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(a) Professional Preparation

Undergraduate:	Nankai University, China	Physics	B.S., 1999
Graduate:	Nankai University, China	Biophysics	M.S., 2002
	The Ohio State University	Biophysics	Ph.D., 2008
Postdoctoral:	Harvard Medical School	Biophysics, Cell Biology	2008-2013

(b) Appointments

2013-present	Assistant Professor of Physics, Oregon State University, Corvallis, OR
2013-present	Adjunct Professor of Biochemistry and Biophysics, Oregon State University
2008-2013	Postdoctoral Fellow, Harvard Medical School, Boston
2010-2012	AHA Postdoctoral Fellowship, Harvard Medical School, Boston
2006-2008	AHA Predoctoral Fellowship, The Ohio State University, Columbus, OH
2002-2008	Graduate Research Assistant, The Ohio State University, Columbus, OH

(c) Publications

(i). Publications most related to the proposal (reverse chronologically)

* denotes equal contributions; † denotes co-corresponding authorships

1. Tseng, K.-F., Lee, Y.-R.J., Paradiz, M., Gu, Z., Liu, B.†, and **Qiu, W. H.**† (2017). The plant kinesin FRA1 is differentially regulated by its versatile nonmotor domains. *In revision*.
2. Popchock, A. R.*, Tseng, K.-F.*, Wang, P., Karplus, P. A., Xiang, X., and **Qiu, W.H.**† (2017) The mitotic kinesin-14 KlpA contains a context-dependent directionality switch. *Nat. Commun.* 8, 13999 doi: 10.1038/ncomms13999.
3. Lee, Y.-R., **Qiu, W.H.**, and Liu, B. (2015). Kinesin motors in plants: from subcellular dynamics to motility regulation. *Curr. Opin. Plant Biol.* 28,120–126.
4. Cheng, L., Desai, J., Miranda, C. J., Duncan, J. S., **Qiu, W. H.**, Nugent, A. A., Kolpak, A. L., Wu, C. C., Drokhlyansky, E., Delisle, M. M., et al. (2014) Human CFEOM1 mutations attenuate KIF21A autoinhibition and cause oculomotor axon stalling. *Neuron* 82, 334–49.
5. **Qiu, W. H.***, Derr, N.D.*, Goodman, B. S., Villa, E., Wu, D., Shih, W., Reck-Peterson, S.L. (2012) Dynein achieves processive motion using both stochastic and coordinated stepping. *Nat. Struct. Mol. Biol.* 19, 193-200.
6. Su, X.L., **Qiu, W. H.**, Gupta, M.L., Pereira-Leal, J.B., Reck-Peterson, S.L., Pellman, D. (2011). Mechanisms underlying the dual-mode regulation of microtubule dynamics by Kip3/Kinesin-8. *Mol. Cell* 43, 751-763.

(ii). Other significant publications

6. **Qiu, W. H.***, Li, T. P.*, Zhang, L. Y., Kao, Y.-T., Wang, L. J., and Zhong, D. P. (2008). Ultrafast quenching of tryptophan fluorescence in proteins: Interresidue and intrahelical electron transfer. *Chem. Phys.* 350, 154-164.
7. Zhang, L. Y., Wang, L. J., Kao, Y. T., Qiu, W. H., Yang, Y., Okobiah, O., and Zhong, D. P. (2007). Mapping hydration dynamics around a protein surface. *Proc. Natl. Acad. Sci. USA* 104, 18461-18466.
8. **Qiu, W. H.**, Wang, L. J., Lu, W. Y., Boechler, A., Sanders, D. A. R., and Zhong, D. P. (2007). Dissection of complex protein dynamics in human thioredoxin. *Proc. Natl. Acad. Sci. USA* 104, 5366-5371.
9. **Qiu, W. H.**, Kao, Y. T., Zhang, L. Y., Yang, Y., Wang, L. J., Stites, W. E., Zhong, D. P., and Zewail, A. H. (2006). Protein surface hydration mapped by site-specific mutations. *Proc. Natl. Acad. Sci. USA* 103, 13979-13984.

10. **Qiu, W. H.***, Zhang, L. Y.*, Okobiah, O., Yang, Y., Wang, L. J., Zhong, D. P., and Zewail, A. H. (2006). Ultrafast solvation dynamics in human serum albumin: Correlations with conformational transitions and site-selected recognition. *J. Phys. Chem. B* 110, 10540-10549.

(d) Research Support

(i). Ongoing Research Support

Department Start-Up Grant Qiu (PI)
Oregon State University

09/17/2013-09/16/2017

The purpose of this grant is to set up the PI's laboratory and fund preliminary studies to compete for extramural research support

Role: PI

MCB-1616462 Qiu (PI);

08/01/2016-07/31/2019

National Science Foundation

This is part of a collaborative research proposal to investigate how a plant-specific kinesin motor enables the crosstalk between microtubules and filamentous actins at the cortical division site and how it regulates cell division in rice by integrating multidisciplinary approaches of biophysics, cell biology and genetics.

Role: PI

(ii). Completed Research Support

Medical Research Foundation of Oregon Qiu (PI)

06/01/2014 – 05/31/2015

Molecular basis of autoinhibition in human kinesin Kif21A

The goal of this project was to dissect the molecular basis of autoinhibition in human kinesin Kif21A

Role: PI