

Roderick MacArthur

BSc (Hon), MD, MSc, FRCS(C)

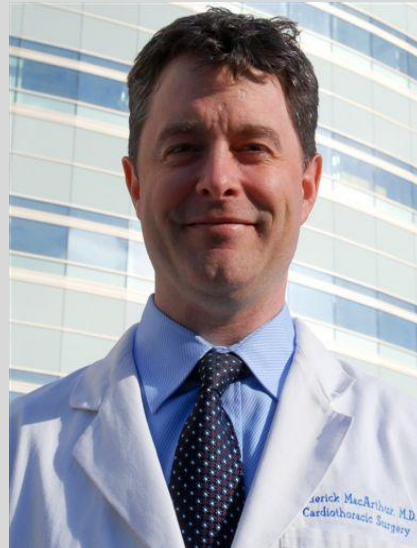
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Professional Overview:

Roderick completed his medical degree at Dalhousie University, Halifax NS in 1996. Residency Training in Cardiac Surgery was undertaken at the University of Alberta with Royal College Certification in 2002. During his residency a Master of Science in Experimental surgery was accomplished (1998). This training was followed by a Heart Failure/Valve Surgery Fellowship at the Mayo Clinic – Rochester MN (2003). Roderick then had the opportunity to complete an Aortic Surgery fellowship at the DeBakey Heart Centre in Houston, TX (2004). Professional interests include Surgical Education, Mechanical Circulatory Support (MCS), Aortic Surgery and International Health. Roderick served as Program Director for Cardiac Surgery at the University of Alberta from 2005 – 2013. Additional educational roles include Examination Committee Member, External Reviewer (Royal College of Physicians and Surgeons of Canada) and assisting in the development of the “Competence by Design” approach to surgical education. He has been the Surgical Director of the MCS program at the Mazankowski since its inception (2005). Roderick has been a visiting professor both nationally and internationally within the capacity of invited speaker and intra-operative mentor. Advancement of Cardiac Sciences in underdeveloped countries is an additional area focus and interest. Roderick has been in practice as a consultant Cardiac Surgeon at the Mazankowski Alberta Heart Institute since 2004.

Current Professional Interests:

- Health Care Leadership
- Mechanical Circulatory support
- Thoracic Aortic Surgery
- Surgical Education
- International Health & Program Development

Publications:

1. Thirty years of standalone percutaneous coronary interventions: A 23, 262 case experience from a Canadian tertiary referral centre. Hui W, O'Brien DG, Brass NS, Cheung PK, Chan M, Leung R, Tyrrell B, Bundhoo S, Pongnonthachai P, Galbraith P, Ranjbar K, Dorsch M, **MacArthur R**, Klinke P, Curr Res Cardiol, Vol. 2, No 4, 183-187. 2015.
2. **Association between mortality and renal replacement therapy after cardiac surgery among octogenarians: A retrospective population-based cohort study, Wang W, Bagshaw SM, Norris CM, Zibdawi R, Zibdawi M, MacArthur R, APPROACH Investigators. Journal of Cardiothoracic Surgery, Nov 2014 PMID: 25761494**
3. Outcomes of Distal Aortic Arch Replacement via left thoracotomy using antegrade cerebral perfusion. A retrospective analysis. A.M. Elhenawy, D. Zico, C. Norris, M. Moon, **R. MacArthur**, Canadian Journal of Cardiology, Vol. 31, Issue 10, S175–S176. 2015
4. Knowledge, attitudes, and practice preferences of Canadian cardiac surgeons toward the management of acute type A aortic dissection, Peterson MD, Mazine A, El-Hamamsy I, Manlhiot C, Ouzounian M, **MacArthur RG**, Wood JR, Bozinovski J, Apoo J, Moon MC, Boodhwani M, Hassan A, Verma S, Dagenais F, Chu MW, Canadian Thoracic Aortic Collaborative Investigators 2015 J Thoracic Cardiovasc Surg (4) 824-31 PMID 26277466
5. Role of preoperative intravenous iron therapy to correct anemia before major surgery: study protocol for systematic review and meta-analysis, Elhenawy AM, Meyer SR, Bagshaw SM, **MacArthur RG**, Carroll LJ (abstract) Syst. Rev 2015 Mar 15;4:29. PMID:25874460
6. Subject-specific estimation of central aortic blood pressure via system identification: preliminary in-human experimental study, Fazeli N, Kim CS, Rashedi M, Chappell A, Wang S, **MacArthur R**, McMurtry MS, Finegan B, Hahn JO. Med Biol Eng Comput 2014; 52 (10) 895-904 PMID: 25182936
7. **Massive left atrial sarcoma presenting with severe congestive heart failure, Kuurstra EJ, Mullen JC, MacArthur RG. Can J Cardiol 2014 (10) 1250.e13-15 PMID: 25108492**
8. Cesarean delivery in a parturient with an anterior mediastinal mass. Joze des Ordon AL, Lee J, Bader E, Scheelar L, Achen B, Taam J, **MacArthur R**, Townsend DR. Can J Anaesth. 2013 Jan;60(1):89-90. doi: 10.1007/s12630-012-9815-4. Epub 2012 Nov 7. No abstract available. PMID: 23132046 [PubMed - indexed for MEDLINE]
9. **Double aortic arch presenting in an adult with Dysphagia. Jonker Ide V, Nunes AJ, Elhenawy AM, Das D, Macarthur R. J Card Surg. 2013 Nov;28(6):670-1. doi: 10.1111/jocs.12120. Epub 2013 Jun 5. PMID: 23734563**
10. Coronary Revascularization for Patients With Severe Left Ventricular Dysfunction. Nagendran J, Norris CM, Graham MM, Ross DB, **Macarthur RG**, Kieser TM, Maitland AM, Southern D, Meyer SR; APPROACH Investigators. Ann Thorac Surg. 2013 Aug 20. doi:pii: S0003-4975(13)01380-5. 10.1016/j.athoracsur.2013.06.052. [Epub ahead of print] PMID: 23968761 [PubMed - as supplied by publisher]

