

## **BIOGRAPHY**

Jing-Ke Weng received his B.S. (2003) in Biotechnology from Zhejiang University, Hangzhou, China. He received his Ph.D. (2009) in Biochemistry from Purdue University, and was a pioneer postdoctoral fellow at the Salk Institute for Biological Studies and Howard Hughes Medical Institute between 2009 and 2013. Currently he is a member of the Whitehead Institute for Biomedical Research, and an Associate Professor of Biology at Massachusetts Institute of Technology.

Dr. Weng's research focuses on understanding the origin and evolution of plant specialized metabolism at enzyme, pathway, and systems levels, as well as how plants exploit discrete small molecules to interact with their surrounding biotic and abiotic environments. In addition, he utilizes plant as a unique model system to study human diseases, including metabolic syndromes and protein-misfolding diseases. He is also interested in elucidating the molecular mechanisms underlying the "matrix effect" known from many traditional herbal remedies used for thousands of years.

Dr. Weng has won numerous awards in his career, including Beckman Young Investigator Award (2016), Alfred P. Sloan Research Fellow (2016), Searle Scholar (2015), Pew Scholar in the Biomedical Sciences (2014), American Society of Plant Biologists Early Career Award (2014), and Tansley Medal for Excellence in Plant Science (2013).

## **Selected publications**

Christ B, Xu C, Xu M, Li FS, Wada N, Mitchell AJ, Han XL, Wen ML, Fujita M, Weng JK. (2019) Repeated evolution of cytochrome P450-mediated spiroketal steroid biosynthesis in plants. *Nat Commun.* 10:3206.

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Li FS, Phyto P, Jacobowitz J, Hong M, Weng JK. (2019) The molecular structure of plant sporopollenin. *Nat Plants.* 5:41-46.

Kersten RD and Weng JK. (2018) Gene-guided discovery and engineering of branched cyclic peptides in plants. *Proc Natl Acad Sci U S A.* 115:E10961-E10969.

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Wada N, Kersten RD, Iwai T, Lee S, Sakurai F, Kikuchi T, Fujita D, Fujita M, Weng JK. (2018) Crystalline Sponge-based Structural Analysis of Crude Natural Product Extracts. *Angew Chem Int Ed.* 57:3671–3675.

Torrens-Spence MP, Pluskal T, Li FS, Carballo V, Weng JK. (2018) Complete pathway elucidation and heterologous reconstitution of *Rhodiola* salidroside biosynthesis. *Mol Plant.* 11:205-217.

Kersten RD, Lee S, Fujita D, Pluskal T, Kram S, Smith JE, Iwai T, Noel JP, Fujita M, Weng JK. (2017) A red algal bourbonane sesquiterpene synthase defined by microgram-scale NMR-coupled crystalline Sponge XRD analysis. *J Am Chem Soc.* 139:16838-16844.