

Speaker: **Dr. Eric Lam**
Distinguished Professor, Rutgers the State
University of New Jersey, New Brunswick, NJ, USA



Title: ***From Functional Orphans to Multitasking Mediators - Plant Metacaspases for stress management***

Time: **Tuesday, October 13, 2026, 2 pm**
<https://ipk-gatersleben-de.zoom-join.com/j/64783767811?pwd=hndGulynz0tMsTZ3oKnPjTsgHfQDL8.1>
ID: 647 8376 7811
Kenncode: 184928

Place: **IPK Lecture Hall and via Zoom,**
Corrensstr. 3, 06466 Seeland OT Gatersleben

Abstract:

Plant As sessile organisms, plants cannot run away from dangers and must constantly survey their surroundings to make appropriate responses by modifying their metabolism or development. Advances in the past two decades have revealed numerous pattern recognition receptors and kinases, as well as families of small signaling peptides that can act as phytocytokines, which play key roles in signal perception and propagation for a multitude of defense and developmental responses. However, the mechanisms coordinating these responses at the cellular and organismal levels remain poorly understood. Recently, the highly conserved plant metacaspase family in plants emerged as a versatile switch that plays multiple and complex roles from early signal perception to downstream signal propagation. In this talk, I will summarize the latest advances in describing plant metacaspase functions in general, and then focus on their intricate roles to orchestrate the complex wounding response in particular.

Lam E, Coll NS, Liu Q. Multitasking mediators: revealing the secret jobs of plant metacaspases. Trends Plant Sci. 2026 Jun 1; PubMed PMID: 42225469.

Pang Z, Liu H, Liu Q, Lam E. Plant metacaspases orchestrate wound-induced pathways for immunity and tissue regeneration. Plant J. 2025 Nov;124(4): e70531. PubMed Central PMCID: PMC12629630.

Short CV:

Eric Lam is currently a Distinguished Professor in the Department of Plant Biology at Rutgers University, NJ. He is a graduate of UC Berkeley with a PhD in Biophysics and completed his postdoctoral research at the Rockefeller University on Plant Molecular Biology. His research interests include the study of mechanisms that control programmed cell death and stress tolerance in plants, the regulation of global gene expression via chromatin organization, and more recently, the establishment and promotion of an aquatic agriculture platform with duckweed for sustainable biomass production. Prof. Lam is author on over 190 publications in international journals including Science and Nature and has been awarded 5 patents involving biotechnology methods. He is the recipient of the Alexander von Humboldt award in Molecular Biology (2007) and a Fulbright-Brazil Science Fellow (2014-15). He recently founded AquaLentil LLC to develop duckweed-based growth technologies and food related products for human nutrition