery* 2016 30:308.e1–4.
13. Takaki H, Okamoto K*, Kudo M, Yozu R and Shimizu H: Mitral Valve Repair via a Minithoracotomy in a Patient with Pectus Excavatum. *Innovations: Technology and Techniques in Cardiothoracic and Vascular Surgery* 2016 [Epub ahead of print]
14. Tokuda H, Murata M*, Yashima F, Kudo M, Tsuruta H, Okamoto K, Maekawa Y, Sano M, Fukushima H, Shimizu H and Fukuda K: Periodic protrusion of right coronary cusp into left ventricular outflow tract due to detachment from the aortic annulus complicated with infective endocarditis. *Echocardiography* 2016 Apr;33(4):655–658.
15. Kitahara H*, Yoshitake A, Okamoto K, Hayashida K, Fukuda K, Shimizu H. Modified transiliac artery approach for transcatheter aortic valve implantation. *Cardiovasc Interv Ther*. 2016. [Epub ahead of print]
16. Moriyama H, Kohno T*, Nishiyama T, Hattori O, Maekawa Y, Yoshida K, Murata M, Okamoto K*, Sano M, Shimizu H, Fukuda K. Constrictive Pericarditis and Protein-

Losing Enteropathy: Is Extremely Severe Hypoalbuminemia Reversible by Pericardiectomy? *Circ Heart Fail*. 2016 Dec;9(12).

17. Yoshitake A, Okamoto K, Kasai M, Shimizu H. Staged Repair of a Ruptured Thoracic Aortic Aneurysm Having an Aorto–Parenchymal Fistula. *Innovations (Phila)* 2017;12:e13–e15.
18. Kimura M, Kohno T, Makino S, Okuda S, Nawata K, Yanagisawa R, Kojima H, Nishiyama T, Aizawa Y, Yuasa S, Murata M, Maekawa Y, Okamoto K, Shimizu H, Fukuda K. A tale of two sisters with hypertrophic cardiomyopathy and recurrent embolism: When is the optimal timing of the intervention for left atrial appendage? *Heart Lung* 2019;48(3):198–200.
19. Sugiyama H, Tohma R, Misato T, Okamoto K, Hayashi T, Tobe S, Matsuo T, Tsunemi K, Oka T, Tanimura N. Right heart failure caused by direct pressure of distal arch aneurysm. *Gen Thorac Cardiovasc Surg*. 2019;67(2):263–265.
20. Arai N, Kawachi R, Nakazato Y, Tachibana K, Nagashima Y, Tanaka R, Okamoto K, Kondo H. A rare post–lobectomy complication of right–to–left shunt via foramen ovale. *Gen Thorac Cardiovasc Surg*. 2020;68(11):1337–40.
21. Watanabe T, Okamoto K, Yoshitani N, Tohma R, Misato T, Hayashi T. Venous drainage for minithoracotomy approach in an adult with interrupted inferior vena cava. *Asian Cardiovasc Thorac Ann*. 2021:2184923211017096.

K. Others

1. Okamoto K*, Arai S, Hirabayashi N, Morita M, Kudo M, Yozu R and Shimizu H: Reply To the Editor. Perioperative management of patients with Moyamoya syndrome: do all roads lead to Rome [Letter]? *Ann Thorac Surg*. (Accepted)

L. Major Presentations

Educational lecture

1. Yozu R, Kudo M, Okamoto K, Nemoto A and Yamabe K: Loop–technique for mitral valve repair. Joint meeting of 19thASCVTs and 21stATCSA, Phuket, Thailand, 2011
2. Okamoto K: Setting up a MICS program. Minimally invasive cardiac surgery workshop and wetlab, 22nd Annual meeting of the Asian Society for Cardiovascular and Thoracic Surgery, Istanbul, Turkey, 2014

