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個人信息

姓名：吳強

職位：副教授

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教育背景

1998-2003 National University of Singapore/博士學位

1992-1995 武漢大學生命科學院/碩士學位

1986-1990 華中農業大學園藝系/學士學位

工作經歷

2017.01 至今 澳門科技大學中藥質量研究國家重點實驗室/副教授

2009-2017 Department of Biochemistry, National University of Singapore/Assistant professor

2006-2008 The Gurdon Institute, University of Cambridge/Research associate
(Advisor: Prof Magdalena Zernicka-Goetz)

2003-2006 Genome Institute of Singapore/Postdoctoral fellow
(Advisor: Prof Ng Huck Hui)

2002-2003 National University of Singapore/Research assistant
(Supervisor: Dr. Philippa Melamed)

1996-1998 武漢市科學技術委員會/副主任科員

1995-1996 同濟醫科大學/助理講師

1990-1992 武漢市青菱園藝場/科技副場長

研究方向

幹細胞生物學及其應用，表觀遺傳學，基因表達與調控，腫瘤生物學

学术兼职

PLoS ONE 學術編輯 (2010 至今)

Stem Cells International 客座編輯 (2015, 2017, 2020)

Frontiers in Cell and Development Biology 學術編輯 (from 2021)

Stem Cells Review and Reports 學術編輯 (from 2021)

國際幹細胞研究協會會員

新加坡幹細胞協會會員

澳門幹細胞研究協會副會長

個人簡介

吳強博士于 1990 年本科畢業於華中農業大學園藝系。1992-1995 年就讀于武漢大學生命科學院遺傳系，獲碩士學位。1998-2003 年在新加坡國立大學生物科學系攻讀博士學位。2003-2006 年在新加坡基因組研究院從事博士後研究工作。導師是知名幹細胞專家 Prof Huck Hui Ng。2006 年至 2008 年，在劍橋大學國際知名胚胎發育學家 Prof Magdalena Zernicka-Goetz 的實驗室擔任 Research associate。2009 年被聘為新加坡國立大學生物化學系助理教授。2017 年加入澳門科技大學中藥質量研究國家重點實驗室擔任副教授。

目前的主要研究方向是幹細胞生物學和表觀遺傳學。自 2009 年成為獨立 PI 以來，我的實驗室專注于利用分子細胞學方法，高通量分析法和其他分子細胞方法尋找和分析新的多潛能因子（包括新的遺傳因子和表觀遺傳因子）。我們成功發現了三個鋅指蛋白（Zfp322a，Patz1 和 Zfp553）和兩個組蛋白精氨酸甲基轉移酶（Prmt4，Prmt6）對維持幹細胞的特性和重編程過程具有必不可少的調節作用。這些發現已經發表在 PLoS Genetics, Stem Cells, Genomics, Proteomics and Bioinformatics, Frontiers in Cell and Development Biology 等專業學術刊物上並取得了積極的反響。近兩年我們還專注於 Chromatin co-factor 在幹細胞多能性維持和重編程的作用的研究並取得了一些進展。我的長期研究目標是利用幹細胞開展對幹性維持，分化機理，疾病模型，藥物篩選的研究。

吳強博士已經發表了 30 篇研究和綜述論文。這其中包括有重大學術貢獻和突破性的一篇幹細胞論文（Nature Genetics 2006）和一篇癌細胞論文（Cell 2006）。總的論文被引用次數超過 4100 次。是國際上享有一定知名度的幹細胞專家。從 2010 年受邀擔任 PLoS ONE 雜誌學術編輯。從 2021 起年受邀擔任 Frontiers in Cell and Development Biology 以及 Stem Cells Review and Reports 雜誌學術編輯。還受邀擔任 Nature Communications，Nucleic Acids Research，Stem Cells，Stem Cell Research, PLoS ONE, Stem Cells and Development, Stem Cell Review and Reports，International Journal of Biochemistry and Cell Biology 等雜誌的審稿人。吳強博士還連續多年擔任中國國家自然科學基金重點項目的海外評審。另外也受邀擔任 Medical Research Council UK，NUHS Seed Grants, Singapore Ministry of Education grants, Singapore Biomedical Research Council, The Chinese University of Hong Kong Grants 評審。吳強博士是澳門幹細胞研究協會副會長，國際幹細胞研究學會和新加坡幹細胞研究學會會員。

自 2017 年加入澳門科大以來，我負責在中藥質量研究國家重點實驗室建立幹細胞研究與應用平臺。具體內容為建立四個技術平臺：1) 小鼠和人類胚胎幹細胞建系，培養，表型分析，定向分化，基因操作技術平臺。2) 體細胞重編程，iPS 細胞質量鑒定，iPS 細胞定向分化，iPS 細胞基因編輯技術平臺。3) 間充質幹細胞和腫瘤幹細胞的分離、高速分選、幹細胞特性和功能鑒定的技術平臺。4) 高通量幹細胞調控因子篩查、檢測和機制分析的平臺。此外也積極推動幹細胞知識普及和推廣。

已發表論文

1. Yu S, Li J, Ji G, Ng ZL, Siew J, Lo WN, Ye Y, Chew Y, Long YC, Zhang W, Ernesto Guccione E, Loh YH, Jiang ZH, Yang H and **Wu Q#**. Npac Is a Co-factor of Histone H3K36me3 and Regulates Transcriptional Elongation in Mouse ES Cells. **Genomics, Proteomics and Bioinformatics** 2021 Mar 3;S1672-0229(21)00053-X. doi: 10.1016/j.gpb.2020.08.004. Online ahead of print.
2. Ng ZL, Siew J, Li J, Ji G, Yu S, Chew Y, Png CW, Zhang Y, Wen S, Yang H, Zhou Y, Long YC, Jiang ZH, **Wu Q#**. PATZ1 Cooccupies Genomic Sites with p53 and Inhibits Liver Cancer Cell Proliferation via Regulating p27. **Frontiers in Cell and Developmental Biology** Feb 1;9:586150. doi: 10.3389/fcell.2021.586150. eCollection 2021.

3. He MY, Xu SB, Qu ZH, Guo YM, Liu XC, Cong XX, Wang JF, Low BC, Li L, Wu Q, Lin P, Yan SG, Bao Z, Zhou YT, Zheng LL. Hsp90 β interacts with MDM2 to suppress p53-dependent senescence during skeletal muscle regeneration. ***Aging Cell*** 2019 Oct;18(5):e13003.
4. Wong YQ, Xu H, **Wu Q**, Liu X, Lufei C, Xu XQ, Fu XY. STAT3-Inducible Mouse ESCs: A Model to Study the Role of STAT3 in ESC Maintenance and Lineage Differentiation. ***Stem Cells International*** 2018:8632950.
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6. 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 25(1):55-67.
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