

**Current Appointments:**

Howard Hughes Medical Institute  
Department of Molecular Biology & Genetics (primary appointment)  
Department of Oncology (secondary appointment)  
Department of Pharmacology and Molecular Sciences (secondary appointment)  
Johns Hopkins University School of Medicine  
725 N. Wolfe Street / 714A PCTB  
Baltimore, MD 21205  
Telephone: 410-502-3179 (office) 443-850-3305 (personal)  
E-mail: djpan@jhmi.edu

**Research Statement:**

I have a long-standing interest in understanding the molecular mechanisms underlying growth control and tissue homeostasis. My laboratory tackles this question using a combination of *Drosophila* and mouse genetics, biochemistry, cell and chemical biology approaches. Our research has elucidated the molecular function of the Tsc1 and Tsc2 tumor suppressor genes, linking Tsc1/Tsc2 to Rheb and TOR signaling. This work provided the key molecular insight for the use of mTOR inhibitors in the treatment of Tuberous Sclerosis. Most significantly, my laboratory has discovered and characterized a novel signal transduction pathway, the Hippo pathway, which controls organ size in all animals. Using *Drosophila* as a model, we made a series of discoveries that allowed us to decode, in a stepwise manner, the key molecular events in the Hippo pathway. Our research further established a critical role for the Hippo pathway in controlling mammalian organ size, regeneration and tumorigenesis. Our current efforts are aimed at understanding the composition, mechanism and regulation of the Hippo pathway, elucidating its physiological roles in normal development and diseases, and discovery of chemical probes targeting the Hippo pathway.

**Education and Training:**

1984-1988 B.S. Honors Biochemistry, Peking University  
1988-1989 China-United States Biochemistry Examination and Application (CUSBEA) Program  
1989-1993 Ph.D. in Biological Chemistry, UCLA School of Medicine (advisor: Albert Courey)  
1993-1998 Postdoctoral Fellowship, UC Berkeley (advisor: Gerald Rubin)

**Professional Experience:**

1998-2004 Assistant Professor of Physiology, UT Southwestern Medical Center  
2004-2004 Associate Professor of Physiology, UT Southwestern Medical Center  
2004-2009 Associate Professor of Molecular Biology & Genetics, Johns Hopkins University School of Medicine  
2008- Investigator, Howard Hughes Medical Institute  
2009- Professor of Molecular Biology & Genetics, Johns Hopkins University School of Medicine

**Professional memberships:**

Genetics Society of America  
American Association for the Advancement of Science

**Awards and Recognition:**

1988-1989 China-United States Biochemistry Examination and Application (CUSBEA) Scholarship

1993-1996 Postdoctoral Fellowship of the Jane Coffin Childs Memorial Fund for Medical Research  
 1998-2004 Endowed Scholars in Medical Science, UT Southwestern  
 2001-2005 American Heart Association National Scientist Development Award  
 2003-2006 American Cancer Society Research Scholar  
 2006-2008 Leukemia & Lymphoma Society Scholar  
 2012 Fellow, American Association for the Advancement of Science  
 2013 Paul Marks Prize for Cancer Research

**Advisory and Editorial Board:**

2004- 2010 Tuberos Sclerosis Alliance, International Scientific Advisory Board  
 2006- “Faculty of 1000” member  
 2010- Advisory Committee, Johns Hopkins Polycystic Kidney Research Center  
 2010 Advisory Committee, Harvard Hamartoma Research Center  
 2012-2014 Elections committee, Fly Board  
 2012- *eLife*, Board of Reviewing Editors  
 2015- American Cancer Society Council for Extramural Grants  
 2016 co-organizer, Keystone symposium “Molecular and Cellular Basis of Growth and Regeneration”

**Patents:**

1. “New KUZ polypeptides, members of the ADAM family of metalloprotease - useful in neural partitioning and development”  
 Patent Numbers: WO9808933-A; EP963432-A; WO9808933-A1; AU9741649-A; US5935792-A; EP963432-A1; AU723836-B; JP2000517185-W; US6190876-B1; US6319704-B1; US6399350-B1; US2002127621-A1; CA2263883-C
2. “Modulating angiogenesis in a vertebrate animal involves specifically modulating the activity of *Drosophila* Kuzbanian in the animal”  
 Patent Numbers: WO200234289-A; WO200234289-A1; AU200220098-A; US6436629-B1; US2002132778-A1; EP1333856-A1; JP2004522702-W; US6872750-B2; AU2002220098-B2; US2005171024-A1
3. “A Tumor Suppressor Designated Hippo”  
 Patent Number 7556942

