

Department of Biomedical Sciences

presents a seminar



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# “Cancer metastasis: from a tumor microenvironmental perspective”

**Dr. Shengtao Zhou**  
Sichuan University

**Date : 24 August 2017**

**Time: 4:15pm to 5:30pm**

**Venue: Meeting Room G04, G/F, Block 1, To Yuen Building**

## Abstract

Cancer metastasis constitutes the most lethal cause of cancer-related deaths. Zhou's team uses ovarian cancer as a model to investigate the molecular mechanisms of cancer metastasis. He discovered that metastatic ovarian cancer cells overexpress a master regulator STAT4 compared with non-metastatic cancer cells. STAT4 overexpression induces Wnt7a in cancer cells, which activates fibroblasts in the tumor microenvironment to transform into cancer-associated fibroblasts (CAFs). In turn, CAFs-secreted cytokines could potentiate the metastatic potential of cancer cells. Moreover, CAFs-secreted CXCL14 is a potent oncogenic factor in ovarian cancer and is correlated with clinical prognosis of ovarian cancer patients. It could lead to upregulation of LINC00092 in ovarian cancer cells, which enhances the metastatic capacities of ovarian cancer. This lncRNA functions through binding with PFKFB2 to increase glycolysis of ovarian cancer. These studies provide a molecular insight into the interactions between tumor microenvironment and cancer cell during the process of metastasis and lay the foundations for novel therapeutic options for cancer patients.

## About the Speaker

周圣涛，男，博士，四川大学华西第二医院妇产科副教授，第八届“中国青少年科技创新奖”获得者。长期从事妇产科一线临床、教学、科研工作，研究方向为妇科恶性肿瘤发生发展分子机制，现担任中国老年学和老年医学学会妇科分会青年委员会副主任委员，中国优生科学协会生殖道疾病诊治分会青年委员，中国抗癌协会肿瘤标志物专业委员会青年委员。近年来在Cancer Res、Oncogene、Mass Spectrom Rev、Mol Cell Proteomics等期刊发表SCI学术论文共计32篇，现担任Mass Spectrom Rev、Oncogene、Cancer Lett、Plos ONE等SCI杂志编委，Nat Med、BMJ、Cancer Discovery、Nat Commun、Hum Reprod Update、Cancer Res、Oncogene、Stem Cells等杂志特约审稿人，人类蛋白组计划组织评奖委员会常务委员（Member of Awards Committee of Human Proteome Organization, HUPO），人类蛋白组计划组织肿瘤蛋白质组学计划执行委员会常务委员（Member of Steering Committee of Human Cancer Proteome Project, HUPO），美国质谱学协会会员（Member of ASMS），美国生化与分子生物学协会会员（Member of ASBMB），美国肿瘤研究协会会员（Member of AACR）。作为项目负责人负责国家科技部“干细胞及转化研究”重点专项、国家自然科学基金，四川省科技厅项目等科技项目。参编《New Advances on Disease Biomarkers and Molecular Targets in Biomedicine》一书。

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**All are welcome!**