



CURRICULUM VITAE

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PRESENT POSITION: Staff in Northern Cardiac Center, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand

EDUCATION:

1998 MD (First Class Honor), Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand

2002 Thai Board Certified in Internal Medicine

2004 Thai Board Certified in Cardiology

HONORS/AWARDS

2004 First prize in fellowship investigators award at the Royal College of Physicians of Thailand Annual Scientific Meeting, 2004.

2004 Thai Heart Association Scholarships for Top score of Cardiology Board examination

WORKING EXPERIENCES

1999-2002 Resident of Internal Medicine, Maharaj Nakorn Chiang Mai, Chiang Mai University, Chiang Mai, Thailand

2002-2004 Fellow in Cardiology, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand

Jan 2005- Dec 2006 Electrophysiology fellow at Taipei Veteran General Hospital, Taipei, Taiwan (Prof. Shih-Ann Chen)

February 2007-July 2007 Electrophysiology and device fellow at Austin Hospital, Melbourne, Victoria, Australia

2004-Present Staff in Department of internal medicine, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand

2004-Present

Member, *Cardiac Electrophysiology Research Unit*
(directed by Dr. Nipon Chattipakorn), Faculty of
Medicine, Chiang Mai University, Chiang Mai,
Thailand

PUBLICATIONS

First Author

1. **Wongcharoen W.**, Phrommintikul A., Kanjanavanit R. Epidemiology of infective endocarditis at the turn of the century and the effect of early aggressive valve surgery on mortality (abstract). *Intern Med J Thai*, 2002;18 (supp.2):68.
2. **Wongcharoen W.**, Phrommintikul A., Kanjanavanit R., et al. Traumatic tricuspid regurgitation presented with platypnea: A diagnosis by transesophageal echocardiogram with contrast study (abstract). Annual meeting of Thai Heart Association, 2002.
3. **Wongcharoen W**, Tai CT, Lin YJ, Chang SL, Chen SA. "Pseudosinus rhythm": what is the mechanism? *J Cardiovasc Electrophysiol*. 2005;16(12):1384-5.
4. **Wongcharoen W**, Chattipakorn N. Antiarrhythmic effects of n-3 polyunsaturated fatty acids. *Asia Pac J Clin Nutr*. 2005;14(4):307-12.
5. **Wongchareon W**, Sukonthasarn A., Kanjanavanit R., et al. A predictive model for distinguishing ischemic from non-ischemic cardiomyopathy. *Intern Med J Thai*, 2005 Nov;88(11):1689-96.
6. **Wongcharoen W**, Tsao HM, Wu MH, Tai CT, Chang SL, Lin YJ, Chang CY, Chen SA. Preexisting Pulmonary Vein Stenosis in Patients Undergoing Atrial Fibrillation Ablation: A Report of Five Cases. *J Cardiovasc Electrophysiol*. 2006 Apr;17(4):423-5.
7. **Wongcharoen W**, Chen YC, Chen YJ, Chang CM, Yeh HI, Lin CI, Chen SA. Effect of a Na⁺/Ca²⁺ Exchanger Inhibitor on Pulmonary Vein Electrical Activity and Ouabain-induced Arrhythmogenicity. *Cardiovasc Res*. 2006 Jun 1;70(3):497-508.
8. **Wongcharoen W**, Tai CT, Lin YJ, Chang SL, Chen SA. Alternate morphologies of QRS complex during a tachycardia: what is the mechanism? *J Cardiovasc Electrophysiol*. 2006 Nov;17(11):1255-6.

