Pengwei Wang (Prof, PhD)

My lab interested in molecular cell biology and fundamental horticultural biology related research, using citrus, tomato, and Arabidopsis as the main systems. Our current research topics includes: Autophagy, membrane contact sites, cytoskeleton, cell morphogenesis, plant development and organelle functions in fruit quality.

Education

PhD in Plant Cell Biology,
Oxford Brookes University, Oxford, UK 10/2006-02/2010

BSc (Honr) in Biochemistry with Medical Biochemistry,
University of Bristol, Bristol, UK 09/2003-06/2006

Employment

Professor, 05/2017-present
College of Horticulture & Forestry Sciences,
Huazhong Agricultural University, China

Principle investigator, 04/2020-present
Interdisciplinary Sciences Research Institute,
Huazhong Agricultural University, China

Senior Postdoctoral-research associate, 03/2011-05/2017
School of Biological and Biomedical Sciences,
University of Durham, UK

Postdoctoral-research associate, 03/2010-03/2011
School of Life Sciences,
Oxford Brookes University, Oxford, UK

Research interests

1. Plant endoplasmic reticulum and membrane contact site
2. Plant cytoskeleton

3. Autophagy
4. Organelle functions in fruit quality
5. Post-harvest biology

Selected Publications

1. Li, X., Chai, F., Yang, H., Tian, Z., Li, C., Xu, R., Shi, C., Zhu, F., Zeng, Y., Deng, X., Wang, P. *, and Cheng, Y. * (2021) Isolation and comparative proteomic analysis of mitochondria from the pulp of ripening citrus fruit. **Hort Res** (accepted)
2. Zang, J. #, Klemm, S. #, Pain, C., Duckney, P., Bao, Z., Stamm, G., Kriechbaumer, V., Bürstenbinder, K., Hussey, P. J.*, and Wang, P.* (2021). A Novel Plant Actin Microtubule Bridging Complex Regulates Cytoskeletal and ER Structure at Endoplasmic Reticulum Plasma Membrane Contact Sites. **Curr Biol** (accepted).
3. Zang, J., Zhang, T., Hussey PJ., and Wang, P,* (2020) Light Microscopy of the Endoplasmic Reticulum-Membrane Contact Sites in Plants. **J Microscopy**, doi: 10.1111/jmi.12934.
4. Wang, P.* Gao, E., and Hussey PJ.* (2020) Autophagosome biogenesis in plants: an actin cytoskeleton perspective. **Trends in Plant Sci,** 25:850-858
5. Wang, P.#, Pleskot, R.#, Zang, J., Winkler, J., Wang, J., Yperman, K., Zhang, T., Wang, K., Gong, J., Guan, Y., et al. (2019). Plant AtEH/Pan1 proteins drive autophagosome formation at ER-PM contact sites with actin and endocytic machinery. **Nature Comm.** 10, 5132.
6. Wang, P. * & Hussey, P.J. * (2019) Plant ER-PM Contact Sites in Endocytosis and Autophagy: Does the Local Composition of Membrane Phospholipid Play a Role? **Front Plant Sci**, 10: 23.
7. Wang, P.*, Richardson, C., Hawes, C. and Hussey, P.J. (2018) Characterization of Proteins Localized to Plant ER-PM Contact Sites. **Methods Mol Biol**. 1691:23-31.
8. Wang, P., Hawkins, T.J. and Hussey P.J.* (2017) Connecting membranes to the actin cytoskeleton. **Curr Opin in Plant Biol**. 40: 71-76.
9. Wang, P. and Hussey, P.J.* (2017) NETWORKED 3B: a novel protein in the actin cytoskeleton-endoplasmic reticulum interaction. **J Exp Bot** 68(7): 1441-1450.
10. Wang, P., Hawes C., and Hussey P.J.* (2017) Plant endoplasmic reticulum—plasma membrane contacts sites. **Trends in Plant Sci,** 22(4): 289-297.
11. Wang, P., Richardson, C., Hawes, C. and Hussey, P.J* (2016). Arabidopsis NAP1 regulates the formation of autophagosomes. **Curr Biol**, 26: 2060-2069
12. Wang, P., Hawkins, T.J., Richardson, C., Sparkes, I., Hawes, C. and Hussey, P.J.* (2016) Plant VAP proteins: domain characterization, intercellular localization, and role in plant development. **New Phyt**, 210:1311-1326.
13. Knox, K.,# Wang, P.,# Kriechbaumer, K., Tilsner, J., Frigerio, L., Sparkes, I., Hawes, C. and Oparka, K.* (2015) Putting the squeeze on PDs- a role for RETICULONS in

primary plasmodesmata formation. **Plant Phys**, 168: 1563

14. Wang, P. and Hussey, P.J.* (2015) Interactions between actin cytoskeleton and the endomembrane system. **Front Plant Sci**, 6:422.
15. Wang, P., Hawkins, T.J., Richardson, C., Cummins, I., Deeks, M.J., Sparkes, I., Hawes, C. and Hussey, P.J.* (2014) The plant cytoskeleton, NET3C, and VAP27 mediate the link between the plasma membrane and endoplasmic reticulum. **Curr Biol**, 24, 1397
16. Wang, P., Hummel, E., Osterrieder, A., Meyer, A.J., Frigerio, L., Sparkes, I. and Hawes, C*. (2011) KMS1 and KMS2, two plant endoplasmic reticulum proteins involved in the early secretory pathway. **Plant J**, 66, 613-628.

We are looking for highly motivated PhD candidates with solid Life Science and Horticulture background to apply. Individual have good experience in cell biology and biochemistry related research are desirable.