Workshop

1. Yozu R, Okamoto K, Takaki H and Kudo M: Multiple neo–chordae creations with ‘Loop–in–Loop technique’ in mitral valve repair. 2012 AATS Mitral Conclave Workshop, Karuizawa, Japan, 2012
2. Okamoto K: What do we need to know about anatomy before starting TAVI? CCT 2013, Kobe, Japan, 2013
3. Okamoto K: The use of loop in loop technique in mitral valve repair. 2014 Shanghai Heart Valve Summit, Shanghai, China, 2014

Presentations

1. Okamoto K, Aeba R and Yozu R: The expectation of mesenchymal stem cells in cell transplantation therapy for severe heart failure. Congress of Pan–Pacific Surgical Association Japan Chapter, Cairns, Australia, 2004
2. Nishiyama N, Miyoshi S, Hida N, Ikegami Y, Hagiwara Y, Okamoto K, Uyama T, Miyado K, Yozu R, Sakamoto M, Ogawa S and Umezawa A: Human menstrual blood derived stem cell has a high cardiomyogenic potential; possible new cell source for cardiac stem cell therapy. 55th Annual Scientific Session of the American Collage of Cardiology, Atlanta, USA, 2006
3. Miyoshi S, Nishiyama N, Hida N, Ikegami Y, Hagiwara Y, Okamoto K, Uyama T, Miyado K, Sakamoto M, Ogawa S and Umezawa A: Cardiac pacemaker precursor cells can be obtained from human endometrial mesenchymal stem cells for biological pacemaker cell transplantation. 55th Annual Scientific Session of the American Collage of Cardiology, Atlanta, USA, 2006
4. Nishiyama N, Miyoshi S, Okamoto K, Hida N, Ikegami Y, Uyama T, Miyado K, Yozu R, Sakamoto M, Ogawa S and Umezawa A: Human umbilical cord blood derived mesenchymal stem cell has a powerful cardiomyogenic potential in vitro; A novel cell source for cardiac stem cell based therapy. 55th Annual Scientific Session of the American Collage of Cardiology, Atlanta, USA, 2006
5. Okamoto K, Hida N, Miyoshi S, Nishiyama N, Ikegami Y, Kami D, Uyama T, Miyado K, Segawa K, Asada H, Yoshimura Y, Aeba R, Ogawa S, Umezawa A and Yozu R: Human Mesenchymal stem cell from human chorionic villi is a new cell source for autologous cardiac stem cell therapy. 56th Annual Scientific Session of the American College of Cardiology, New Orleans, USA, USA, 2007
6. Miyoshi S, Kira S, Nishiyama N, Hida N, Mori T, Ikegami Y, Okamoto K, Uyama T, Cui CH, Miyado K, Uchiyama M, Segawa K, Tsuji H, Sakamoto M, Umezawa A and Ogawa S: Human menstrual blood–derived mesenchymal stem cell can restore impaired cardiac function by cardiomyogenesis in vivo. 56th Annual Scientific Session of the American College of Cardiology, New Orleans, USA, 2007
7. Nishiyama N, Miyoshi S, Hida N, Ikegami Y, Okamoto K, Uyama T, Shimizu T, Miyado K, Segawa K, Kiyono T, Kyo S, Tsuji H, Okano T, Sakamoto M, Umezawa A and Ogawa S: In situ cardiomyogenic transdifferentiation potential of human uterine endometrium–derived mesenchymal cell. 56th Annual Scientific Session of the American College of Cardiology, New Orleans, USA, 2007
8. Shimizu H, Okamoto K, Ishida O, Nemoto A, Yamabe K, Kawajiri H, Kotani S, Yozu R: Dilatation of prosthetic aortic grafts long after implantation. The 20th Annual Congress of the Association of Thoracic and Cardiovascular Surgeons of Asia, Beijing, China 2010
9. Kokaji K, Miyoshi S, Takahashi T, Okamoto K, Kimura T, Munakata M, Inagawa K, Nishiyama N, Hida N, Tsuruta H, Ishida O and Ogawa S, Umezawa A, Yozu R: Pretreatment of autologous marrow–derived mesenchymal stem cells with pioglitazone improved the efficacy of transplantation on cardiac function in beagle. 60th Annual Scientific Session and Innovation of the American College of Cardiology, New Orleans, USA, 2011
10. Yozu R, Okamoto K, Kudo M, Nonaka H and Adams DH: New innovative instruments facilitate both direct–vision and endoscopic–assisted mini–mitral valve surgery. Mitral Conclave 2011, New York, USA, 2011