9. **Wongcharoen W**, Tsao HM, Wu MH, Tai CT, Chang SL, Lin YJ, Lo LW, Chen YJ, Sheu MH, Chang CY, Chen SA. Morphologic characteristics of the left atrial appendage, roof, and septum: implications for the ablation of atrial fibrillation. *J Cardiovasc Electrophysiol*. 2006 Sep;17(9):951-6.
10. **Wongcharoen W**, Tai CT, Lin YJ, Chang SL, Chen SA. Wide QRS Complex Tachycardia with an Unusual Mode of Tachycardia Initiation. *J Cardiovasc Electrophysiol*. 2007 Feb;18(2):226-8.
11. **Wongcharoen W**, Chen YC, Chen YJ, Lin CI, Chen SA. Effects of Aging and Ouabain on Left Atrial Arrhythmogenicity. *J Cardiovasc Electrophysiol*. 2007 May;18(5):526-31.
12. **Wongcharoen W**, Chen YC, Chen YJ, Chen SY, Yeh HI, Lin CI, Chen SA. Aging increases pulmonary veins arrhythmogenesis and susceptibility to calcium regulation agents. *Heart Rhythm*. 2007 Oct;4(10):1338-49.
13. **Wongcharoen W**, Benjanuwatra T, Pongprot Y, Rachakhom C, Phrommintikul A. Inappropriate implantable cardiac defibrillator shock due to couplet premature ventricular contractions. *Pacing Clin Electrophysiol* 2008 May;31(5):609-12.
14. **Wongcharoen W**, Phrommintikul A. The protective role of curcumin in cardiovascular diseases. *Int J Cardiol*. 2009 Apr 3;133(2):145-51.
15. **Wongcharoen W**, Chen SA. Management of atrial fibrillation in patients with heart failure: from drug therapy to ablation. *Expert Rev Cardiovasc Ther*. 2009 Mar;7(3):311-22.

Co-Author

1. Hsieh MH, Tai CT, Lee SH, Lin YK, Tsao HM, Chang SL, Lin YJ, **Wongcharoen W**, Lee KT, Chen SA. The different mechanisms between late and very late recurrences of atrial fibrillation in patients undergoing a repeated catheter ablation. *J Cardiovasc Electrophysiol*. 2006 Mar;17(3):231-5.
2. Lee PC, Tai CT, Hwang B, Hsieh MH, Tsai CF, Chiang CE, Yu WC, Taso HM, Lee KT, Yuniadi Y, **Wongcharoen W**, Chen SA. The electrophysiologic characteristics in patients with only ventricular-pacing inducible slow-fast form atrioventricular nodal reentrant tachycardia. *J Interv Card Electrophysiol*. 2005 Dec;14(3):153-7.

3. Tsao HM, Wu MH, Chern MS, Tai CT, Lin YJ, Chang SL, Chiang SJ, Ong MG, **Wongcharoen W**, Hsu NW, Chang CY, Chen SA. Anatomic proximity of the esophagus to the coronary sinus: implication for catheter ablation within the coronary sinus. *J Cardiovasc Electrophysiol*. 2006 Mar;17(3):266-9.
4. Lo LW, Tai CT, Lin YJ, Chang SL, **Wongcharoen W**, Chen SA. Reverse atrial electrical remodeling after catheter ablation of persistent atrial fibrillation. *J Cardiovasc Electrophysiol*. 2006 Jul;17(7):798-9.
5. Huang JL, Tai CT, Lin YJ, Huang BH, Lee KT, Higa S, Yuniadi Y, Chen YJ, Chang SL, Lo LW, **Wongcharoen W**, Ting CT, Chen SA. Substrate mapping to detect abnormal atrial endocardium with slow conduction in patients with atypical right atrial flutter. *J Am Coll Cardiol*. 2006 Aug 1;48(3):492-8.
6. Chiang SJ, Tsao HM, Wu MH, Tai CT, Chang SL, **Wongcharoen W**, Lin YJ, Lo LW, Chen YJ, Sheu MH, Chang CY, Chen SA. Anatomic Characteristics of the Left Atrial Isthmus in Patients with Atrial Fibrillation: Lessons from Computed Tomographic Images. *J Cardiovasc Electrophysiol*. 2006 Dec;17(12):1274-8.
7. Chang SH, Tsao HM, Wu MH, Tai CT, Chang SL, **Wongcharoen W**, Lin YJ, Lo LW, Hsieh MH, Sheu MH, Chang CY, Hou CJ, Chen SA. Morphological Changes of the Left Atrial Appendage After Catheter Ablation of Atrial Fibrillation. *J Cardiovasc Electrophysiol*. 2007 Jan;18(1):47-52.
8. Chang SL, Tai CT, Lin YJ, Ong MG, **Wongcharoen W**, Lo LW, Chang SH, Hsieh MH, Chen SA. The Electroanatomic Characteristics of the Cavotricuspid Isthmus: Implications for the Catheter Ablation of Atrial Flutter. *J Cardiovasc Electrophysiol*. 2007 Jan;18(1):18-22.
9. Chang SL, Chen YC, Chen YJ, **Wongcharoen W**, Lee SH, Lin CI, Chen SA. Mechanoelectrical feedback regulates the arrhythmogenic activity of pulmonary veins. *Heart*. 2007 Jan;93(1):82-8.
10. Lo LW, Tai CT, Lin YJ, Chang SL, **Wongcharoen W**, Chang SH, Hsieh MH, Tuan TC, Udyavar AR, Chen YJ, Tsao HM, Chen SA. Progressive remodeling of the atrial substrate--a novel finding from consecutive voltage mapping in patients with recurrence of atrial fibrillation after catheter ablation. *J Cardiovasc Electrophysiol*. 2007 Mar;18(3):258-65.
11. Lee SH, Chen YC, Chen YJ, Chang SL, Tai CT, **Wongcharoen W**, Yeh HI, Lin CI, Chen SA. Tumor necrosis factor-alpha alters calcium handling and increases

