

## **Curriculum Vitae**

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### **SUMMARY OF QUALIFICATIONS**

- 1991 MB ChB (CUHK)
- 1995 Member of Royal College of Physicians (UK)
- 1999 Fellow of Hong Kong College of Physicians (AIM & Cardiology)
- 1999 Fellow of Hong Kong Academy of Medicine (Medicine)
- 2000 Fellow of Hong Kong College of Cardiology
- 2002 Member of North American Society of Pacing and Electrophysiology
- 2003 Fellow of Royal College of Physicians (Edinburgh, UK)

### **EDUCATION**

- 1985 - 1991 Faculty of Medicine,  
The Chinese University of Hong Kong,  
Shatin, N.T., Hong Kong  
Undergraduate medical and surgical education.

## OVERSEAS TRAINING

1997 – 1998	Research Fellow in Cardiac Arrhythmia and Electrophysiology Li Po Chun Trust Fund Scholarship St. George's Hospital Department of Cardiology, St. George's Medical School London, UK Training and research in basic cardiac arrhythmia mapping and ablation, implantation of pacemaker and cardioverter defibrillator
2001	Visiting Fellow in Advanced Cardiac Mapping St. Mary's Hospital Department of Cardiology, Imperial College Medical School London, UK Training in advanced three-dimensional cardiac arrhythmia mapping and ablation

## RESEARCH INTEREST

My research interest is in the field of heart failure and cardiac electrophysiology.

## Academic Experience

Invited Reviewer of  
American Journal of Cardiology  
International Journal of Cardiology  
Journal of American College of Cardiology  
Journal of Pacing and Cardiac Electrophysiology  
Journal of Cardiovascular Electrophysiology  
Hong Kong Medical Journal  
Journal of Hong Kong College of Cardiology

## PUBLICATIONS

1. Sanderson JE, Fung WH. Atrial septal defect. N Engl J Med 1996 4:334(1):56-7
2. Fung WH, Leung MP, Chan WM. Combined pacing therapy and percutaneous closing device for dilated cardiomyopathy and patent ductus arteriosus. Heart 2001;86:44.
3. Fung WH, Chan CK, Woo KS, Chan WM, Ng L, Ng P, Sanderson JE. Mapping and ablation of complex cardiac arrhythmia guided by a novel three-dimensional non-contact endocardial activation mapping system. J HK Coll Cardiol 2001;9:157-165.
4. Fung WH, Sanderson JE. Clinical profile of arrhythmogenic right ventricular