**Invited presentations (since 2010):**

**Keynote and named lectures**

Keynote speaker, Texas A&M Health Science Center IBT syposium, 2010  
 Keynote Speaker, the Sixth Biannual London Fly Meeting, 2013  
 Distinguished Lecture, Fox Chase Cancer Center, 2014  
 Distinguished Lecture, Genomics Institute of the Novartis Research Foundation, 2014  
 Keynote speaker, the 4<sup>th</sup> Chinese conference on Hippo signaling, 2014  
 Danny Thomas Lecture, St. Jude Children’s Research Hospital, 2015  
 Dean’s lecture, Johns Hopkins School of Medicine, 2015  
 Keynote speaker, Keystone Symposium on Hippo signaling, 2015

**Other lectures**

Shands Cancer Center, University of Florida, Gainesville, 2010  
 “Cell cycle and development” Symposium, Kyoto, Japan, 2010  
 Eppley Cancer Center, University of Nebraska Medical Center, Omaha, 2010  
 Plenary speaker, 51<sup>st</sup> Annual *Drosophila* Research Conference, 2010  
 Department of Pharmacology, Johns Hopkins School of Medicine, 2010  
 Skirball Institute for Biomolecular Medicine, New York University, 2010

Annual Neurofibromatosis Conference, 2010  
Spanish National Cancer Center (CNIO), Spain, 2010  
25<sup>th</sup> Aspen Cancer Conference, Aspen, Colorado, 2010  
National Institute of Biological Sciences, China, 2010  
Hippo Signaling Workshop, Rome, Italy, 2010  
Department of Cell Biology and Physiology, University of Pittsburgh, 2010  
Institute of Biological Chemistry, Academic Sinica, Taiwan, 2011  
School of Medicine, National Taiwan University, Taiwan, 2011  
National Health Research Institute, Taiwan, 2011  
Department of Pharmacology, University of California, San Diego, 2011  
Center for Stem Cell Biology and Regenerative Medicine, University of Maryland, 2011  
Annual Neurofibromatosis Conference, 2011  
CBI Society Symposium, China, 2011  
Department of Molecular, Cellular and Developmental Biology, Univ. of Michigan, 2011  
AACR Special Conference on Metabolism and Cancer, 2011  
RIKEN Center for Developmental Biology, Japan, 2011  
Institute of Genetic Medicine, Johns Hopkins University, 2012  
Cancer Center, Duke University Medical Center, 2012  
Division of Human Biology, Fred Hutchinson Cancer Research Center, 2012  
Department of Molecular Sciences, Northwestern University, 2012  
Annual Neurofibromatosis Conference, 2012  
Gordon Conference on Visual System Development, 2012  
Department of Medicine, University of Pennsylvania, 2012  
School of Life Sciences, Nankai University, China, 2012  
Lombardi Cancer Center, Georgetown University Medical Center, 2013  
MGH/Harvard Cutaneous Biology Research Center, 2013  
Department of Molecular Biology and Genetics, Cornell University, 2013  
British Societies for Cell Biology and Developmental Biology Joint Meeting, 2013  
Keystone Symposium on Hippo signaling, 2013  
Annual Neurofibromatosis Conference, 2013  
Genentech Research Seminar, San Francisco, 2013  
Third AACR International Conference on Frontiers in Basic Cancer Research, 2013  
Plenary Speaker, CBI Society Symposium, Mexico, 2013  
Memorial Sloan-Kettering Cancer Research Center, 2013  
Department of Biochemistry and Molecular Pharmacology, NYU School of Medicine, 2014  
MGH/Department of Molecular Biology, 2014  
Cancer Colloquium XII, St. Andrews University, Scotland, 2014  
The Wellcome Trust Sanger Institute, United Kingdom, 2014  
Rutgers / The Cancer Institute of New Jersey, 2014  
AACR annual meeting, 2014  
Annual Neurofibromatosis Conference, 2014  
Santa Cruz Developmental Biology Meeting, 2014  
Department of Biochemistry & Molecular Biology, Johns Hopkins School of Public Health, 2014  
Cell Biology at the Leading Edge, UT Southwestern Medical Center, 2015  
Department of Radiation Oncology, MD Anderson Cancer Center, 2015  
Department of Oncological Sciences, Mount Sinai School of Medicine, 2015  
Plenary speaker, Asian Pacific *Drosophila* Research Conference, 2015  
Lunenfeld-Tanenbaum Research Institute, University of Toronto, 2015  
Abcam Symposium of Cell Signaling in Development and Diseases, 2015  
Bayer Healthcare, Berlin, Germany, 2015  
Spanish National Cardiovascular Research Center, 2015