11. Okamoto K, Kudo M and Yozu R: ASD closure via endoscopic assisted mini-thoracotomy approach. Joint Meeting of 19th ASCVTS and 21st ATCSA, Phuket, Thailand, 2011
12. Kawajiri H, Kudo M, Okamoto K and Yozu R: Clinical results of mitral valve repair using loop technique via minithoracotomy approach for adult congenital mitral regurgitation. Annual Scientific Meeting of The International Society for Minimally Invasive Cardiothoracic Surgery, Washington DC, USA, 2011
13. Okamoto K, Kudo M, Adams DH and Yozu R: New innovations of instruments and techniques facilitate endoscopic-assisted mitral valve repair via mini-thoracotomy. Annual Scientific Meeting of The International Society for Minimally Invasive Cardiothoracic Surgery, Washington DC, USA, 2011
14. Okamoto K, Kudo M and Yozu R: "Loop-in-loop" technique in mitral valve repair via minithoracotomy. 20th Annual meeting of the Asian Society for Cardiovascular and Thoracic Surgery, Bali, Indonesia, 2012
15. Kudo M, Yozu R and Okamoto K: Loop technique for mitral valve repair from technical view points of over 200 cases. 20th Annual meeting of the Asian Society for Cardiovascular and Thoracic Surgery, Bali, Indonesia, 2012
16. Yamabe K, Kudo M, Okamoto K, Kokaji K, Kawajiri H, Kotani S and Yozu R: Aortic valve replacement for aortic stenosis in the patients over 80 years of age at a single institution. 20th Annual meeting of the Asian Society for Cardiovascular and Thoracic Surgery, Bali, Indonesia, 2012
17. Kitahara H, Okamoto K, Kudo M, Kokaji K, Kawajiri H, Kotani S, Ito T, Takaki H, Haida H and Yozu R: Excellent long-term outcome of aortic valve replacement for patients with a small aortic annulus using 17mm sjm regent prosthetic valves. 20th Annual meeting of the Asian Society for Cardiovascular and Thoracic Surgery, Bali, Indonesia, 2012
18. Yoshitake A, Shimizu H, Kawaguchi S, Okamoto K, Yamabe K, Kotani S, Kawajiri H, Yozu R: Total arch replacement for acute type A dissection in patients over 75 years of age. The 12th Annual Congress of Asian Society for Vascular Surgery, Nusa Dua, Indonesia, 2012
19. Okamoto K, Kudo M and Yozu R: "Loop-in-loop technique" for multiple PTFE neo-chordae creations in mitral valve repair. 4th Annual Joint Scientific Meeting of the Heart Valve Society of America and Society for Heart Valve Disease, NY, USA, 2012
20. Okamoto K, Kudo M, Takaki H, Kawaguchi S, Kitahara H, Nemoto A, Fukuhara S and Yozu R: Video-assisted cardiac surgery via right mini-thoracotomy. The 21st Annual Meeting of the Asian Society for Cardiovascular and Thoracic Surgery, Kobe, Japan, 2013
21. Kitahara H, Okamoto K, Kudo M, Kawaguchi S, Ito T, Takaki H, Haida H and Yozu R: Outcome of aortic valve replacement with 17-mm SJM regent prosthetic valve for patient with a small aortic annulus in adult population. The 21st Annual Meeting of the Asian Society for Cardiovascular and Thoracic Surgery, Kobe, Japan, 2013
22. Kitahara H, Okamoto K, Kudo M, Hirano A, Kawaguchi S, Takaki H, Haida H, Ito T, Inaba Y and Yozu R: Non-resectional mitral valve repair for barlow's type pathology (VIDEO). American Association for Thoracic Surgery, AATS Mitral Conclave 2013, New York, USA, 2013

