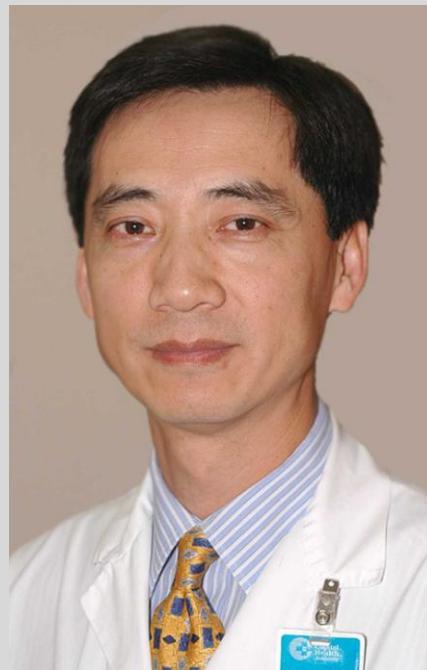


Shaohua Wang
M.Sc (Surgery), MD

Clinical Professor and Program Director,
Residency Training Program

Clinical & Academic Offices:
Mazankowski Heart Institute

Phone:
780-407-3630
E-mail:
shaohua.wang@albertahealthservices.ca



Current Research Interests:

Adult cardiac surgery with major interest in coronary artery bypass grafting, Stentless aortic valve replacement, Sutureless aortic valve replacement through Mini sternotomy, Pacemaker/ICD implantations, heart transplantation and Sternal plating (management of sterna wound issues).

Publications:

Wang, W., Wang, S. Titanium plate fixation versus conventional approach in the treatment of deep sternal wound infection. *Journal of Cardiothoracic Surgery.* DOI: [10.1186/s13019-016-0458-3](https://doi.org/10.1186/s13019-016-0458-3)

Wang, W., Zhang, L., Wagg, C., Alrob, OA., Fillmore, N., **Wang, S.**, Dyck, JR., Lopaschuk, GD. Optimization of cardiac energy metabolism by malonyl COA decarboxylase inhibitor improves cardiac function post myocardial infarction in rats. *Canadian Journal of Cardiology*, October 2015; 31(105): S303

Heimansohn, D., Roselli, E.E., Thourani, V. H., **Wang, S.**, Voisine, P., Ye, J., Dabir, R., Moon, M. North American trial results at 1 year with the Sorin Freedom SOLO pericardial aortic valve.

European Journal of Cardio-Thoracic Surgery. Doi: 10.1093/ejcts/ezv169

Grubitzsch, H., **Wang, S.**, Matschke, K., Glauber, M., Heimansohn, D., Tan, E., Francois, K., Thalmann, M. Clinical and haemodynamic outcome in 804 patients receiving the Freedom SOLO stentless aortic valve: results from an international prospective multicentre study. European Journal of Cardio-Thoracic Surgery. Doi: 10.1093/ejcts/ezu471

Dolinsky, V.W., Solty, C-L, Rogan, K.J., Chan, A., Nagendran, J., **Wang, S.**, Dyck, J. Resveratrol prevents pathological but not physiological cardiac hypertrophy via differential regulation of pro-hypertrophic molecular pathways. Journal of Molecular Medicine. 2014; Ms. No. JMME-D-14-00105R1

Fazeli, N., Kim, C-S., Rashedi, M., Chappell, A., **Wang, S.**, MacArthur, R., McMurtry, S., Finegan, B., Hahn, J. Subject-specific estimation of central aortic blood pressure via system identification: preliminary in-human experimental study. International Federation for Medical and Biological Engineering, 2014; 52:895-904. DOI: 10.1007/s11517-014-1185-3

Mullen, J.C., Kuurstra, E. J., Oreopoulos, A. Bentley, M. J., **Wang, S.** A randomized controlled trial of daclizumab versus anti-thymocyte globulin induction for heart transplantation. Transplantation Research, 2014; 3:14

Wang, W., Wang, X., Modry, D., **Wang, S.** Cardiopulmonary Bypass Standby Avoids Fatality due to Vascular Laceration in Laser-Assisted Lead Extraction. Journal of Cardiac Surgery, 2014; 29: 274-278

Schulze, C.J., Castro, M.M., Kandasamy, A.D., Cena, J., Bryden, C., **Wang, S.**, Koshal, A., Tsuyuki, R.T., Finegan, B.A., Schulz, R. Doxycycline reduces cardiac matrix metalloproteinase-2 activity but does not ameliorate myocardial dysfunction during reperfusion in coronary artery bypass patients undergoing cardiopulmonary bypass. Journal of Critical Care Medicine, November 2013; 41(11): 2512-2520. DOI: 10.1097/CCM.0b013e318292373c