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12. Outcomes of consecutive patients referred for consideration for transcatheter aortic valve implantation from an encompassing health-care region. Meyer SR, Shanks M, Tyrrell BD, **MacArthur RG**, Taylor DA, Welsh S, Paterson C, Welsh RC. *Am J Cardiol.* 2013 Nov 1;112(9):1450-4. doi: 10.1016/j.amjcard.2013.06.038. Epub 2013 Aug 22. PMID: 23972344
13. Comparative study on tube-load modeling of arterial hemodynamics in humans. Rashedi M, Fazeli N, Chappell A, Wang S, **Macarthur R**, Sean McMurtry M, Finegan BA, Hahn JO. *J Biomech Eng.* 2013 Mar 1;135(3):31005. doi: 10.1115/1.4023373. PMID: 24231816
14. The Canadian Society of Cardiac Surgeons perspective on the cardiac surgery workforce in Canada.
Feindel CM, Ouzounian M, Latham TB, Hendry P, Langlois Y, Peniston C, Hassan A, **Macarthur R**, Scully H, Hirsch GM; Canadian Cardiac Surgery Workforce Committee. *Can J Cardiol.* 2012 Sep-Oct;28(5):602-6. doi: 10.1016/j.cjca.2012.03.008. Epub 2012 Aug 17. Review. PMID: 22906803 [PubMed - indexed for MEDLINE]
15. **Long-term mechanical circulatory support of an adult patient with Down syndrome.** Nunes AJ, Buchholz H, Sinnadurai S, **MacArthur RG.** *Ann Thorac Surg.* 2012 Apr;93(4):1305-7. doi: 10.1016/j.athoracsur.2011.07.065. PMID: 22450085 [PubMed - indexed for MEDLINE]
16. Percutaneous repair or surgery for mitral regurgitation. EVEREST II INVESTIGATORS. *N Engl J Med* 2011 Apr 14;365(2):189 PMID: 21463154
17. Shihata M, Mittal R, Senthilselvan A, Ross D, Koshal A, Mullen J, Macarthur R. Selective antegrade cerebral perfusion during aortic arch surgery confers survival and neuroprotective advantages. *J Thorac Cardiovasc Surg.* 2010 Jul 30. [Epub ahead of print] PMID: 20674940 [PubMed - as supplied by publisher]
18. Lehr EJ, Wang PZT, Oreopoulos A, Kanji HD, Norris CM, MacArthur RG. Midterm outcomes and quality of life of aortic root replacement: mechanical vs biological conduits. Accepted Manuscript (Epub- Canadian Journal of Cardiology-2010) PMID: 21308448
19. Kanji H, Schulze CJ, Oreopoulos A, Lehr E, Wang W, MacArthur R. Peripheral versus central cannulation for Extra-Corporal Membrane Oxygenation: A comparison of limb ischemia and transfusion requirements. *Thorac Cardiovasc Surg.* 2010 Dec;58(8) : 459-62 PMID: 21110267