23. Okamoto K, Kudo M, Kitahara H, Nemoto A, Takaki H, Kawaguchi S and Yozu R: Endoscopic–assisted mini–thoracotomy approach as a routine approach for mitral valve surgery. Society for Heart Valve Disease 7th Biennial Congress, Venice, Italy, 2013
24. Kodaira M, Okamoto K, Kawamura A, Hayashida K, Yuasa S, Maekawa Y, Yozu R and Fukuda K: Comparison between transcatheter and minimally invasive surgical closure of secundum atrial septal defect in adults. Euro PCR 2014, Paris, France, 2014
25. Okamoto K, Kudo M, Kasai M, Hirano A, Ito T, Kawaguchi S, Yozu R and Kitahara H: Video–assisted right mini–thoracotomy cardiac surgery as a routine approach. 17th Annual Meeting International Society for Minimally Invasive Cardiothoracic Surgery, Boston, USA, 2014
26. Okamoto K, Yoshitake A, Kudo M and Shimizu H: Leaflet preserving mitral valve repair with atrial septal defect closure via endoscopic assisted minithoracotomy. AATS Mitral Conclave 2015, New York, USA, 2015
27. Kitahara H, Okamoto K, Kudo M, Yoshitake A, Kawaguchi S, Haida H, Hirano A, Hayashi K, Inaba Y and Shimizu H: Surgical outcome of concomitant tricuspid valve repair with mini–thoracotomy approach. AATS Mitral Conclave 2015, New York, USA, 2015
28. Yoshitake A, Hachiya T, Okamoto K, Kudo M, Kawaguchi S, Inaba Y, Hayashi K and Shimizu H: Left subclavian occlusion with vascular plug for preventing stroke in debranching with thoracic endovascular aortic repair. 23rd Annual Meeting of the Asian Society for Cardiovascular and Thoracic Surgery, Hong Kong, China, 2015
29. Kitahara H, Okamoto K, Kudo M, Yoshitake A, Kawaguchi S, Haida H, Inaba Y, Hayashi K and Shimizu H: Outcomes of atrial septal defect closure through mini thoracotomy approach in a single center. 23rd annual meeting of the asian society for cardiovascular and thoracic surgery Hong Kong, China, 2015
30. Inaba Y, Yoshitake A, Hachiya T, Okamoto K, Kudo M, Haida H, Kitahara H and Shimizu H: Cases of acute aortic dissection after TEVAR. 23rd Annual Meeting of the Asian Society for Cardiovascular and Thoracic Surgery, Hong Kong, China, 2015
31. Hayashi K, Yoshitake A, Hachiya T, Okamoto K, Kudo M, Kawaguchi S, Kitahara H and Shimizu H: Emergent thoracic endovascular aortic repair for acute thoracic aortic syndrome. 23rd Annual Meeting of the Asian Society for Cardiovascular and Thoracic Surgery, Hong Kong, China, 2015
32. Okamoto K, Kitahara H, Kudo M, Yoshitake A, Kawaguchi S, Hayashi K, Inaba Y and Shimizu H: Leaflet folding technique for minimally invasive mitral valve repair. 23rd Annual Meeting of the Asian Society for Cardiovascular and Thoracic Surgery, Hong Kong, China, 2015
33. Kitahara H, Yagi H, Tajima K, Inomata K, Okamoto K, Aeba R, Kudo M, Yoshitake A, Kitagawa Y and Shimizu H: Decellularized whole porcine heart for transplantation. The XLII Congress of the European Society for Artificial Organs, Leuven, Belgium. 2015
34. Kitahara H, Yagi H, Tajima K, Inomata K, Okamoto K, Aeba R, Kudo M, Yoshitake A, Kitagawa Y and Shimizu H: Heterotopic transplantation of decellularized heart

