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Prof. Wei-Qiang Gao received his Ph.D. from Columbia University in 1989 and did his post-doctoral research at Columbia University and the Rockefeller University. From 1993-2010. He had been a Scientist, Senior Scientist and Group/Project Leader at Genentech, Inc.. Dr. Gao has made important contributions to the fields of neuroscience, stem cells and tumorigenesis. In early 1990's, he made important contributions to the mechanisms of cerebellar granule neuronal differentiation. His group then pioneered research on development and regeneration of inner ear hair cells at Genentech and changed the traditional view that mammalian inner ear hair cells cannot regenerate. More recently, his group worked on "stem cells and tissue regeneration" and "cancer research and cancer stem cells" and published a paper in *Nature* in 2008 to report for the first time that a single adult stem cell is capable of generating a functional prostate organ. Dr. Gao has published 58 papers as either corresponding or the first author, including *Nature*, *Cell*, *Science*, *Neuron*, *Nature Neuroscience*, *Nature Communications*, *Gastroenterology*, *PNAS*, etc. and has been granted 48 US patents. He is a scholar of national "Thousand-Talents Program", a recipient of "Overseas Outstanding Young Investigators" award from the National Natural Science Foundation of China, and the Chief Scientist of a program project from the Ministry of Science and Technology of China and a key grant from the National Natural Science Foundation of China. He has served as a reviewer for grant proposals of Wellcome Trust in UK, NIH in US, and NSFC and 36 journals including *Nature*, *Nature Medicine*, *Nature Cell Biology*, *Nature Communications*, *Cancer Cells*, *PNAS*, ect..

Research Interests: Stem cells and tissue repair/regeneration; cancer research and cancer stem cells

Selected Publications:

1. Yang R, Wang M, Wang J, Huang X, Yang R, **Gao WQ**. (2015). Cell Division Mode Change Mediates the Regulation of Cerebellar Granule Neurogenesis Controlled by the Sonic Hedgehog Signaling. *Stem Cell Reports*. 2015 Nov 10;5(5):816-28.
2. Quan Y, Wang N, Chen Q, Xu J, Cheng W, Di M, Xia W, **Gao W-Q** (2015). SIRT3 inhibits prostate cancer by destabilizing oncoprotein c-MYC through regulation of the PI3K/Akt pathway. *Oncotarget*. 2015 Sep 22;6(28):26494-507.
3. Zhu HH, Zhuang G, **Gao W-Q** (2015). A candidate gastric stem/progenitor cell marker revealed by genome-wide analysis. *J Pathol*. 2015 Aug 27. doi: 10.1002/path.4601. [Epub ahead of print]

