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Mentor-Postdoc Spotlight Series 2019

Mei Kong, Ph.D.

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With over 25 years of research experience, Dr. Mei Kong received her Ph.D. from McGill University (Canada) under the guidance of Dr. Barry I. Posner. Currently, she is an Associate Professor in the Department of Molecular Biology and Biochemistry, School of Biological Sciences at the University of California, Irvine.

As a graduate student, Dr. Kong studied the role of EGF signaling in hepatocyte proliferation in Dr. Posner's group. She later pursued postgraduate work under the mentorship of Dr. Craig B. Thompson at the University of Pennsylvania. Her work focused on Protein phosphatase in metabolic stress responses. Dr. Kong did her Postdoctoral Fellowship in Cancer Research from American Association for Cancer Research (AACR) as a Special Fellow from the Leukemia and Lymphoma Society. She received many accolades and awards from various institutions. Among them: **1**. Research Career Development Award from Stop Cancer Foundation, **2**. Sidney Kimmel Scholar from Sidney Kimmel Foundation for Cancer Research, **3**. V Scholar from V Foundation for Cancer Research, **4**. Innovative Research Grant Award from Stand Up to Cancer, **5**. Recognition as a Pew Scholar from Pew Foundation, and **6**. Research Scholar Award from American Cancer Society.

Dr. Kong has continued to focus on cancer metabolism since starting her laboratory at UC Irvine, focusing on: **1**. Delineating strategies, including signaling pathways, epigenetic modifications and metabolic alterations used by tumor cells to nutritional microenvironment, and **2**. Characterizing molecular mechanisms underlying the response of phosphatase complexes in metabolic diseases to develop effective therapeutic approaches targeting the phosphatase complexes.

Notable publications from Dr. Kong's lab that influenced the cancer metabolism field include:

1. Reid M.A., Wang W.I., Rosales K.R., Welliver M.X., Pan M., and Kong M. (2013). The B55? subunit of PP2A drives a p53-dependent metabolic adaptation to glutamine deprivation. *Molecular Cell*. 50(2):200-211.
2. Pan M., Reid M.A., Lowman X.H., Kulkarni R.P., Tran T.Q., Liu X., Yang Y., Hernandez-Davies J.E., Rosales K.K., Li H., Hugo W., Song C., Xu X., Schones D.E., Ann D.K., Gradinaru V., Lo R.S., Locasale J.W., Kong M. (2016). Regional glutamine deficiency in tumours promotes dedifferentiation through inhibition of histone demethylation. *Nat Cell Biol*. Oct;18(10):1090-101.

3. Reid M.A., Lowman X.H., Pan M., Tran T.Q., Warmoes M.O., Ishak Gabra M.B., Yang Y., Locasale J.W., Kong M. (2016). IKKß promotes metabolic adaptation to glutamine deprivation via phosphorylation and inhibition of PFKFB3. *Genes & Development*. Aug 15;30(16):1837-51.

Dr. Kong's advice to postdocs: "***Work independently, intensely, curiously and intelligently. Keep a positive attitude and remember communication with your mentors and peers is more important than you think***".

Check out the Lab's webpage: https://faculty.sites.uci.edu/meikong/lab-members/

Dr. Ying Yang obtained her Ph.D. from Zhejiang University (China) in 2014 under the mentorship of Dr. Yingjie Wang and Dr. Lanjuan Li. Her doctoral thesis focused on "*Understanding the reciprocal regulation of Akt and Oct4 in embryonal carcinoma cells and cancer stem cells*". After completing her Ph.D. Dr. Yang joined the Kong lab.

With over ten years of research experience, Dr. Yang has 23 publications in renowned journals.

Please read the Yang *et. al*. manuscript entitled "*Metabolic adaptations to glutamine deprivation in pancreatic cancer*" published in *JoLS*, *Journal of Life Sciences, a Postdoc community initiative*.