- in a large animal model. The 29th EACTS Annual Meeting, Amsterdam, The Netherlands, 2015 (Young Investigators Award)
35. Okamoto K, Kudo M, Yoshitake A, Kitahara H, Kashima I, Akamatsu Y, Oka H, Hirano A, Kasai M, Kawaguchi S, Aeba R, Shimizu H. Mitral Valve Repair Without Leaflet Resection In Right Minithoracotomy Approach Heart Valve Society Scientific Meeting 2016 New York 2016
 36. Kitahara H, Murata M, Okamoto K, Kudo M, Yoshitake A, Tsuruta H, Itabashi Y, Fukuda K, Shimizu H. Preserved Mobility Of Posterior Mitral Leaflet After Mitral Valve Repair With Loop Technique Heart Valve Society Scientific Meeting 2016 New York 2016
 37. Oka H, Yoshitake A, Kudo M, Okamoto K, Hirano A, Kasai M, Hayashida K, Fukuda K, Shimizu H. TRANSCATHETER AORTIC VALVE IMPLANTATION POST MVR The 24th Annual Meeting of Asian Society for Cardiovascular and Thoracic Surgery, Taipei, 2016
 38. Akamatsu Y, Okamoto K, Kudo M, Yoshitake A, Oka H, Kawashima T, Kasai M, Hirano A, Shimizu H. LONG-TERM OUTCOMES OF THE LOOP TECHNIQUE IN MITRAL VALVULOPLASTY The 24th Annual Meeting of Asian Society for Cardiovascular and Thoracic Surgery Taipei, 2016
 39. Shima Y, Kitahara H, Okamoto K, Yoshitake A, Nakane T, Shimizu H, Yagi H, Tajima K, Kitagawa Y. HETEROTOPIC TRANSPLANTATION OF A DECELLULARIZED WHOLE PORCINE HEART The 24th Annual Meeting of Asian Society for Cardiovascular and Thoracic Surgery Taipei, 2016
 40. Yoshitake A, Okamoto K, Kitahara H, Kashima I, Kasai M, Hirano A, Hirano A, Akamatsu Y, Kawashima T, Shimizu H Staged Repair to the Patient with Ruptured Thoracic Aortic Aneurysm ISMICS Annual Scientific Meeting 2016 Montreal 2016/06/15
 41. Yoshitake A, Okamoto K, Kitahara H, Kashima I, Kasai M, Hirano A, Hirano A, Akamatsu Y, Kawashima T, Shimizu H Staged Thoracic Endovascular Aortic Repair of Extensive Aortic Arch Aneurysm ISMICS Annual Scientific Meeting 2016 Montreal 2016/06/16
 42. Akamatsu Y, Okamoto K, Kudo M, Yoshitake A, Kasai M, Hirano A, Kashima I, Aeba R, Shimizu H. Concomitant Tricuspid Annuloplasty in Patients with Minimally Invasive Mitral Valve Repair ISMICS Annual Scientific Meeting 2016 Montreal 2016/06/16
 43. Okamoto K, Hirabayashi N, Kudo M, Yoshitake A, Akamatsu Y, Hirano A, Kawashima T, Kasai M, Hirano A, Kitahara H, Kawaguchi S, Kashima I, Aeba R, Shimizu H. Prevention of Lower Limb Ischemia with Near-Infrared Spectroscopy Monitoring In Minithoracotomy Cardiac Surgery Under Femoral Artery Cannulation ISMICS Annual Scientific Meeting 2016 Montreal 2016/06/16
 44. Okamoto K, Kudo M, Yoshitake A, Akamatsu Y, Hirano A, Kawashima T, Kasai M, Hirano A, Kitahara H, Kawaguchi S, Kashima I, Aeba R, Shimizu H. Mitral Valve Repair Thorough Minithoracotomy As a First Choice Approach ISMICS Annual Scientific Meeting 2016 Montreal 2016/06/16
 45. Akinori Hirano, Naritaka Kimura, Kazuma Okamoto, Yasunori Iida Koki Ikebata, Minami Iio, Yuta Asahara, Shinji Kawaguchi Akihiro Yoshitake, Ryo Aeba, Hideyuki

