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Production of Mutants Affected in Hormone Signalling to Dissect Defence Mechanisms in *Hevea brasiliensis*: The Case of Ethylene

Pascal Montoro*, Maryannick Rio, Julie Leclercq,
Florence Martin, Eve Lorenzini, Florence Dessailly

CIRAD, UMR AGAP, F-34398 Montpellier, France
pascal.montoro@cirad.fr

Production of mutants by genetic transformation is one alternative to dissect the response to hormonal treatment. Ethylene is an important plant hormone involved in latex production. Transgenic *Hevea brasiliensis* plants overexpressing an ethylene mutant receptor *etr1-1* from *Arabidopsis thaliana* were regenerated. These plants did not show any morphological response to ethylene stimulation. This plant material is a source of information to understand the role of ethylene in *Hevea brasiliensis*.

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microRNAs: New Regulators of Biological Functions in *Hevea brasiliensis*

Julie Leclercq¹, Virginie Gébelin¹, Kuswanhadi², Tetty Chaidamsari³,
Cuifang Duan^{1,4} and Pascal Montoro^{1*}

¹ CIRAD, UMR AGAP, F-34398 Montpellier, France

² IRRI, Sembawa Research Centre, P.O. Box 1127 Palembang, Indonesia

³ IBRIEC, Taman Kencana 1, 16151 Bogor, Indonesia

⁴ CATAS, RRI, Danzhou 571737, Hainan, China

pascal.montoro@cirad.fr

Fine regulation of gene expression is partially ensured by microRNAs (miRNAs) in response to external stimuli. They negatively regulate gene expression by targeting the cleavage or inhibit the translation of target messenger RNAs (mRNAs). In *Hevea brasiliensis*, environmental and harvesting stresses are known to affect natural rubber production. Deep sequencing of small RNAs was carried out on plantlets, subjected to severe abiotic