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MAJOR RESEARCH INTERESTS

Research in my laboratory concentrates on the molecular mechanisms of neural stem cells self-renew and differentiation in *Drosophila* larval brains. Using *Drosophila* neural stem cells, larval neuroblasts, as a novel model, we are interested in understanding the mechanisms of brain tumour formation. Current projects include

1. Neural stem cells self-renewal and differentiation in fly and mammals
2. Asymmetric division of neural stem cells
3. Tumour suppressors in *Drosophila* larval brains

RECENT PUBLICATIONS

1. Chia W, Somers WG, **Wang H**. *Drosophila* neuroblast asymmetric divisions: Cell cycle regulators, asymmetric protein localization, and tumorigenesis. **The Journal of Cell Biology** 180, 267-72 (2008). (Invited review)
2. **Wang H**, Ouyang Y, Somers GW, Chia W and Lu B. Polo inhibits neural progenitor self-renewal and regulates Numb asymmetry by phosphorylating Pon. **Nature** 449, 96-100 (2007)
3. **Wang H***, Somers GW, Bashirullah A, Heberlein U, Yu F and Chia W*. Aurora-A acts as a tumor suppressor and regulates self-renewal of *Drosophila* neuroblasts. **Genes and Development**, 20:3453-63 (2006). (cover story; press released by Cold Spring Harbor Laboratory Press) (*Corresponding author)
4. **Wang H**, Ng KH, Qian H, Siderovski DP, Chia W and Yu F. RIC-8 controls *Drosophila* neural progenitor asymmetric division by regulating heterotrimeric G proteins. **Nature Cell Biology** 7:1091-1098 (2005). [Featured by "News and Views" in *Nature Cell Biology* 7: 1047-1049 (2005); "Research Highlight" in *Nature Reviews Molecular Cell Biology* 6, 905-905, 2005]
5. Yu F, **Wang H**, Qian HL, Kaushik R, Bownes M, Yang X, Chia W. Locomotion defects, together with Pins, regulates heterotrimeric G-protein signaling during *Drosophila* neuroblast asymmetric divisions. **Genes and Development** 19:1341-1353 (2005).
6. **Wang H** and Chia W. *Drosophila* neural progenitor polarity and asymmetric division. **Biology of the Cell** 97: 63-74 (2005). (Invited review)
7. Mishra M, Karagiannis J, Trautmann S, **Wang H**, McCollum D, Balasubramanian MK. The Clp1p/Flp1p phosphatase ensures completion of cytokinesis in response to minor perturbation of the cell division machinery in *Schizosaccharomyces pombe*. **Journal of Cell Science** 117:3897-3910 (2004).
8. **Wang H**, Oliferenko S, Balasubramanian MK. Cytokinesis: relative alignment of the cell division apparatus and the mitotic spindle. **Current Opinion in Cell Biology** 15:82-87 (2003). (Invited review)
9. **Wang H**, Xie Tang, and Balasubramanian MK. Rho3p regulates cell separation by modulating exocyst function in *Schizosaccharomyces pombe*. **Genetics** 164:1323-1331 (2003).
10. Liu J, Tang X, **Wang H**, Oliferenko S, Balasubramanian MK. The Localization of the Integral Membrane Protein Cps1p to the Cell Division Site is Dependent on the Actomyosin Ring and the Septation-Inducing Network in *Schizosaccharomyces pombe*. **Molecular Biology of the Cell** 13:989-1000 (2002).
11. **Wang H**, Tang X, Liu J, Trautmann S, Balasundaram D, McCollum D, Balasubramanian MK. The multiprotein exocyst complex is essential for cell separation in *Schizosaccharomyces pombe*. **Molecular Biology of the Cell** 13:515-529 (2002).