TGF-β signaling dynamics in epithelial-mesenchymal plasticity of cancer cells

Fan, C.

List of Publications

1. **Fan C**, Wang Q, Kuipers TB, Cats D, Iyengar PV, Hagenaars SC, Mesker WE, Devilee P, Tollenaar RAEM, Mei H, ten Dijke P. LncRNA *LITATS1* suppresses TGF-β-induced EMT and cancer cell plasticity by potentiating TβRI degradation. ***The EMBO Journal***. 2023 May 15;42(10):e112806.

2. **Fan C**, González-Prieto R, Kuipers TB, Vertegaal ACO, van Veelen PA, Mei H, ten Dijke P. The lncRNA *LETS1* promotes TGF-β-induced EMT and cancer cell migration by transcriptionally activating a TβR1-stabilizing mechanism. ***Science Signaling***, 2023 Jun 20;16(790):eadf1947.

3. **Fan C**, Wang Q, van der Zon G, Ren J, Agaser C, Slieker RC, Iyengar PV, Mei H, ten Dijke P. OVOL1 inhibits breast cancer cell invasion by enhancing the degradation of TGF-β type I receptor. ***Signal Transduction and Targeted Therapy***. 2022 Apr 29;7(1):126.

4. Liu B, Wu T, Lin B, Liu X, Liu Y, Song G#, **Fan C#**, Ouyang G#. Periostin-TGF-β feedforward loop contributes to tumour-stroma crosstalk in liver metastatic outgrowth of colorectal cancer. ***British Journal of Cancer***. 2024 Feb ;130(3):358-368. (#corresponding authors)

5. **Fan C***, Zhang J*, Hua W, ten Dijke P. Biphasic role of TGF-β in cancer progression: from tumor suppressor to tumor promoter. ***Encyclopedia of Cancer (3rd Edition), Elsevier.*** 2017. (*co-first authors)

6. **Fan C***, Lin Y*, Mao Y*, Huang Z*, Liu AY, Ma H, Yu D, Maitikabili A, Xiao H, Zhang C, Liu F, Luo Q, Ouyang G. MicroRNA-543 suppresses colorectal cancer growth and metastasis by targeting KRAS, MTA1 and HMGA2. ***Oncotarget***. 2016 Apr 19;7(16):21825-39. (*co-first authors)

7. **Fan C***, Lin B*, Huang Z*, Cui D*, Zhu M, Ma Z, Zhang Y, Liu F, Liu Y. MicroRNA-873 inhibits colorectal cancer metastasis by targeting ELK1 and STRN4. ***Oncotarget***. 2018 Jan 2;10(41):4192-4204. (*co-first authors)

8. Lin Y*, Liu AY*, **Fan C***, Zheng H, Li Y, Zhang C, Wu S, Yu D, Huang Z, Liu F, Luo Q, Yang CJ, Ouyang G. MicroRNA-33b Inhibits Breast Cancer Metastasis by Targeting HMGA2, SALL4 and Twist1. ***Scientific Reports***. 2015 Apr 28;5:9995. (*co-first authors)

9. Zhang Y, Xu G, Liu G, Ye Y, Zhang C, **Fan C**, Wang H, Cai H, Xiao R, Huang Z, Luo Q. miR-411-5p inhibits proliferation and metastasis of breast cancer cell via targeting GRB2. ***Biochemical and Biophysical Research Communications***. 2016 Aug 5;476(4):607-613.

10. Sinha A, Mehta P, **Fan C**, Zhang J, Marvin DL, van Dinther M, Ritsma L, Boukany PE, ten Dijke P. Visualizing Dynamic Changes During TGF-β-Induced Epithelial to Mesenchymal Transition. ***Methods in Molecular Biology***. 2022;2488:47-65.

Curriculum Vitae

Chuannan Fan was born on January 30th 1992 in Gaomi, Shandong province, China. In 2010 he obtained his bachelor degree. From September 2010, he started his bachelor study in biotechnology at the College of Life Sciences in Northwest A&F University, China. He obtained his bachelor degree in June 2014. From September 2014, Chuannan started his master study in cell biology at the College of Life Sciences in Xiamen University, China. During his master internship, under the supervision of Prof. Dr. Gaoliang Ouyang, he investigated functions and mechanisms of microRNAs and extracellular matrix proteins in cancer metastasis. He obtained his master degree in June 2017. From September 2017, Chuannan started his PhD study funded by a CSC scholarship at the Department of Cell and Chemical Biology department, Leiden University Medical Center, the Netherlands. During his PhD, he studied TGF-β signaling in cancer cells under the supervision of Prof. Dr. Peter ten Dijke. He focused on obtaining new insights of the underlying mechanisms that modulate TGF-β-induced epithelial to mesenchymal transition in cancer cells.

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