

Publications

Research articles as graduate student and postdoctoral fellow:

1. **Pan, D.**, J.D. Huang, and A.J. Courey. (1991) Functional analysis of the *Drosophila twist* promoter reveals a *dorsal*-binding ventral activator region. *Genes Dev.* 5: 1892-1901.
2. **Pan, D.** and A.J. Courey. (1992) The same *dorsal* binding site mediates both activation and repression in a context-dependent manner. *EMBO J.* 11: 1837-1842.
3. **Pan, D.**, S.A. Valentine, and A.J. Courey. (1994) The bipartite *D. melanogaster twist* promoter is reorganized in *D. virilis*. *Mech. Dev.* 46: 41-53.
4. **Pan, D.** and G.M. Rubin. (1995) cAMP-dependent protein kinase and *hedgehog* act antagonistically in regulating *decapentaplegic* transcription in *Drosophila* imaginal discs. *Cell* 80: 543-552.
5. Rooke, J., **D. Pan**, T. Xu, and G.M. Rubin. (1996) KUZ, a conserved metalloprotease-disintegrin protein with two roles in *Drosophila* neurogenesis. *Science* 273: 1227-1231.
6. Fambrough, D., **D. Pan**, G.M. Rubin, and C.S. Goodman. (1996) The cell surface metalloprotease/disintegrin Kuzbanian is required for axonal extension in *Drosophila*. *Proc. Natl. Acad. Sci. USA* 93: 13233-13238.
7. **Pan, D.** and G.M. Rubin. (1997) Kuzbanian controls proteolytic processing of Notch and mediates lateral inhibition during *Drosophila* and vertebrate neurogenesis. *Cell* 90: 271-280.
8. **Pan, D.** and G.M. Rubin. (1998) Targeted expression of *teashirt* induces ectopic eyes in *Drosophila*. *Proc. Natl. Acad. Sci. USA* 95: 15508-15512.

Research articles as principal investigator:

9. Mumm, J., E.H. Schroeter, M.T. Saxena, X. Tian, A. Griesemer, **D. Pan**, W.J. Ray, and R. Kopan. (2000) Ligand induced "ectodomain shedding" regulates gamma-secretase-like proteolytic activation of Notch1. *Mol. Cell* 5, 197-206
10. Gao, X., T. P. Neufeld, and **D. Pan**. (2000) *Drosophila* PTEN regulates cell growth and proliferation through PI3K-dependent and -independent pathways. *Dev. Biol.* 221, 404-418
11. Gao, X. and **D. Pan**. (2001) TSC1 and TSC2 tumor suppressors antagonize insulin signaling in cell growth. *Genes Dev.* 15: 1383-1392.
12. Gao, X., Y. Zhang, P. Arrazola, O. Hino, T. Kobayashi, R. S. Yeung, B. Ru and **D. Pan**. (2002) Tsc tumor suppressor proteins antagonize amino-acid-TOR signaling. *Nature Cell Biol.* 4: 699-704.
13. Zhang, Y., Gao, X., Saucedo, L.J., Ru, B., Edgar, B.A., and **Pan, D.** (2003) Rheb is a direct target of the tuberous sclerosis tumor suppressor proteins. *Nature Cell Biol.* 5, 578-581.
14. Saucedo, L.J., Gao, X., Chiarelli, D.A., Li, L., **Pan, D.**, and Edgar, B.A. (2003) Rheb promotes cell growth as a component of the insulin/TOR signaling network. *Nature Cell Biol.* 5, 566-571.
15. Wu, S., Huang, J., Dong, J., **Pan, D.** (2003) *hippo* encodes a Ste-20 family protein kinase that restricts cell proliferation and promotes apoptosis in conjunction with *salvador* and *warts*. *Cell* 114, 445-456.
16. Dong, J. and **Pan, D.** (2004) Tsc2 is not a critical target of Akt during normal *Drosophila* development. *Genes Dev.* 18: 2479-2484.

17. Cygnar, K.D., Gao, X., **Pan, D.**, and Neufeld, T. (2005) The phosphatase subunit Tap42 functions independently of TOR to regulate cell division and survival in *Drosophila*. *Genetics* 170, 733-740.
18. Huang, J., Wu, S., Barrera, J., Matthews, K., and **Pan, D.** (2005) The Hippo signaling pathway coordinately regulates cell proliferation and apoptosis by inactivating Yorkie, the *Drosophila* homologue of YAP. *Cell* 122, 421-434.
19. Zhang, Y., Billington, C.J. Jr., **Pan, D.**, and Neufeld, T.P. (2006) *Drosophila* Target of Rapamycin Kinase Functions as a Multimer. *Genetics* 172, 355-362.
20. Dong, J., Feldman, G., Huang, J., Wu, S., Zhang, N., Comerford, S. A., Gayyed, M. F., Anders, R. A., Maitra, A., and **Pan, D.** (2007) Elucidation of a universal size-control mechanism in *Drosophila* and mammals. *Cell* 130, 1120-1133.
21. Lam-Himlin, D.M., Daniels, J.A., Gayyed, M.F., Dong, J., Maitra, A., **Pan, D.**, Montgomery, E.A., Anders, R.A. (2007) The hippo pathway in human upper gastrointestinal dysplasia and carcinoma: a novel oncogenic pathway. *Int J Gastrointest Cancer*, 37:103-9
22. Wu, S., Liu, Y., Zheng, Y., Dong, J., and **Pan, D.** (2008) The TEAD/TEF family protein Scalloped mediates transcriptional output of the Hippo growth-regulatory pathway. *Dev. Cell*, 14: 388-98.
23. Steinhardt, A.A , Gayyed, M.F., Klein, A.P., Dong, J., Maitra, A., **Pan, D.**, Montgomery, E.A., Anders, R.A. (2008) Expression of Yes-Associated Protein, YAP, in Common Solid Tumors. *Human Pathology*, 39: 1582-1589.

Invited reviews:

24. **Pan, D.** (2004) Antagonists of the TOR pathway in animal cells. In Nutrient-induced Responses in Eukaryotic cells, J.G. Winderickx and P.M. Taylor, eds. (Berlin Heidelberg: Springer-Verlag), pp. 65-78. (Book chapter).
25. **Pan, D.** (2004) Size matters. Arolla workshop on growth control in development and disease. *EMBO Report* 5, 136-139. (Meeting review).
26. **Pan, D.**, Dong J., Zhang, Y., Gao X. (2004) Tuberous sclerosis complex: from *Drosophila* to human disease. *Trends in Cell Biology* 14, 78-85.
27. Yin, F. and **Pan, D.** (2007) Fat flies expanded the hippo pathway: a matter of size control. *Science STKE* 2007, pe12.
28. **Pan, D.** (2007) Hippo signaling in organ size control. *Genes Dev.* 21: 886-897.

Invited online audio visual presentation:

29. **Pan, D.** (2008) Control of tissue growth – elucidation of the Hippo signaling pathway. In Legacy of *Drosophila* Genetics by Henry Stewart Talks (London, U.K.).