

# Molecular, developmental and genetic studies on fruit abscission in oil palm (*Elaeis guineensis* Jacq.)

## PERSPECTIVES

Overall, the results of the thesis project identified a number of originalities of the cell separation and abscission process in oil palm. The main perspectives are both applied and fundamental. There are two important initiatives that are underway during 2012 as follows: (1) RNA-seq analysis and bioinformatics analysis of the abscission time course samples and (2) the phenotypage of the interspecific backcross (*Elaeis guineensis* x hybrid *E. guineensis*/*E. oleifera*) population. The objective of the first initiative is to have a detailed molecular insight into the signal transduction systems that underlying the functional originalities of oil palm fruit shedding, to be able to compare with the most common cell separation model systems, tomato and *Arabidopsis*. The interest of the second initiative is to take advantage of a population that is the basis of a genetic map of the interspecific backcross, and the hybrid is reported to be non shedding. The objective is to use a bio-assay developed during the PhD project of Peerapat Roongsattham for phenotyping and searching for non-shedding genetic material for use in elite breeding programs.

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