arrhythmogenesis of pulmonary vein cardiomyocytes. *Life Sci.* 2007 Apr 17;80(19):1806-15.

12. Lin YJ, Tai CT, Lo LW, Udyavar AR, Chang SL, **Wongcharoen W**, Tuan TC, Hu YF, Chiang SJ, Chen YJ, Chen SA. Optimal electrogram voltage recording technique for detecting the acute ablative tissue injury in the human right atrium. *J Cardiovasc Electrophysiol.* 2007 Jun;18(6):617-22.

13. Chang SL, Tai CT, Lin YJ, **Wongcharoen W**, Lo LW, Tuan TC, Udyavar AR, Chang SH, Tsao HM, Hsieh MH, Hu YF, Chen YJ, Chen SA. The efficacy of inducibility and circumferential ablation with pulmonary vein isolation in patients with paroxysmal atrial fibrillation. *J Cardiovasc Electrophysiol.* 2007 Jun;18(6):607-11.

14. Lo LW, Tai CT, Lin YJ, Chang SL, **Wongcharoen W**, Hsieh MH, Tuan TC, Udyavar AR, Hu YF, Chen YJ, Tsao HM, Chen SA. Mechanisms of recurrent atrial fibrillation: comparisons between segmental ostial versus circumferential pulmonary vein isolation. *J Cardiovasc Electrophysiol.* 2007 Aug;18(8):803-7.

15. Lo LW, Chen YC, Chen YJ, **Wongcharoen W**, Lin CI, Chen SA. Calmodulin kinase II inhibition prevents arrhythmic activity induced by alpha and beta adrenergic agonists in rabbit pulmonary veins. *Eur J Pharmacol.* 2007 Oct 1;571(2-3):197-208.

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18. Chang SL, Tai CT, Lin YJ, **Wongcharoen W**, Lo LW, Tuan TC, Udyavar AR, Chang SH, Tsao HM, Hsieh MH, Hu YF, Chen YJ, Chen SA. Batrial Substrate Properties in Patients with Atrial Fibrillation. *J Cardiovasc Electrophysiol.* 2007 Nov;18(11):1134-9.

19. Chang SL, Tai CT, Lin YJ, **Wongcharoen W**, Lo LW, Lee KT, Chang SH, Tuan TC, Chen YJ, Hsieh MH, Tsao HM, Wu MH, Sheu MH, Chang CY, Chen SA. The role of left atrial muscular bundles in catheter ablation of atrial fibrillation. *J Am Coll Cardiol.* 2007 Sep 4;50(10):964-73.