- cardiomyopathy in Chinese patients. *Int J Cardiol* 2001;81:9-18.
5. Fung WH, Chan CK, Sanderson JE. Ablation of hemodynamically unstable right ventricular outflow tract tachycardia guided by non-contact mapping. *Heart* 2002;87:15.
  6. Yip G, Wang M, Zhang Y, Fung WH, Ho PY, Sanderson JE. Left ventricular long axis function in diastolic heart failure is reduced in both diastole and systole: time for a redefinition? *Heart* 2002;87:121-5.
  7. Yu CM, Chau E, Sanderson JE, Fan K, Tang MO, Fung WH, Lin H, Kong SL, Lam YM, Hill MRS, Lau CP. Tissue Doppler echocardiographic evidence of reverse remodeling and improved synchronicity by simultaneously delaying regional contraction after biventricular pacing therapy in heart failure. *Circulation* 2002;105:438-45.
  8. Fung WH, Li ST, Choy KL, Yip WK, Ko WS, Sanderson JE, Hui SC. Severe obstructive sleep apnea is associated with left ventricular diastolic dysfunction. *Chest* 2002;121:422-429.
  9. Woo KS, Chook P, Chan LT, Cheung SP, Fung WH, Qiao M, Lolin YI, Thomas GN, Sanderson JE, Metreweli C, Celermajer DS. Long-term improvement in homocysteine levels and arterial endothelial function after one-year folic acid supplementation. *Am J Med.* 2002;112:535-9.
  10. Fung WH, Chan S, Yeung L, Sanderson JE. Is beta-blockade useful in heart failure patients with atrial fibrillation? A prospective study. *Eur J Heart Failure* 2002;Aug (4):489-495
  11. Fung WH, Chan CK, Chan WL, Sanderson JE. Ablation of the Mahaim pathway guided by non-contact mapping. *J Cardiovasc Electrophysiol.* 2002;13:1064.
  12. \*Kum CC, Fung WH, Chan WL, Chan CK, Chan YS, Sanderson JE. Brugada Syndrome Unmasked by Febrile Illness. *PACE* 2002;25:1660-1161..
  13. Chow KM, Fung WH, Szeto CC. "Question mark" aorta. *Postgrad Med J.* 2003;79:121.
  14. Yu CM, Fung WH, Lin H, Zhang Q, Sanderson JE, Lau CP. Predictors of left ventricular reverse remodeling after cardiac resynchronization therapy for heart failure secondary to idiopathic dilated or ischemic cardiomyopathy. *Am J Cardiol* 2003;91:684-8.
  15. Yu CM, Lin H, Fung WH, Zhang Q, Kong SL, Sanderson JE. Comparison of Acute Changes in Left Ventricular Volume, Systolic and Diastolic Functions and Intraventricular Synchronicity After Biventricular and Right Ventricular Pacing for Heart Failure. *Am Heart J.* 2003 May;145(5):E18
  16. Fung WH, Chan CK, Chan YS, Chan WL, Kum CC, Sanderson JE. Ablation of Non-sustained or Hemodynamically Unstable Ventricular Arrhythmia Originating from Right Ventricular Outflow Tract Guided by Non-Contact Mapping. *Pacing Clin Electrophysiol.* 2003 Aug;26(8):1699-705.
  17. Fung WH, Yu CM, Yip G, Chan S, Yandle TG, Richards AM, Nicholls, MG, Sanderson JE. Effect of beta-blockade (carvedilol or metoprolol) on activation of the

- renin-angiotensin-aldosterone system and natriuretic peptides in chronic heart failure. *Am J Cardiol.* 2003 Aug 15;92(4):406-10.
18. Yu CM, Lin H, Kum LC, Lam WF, Fung WH, Sanderson JE. Evidence of atrial mechanical dysfunction by acoustic quantification in abnormal relaxation and restrictive filling patterns of diastolic dysfunction in patients with coronary artery disease. *Eur J Echocardiogr.* 2003 Dec;4(4):272-8.
  19. Fung JW, Yu CM, Kum LC, Yip GW, Sanderson JE. Role of Beta-blocker therapy in heart failure and atrial fibrillation. *Card Electrophysiol Rev.* 2003 Sep;7(3):236-42.
  20. Fung WH, Yu CM, Chan CK, Kum CC, Chan WL, Sanderson JE. Variable left ventricular activation pattern in heart failure patients with left bundle branch block. *Heart.* 2004 Jan;90(1):17-9.
  21. Mok NS, Priori SG, Napolitano C, Chan KK, Bloise R, Chan HW, Fung WH, Chan YS, Chan WK, Lam C, Chan NY, Tsang HH. Clinical profile and genetic basis of Brugada syndrome in the Chinese population. *Hong Kong Med J.* 2004 Feb;10(1):32-7.
  22. Fung JW, Szeto CC, Chan WW, Kum LC, Chan AK, Wong JT, Wu EB, Yip GW, Chan JY, Yu CM, Woo KS, Sanderson JE. Effect of N-acetylcysteine for prevention of contrast nephropathy in patients with moderate to severe renal insufficiency: a randomized trial. *Am J Kidney Dis.* 2004 May;43(5):801-8
  23. Yu CM, Fung JW, Zhang Q, Chan CK, Chan YS, Lin H, Kum LC, Kong SL, Zhang Y, Sanderson JE. Tissue Doppler imaging is superior to strain rate imaging and postsystolic shortening on the prediction of reverse remodeling in both ischemic and nonischemic heart failure after cardiac resynchronization therapy. *Circulation.* 2004 Jul 6;110(1):66-73. Epub 2004 Jun 14.
  24. Yu CM, Fung JW, Chan CK, Chan YS, Zhang Q, Lin H, Yip GW, Kum LC, Kong SL, Zhang Y, Sanderson JE. Comparison of efficacy of reverse remodeling and clinical improvement for relatively narrow and wide QRS complexes after cardiac resynchronization therapy for heart failure. *J Cardiovasc Electrophysiol.* 2004 Sep;15(9):1058-65.
  25. Zhang Q, Yu CM, Fung JW, Zhang Y, Chan YS, Chan HC, Yip GW, Sanderson JE. Assessment of the effect of cardiac resynchronization therapy on intraventricular mechanical synchronicity by regional volumetric changes. *Am J Cardiol.* 2005 Jan 1;95(1):126-9.
  26. Yu CM, Zhang Q, Fung JW, Chan HC, Chan YS, Yip GW, Kong SL, Lin H, Zhang Y, Sanderson JE. A novel tool to assess systolic asynchrony and identify responders of cardiac resynchronization therapy by tissue synchronization imaging. *J Am Coll Cardiol.* 2005 Mar 1;45(5):677-84.
  27. Zhang Y, Chan AK, Yu CM, Lam WW, Yip GW, Fung WH, So NM, Wang M, Sanderson JE. Left ventricular systolic asynchrony after acute myocardial infarction in patients with