Rashedi, M., Fazeli, N., Chappell, A., **Wang, S.**, MacArthur, R., McMurtry, SM., Finegan, B., Hahn, J. Modeling and system identification of arterial hemodynamics in humans. ASME 2013 Dynamic Systems and Control Conference, October 21-23, 2013

Baczko, I., Liknes, D., Yang, W., Hamming, KC., Searle, G., Jaeger, K., Husti, Z., Juhasz, V., Klausz, G., Pap, R., Saghy, L., Varro, A., Dolinsky, V., **Wang, S.**, Rauniyar, V., Hall, D., Dyck, JR., Light, PE. Br J. Pharmacol, September 2013. DOI: 10.1111/bph.12409

Rashedi, M., Fazeli, N., Chappell, A., **Wang, S.**, MacArthur, R., McMurtry, SM., Finegan, B., Hahn, J. Comparative study on tube-load modeling of arterial hemodynamics in humans. Journal of Biomechanical Engineering, March 2013; Vol.135

Song Z, Lehr EJ, **Wang S.** An alternative subcoronary implantation technique decreases the risk of complete heart block after stentless aortic valve replacement. Journal of Cardiovascular Disease Research, 2012;3(1):46-51

Wang W, Wang X, **Wang S.** Titanium plate fixation in sternal dehiscence after open heart

surgery. Canadian Journal of Cardiology, October 2011;27(5S):110

Nunes AJ, Buchholz S, Sinnadurai S, Mullen JC, Singh G, Meyer SR, **Wang S**, Modry DL, MacArthur RG. Clinical outcomes of long-term mechanical circulatory support at a large Canadian transplant centre. Canadian Journal of Cardiology, October 2011;27(5S):425

Wang W, Wang X, Modry D, **Wang S**. The safety of laser-assisted lead extraction with cardiopulmonary bypass standby. Canadian Journal of Cardiology, October 2011;27(5S):478

Lehr EJ, Alfred TJ, **Wang S**. Recombinant activated Factor VII for postoperative hemorrhage following repair of acute Type A dissection. The Heart Surgery Forum, October 2010;13:5.

Lehr EJ, Ye C, **Wang S**. Left ventricular epicardial lead implantation via left minithoracotomy. Thoracic Cardiovascular Surgery 2009;57:329-332.

Schulze C, Han L, Ghorpade N, Etches WS, Stang L, Koshal A, **Wang S**. Phosphorylcholine-coated circuits improve preservation of platelet count and reduce expression of proinflammatory cytokines in CABG: A prospective randomized trial. Journal of Cardiac Surgery 2009;24(4):363-368.

Alayadhi W, **Wang S**, Williams RG. Arteriovenous fistula after laser-assisted extraction of an implantable defibrillator lead. Interactive Cardiovascular and Thoracic Surgery 2009;8:243-244.

Wang W, Lu X, Gelfand ET, Koshal A, MacArthur R, Modry DL, Mullen J, Choy J, Lopaschuk GD, Collins-Nakai R, Wang W. Postoperative administration of dichloroacetate in high risk geriatric patients undergoing open-heart surgery with cardiopulmonary bypass: a double-blind randomized controlled trial. Accepted for presentation at the International Society of Heart Research Meeting in Baltimore, Maryland on May 28, 2009.

Mullen JC, Lo PS, Koshal A, Modry D, MacArthur R, Rebeyka IM, Ross DB, **Wang S**. Survival after repeat heart transplantation. Canadian Journal of Cardiology, October 2008;24:Suppl E:1055.

Karkouti K, Beattie WS, Arellano R, Aye T, Bussieres JS, Callum, JL, Cheng D, Heinrich L, Kent B, Lee TWR, MacAdams C, Mazer CD, Muirhead B, Rochon AG, Rubens FD, Sawchuk C, **Wang S**, Waters T, Wong BI, Yau TM. Comprehensive Canadian review of the off-label use of recombinant activated factor VII in cardiac surgery. Circulation, July 22, 2008;118(4):331-338.

Ferguson DA, Hebert PC, Mazer CD, Fremes S, MacAdams C, Murkin JM, Teoh K, Duke PC, Arellano R, Blajchman MA, Bussieres JS, Cote D, Karski J, Martineau R, Robblee JA, Rodger M, Wells G, Clinch J, Pretorius R, BART Investigators (Collaborator **Wang S**). A comparison of aprotinin and lysine analogues in high-risk cardiac surgery. New England Journal of Medicine, May 29, 2008;358(22):2319-31.

Cantarovich M, Ross H, Arizon JM, Gomez MA, Straatman L, Orus J, Alonso-Pulpon L, Molina BD, **Wang S**, Lage E, Crespo MG, Manito N, Howlett J, Haddad H, on behalf of the Motown Study Group. Benefit of Neoral C2 monitoring in de novo cardiac transplant recipients receiving Basiliximab induction. Transplantation, April 15, 2008;85(7):992-999.