The American Society of Human Genetics Annual Meeting, 2015  
Research Oriented Elite Program, Peking University, China, 2015  
Department of Medicine, University of Pennsylvania, 2015  
Keystone symposium “Molecular and Cellular Basis of Growth and Regeneration”, 2016  
Department of Biochemistry, University of Washington, 2016  
RIKEN Center for Developmental Biology, Japan, 2016  
AACR Annual meeting, 2016  
Plenary speaker, The International Society for Stem Cell Research annual meeting, 2016  
Plenary speaker, 57th Annual *Drosophila* Research Conference, 2016  
Molecular & Developmental Biology, Cincinnati Children's Hospital Medical Center, 2016

### Primary research articles:

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.
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 **D. Pan**. (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., A. Anders, R.A. (2008) Expression of Yes-Associated Protein, YAP, in Common Solid Tumors. *Human Pathology* 39, 1582-1589.
24. Alarcón, C., Zaromytidou, A.I., Xi, Q., Gao, S., Yu, J., Fujisawa, S., Barlas, A., Miller, A.N., Manova-Todorova, K., Macias, M.J., Sapkota, G., **Pan, D.**, and Massagué, J. (2009) CDK8/9 drive Smad transcriptional action, turnover, and YAP interactions in BMP and TGF $\beta$  pathways. *Cell*, 139: 757-769.
25. Yu, J., Zheng, Y., Dong, J., Klusza, S., Deng, W-M., and **Pan, D.** (2010) Kibra functions as a tumor suppressor protein that regulates Hippo signaling in conjunction with Merlin and Expanded. *Dev. Cell*, 18: 288-99.
26. Tian W, Yu J, Tomchick D, **Pan D\***, Luo X\* (2010). Structural and functional analysis of the YAP-binding domain of human TEAD2. *Proc. Natl. Acad. Sci. USA*, 107: 7293-7298. \* co-corresponding author.
27. Ling, C., Zheng, Y., Yin, F., Yu, J., Huang, J., Hong, Y., Wu, S., and **Pan, D.** (2010) The apical transmembrane protein Crumbs functions as a tumor suppressor that regulates Hippo signaling by binding to Expanded. *Proc. Natl. Acad. Sci. USA*, 107: 10532-10537.
28. Zhang, N., Bai, H., David, K.K., Dong, J., Zheng Y., Cai, J., Giovannini, M., Liu, P., Anders, A.A., and **Pan, D.** (2010) The Merlin/NF2 tumor suppressor functions through the YAP oncoprotein to regulate tissue homeostasis in mammals. *Dev. Cell*, 19: 27-38.
29. Cai, J., Zhang, N., Zheng, Y., de Wilde, R.F., Maitra, A., and **Pan, D.** (2010) The Hippo signaling pathway restricts the oncogenic potential of an intestinal regeneration program. *Genes Dev.*, 24: 2383-2388.
30. Bai,H., Gayyed,M.F., Lam-Himlin,D.M., Klein,A.P., Nayar,S.K., Xu,Y., Khan,M., Argani,P., **Pan,D.**, and Anders,R.A. (2012) Expression of Yes-associated protein modulates Survivin expression in primary liver malignancies. *Hum. Pathol.* 43: 1376-1385.
31. Sebé-Pedrós, A., Zheng, Y., Ruiz-Trillo, I., and **Pan, D.** (2012) Premetazoan origin of the Hippo signaling pathway. *Cell Reports*, 1: 13-20.
32. Bai,H., Zhang,N., Xu,Y., Chen,Q., Khan,M., Potter,J.J., Nayar,S.K., Cornish,T., Alpini,G., Bronk,S., **Pan,D.**, and Anders,R.A. (2012) Yes-associated protein regulates the hepatic response after bile duct ligation. *Hepatology*, 56: 1097-1107.
33. Liu-Chittenden, Y., Huang, B., Shim J.S., Chen, Q., Lee, S-J, Anders, R.A., Liu, J.O. and **Pan, D.** (2012) Genetic and pharmacological disruption of the TEAD-YAP complex suppresses the oncogenic activity of YAP. *Genes Dev.*, 26: 1300-1305.
34. Del Re,D.P., Yang, Y., Nakano,N., Cho,J., Zhai,P., Yamamoto,T., Zhang,N., Yabuta,N., Nojima,H., **Pan,D.**, and Sadoshima,J. (2013) Yes-associated protein isoform 1 (Yap1) promotes cardiomyocyte survival and growth to protect against myocardial ischemic injury. *J. Biol. Chem.* 288: 3977-3988.

