

CURRICULUM VITAE

Name: **Xiaoping WAN**
E-MAIL: xwan@metrohealth.org

EDUCATION

04/96 - 09/98 Department of Cardiovascular Medicine, University of Oxford, U.K., working for a D. Phil. with the title: A detailed study in regional differences in electrical and mechanical properties of myocytes in guinea pig heart

09/85 - 07/88 Department of Pharmacology, Hubei Medical University, China, working for Master degree of Medicine with the title: Effects of Combining Atenolol and Prazosin on Acute Myocardial Ischemia and Hemodynamics

12/77 - 12/82 Hubei Medical University, China (B.Sc.)

EXPERIENCE

07/01 – Present Staff Scientist at MetroHealth Medical Center

02/99 – 06/01 Research Associate at MetroHealth Medical Center, Case Western Reserve University

09/98 - 02/99 Research Fellow at the Dept. of Medicine, University of Liverpool, U.K.

07/88 - 01/95 Lecturer at the Dept. of Pharmacology, Hubei Medical University, China

12/82 - 08/85 Physician at the Affiliated Hospital to Hubei Medical University, China

RESEARCH WORK/EXPERIMENTAL SKILLS

Since I came to MetroHealth Medical Center (affiliated with Case Western Reserve University) in February 1999 as a Post Doctorate Research Associate using electrophysiological and molecular biological methods I have been working on the problem of the molecular mechanism of cardiac arrhythmia. I have successfully expressed both the mutant and normal genes in mammalian cells and have identified a unique functional defect that has the potential to account for the clinic manifestations of Brugada Syndrome. Based on these results two papers were published last year. At the same time I am working on the exploration of molecular mechanism of LQT3 on Transgenic mouse model by examining the electrophysiological features in isolated myocytes, which will help to provide the cellular bases for the disease. Since last year I have been studying the cellular mechanism of action potential alternans in isolated guinea pig myocytes. So far we have got promising results.

Previous to this, I did my Ph.D at the Department of Cardiovascular Medicine, Oxford University, where I systematically investigated regional differences in electrical and mechanical properties of cardiac myocytes in normal and hypertrophied guinea-pig heart. My findings provide the cellular bases of the configuration of normal T waves of ECG (Electrocardiograph) and the changes in cardiac hypertrophy.

Through my postgraduate study and subsequent research in china, I have learned quite a few experimental techniques for developing the drugs for the treatment of cardiovascular diseases, anaemia, diabetes and osteoporosis as well as the drugs that affect reproductive system. I established some models of myocardial ischemia, reperfused injury, arrhythmia, heart failure, diabetes, anaemia and osteoporosis in rabbits, rats, guinea pig and mice. I also carried out research on the effects of drugs on isolated rabbit papillary muscles and aortic strips and measured some pharmacokinetic parameters of some drugs. In addition to research, I gave lectures to both undergraduates and postgraduates on Pharmacology including the relevant experimental techniques.

PUBLICATIONS

1. X. Wan, S. Chen, A. Sadeghpour, Q. Wang, G.E. Kirsch, Accelerated inactivation in a mutant Na⁺ channel associated with idiopathic ventricular fibrillation, *Am J Physiol* 2001;280:H354-H360
2. X. Wan, S.M. Bryant and G. Hart, The effects of [K⁺]_o on regional differences in electrical characteristics of ventricular myocytes in guinea-pig, *Experimental Physiology* 2000;85:769-774
3. X. Wan, Q. Wang, G.E. Kirsch, Functional suppression of sodium channels by b₁-subunits as a molecular mechanism of idiopathic ventricular fibrillation, *J Mol Cell Cardiol* 2000;32:1873-1884
4. S.M. Bryant, X. Wan and G. Hart, Transmural gradients in action potential duration and the delayed rectifier current are reduced in cardiac hypertrophy. *Circulation* 1999; 98:I-697
5. X.Wan, S.M. Bryant, S.J. Shipsey and G. Hart, Lowering extracellular potassium reduces normal regional differences in action potential duration in left ventricle. An explanation for T-wave inversion in hypokalaemia? *Eur Heart J* 1998;19:P448
6. S.M. Bryant, X. Wan, S.J. Shipsey and G. Hart, Regional differences in the delayed rectifier current (I_{Kr} and I_{Ks}) contribute to the differences in action potential duration in basal left ventricular myocytes in guinea-pig, *Cardiovascular Research* 1998;40:322-331
7. S.M. Bryant, X. Wan and G. Hart, Are M cells present in guinea-pig heart? Transmural gradients in the properties of basal left ventricular myocytes, *British Physiological Society, Liverpool, April, 1998, p178*
8. X. Wan, W. Liu et al., Experimental Study on the Therapeutic Effect of Longmu Hematopoietic Granular on Iron Deficiency Anemia, *Acta Medica Sinica*, 1994
9. X. Wan, W. Liu et al., Effect of Ipriflavone on Glucocorticoid-induced Osteoporosis in Rabbits, *Chinese Pharmacological Bulletin*, 1994
10. X. Wan, M. Shi et al., Effect of Ipriflavone on Osteoporosis in Ovariectomized Rats, *Chinese Pharmacological Bulletin*, to be published
11. X. Wan, W. Liu et al., Experimental Study of Effects of Kangjianna on Blood Glucose, Serum lipid and Urate, *Acta Academiae Medicinae Hubei*, 1994; 15(3): 234-237
12. X. Wan, W. Liu et al., The Effects of Several Antiarrhythmic Drugs on Reperfusion Arrhythmia in Rats, 1991; *Acta Academiae Medicinae Hubei*, 12(1): 33-36
13. X. Wan, Z. Li et al., Effects of Combining Atenolol and Prazosin on Acute Myocardial Ischemia and Hemodynamics, *Acta Academiae Medicinae Hubei*, 1990; 11(2): 110-114
14. M. Shi, X. Wan et al., Effects of Canthin-6-one on Hemodynamics in Rabbits, *Acta Academiae Medicinae Hubei*, 1995; 16(1): 10-12
15. M. Wang, X. Wan et al., Protective Effects of Nitrendipine against Myocardial Infarction in Rabbits, *Acta Academiae Medicinae Hubei*, 1993; 14(3): 227-278
16. H. Wang, X. Wan et al., An Experimental Study of Effects on Anemia of Shengxuesu, *Acta Academiae Medicinae Hubei*, 1993; 13(2): 135-137
17. W. Liu, T. Yang and X. Wan et al., Effects of Allocryptopine on Experimental Myocardial Infarction Cardiac Function and Hemodynamics in Rabbits, *Acta Academiae Medicinae Hubei*, 1992; 13(3): 212-216
18. M. Wang, W. Liu, X. Wan et al., Protective Effect of Nitrendipine against Myocardial Ischemia and Reperfusion Injury of Rats, *Acta Pharmacologica Sinica*, 1992; 13(1): 19-21
19. M. Shi, X. Wan et al., Protective Effects of Canthin-6-one against Myocardial Infarction in Rabbits, *Acta Pharmacologica Sinica*, to be published.
20. H. Wang, Y. Liu, X. Wan et al., Effects of the Venom of *Buthus Martensii* Karsch on Isolated Rabbit Papillary Muscles and Aortic Strips, *Acta Academiae Medicinae Hubei*, 1990; 11(2): 119

REFERENCES

Prof. G. Hart	E-mail:	ghart@liverpool.ac.uk
Prof. G. Kirsch	E-mail:	gkirsch@metrohealth.org