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21. Hu YF, Tai CT, Lin YJ, Chang SL, Lo LW, **Wongcharoen W**, Udyavar AR, Tuan TC, Chen SA. Does the age affect the fluoroscopy-guided transseptal puncture in catheter ablation of atrial fibrillation? *Pacing Clin Electrophysiol*. 2007 Dec;30(12):1506-10.
22. Sung SH, Chang SL, Hsu TL, Yu WC, Tai CT, Lin YJ, Lo LW, **Wongcharoen W**, Tuan TC, Hu YF, Udyavar A, Chen SA. Do the Left Atrial Substrate Properties Correlate with the Left Atrial Mechanical Function? A Novel Insight from the Electromechanical Study in Patients with Atrial Fibrillation. *J Cardiovasc Electrophysiol*. 2008 Feb;19(2):165-71
23. Lo LW, Tai CT, Lin YJ, Chang SL, **Wongcharoen W**, Hsieh MH, Tuan TC, Udyavar AR, Hu YF, Chen YJ, Chiang SJ, Tsao HM, Chen SA. Characteristics and Outcome in Patients Receiving Multiple (More Than Two) Catheter Ablation Procedures for Paroxysmal Atrial Fibrillation. *J Cardiovasc Electrophysiol*. 2008 Feb;19(2):150-6.
24. Chen YJ, Chen YC, **Wongcharoen W**, Lin CI, Chen SA. Effect of K201, a novel antiarrhythmic drug on calcium handling and arrhythmogenic activity of pulmonary vein cardiomyocytes. *Br J Pharmacol*. 2008 Mar;153(5):915-25.
25. Chang SL, Tai CT, Lin YJ, Lo LW, Tuan TC, Udyavar AR, Tsao HM, Hsieh MH, Hu YF, Chiang SJ, Chen YJ, **Wongcharoen W**, Ueng KC, Chen SA. Electrophysiological Characteristics and Catheter Ablation in Patients with Paroxysmal Supraventricular Tachycardia and Paroxysmal Atrial Fibrillation. *J Cardiovasc Electrophysiol*. 2008 Apr;19(4):367-73.
26. Tuan TC, Chang SL, Tai CT, Lin YJ, Hu YF, Lo LW, **Wongcharoen W**, Udyavar AR, Chiang SJ, Chen YJ, Tsao HM, Ueng KC, Chen SA. Impairment of the Atrial Substrates by Chronic Cigarette Smoking in Patients with Atrial Fibrillation. *J Cardiovasc Electrophysiol*. 2008 Mar;19(3):259-65.
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29. Hsu NW, Lin YJ, Tai CT, Kao T, Chang SL, **Wongcharoen W**, Lo LW, Udyavar AR, Hu YF, Tso HW, Chen YJ, Higa S, Chen SA. Frequency analysis of the fibrillatory activity from surface ECG lead V1 and intracardiac recordings: implications for mapping of AF. *Europace*. 2008 Apr;10(4):438-43.

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33. Chang SL, Lin YJ, Tai CT, Lo LW, Tuan TC, Udyavar AR, Hu YF, Chiang SJ, **Wongcharoen W**, Tsao HM, Ueng KC, Higa S, Lee PC, Chen SA. Induced Atrial Tachycardia After Circumferential Pulmonary Vein Isolation of Paroxysmal Atrial Fibrillation: Electrophysiological Characteristics and Impact of Catheter Ablation on the Follow-Up Results. *J Cardiovasc Electrophysiol*. 2009 Apr;20(4):388-94.

34. Udyavar AR, Huang SH, Chang SL, Lin YJ, Tai CT, Lo LW, Tuan TC, Hu YF, **Wongcharoen W**, Tsao HM, Higa S, Chen SA. Acute Effect of Circumferential Pulmonary Vein Isolation on Left Atrial Substrate. *J Cardiovasc Electrophysiol*. 2009 Jul;20(7):715-22.

35. Lo LW, Tai CT, Lin YJ, Chang SL, Udyavar AR, Hu YF, Ueng KC, Tsai WC, Tuan TC, Chang CJ, Kao T, Tsao HM, **Wongcharoen W**, Higa S, Chen SA. Predicting factors for atrial fibrillation acute termination during catheter ablation procedures: implications for catheter ablation strategy and long-term outcome. *Heart Rhythm*. 2009 Mar;6(3):311-8.

36. Lin YJ, Higa S, Tai CT, Chang SL, Lee KT, Lo LW, Ishigaki S, Tuan TC, **Wongcharoen W**, Hu YF, Hsieh MH, Tsao HM, Chen SA. Role of the right atrial substrate in different types of atrial arrhythmias. *Heart Rhythm*. 2009 May;6(5):592-8
37. Lin YJ, Tai CT, Chang SL, Lo LW, Tuan TC, **Wongcharoen W**, Udyavar AR, Hu YF, Chang CJ, Tsai WC, Kao T, Higa S, Chen SA. Efficacy of additional ablation of complex fractionated atrial electrograms for catheter ablation of nonparoxysmal atrial fibrillation. *J Cardiovasc Electrophysiol*. 2009 Jun;20(6):607-15.