Li Q, Dai XQ, Shen PY, WU Y, Long W, Chen CX, Hussain Z, **Wang S**, Chen XZ. Direct binding of alpha-actinin enhances TRPP3 channel activity. *Journal of Neurochemistry*, December 2007;103(6):2391-2400.

Lehr EJ, Wang W, Mullen JC, Modry DL, Koshal A, Ross DB, MacArthur RG, **Wang S**. Stentless aortic valve replacement increases the requirement for permanent pacemaker. *Circulation*, November 6, 2007; 116(II):543A.

Lehr E, **Wang S**. 64-slice computed tomographic monitoring of a repaired symptomatic aneurysm of the right coronary artery. *Canadian Journal of Cardiology*, September 2007;23(11):900.

Gebremedhin M, Zhong H, **Wang S**, Weinfeld M, Li L. Benefit of microwave-assisted acid hydrolysis of proteins for mass spectrometric profiling of the human heart tissue proteome. Accepted for publication in *Rapid Communications Mass Spectrom*, 2007.

Han L, **Wang S**. Phosphorylcholine coated circuits improve preservation of platelet count and reduce expression of proinflammatory cytokines in CABG: A prospective randomized trial. Accepted for publication in the *Journal of Cardiac Surgery*, 2007.

Wu L, Dai X-Q, Li Q, Chen C X, Mai W, Hussain Z, Long W, Montalbetti N, Li G, Glynne R, **Wang S**, Cantiello H F, Wu, G, Chen X-Z. Kinesin-2 mediates physical and functional interactions between polycystin-2 and fibrocystin. *Human Molecular Genetics* 2006;15 (22):3280-3292.

Meyer S, Modry D, Norris C, Pearson G, Bentley M, Koshal A, Mullen J, Rebeyka I, Ross D, **Wang S**. Pretransplant diabetes, not donor age, predicts long-term outcomes in cardiac transplantation. *Journal of Cardiac Surgery* 2006; 21:117-124.

Wang S, Ghorpade N, Han L, Schulze C, Stang L, McTeer S, Etches WS, Koshal A. The use of phosphorylcholine coated circuits for cardiopulmonary bypass results in improved preservation of platelet count and reduced expression of proinflammatory cytokines: A prospective randomized trial. *Canadian Journal of Cardiology*, October 2005;21: Suppl C:159C.

Chung A, Wildhirt S, **Wang S**, Koshal A, Radomski M. Combined administration of nitric oxide and iloprost during cardiopulmonary bypass reduces platelet dysfunction: A pilot clinical study. *The Journal of Thoracic and Cardiovascular Surgery*;April 2005: 782-790.

Meyer S, Modry D, Bainey K, Koshal A, Mullen J, Rebeyka I, Ross, D, Bowker S, **Wang S**. Declining need for permanent pacemaker insertion with the bicaval technique of orthotopic heart transplantation. *Canadian Journal of Cardiology* 2005;21(2):159-163.

Wang S, Tang H, Wilkinson V, Lukat T, Gelfand E, Koshal A, Modry D, Mullen J, Hao C, Finegan B. A prospective randomized study evaluating SaphLite versus conventional technique for saphenous vein harvesting in coronary artery bypass surgery. *The Annals of Thoracic Surgery*, 2005 Jun;79(6):2018-23.

Mullen JC, Dueck A, Bentley MJ, Modry DL, **Wang S**, Burton JR, Tymchak WJ, Koshal A, Ross DB,



Halloran PF. A randomized controlled trial of Daclizumab versus anti-thymocyte globulin induction in heart transplantation. *Journal of Heart and Lung Transplantation*, 2004; 24(25):S89.

Pretorius V, Nahirniak S, McConnel H, Koshal A, Mullen JC, Modry DL, **Wang S**, Rebeyka I, Ross DB. Recombinant Factor VIIA in the management of life-threatening refractory bleeding in cardiovascular surgical patients. *Canadian Journal of Cardiology* 2004; 20(D); 192D.

Wang S, Tang H, Wilkinson V, Lukat T, Gelfand E, Koshal A, Modry D, Mullen J, Hao C, Finegan B. A prospective randomized study evaluating SaphLite versus conventional technique for saphenous vein harvesting in coronary artery bypass surgery. *Canadian Journal of Cardiology* 2004; 20(D); 78D.

Cantarovich M, Ross H, Arizon J, Orus J, Straatman L, Howlett J, Lage E, Crespo M, **Wang S**, Haddad H, Pulpon L, Andres I, Hauck W, the Motown Study Group. A 12-month, multicenter, randomized, adaptive design, open-label study to evaluate the benefit of C2 hour monitoring of Neoral on safety and efficacy outcomes in de novo cardiac transplant recipients receiving basiliximab induction. *The Journal of Heart and Lung Transplantation*, February 2004;23 (Suppl 2S):S107.

