

### **Prof. Hon-Ming Lam**

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Director, State Key Laboratory of Agrobiotechnology (CUHK)

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Prof. Hon-Ming Lam, a native Hong Kong scientist received his B.Sc. and M.Phil. degrees from The Chinese University of Hong Kong in 1985 and 1987, respectively. He obtained his Ph.D. degree from Northwestern University in 1992 and furthered his postdoctoral training at New York University until the end of 1996. After returning to his alma mater CUHK in 1997, he has spearheaded high impact research programs on agrobiotechnology, especially on soybean research. On this edifice, he won the RGC support for an Area of Excellence Center for Genomic Studies on Plant-Environment Interaction for Sustainable Agriculture and Food Security of which he serves as the Project Coordinator and Director. He is also the current Director of the State Key Laboratory of Agrobiotechnology (CUHK), which is a national level research team approved by the Ministry of Science and Technology of PR China.

Prof. Lam is a plant molecular and genomic biologist working on soybean research for more than 2 decades. Through identification and characterization of key genes from elite germplasms that may enhance adaption to biotic and abiotic stresses, Prof. Lam envisions to integrate the state-of-the-art technology from academics and the traditional wisdom from breeders for a climate-smart sustainable agriculture. In 2010, he led a large-scale soybean genomic project to complete a whole genome sequence analysis of 31 wild and cultivated soybeans, accomplishing a better understanding on the effect of human selection on the soybean genomes and providing important information and data to soybean research and breeding. The research findings were published as a cover story in the world's renowned scientific journal *Nature Genetics*. In 2013, Prof. Lam published a comprehensive review in the renowned medical journal *Lancet* to provide insights on the summary of food supply and food safety issues in China. In 2014, his team successfully identified and cloned a salt-tolerant gene from wild soybean, which paved the way to improving agriculture on marginal lands. The research findings were published in an important international scientific journal *Nature Communications*. In 2016, he co-led an international research team to publish a perspective paper to the scientific journal *Nature Plants*, discussing on the importance of grain legumes in food and nutritional security. Prof. Lam has also collaborated with scientists in Gansu Province and successfully developed three new stress tolerance soybean cultivars.

These cultivars have passed the official regional test of the Gansu authority and are now used by Gansu farmers. In 2019, Prof. Lam led an international collaboration team to publish the assembly of a high-quality reference genome of a wild soybean accession in *Nature Communications*. This first-of-the-world wild soybean reference genome has provided an important reference for future soybean researches to identify important stress-resistant gene(s) for crop improvement, thereby contributing to climate-smart sustainable agriculture.

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