35. Bossuyt, W., Chen, C.L., Chen, Q., Sudol, M., McNeill, H., **Pan, D.**, Kopp, A., and Halder, G. (2013) An evolutionary shift in the regulation of the Hippo pathway between mice and flies. *Oncogene*. Epub ahead of print on 4/8/2013, doi: 10.1038/onc.2013.82
36. Koontz, L.M., Liu-Chittenden Y., Yin, F., Zheng, Z., Yu, J., Huang, B., Chen, Q., and **Pan, D.** (2013) The Hippo effector Yorkie controls normal tissue growth by antagonizing scalloped-mediated default repression. *Dev. Cell*, 25: 388-401.
37. Yu, F.X., Zhang, Y., Park, H.W., Jewell, J.L., Chen, Q., Deng, Y., **Pan, D.**, Taylor, S.S., Lai, Z.C., and Guan, K.L. (2013) Protein kinase A activates the Hippo pathway to modulate cell proliferation and differentiation. *Genes Dev.*, 27: 1223-1232.
38. Ni, L., Li, S., Yu, J., Min, J., Brautigam, C.A., Tomchick, D.R., **Pan, D.**, and Luo, X. (2013) Structural basis for autoactivation of human Mst2 kinase and its regulation by RASSF5. *Structure*, 21: 1757-1768.
39. Yin, F., Yu, J., Zheng, Y., Chen, Q., Zhang, N., and **Pan, D.** (2013) Spatial organization of Hippo signaling at the plasma membrane mediated by the tumor suppressor Merlin/NF2. *Cell*, 154: 1342-1355.
40. Shao, D., Zhai, P., Del Re, D., Sciarretta, S., Yabuta, N., Nojima, H., Lim, D-S., **Pan, D.**, and Sadoshima, J. (2014) A Functional Interaction between Hippo-YAP Signaling and FoxO1 Mediates the Oxidative Stress Response. *Nat. Commun.*, 5: 3315.
41. Gurda, G.T., Zhu, Q., Bai, H., Devadason, A., **Pan, D.**, Schwarz, K., and Anders, R.A. (2014) The utility of Yes-associated protein (YAP) expression in the diagnosis of persistent neonatal cholestatic liver disease. *Hum. Pathol.*, 45:1057-1064.
42. Chen, Q., Zhang, N., Gray, R.S., Li, H., Ewald, A.J., Zahnow, C.A., and **Pan, D.** (2014) A temporal requirement for Hippo signaling in mammary gland differentiation, growth, and tumorigenesis. *Genes Dev.*, 28: 432-437.
43. Qing, Y., Yin, F., Wang, W., Zheng, Y., Guo, P., Schozer, F., Deng, H., and **Pan, D.** (2014) The Hippo effector Yorkie activates transcription by interacting with a histone methyltransferase complex through NcoA6. *eLife*, Jul 15:e02564. doi: 10.7554/eLife.02564.
44. Alder, O., Cullum, R., Lee, S., Kan, A.C., Wei, W., Yi, Y., Garside, V.C., Bilenky, M., Griffith, M., Morrissy, A.S., Robertson, G.A., Thiessen, N., Zhao, Y., Chen, Q., **Pan, D.**, Jones, S.J., Marra, M.A., and Hoodless, P.A. (2014) Hippo signaling influences HNF4A and FOXA2 enhancer switching during hepatocyte differentiation. *Cell Reports*, 9: 261-271.
45. Deng, H., Wang, W., Yu, J., Zheng, Y., Qing, Y., and Pan, D. (2015) Spectrin regulates Hippo signaling by modulating cortical actomyosin activity. *eLife*, Mar 31:e06567. doi: 10.7554/eLife.06567. [Epub ahead of print]
46. Chen, Q., Zhang, N., Xie, R., Wang, W., Cai, J., Choi, K.S., David, K.K., Huang, B., Yabuta, N., Nojima, H., and **Pan, D.** (2015) Homeostatic control of Hippo signaling activity revealed by an endogenous activating mutation in YAP. *Genes Dev.*, 29: 1285-1297.
47. Moroishi, T., Park, H.W., Qin, B., Chen, Q., Meng, Z., Plouffe, S.W., Taniguchi, K., Yu, F.X., Karin, M., **Pan, D.**, and Guan, K.L. (2015) A YAP/TAZ-induced feedback mechanism regulates Hippo pathway homeostasis. *Genes Dev.*, 29: 1271-1284.
48. Ni, L., Zheng, Y., Hara, M., **Pan, D.** and Luo, X. (2015) Structural basis for Mob1-dependent activation of the core Mst-Lats kinase cascade in Hippo signaling. *Genes Dev.*, 29: 1416-1431.
49. Cai, J., Maitra, A., Anders, R.A., Taketo, M.M., and **Pan, D.** (2015) beta-Catenin destruction complex-independent regulation of Hippo-YAP signaling by APC in intestinal tumorigenesis. *Genes Dev.*, 29: 1493-1506.
50. Zheng, Y., Wang, W., Liu, B., Deng, H., Uster, E., and **Pan, D.** (2015) Identification of Happyhour/MAP4K as alternative Hpo/Mst-like kinases in the Hippo kinase cascade. *Dev. Cell*, 34: 642-655.