- narrow QRS complexes. *Am Heart J.* 2005 Mar;149(3):497-503.
28. Yu CM, Fung JW, Zhang Q, Chan CK, Chan I, Chan YS, Kong SL, Sanderson JE, Lam CW. Improvement of serum NT-ProBNP predicts improvement in cardiac function and favorable prognosis after cardiac resynchronization therapy for heart failure. *J Card Fail.* 2005 Jun;11(5 Suppl):S42-6.
  29. Sanderson JE, Leung LY, Chan SK, Yip GW, Fung JW, Yu CM. Do metoprolol and carvedilol have equivalent effects on diurnal heart rate in patients with chronic heart failure? *Eur J Heart Fail.* 2005 Aug;7(5):874-7.
  30. Chan JY, Fung JW, Chan HC, Chan WW, Yu CM, Sanderson JE. Prolongation of atrial effective refractory period with biatrial nonexcitatory stimulation. *J Cardiovasc Electrophysiol.* 2005 Aug;16(8):853-7.
  31. Yu CM, Zhang Q, Fung JW. Images in cardiovascular medicine. Visualization of regional left ventricular mechanical delay by tissue synchronization imaging in heart failure patients with wide and narrow QRS complexes undergoing cardiac resynchronization therapy. *Circulation.* 2005 Aug 16;112(7):e93-5.
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40. Chan JY, Fung JW, Yu CM. Early left ventricular lead dislodgement related to hyperpnea respiration. *Pacing Clin Electrophysiol*. 2006 Apr;29(4):425-6.
41. Zhang Q, Fung JW, Auricchio A, Chan JY, Kum LC, Wu LW, Yu CM. Differential change in left ventricular mass and regional wall thickness after cardiac resynchronization therapy for heart failure. *Eur Heart J*. 2006 Jun;27(12):1423-30.
42. Fung JW, Chan JY, Kum LC, Chan HC, Yip GW, Zhang Q, Yu CM. Suboptimal medical therapy in patients with systolic heart failure is associated with less improvement by cardiac resynchronization therapy. *Int J Cardiol*. 2006 Jun 20; [Epub ahead of print]

#### Book Chapters

1. Fung WH. Cardiac Emergencies. *Clinical Medicine in Asia, Textbook*. Second edition.
2. Fung WH, R Sung. Cardiac Arrhythmia. *Clinical Medicine in Asia, Textbook*. Second edition.
3. Fung JW, Yu CM. Impedance monitoring. *Cardiac Resynchronization Therapy*. Blackwell Futura 2006.
4. Zhang Q, Fung JW, Yu CM. Tissue Doppler Imaging. *Cardiac Resynchronization Therapy*. Blackwell Futura 2006.
5. Fung JW, Yu CM. Device Diagnostics. *Cardiac Resynchronization Therapy*. Springer 2006 in press.