Linh Bao Ton

Biography

Linh obtained a Bachelor degree in Biotechnology at Nong Lam University, Ho Chi Minh City, Viet Nam and Master's degree in Applied Science at RMIT University, Australia. She conducted research on plant tissue culture and plant transformation, isolation and characterization of *Bacillus thuringiensis* and identification of plant pathogens such as phytoplasmas. Since 2019, she have joined Batley’s Lab and started her PhD project with Professor Jacqueline Batley.

Research Interests

Gene technology, genomics, plant-pathogen interactions

Current Projects

Turnip mosaic virus (*TuMV*), a potyvirus, is known to cause significant economic loss in vegetable crops, primarily in the *Brassicaceae* family. This virus is transmitted into Brassica plants in a non-persistent manner by over 89 aphid species, which limit the effectiveness of chemical control and general treatments. The viral proteins, such as P1 and HC-Pro (helper component protein), are the main factors for the multiplication and spread of TuMV in host plants via suppression of the plant RNA silencing pathway. Within this research, the TuMV in symptomatic canola plants and other Brassica plants will be isolated, pathotyped, and confirmed by PCR, from which P1 and HC-pro genes will be cloned and utilized in the development of genetic modification system for *B. napus.* As a novel tool of genome editing, the CRISP/Cas system (type II clustered regularly interspaced short palindromic repeats/associated protein system), will be designed to introduce Cas gene, P1 and HC-Pro gene segments into *Brassica napus* genome. The successfully modified canola lines will be a valuable resource for breeding their resistance against TuMV.

Publications

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