#### Review articles and book chapters:

1. **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.
2. **Pan, D.** (2004) Size matters. Arolla workshop on growth control in development and disease. *EMBO Report* 5, 136-139.
3. **Pan, D.**, Dong J., Zhang, Y., Gao X. (2004) Tuberous sclerosis complex: from *Drosophila* to human disease. *Trends in Cell Biology* 14, 78-85.
4. Yin, F. and **Pan, D.** (2007) Fat flies expanded the hippo pathway: a matter of size control. *Science STKE* 2007, pe12.
5. **Pan, D.** (2007) Hippo signaling in organ size control. *Genes Dev.* 21: 886-897.
6. **Pan, D.** (2008) Control of tissue growth – elucidation of the Hippo signaling pathway. In *Legacy of Drosophila Genetics*, E. Bier, ed., Henry Stewart Talks (London, U.K.).
7. **Pan, D.** (2010) Animal model of TSC, insights from *Drosophila*. In *Tuberous Sclerosis Complex: from genes to therapeutics*. D. Kwiatkowski, E.A. Thiele, and V.H. Whittemore, eds. (Weinheim: Wiley-VCH).
8. **Pan, D.** (2010) The Hippo signaling pathway in development and cancer. *Dev. Cell*, 19: 491-505.
9. **Pan, D.** (2015) YAPing Hippo forecasts a new target for lung cancer prevention and treatment. *J. Clin. Oncol.*, 33:2311-3.

#### Current Funding:

R01 EY015708, Pan (PI) NIH/National Eye Institute “Control of Cell Number in Developing Retina”	09/01/2014 – 08/31/2019
R01 DK098424, Pan (PI) NIH/NIDDK “Chemical probes targeting nuclear effector complex of the Hippo signaling pathway”	02/01/2014-01/31/2017
NF130090, Pan (PI) Department of Defense “Developing Molecular Targeted Therapies against NF2”	05/01/2014 - 04/30/2017
PR130920, Pan (PI) Department of Defense “Hippo Signaling in Polycystic Kidney Disease”	09/15/2014 - 09/14/2017
HHMI Investigator, Pan (PI) Howard Hughes Medical Institute “Control of organ size and tumorigenesis by the Hippo signaling pathway”	07/01/2008 – 08/31/2018