UNIVERSITE PARIS DESCARTES
Les Sciences de l'Homme et de la Santé

Wenjin Xiao

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wenjin.xiao<at>parisdescartes.fr

BIOGRAPHY

Dr Wenjin Xiao obtained her PhD in chemical system engineering from University of Tokyo in 2014, developing the integration of chemical engineering methods with cell biology to obtain a relevant liver microenvironment in order to realize cell-based therapies and assays. During 3 years of postdoctoral training with Prof. Adam Perriman at the University of Bristol, she worked on cell surface engineering with synthetic biomolecules in order to modulate stem cell behaviour used in tissue engineering and regenerative medicine, particularly on myocardial regeneration. In 2018, she was granted with CARPEM postdoctoral fellowship and joined Dr Valerie Taly's group, working on tumour tissue engineering and personalised medicine for cancer. Her research interests cover the fields of biochemistry, molecular & cellular biology, biomaterials and tissue engineering.

CURRICULUM VITAE (updated Oct. 2019)

RESEARCH EXPERIENCES

Since 2018 Postoral researcher, MEPPOT team, Université Paris Descartes
2018-present Honorary Research Fellow in the School for Cellular & Molecular Medicine, University of Bristol, UK
2015-2018 Postdoctoral research associate, University of Bristol, UK, Supervisor: Dr. Adam PERRIMAN
2014-2015 Postdoctoral research assistant, University of Tokyo, Supervisor: Prof. Yasuyuki SAKAI
2011-2014 Doctoral Researcher, University of Tokyo, Supervisor: Prof. Yasuyuki SAKAI
2009-2011 Master Student, China Agricultural University, Supervisor: Prof. Zhengxing LIAN
2009 Summer Internship, China Agricultural University 2009, Supervisor: Prof. Zhengxing LIAN, Co-Supervisor: Prof. Guoshi LIU, Prof. Yunhai ZHANG
2009 Bachelor Research, China Agricultural University 2009, Supervisor: Prof. Zhengxing LIAN
2007-2008 Undergraduate Research Program, China Agricultural University , Supervisor: Prof. WANG Aiguo

EDUCATION

2011-2014 Ph.D, University of Tokyo, Japan, Dept. of Chemical System Engineering, Graduate School of Engineering, Supervisor: Prof. Yasuyuki SAKAI
2009-2011 M.A, China Agricultural University, China, State Key Laboratory of Agrobiotechnology, Dept. of Animal Genetics, Breeding and Reproduction, Supervisor: Prof. Zhengxing LIAN
2005-2009 B.A, China Agricultural University, China, School of Animal Science and Technology, Supervisor: Prof. Zhengxing LIAN

FELLOWSHIPS AND AWARDS

• Cancer Research and Personalized Medicine (CARPEM) Postdoctoral Fellowship, 2018-present, France.
• Staff Travel Fund, 2016 University of Bristol, UK
• Colston Research Society Travel Scholarship 2016, Colston Research Society, UK
• Monbukagakusho Honors Scholarship for International Students 2014 Japanese Student, Services Organization, Japan
• Gold 'Best Presentation Award' 2012 , The 25th Annual Meeting of Japanese Society for Alternatives to Animal Experiments (JSAAE), Japan
• Chemistry Innovation through Cooperation of Science and Engineering 2011-2013, Global COE Program, University of Tokyo, Japan

EXPERIMENTAL SKILLS

• Molecular Genetics
• Pronuclear Microinjection
• Flow Cytometry (FACS)
• Immunohistochemistry
• ELISA
• qRT-PCR and PCR Array
• Tissue Engineering
• 2D/3D Cell Culture (primary, stem cells and cell lines)
• Stem cell therapy (ESCs, hiPSCs, hMSCs)
• Recombinant protein expression and purification
• Biophysical characterization of protein (UV spectrometry, Fluorimetry, Mass Spectrometry, DLS, Zeta potential, SRCD)
• Bioconjugate chemistry

OTHER

Chinese (Native)
English (Fluent)
Japanese (Basic)
French (Beginner)

PUBLICATIONS

PATENTS

W. XIAO, Y. SAKAI, H. MATSUI. Procedure of culture for hepatocyte, JP 2014223061, filed 24 April 2013.
W. XIAO, B. CARTER, R. DELLER, G. DAY, R. C. DELINT, T. GREEN, A. PERRIMAN. Protein delivery to membranes, GB 1714466.5, filed 11 September 2017.

Scientific articles

Designer artificial membrane binding proteins to direct stem cells to the myocardium. Xiao W, Green TIP, Liang X, Delint RC, Perry G, Roberts MS, Le Vay K, Back CR, Ascione R, Wang H, Race PR, Perriman AW. Chem Sci. 2019 Jul 3;10(32):7610-7618. doi: 10.1039/c9sc02650a. eCollection 2019 Aug 28.

Engineered basement membranes: from in vivo considerations to cell-based assays. Perry G, Xiao W, Welsh GI, Perriman AW, Lennon R. Integr Biol (Camb). 2018 Nov 12;10(11):680-695. doi: 10.1039/c8ib00138c. Review.

Three-Dimensional Graphene: A Biocompatible and Biodegradable Scaffold with Enhanced Oxygenation. Loeblein M, Perry G, Tsang SH, Xiao W, Collard D, Coquet P, Sakai Y, Teo EH. Adv Healthc Mater. 2016 May;5(10):1177-91. doi: 10.1002/adhm.201501026. Epub 2016 Mar 4.

New physiologically-relevant liver tissue model based on hierarchically cocultured primary rat hepatocytes with liver endothelial cells. Xiao W, Perry G, Komori K, Sakai Y. Integr Biol (Camb). 2015 Nov;7(11):1412-22. doi: 10.1039/c5ib00170f.

The importance of physiological oxygen concentrations in the sandwich cultures of rat hepatocytes on gas-permeable membranes. Xiao W, Shinohara M, Komori K, Sakai Y, Matsui H, Osada T. Biotechnol Prog. 2014 Nov-Dec;30(6):1401-10. doi: 10.1002/btpr.1954. Epub 2014 Aug 8.

Oxygen-permeable membrane-based direct oxygenation remarkably enhances function and gene expressions of rat hepatocytes both in 3D and sandwich cultures. W. XIAO, M. KODAMA, K. KOMORI, Y. SAKAI. Biochem Eng J. 2014;91:99–109.

Functions and gene expressions of sandwich cultured-primary rat hepatocytes on oxygen-permeable membranes under physiological oxygen concentrations. W. XIAO, H. MATSUI, M. SHINOHARA, K. KOMORI, T. OSADA, Y. SAKAI. Drug Metab Rev. 2013; 45(S1): 33–269