Shimizu Outcomes of Atrial septal defect closure via mini- thoracotomy ~a single center experience ISMICS 2016 Winter Workshop Kyoto 2016/10/28

46. Minami Iio, Akihiro Yoshitake, Kazuma Okamoto, Masataka Yamazaki, Narikata Kimura, Yasunori Iida Shinji Kawaguchi, Mio Kasai, Akinori Hirano, Kouki Ikebata Yuta Asahara Hybrid Repair for Kommerell's diverticulum with right-side aortic arch ISMICS 2016 Winter Workshop Kyoto 2016/10/28
47. Shinji Kawaguchi, Akihiro Yoshitake, Kazuma Okamoto, Masataka Yamazaki, Naritaka Kimura, Yasunori Iida, Akinori Hirano, Mio Kasai, Koki Ikebata, Minami Iio, Hideyuki Shimizu Analysis of left subclavian artery occlusion in debranching with endovascular repair ISMICS 2016 Winter Workshop Kyoto 2016/10/28
48. Kazuma Okamoto, Shinichi Ijuin, Ryo Toma, Takuya Misato, Taro Hayashi, Masahiro Yamaguchi, Satoshi Tobe. A new right minithoracotomy cardiac surgery program can be launched safely. The 25th Annual Meeting of the Asian Society for Cardiovascular and Thoracic Surgery Seoul 2017/03/25
49. Shinichi Ijuin, Kazuma Okamoto, Ryo Toma, Takuya Misato, Taro Hayashi, Satoshi Tobe, Masahiro Yamaguchi. Early outcome of mitral valve repair via right minithoracotomy during a launching period. The 25th Annual Meeting of the Asian Society for Cardiovascular and Thoracic Surgery Seoul 2017/03/25
50. Kazuma Okamoto, Ryo Toma, Shinichi Ijuin, Takuya Misato, Taro Hayashi, Masahiro Yamaguchi, Satoshi Tobe. Non-Resection Repair for Broad Posterior Mitral Leaflet Prolapse with Multiple Neochordal Creations Using Loop-In-Loop Technique. The AATS Mitral Conclave, New York, 2017/04/28
51. Kazuma Okamoto, Ryo Toma, Shinichi Ijuin, Takuya Misato, Taro hayashi, Masahiro Yamaguchi, Satoshi Tobe. Feasibility and Benefit of Right Minithoracotomy Approach in Cardiac Surgery in Patients with Previous Sternotomy ISMICS Annual Scientific Meeting 2017 Rome, 2017/06/8
52. Kazuma Okamoto, Yasunari Shibata, Hiroya Kano, Shuta Oshiro, Takeshi Morishima, Ryo Touma, Shinichi Ijuin, Takuya Misato, Taro Hayashi, Masahiro Yamaguchi, Satoshi Tobe. Monitoring Of Lower Leg Regional Oxygen Saturation during Groin Cannulation in Minimally Invasive Cardiac Surgery ISMICS Annual Scientific Meeting 2017 Rome, 2017/06/8
53. Kazuma Okamoto, Ryo Touma, Hironobu Sugiyama, Takuya Misato, Taro Hayashi, Satoshi Tobe. Feasibility and efficacy in fast track recovery of an immediate extubation in an operating room after mitral valve repair via minithoracotomy. ISMICS Annual Scientific Meeting 2018 Vancouver, 2018/7/12

54.