Meyer S, Bentley M, Mullen J, Modry D, Koshal A, Rebeyka I, Ross D, **Wang S**. Outcomes of cardiac transplantation with donors 50 years of age and older. *The Journal of Heart and Lung Transplantation*, February 2004;23 (Suppl 2S):S169.

Nagendran J, Wildhirt S, Modry D, Mullen J, Koshal A, **Wang S**. A comparative analysis of outcome after heart transplantation in patients aged 60 years and older: The University of Alberta experience. *The Journal of Cardiac Surgery*, 2004;19:559-562.

Michelakis E, Tymchak W, Noga M, Webster L, Wu X, Lien D, **Wang S**, Modry D, Archer S. Long-term treatment with oral Sildenafil is safe and improves functional capacity and hemodynamics in patients with pulmonary arterial hypertension. *Circulation* 2003;108:2066-69.

Wang S, Halenar J, Wildhirt SM, Johnson L, Koshal A, Mullen J, Ross D, Modry D. The Alberta adult heart transplant experience: survival based on age, gender, etiology, ischemic times, bridge to transplant, and bicaval technique. *Transplant Proceedings* 2003;35:2471-74.

Li Q, Liu Y, Shen P, Dai X, **Wang S**, Smillie L, Sandford R, Chen X. Tropinin I binds polycystin-L and inhibits its calcium-induced channel activation. *Biochemistry* 2003;42(24):7618-25.

Pozeg Z, Michelakis ED, McMurtry S, Thebaud B, Wu X, Dyck J, Hashimoto K, **Wang S**, Moudgil R, Harry G, Sultanian R, Koshal A, Archer SL. In vivo gene transfer of the O₂-sensitive potassium channel Kv1.5 reduces pulmonary hypertension and restores hypoxic pulmonary vasoconstriction in chronically hypoxic rats. *Circulation* 2003;107:2037-2044.

Archer SL, Gragasin FS, Wu X, **Wang S**, McMurtry S, Kim DH, Platonov M, Koshal A, Hashimoto K. Campbell WB, Flack JR, Michelakis ED. Endothelium-derived hyperpolarizing factor in human internal mammary artery is 11,12-epoxyeicosatrienoic acid and causes relaxation by activating smooth muscle BK(Ca) channels. *Circulation* 2003;107(5):769-76.

Michelakis ED, Dyck JR, McMurtry MS, **Wang S**, Wu XC, Moudgil R, Hashimoto K, Puttagunta L, Archer SL. Gene transfer and metabolic modulators as new therapies for pulmonary hypertension. Increasing expression and activity of potassium channels in rat and human models. *Adv Exp Med Biol* 2001;502:401-18.

Bozinovski J, **Wang S**, Nakai S. Delayed Cardiac Tamponade after Coronary Artery Laceration. *The Annals of Thoracic Surgery* 2002;73(4):1314-5.

Michelakis ED, Dyck JRB, McMurtry MS, **Wang S**, Wu X, Moudgil R, Hashimoto K, Puttagunta L, Archer SL. Gene Transfer and Metabolic Modulators as New Therapies for Pulmonary Hypertension. *Hypoxia: From Genes to the Bedside*, edited by R.C. Roach et al, Kluwer Academic/Plenum Publishers, New York, 2001.

Wang S, Saiki Y, Singh G, Scherr K, Koshal A, Mullen J, Modry D. Successful Bridge to Cardiac Transplantation Using Conventional Cardiac Assist Devices; University of Alberta Experience. *Cardiovascular Engineering* 2001;6(1):12-15

McNamee CJ, **Wang S**, Modry D. Purulent Pericarditis Secondary to Candida Parapsilosis and Peptostreptococcus Species. *Canadian Journal of Cardiology* 1998;14(1):85-6

Yatscoff RW, **Wang S**, Keenan R, Chackowsky P, Lowes N, Koshal A. Efficacy of Rapamycin, RS-61443 and Cyclophosphamide in the Prolongation of Survival of Discordant Pig to Rabbit Cardiac Xenografts. *Canadian Journal of Cardiology* 1994;10(7):711-6

Yatscoff RW, **Wang S**, Keenan R, Chackowsky P, Koshal A. Efficacy of Rapamycin, RS-61443, and Cyclophosphamide in the Prolongation of Survival of Discordant Pig to Rabbit Cardiac Xenografts. *Transplantation Proceedings* 1994;26(3):1271-3.

Yao Z, **Wang S**, Xia C, Zhao S. Post-operative Infective Endocarditis and its Prevention in Open-heart Surgery with Extracorporeal Circulation. *Journal of Harbin Medical University* 1989;23(3):202-3.