Wu Qiang

Position: Associate Professor
Faculty: The State Key Laboratory of Quality Research in Chinese Medicine
E-mail address: qwu@must.edu.mo
Telephone: (853) 88972708
Fax number: (853) 28822799
Address: Room 704a, Block H, Macau University of Science and Technology, Avenida Wai Long, Taipa, Macau

Research areas:

Stem Cell Biology, Epigenetics, Cancer Biology, Gene regulation

Teaching experience:

Epigenetics and Chromatin Biology, Stem Cell Biology, Experimental Biochemistry, Laboratory Techniques in Life Sciences, Techniques in Biomedical Research, Stem Cells and Regenerative Medicine

Academic Qualifications

1986-1990	B. Agri.	Department of Horticulture, Huazhong Agricultural University
1992-1995	M.Sc.	Department of Genetics, Wuhan University
1998-2003	Ph.D	Department of Biological Sciences, National University of Singapore

Employment History

2017-present	Associate professor, Macau University of Science and Technology
2009-2016	Assistant professor, Department of Biochemistry, National University of Singapore
2006-2008	Research associate, The Gurdon Institute, University of Cambridge (Advisor: Prof Magdalena Zernicka-Goetz)
2003-2006	Postdoctoral fellow, Genome Institute of Singapore (Advisor: Prof Ng Huck Hui)
2002-2003	Research assistant, National University of Singapore

(Supervisor: Dr. Philippa Melamed)

1996-1998 Administrator, Wuhan Science and Technology Committee, China

1995-1996 Assistant Lecturer, Tongji Medical University, Wuhan, China

1990-1992 Administrator, Qingling Horticultural Farm, Wuhan, China

Editorial Services

Academic editor of *PLoS ONE* (July 2010-present)

Guest editor of *Stem Cells International* (2015)

Lead guest editor of *Stem Cells International* (2016-2017)

Membership in Professional Societies

Member of the International Society for Stem Cell Research

Member of the Stem Cell Society Singapore

Reviewing Services

Referee for *Nucleic Acids Research*, *Nature Communications, Oncotarget*, *Stem Cells, Stem Cell Research*, *PLoS ONE*, *Stem Cells & Development*, *Stem Cell Reviews and Reports*, *Experimental Cell Research*, *International Journal of Biochemistry & Cell Biology*, *Journal of Genetics and Genomics*, *BMC Medical Genetics.*

Grant reviewer for Medical Research Council UK grants, China National Natural Science Foundation, Singapore Biomedical Research Council Grants, The Chinese University of Hong Kong, National University Heath System (Seed grants, Bench to Bedside grants, Aspiration grants), National University of Singapore Academic Research Grants,.

Publications

1. Yu S, Ma H, Ow JR, Goh Z, Chiang CM, Yang H[#], Loh YH[#] and **Wu Q[#]**. Zfp553 is essential for maintenance and acquisition of pluripotency. ***Stem Cells and Development*** 2016 Jan 1;25(1):55-67..

2. Ma H, Ow JR, Tan BC, Goh Z, Feng B, Loh YH, Fedele M[#], Li H[#] and **Wu Q[#]**. The dosage of Patz1 modulates reprogramming process. ***Scientific Reports*** 2014 Dec 17;4:7519.

3. Yang W, Lee YH, Jones AE, Woolnough JL, Zhou D, Dai Q, **Wu Q**, Giles KE, Townes TM and Wang H. The histone H2A deubiquitinase Usp16 regulates embryonic stem cell gene expression and lineage commitment. ***Nature Communications*** 2014 May 2;5:3818.

4. Ow JR, Ma H, Jean A, Lee YH, Chong YM, Soong R, Fu XY, Yang H[#] and **Wu Q[#]**. Patz1 regulates embryonic stem cell identity. ***Stem Cells and Development*** 2014 23 (10):1062-1073**.**.

5. Ma H, Ng HM, Teh X, Li H, Lee YH, Chong YM, Loh YH, Collins JJ, Feng B, Yang H[#] and **Wu Q**[#]. Zfp322a regulates mouse ES cell pluripotency and enhances reprogramming efficiency. ***PLoS Genetics*** 2014 10(2): e1004038. .

6. Do DV, Ueda J, Messerschmidt DM, Lorthongpanich C, Zhou Y, Feng B, Guo G, Lin PJ, Hossain MZ, Zhang W, Moh A, **Wu Q**, Robson P, Ng HH, Poellinger L, Knowles BB, Solter D and Fu XY. A genetic and developmental pathway from STAT3 to the OCT4-NANOG circuit is essential for maintenance of ICM lineages in vivo. ***Genes & Development*** 2013 27:1378-1390.

