**Cai, Shang 蔡尚**

**Curriculum Vitae**

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***Research Interests***

1. Mammary Stem Cells self-renewal and fate determination
2. Relation between Mammary Stem Cell Aging, Breast Tumorigenesis and Chronic Inflammation
3. Breast Tumor Heterogeneity and Self-renewal mechanism of Cancer Stem Cell.
4. Screening for novel targets for triple negative breast tumor.

***Education***

2015-2016 Research associate in Institute of Stem Cell and Regenerative Medicine,

Stanford University

2010-2014 Postdoc in Institute of Stem Cell and Regenerative Medicine, Stanford

University

2004-2009 PhD in Biochemistry; Biochemistry Program, Indiana University

2007 Woods Hole Physiology Course: Modern Cell Biology Using Microscopic, Biochemical and Computational Approaches, June 9th- July 29th, Marine Biology Laboratory

2003-2004 Research Assistant; College of Life Sciences, Peking University, P. R. China

1999-2003Bachelor of Science in Biological Sciences; College of Life Sciences, Peking University, P. R. China

***Publications***

Research Articles:

1. Chen Zhao\*, Shang Cai\*, Kunyoo Shin, Agnes Lim, Tomer Kalisky, Philip A. Beachy Stromal gli2 activity coordinates a niche signaling program for mammary epithelial stem cells. ***Science*** *(2017*) \*cofirst author
2. Shang Cai, Tomer Kalisky, Debashis Sahoo, Piero Dalerba, Shaheen S. Sikandar, Neethan A. Lobo, Maider Zabala, Weiguo Feng, Yuan Lin, Angela Kong, Jeffrey Yu, Flora Wang, Elizabeth Y. Chen, Ferenc A. Scheeren, Angera H. Kuo, Shigeo Hisamori, Linda Jacqueline van Weele, Diane Heiser, Sopheak Sim, Jessica Lam, Dalong Qian, Stephen Quake and Michael F. Clarke A quiescent Bcl11b high stem cell population is required for maintenance of the mammary gland. ([Volume 20, Issue 2](http://www.cell.com/cell-stem-cell/issue?pii=S1934-5909(16)X0003-3), p247–260.e5, ***Cell Stem Cell 2016***)
3. Scheeren FA, Kuo AH, van Weele LJ, Cai S, Glykofridis I, Sikandar SS, Zabala M, Qian D, Lam JS, Johnston D, Volkmer JP, Sahoo D, van de Rijn M, Dirbas FM, Somlo G, Kalisky T, Rothenberg ME, Quake SR, Clarke MF A cell-intrinsic role for TLR2-MYD88 in intestinal and breast epithelia and oncogenesis. ***Nat. Cell Biol.*** (2014) 16, 1238-48
4. Isobe T, Hisamori S, Hogan DJ, Zabala M, Hendrickson DG, Dalerba P, Cai S, Scheeren F, Kuo AH, Sikandar SS, Lam JS, Qian D, Dirbas FM, Somlo G, Lao K, Brown PO, Clarke MF, Shimono Y miR-142 regulates the tumorigenicity of human breast cancer stem cells through the canonical WNT signaling pathway ***Elife*** (2014) 3
5. Feng W, Gentles A, Nair RV, Huang M, Lin Y, Lee CY, Cai S, Scheeren FA, Kuo AH, Diehn M Targeting Unique Metabolic Properties of Breast Tumor Initiating Cells. ***Stem Cells*** (2014)
6. Stephanie C. Ems-McClung, Sarah G. Hainline, Jenna Devare, Hailing Zong, Shang Cai, Stephanie K. Lamb, Sid L. Shaw, Claire E. Walczak. Aurora B inhibits MCAK activity through a phospho-conformational switch that regulates MT association. ***Curr. Biol.*** (2013) 23, 2491-9
7. Cai S, Weaver LN, Ems-McClung SC, Walczak CE. Proper Organization of Microtubule Minus Ends is Needed for the Midzone Stability and Cytokinesis. ***Curr Biol.*** *2010 May 11;20(9):880-5.*
8. Cai, S., O’Connell, C. B., Khodjakov, A. and Walczak, C.E. Chromosome Congression in the Absence of Kinetochore Fibres. ***Nat. Cell Biol*** *2009 Jul; 11(7):832-8.*
9. Walczak CE, Cai S, Khodjakov A. Mechanisms of Chromosome Behaviour during Mitosis. ***Nat Rev Mol Cell Biol.*** *2010 Feb;11(2):91-102.*
10. Cai. S., Weaver, L.N., Ems-McClung, S.C. and Walczak, C.E. Kinesin-14 Family Proteins HSET/XCTK2 Control Spindle Length by Cross-Linking and Sliding Microtubules. ***Mol. Biol. Cell***. *2009 Mar;20(5):1348-59. PMID*: 19116309.
11. Cai S, Walczak CE. The Road Less Travelled to the Spindle Equator. ***Cell Cycle.*** *2009 Dec;8(23):3791-3.*
12. Cai, S., and Walczak, C.E. (2008) Kinetochore Attachment: How the Hec can a cell do it? ***Curr. Biol.*** *18(23):1093-1096.*
13. Ma, Y., Cai, S., Lv, Q., Lv, X., Jiang, Q., Zhou, J. and Zhang, C. Inhibition of protein deacetylation by trichostatin A impairs microtubule-kinetochore attachment. ***Cell Mol. Life Sci.*** 2008; 65(19): 3100-3109.
14. Ma, Y., Cai, S., Lv, Q., Jiang, Q., Zhang, Q, Sodmergen, Zhai, Z. and Zhang, C. Lamin B receptor plays a role in stimulating nuclear envelope production and targeting membrane vesicles to chromatin during nuclear envelope assembly through direct interaction with importin β. ***J. Cell Sci.*** 2007; 120(3):520-530.
15. Chen, Z., Cai, S., Jiang, Q., Zhang, C. & Tang, X. Roles for microtubule and microfilament cytoskeletons in animal cell cytokinesis. ***Chinese Science Bulletin***, 2005; 50(3):229-235.

***Awards and Scholarships***

2010- 2013 CIRM (California Institute of Regenerative Medicine) Postdoc Fellowship

2007 Benjamin Kaminer scholarship, Arthur Klorfein scholarship, and Mountain Memorial Funding for MBL Physiology Course

1999-2000 “Wusi” scholarship

***Meetings and Conferences***

* 1. Annual Meetings of the American Society for Cell Biology (ASCB)

Poster presentations

2008 Spring Meeting of the Indiana Microscopy Society

Presentation in workshop of general fluorescence microscopy

***References***

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