4. Zhang Q, Qin J, Zhong L, Gong L, Zhang B, Zhang Y, **Gao W-Q** (2015). CCL5-mediated Th2 immune polarization promotes metastasis in luminal breast cancer. *Cancer Res.* 2015 Aug 6. pii: canres.3590.2014. [Epub ahead of print]
5. Qin Y, **Gao W-Q** (2015). Concise Reviews: Patient-Derived Stem Cell Research for Monogenic Disorders. *Stem Cells.* 2015 Jul 31. doi: 10.1002/stem.2112. [Epub ahead of print].
5. Chang YL, Zhou PJ, Wei L, Li W, Ji Z, Fang YX, **Gao W-Q** (2015). MicroRNA-7 inhibits the stemness of prostate cancer stem-like cells and tumorigenesis by repressing KLF4/PI3K/Akt/p21 pathway. *Oncotarget.* 2015 Sep 15;6(27):24017-31.
6. Wang N, Yao M, Xu J, Quan Y, Zhang K, Yang R and **Gao WQ**. Autocrine activation of CHRM3 promotes prostate cancer growth and castration resistance via CaM/CaMKK-mediated phosphorylation of Akt. *Clinical Cancer Research.* 2015 Oct 15;21(20):4676-85.
7. Liu W, Wu H, Chen L, Wen Y, Kong X, **Gao WQ**. Park7 interacts with p47(phox) to direct NADPH oxidase-dependent ROS production and protect against sepsis. *Cell Res.* 2015 Jun;25(6):691-706. (IF=12.41).
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9. Qin Y, Qin J, Zhou C, Li J, **Gao WQ**. Generation of embryonic stem cells from mouse adipose-tissue derived cells via somatic cell nuclear transfer. *Cell Cycle.* 2015;14(8):1282-90.
10. Li X, Liu Y, Chen W, Fang Y, Xu H, Zhu H, Chu M, Li W, Zhuang G, **Gao WQ**. TOP2Ahigh is the phenotype of recurrence and metastasis whereas TOP2Aneg cells represent cancer stem cells in prostate cancer. *Oncotarget.* 2014, 5(19):9498-513. IF=6.627.
11. Zhou Z, Ji Z, Wang Y, Li J, Cao H, Zhu HH, **Gao WQ**. TRIM59 Is Up-Regulated in Gastric Tumors, Promoting Ubiquitination and Degradation of P53. *Gastroenterology.* 2014 Jul 18. pii: S0016-5085(14)00917-2. IF= 16.716.
12. Wang J, Zhu HH, Chu M, Liu Y, Zhang C, Liu G, Yang X, Yang R, **Gao WQ**. Symmetrical and asymmetrical division analysis provides evidence for a hierarchy of prostate epithelial cell lineages. *Nat Commun.* 2014 Aug 28;5:4758. doi: 10.1038/ncomms5758.
13. Li J, Tang YH, Wang YT, Tang RB, Jiang WF, Yang GY and **Gao WQ**. Neurovascular recovery via co-transplanted neural and vascular progenitors leads to improved functional restoration after ischemic stroke in rat. *Stem Cell Reports.* 2014 Jun 19;3(1):101-14.
14. Li J, Xuan JW, Khatamianfar V, Valiyewa F, Moussa M, Sadek A, Yang BB, Dong BJ, Huang YR, **Gao WQ**. SKA1 overexpression promotes centriole over duplication, centrosome amplification and prostate tumorigenesis. *J Pathol.* 2014 Oct;234(2):178-89.
15. Fang, Y and **Gao W-Q**. Roles of miRNAs during prostate tumorigenesis and tumor progression. *Oncogene*, 2013 Mar 4. doi: 10.1038/onc.2013.54.
16. Sun Y, Wang BE, Leong KG, Yue P, Li L, Jhunjhunwala S, Chen D, Seo K, Modrusan Z, **Gao WQ***, Settleman J*, Johnson L*. Androgen deprivation causes epithelial-mesenchymal transition in the prostate: implications for androgen-deprivation therapy. *Cancer Res.* 2012 Jan 15;72(2):527-36.
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26. Zheng JL, Helbig C, **Gao WQ**. Induction of cell proliferation by fibroblast and insulin-like growth factors in pure rat inner ear epithelial cell cultures. *J Neurosci.* 1997 Jan 1;17(1):216-26.
27. Zheng JL, **Gao WQ**. Analysis of rat vestibular hair cell development and regeneration using calretinin as an early marker. *J Neurosci.* 1997 Nov 1;17(21):8270-82.
28. Zheng JL, Stewart RR, **Gao WQ**. Neurotrophin-4/5 enhances survival of cultured spiral ganglion neurons and protects them from cisplatin neurotoxicity. *J Neurosci.* 1995 Jul;15(7 Pt 2):5079-87.
29. **Gao WQ**, Dybdal N, Shinsky N, Murnane A, Schmelzer C, Siegel M, Keller G, Hefti F, Phillips HS, Winslow JW. Neurotrophin-3 reverses experimental cisplatin-induced peripheral sensory neuropathy. *Ann Neurol.* 1995 Jul;38(1):30-7.
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