7. Ma H, Ow JR, Chen X and **Wu Q**[#]. With or without them: essential roles of cofactors in ES Cells. ***Journal of Stem Cell Research & Therapy*** 2012 S10:006.

8. Lee YH, Ma H, Tan TZ, Ng SS, Soong R, Mori S, Fu XY, Zernicka-Goetz M and **Wu Q**[#]. Protein arginine methyltransferase 6 regulates embryonic stem cell identity. ***Stem Cells and Development*** 2012 21(14):2613-2622.

9. **Wu Q**[#] and Ng HH[#]. Mark the transition: chromatin modifications and cell fate decision. ***Cell Research*** 2011 21(10):1388-1390.

10. Lee YH and **Wu Q**[#]. Chromatin regulation landscape of embryonic stem cell identity. ***Bioscience Reports*** 2011 31(2): 77-86.

11. **Wu Q***, Bruce AW*, Jedrusik A, Ellis PD, Andrews RM, Langford CF, Glover DM and Zernicka-Goetz M.

dependent osteoclastogenesis, and bone remodeling ***Journal of Cell Biology*** 2006 172(1):115-125.

19. Luo M, Koh M, Feng J, **Wu Q** and Melamed P. Cross talk in hormonally regulated gene transcription through induction of estrogen receptor ubiquitylation. ***Molecular and Cellular Biology*** 2005 25 (16): 7386-7398.

20. Melamed P, Xue Y, Poon JFP, **Wu Q**, Xie H, Yeo J, Foo TWJ and Chua HK. The male seahorse synthesizes and secretes a novel C-type lectin into the brood pouch during early pregnancy ***FEBS Journal*** 2005 272(5):1221-1235.

21. **Wu Q**, Zhang W, Pwee KH and Kumar PP. Rice HMGB1 protein recognizes DNA structures and bends DNA efficiently. ***Archives of Biochemistry and Biophysics*** 2003 (411):105-111.

22. **Wu Q**, Zhang W, Pwee KH and Kumar PP. Cloning and characterization rice *HMGB1* gene. ***Gene*** 2003 (312):103-109.

23. Zhang W, **Wu Q**, Pwee KH and Kini MR. Interaction of wheat high-mobility-group proteins with four-way-junction DNA and characterization of the structure and expression of HMGA gene. ***Archives of Biochemistry and Biophysics*** 2003 (409):357-366.

24. Zhang W, **Wu Q**, Jois SDS, Pwee KH and Kini MR. Characterization of the interaction of wheat HMGa with linear and four-way junction DNAs. ***Biochemistry*** 2003 (42):6596-6607.

25. **Wu Q**, Liao L, Yang D, He G and Shu L. Random amplified polymorphic DNAs (RAPD) in wild rice. ***Journal of Tropical and Subtropical Botany*** (in Chinese), 1998 (6): 260-266.

Invited Talks

Wu Q, "The essential roles of zinc finger proteins in pluripotency maintenance and acquisition". 7th Asia Pacific International Congress of Anatomists. (17-20 March 2016, Singapore).

Wu Q □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ China).

Wu Q, "ZFPs in pluripotency regulation". The 14th Asian Conference on Transcription. (3-4 December 2015, Singapore).

Wu Q, "Zfp322a regulates mouse ES cell pluripotency and enhances reprogramming efficiency". Cold Spring Harbor Asia Conferences 2014 Epigenetics, Chromatin & Transcription. (5-9 May 2014, Cold Spring Harbor Asia, Suzhou, China).

Wu, Q, "Mind the fingers: ZFPs in stem cell identity and reprogramming". Mind the fingers: ZFPs in stem cell identity and reprogramming (23 Jun 2014, University of Toronto, Toronto, Canada).

Wu, Q, "Mind the fingers: ZFPs in stem cell identity and reprogramming". Mind the fingers: ZFPs in stem cell identity and reprogramming (28 May 2014, The Chinese University of Hong Kong, Hong Kong).

Wu, Q, "PRMTs in ES cell identity". PRMTs in ES cell identity (9 Jun 2013, Zhejiang University Medical School, Hangzhou, China).

Wu, Q, "Epigenetic regulation of ES cell pluripotency". Guangzhou Institute of Biomedicine and Health, Chinese Academy of Sciences (28 Jul 2011, Guangzhou, China, China).

Wu, Q, "Histone arginine methylation regulates ES cell identity". The 13th International Symposium, Society of Chinese Bioscientists in America. (27 Jul 2011, Guangzhou, China).

Wu, Q, "Histone arginine methylation regulates pluripotency". Histone arginine methylation regulates pluripotency (2 July 2009, CSI, NUS, Singapore).