

Xiaohua Yan, PhD

Professor



1999-2003, BSc of Biology, Sichuan University

2003-2006, MSc of Microbiology, Institute of Microbiology, Chinese Academy
of Sciences

2006-2010, PhD of Cell Biology, Tsinghua University

2010-2012, Post-doctor, Tsinghua University

2012-2016, Assistant Investigator and Associate Investigator, Tsinghua
University

2016 to now, Professor, School of Basic Medical Sciences, Nanchang
University

2017 to now, Principal Investigator, Institute of Biomedical Sciences,
Nanchang University

Research interest

The lab aims to understand the regulation and crosstalk mechanisms of the TGF- β and Hippo signaling pathways, and their functions in cancer and metabolic diseases. Multidisciplinary approaches are used in the lab, including molecular biology, biochemistry, cell biology, bioinformatics as well as mice models.

Selected publications (# first author; * corresponding author)

- [1] Luo W#, Li Y#, Zeng Y#, Li Y, Cheng M, Zhang C, Li F, Wu Y, Huang C, Yang X, Kremerskothen J, Zhang J, Zhang C, Tu S, Li Z, Luo Z, Lin Z*, **Yan X***. Tea domain transcription factor 4 (TEAD4) mitigates TGF- β signaling and hepatocellular carcinoma progression independently of YAP. *J Mol Cell Biol*. 2023 Feb 20: mjad010.
- [2] Zou T#, Wang Y#, Dong L, Che T, Zhao H, **Yan X***, and Lin Z*. Stabilization of SETD3 by Deubiquitinase USP27 Enhances Cell Proliferation and Hepatocellular Carcinoma Progression. *Cell Mol Life Sci*. 2022. 12;79(1):70.
- [3] **Yan X***, Zhang L*, Miyazawa K*, and Dijke TP*. Editorial: TGF-beta and BMP Signaling in Cancer. *Front Cell Dev Biol*. 2022, 10:1012326.
- [4] Zou T, Zeng C, Qu J, **Yan X***, and Lin Z*. Rutaecarpine Increases Anticancer Drug Sensitivity in Drug-Resistant Cells through MARCH8-Dependent ABCB1 Degradation. *Biomedicines*. 2021, 9(9):1143.
- [5] Zhang K#, Zhang M#, Luo Z, Wen Z*, **Yan X***. The Dichotomous Role of TGF- β in Controlling Liver Cancer Cell Survival and Proliferation. *J Genet Genom*. 2020. 47(9):497-512.
- [6] Liu L#, Wu Y#, Zhang C, Zhou C, Li Y, Zeng Y, Zhang C, Li R, Luo D, Wang L, Zhang L, Tu S, Deng H, Luo S, Chen YG, Xiong X*, **Yan X***. Cancer-associated adipocyte-derived G-CSF promotes breast cancer malignancy via Stat3 signaling. *J Mol Cell Biol* 2020. 12(9):723–737.
- [7] Dong L#, Yu L#, Li H, Shi L, Luo Z, Zhao H, Liu Z, Yin G, **Yan X***, Lin Z*. An NAD⁺-dependent deacetylase SIRT7 promotes HCC development through deacetylation of USP39. *iScience* 2020, 23(8):101351.
- [8] Li Y#, Tu S#, Zeng Y, Zhang C, Deng T, Luo W, Lian L, Chen L, Xiong X, **Yan X***. KLF2 inhibits TGF-beta-mediated cancer cell motility in hepatocellular carcinoma. *Acta Biochim Biophys Sin* 2020, 52(5):485-494.

- [9] **Yan X#***, Wu J#, Jiang Q, Cheng H, Han JJ, Chen YG*. CXXC5 suppresses hepatocellular carcinoma by promoting TGF-beta-induced cell cycle arrest and apoptosis. *J Mol Cell Biol* 2018, 10:48-59.
- [10] Zhang Z#, Fan Y#, Xie F#, Zhou H, Jin K, Shao L, Shi W, Fang P, Yang B, van Dam H, Ten Dijke P, Zheng X, **Yan X**, Jia J, Zheng M, Jin J, Ding C, Ye S, Zhou F, Zhang L*. Breast cancer metastasis suppressor OTUD1 deubiquitinates SMAD7. *Nat Commun*. 2017, 8(1):2116.
- [11] **Yan X***, Liao H, Cheng M, Shi X, Lin X, Feng XH, Chen YG*: Smad7 Protein Interacts with Receptor-regulated Smads (R-Smads) to Inhibit Transforming Growth Factor-beta (TGF-beta)/Smad Signaling. *J Biol Chem* 2016, 291:382-392.
- [12] He K, **Yan X**, Li N, Dang S, Xu L, Zhao B, Li Z, Lv Z, Fang X*, Zhang Y*, Chen YG*: Internalization of the TGF-beta type I receptor into caveolin-1 and EEA1 double-positive early endosomes. *Cell Res* 2015, 25:738-752.
- [13] Dong Y#, Geng Y#, Li L#, Li X, **Yan X**, Fang Y, Li X, Dong S, Liu X, Li X, Yang X, Zheng X, Xie T, Liang J, Dai H, Liu X, Yin Z, Noble PW, Jiang D*, Ning W*, 2015. Blocking follistatin-like 1 attenuates bleomycin-induced pulmonary fibrosis in mice. *J Exp Med* 212, 235-252.
- [14] **Yan X#***, Pan J#, Xiong W, Cheng M, Sun Y, Zhang S, Chen YG. Yin Yang 1 (YY1) synergizes with Smad7 to inhibit TGF-beta signaling in the nucleus. *Sci China Life Sci* 2014, 57:128-136.
- [15] **Yan X#***, Zhang J#, Sun Q, Tuazon PT, Wu X, Traugh JA, Chen YG*. p21-activated Kinase 2 (PAK2) Inhibits TGF-beta Signaling in Madin-Darby Canine Kidney (MDCK) Epithelial Cells by Interfering with the Receptor-Smad Interaction. *J Biol Chem* 2012, 287:13705-13712.
- [16] **Yan X**, Zhang J, Pan L, Wang P, Xue H, Zhang L, Gao X, Zhao X, Ning Y, Chen YG*. TSC-22 promotes transforming growth factor beta-mediated cardiac myofibroblast differentiation by antagonizing Smad7 activity. *Mol Cell Biol* 2011, 31:3700-3709.

- [17] **Yan X#**, Lin Z#, Chen F, Zhao X, Chen H, Ning Y, Chen YG*. Human BAMBI cooperates with Smad7 to inhibit transforming growth factor-beta signaling. *J Biol Chem* 2009, 284:30097-30104.

Contact information

E-mail: yanxiaohua@ncu.edu.cn

Wechat: xiaohuayan2015