M. Grant

Principal Investigator

2006 ¥500,000

Grant-in-Aid for Young Scientists for travel to abroad,
Mitsukoshi Health And Welfare Foundation.

2005–2007 ¥3,500,000

Grant-in-Aid for Young Scientists (B),
The ministry of Education, Culture, Sports, Science and Technology (MEXT),
Japan
Infrastructure building of cell transplantation system for pediatric severe heart
failure with human embryonic tissue

2010 ¥1,000,000

Miyata Cardiac Research Promotion Foundation
Preparation for stem cell transplant system for kids suffering from severe heart
failure using maternal mesenchymal stem cell

2010–2011 ¥13,000,000

Ministry of Health, Labour and Welfare(MHLW), Japan
Innovation for basic technique of regenerative medicine for severe heart failure
by minimally invasive stem cell delivery system.

2010–2011 ¥16,000,000

Ministry of Health, Labour and Welfare(MHLW), Japan
Preparation for global center of minimally invasive cardiovascular intervention

2011 ¥500,000

Foundation for research promotion in adult vascular disease
Debranched stent-grafting for thoracic aortic aneurysm

2011–2013 ¥5,330,000

Grant-in-Aid for Young Scientists (C),
The ministry of Education, Culture, Sports, Science and Technology (MEXT),
Japan Treatment for heart failure with human derived embryonic mesenchymal
cells and inducing factors for differentiation

2013 ¥500,000

The Japanese Foundation for Research and Promotion of Endoscopy
Standardization surgical technique in endoscopic assisted cardiac surgery

2015 ¥500,000

The Japanese Foundation for Research and Promotion of Endoscopy
Preoperative simulation for endoscopic mitral valve repair using cardiac CT

Co-researcher

2012–2014 ¥5,700,000

Grant-in-Aid for Young Scientists (C),
The ministry of Education, Culture, Sports, Science and Technology (MEXT),
Japan Creation of done heart using 3D matrix from a decellularized heart and
human embryonic tissue derived mesenchymal cells

2015–2017 ¥4,810,000

Grant-in-Aid for Young Scientists (C),
The ministry of Education, Culture, Sports, Science and Technology (MEXT),
Japan Creation of transplant graft using cell implantation to decellularized
hearts and vessels

2012–2014 ¥250,000,000

Grant for Research Center Network for Realization of Regenerative Medicine
Japan Agency for Medical Research and Development (AMED),
Development of organ regeneration techniques and new transplantation
methods, using stem cell packaging

2014–2016 ¥455,350,000

Grant for Projects targeting clinical study in the medium to long term
Japan Agency for Medical Research and Development (AMED),
Establishment of regenerative therapies for severe heart failure by
transplantation of iPS cells-derived cardiomyocytes

2015–2016 ¥31,700,000

Japan Agency for Medical Research and Development (AMED),
Stentless mitral valve replacement using autologous pericardium

N. Participation in Research Projects and clinical studies

1. Differentiation of human Mesenchymal Stem Cells (MSCs), which is derived from somatic human organ, into cardiomyocytes.

Department of Reproductive Biology and Pathology, National Research Institute for Child Health and Development, Tokyo, Japan

<http://www.nch.go.jp/reproduction/e/index.html>

<http://www.nch.go.jp/reproduction/okamoto/index.html>

<http://song.cpnet.med.keio.ac.jp/index.html>

2. Creation of donor hearts from decellularized pig hearts
Keio University, Tokyo, Japan

Decellularization and recellularization of pig hearts to support circulation

3. Minimal Invasive Cardiac Surgery (MICS)

Keio University, Tokyo, Japan

OLV Clinic, Aalst, Belgium

Akashi Medical Center

Mitral valve repair via minithoracotomy

Total endoscopic mitral valve surgery

Cardiac surgery using 3D video system

Establishment of training system of MICS

4. Mitral valve repair (MICS)

Keio University, Tokyo, Japan

Akashi Medical Center

Mitral valve repair without leaflet resection