

Analysis of the Transcriptional Response of *Rhazia stricta* to Jasmonic Acid Induction

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Abstract : The jasmonic pathway is ubiquitous in plants and is crucial to plant development. It is involved in fertility, ripening, and sex determination as well as in response to environmental stresses such as herbivory, pathogen drought or temperature shock. Essentially the jasmonic pathway acts to shut down growth in order to induce defence pathways. These pathways include the production of secondary metabolites which have evolved to defend against herbivores and pathogens but are of increasing interest due to their role in medicine and biotechnology. Here we describe the transcriptional response of *Rhazia stricta* (a poisonous shrub widely used in traditional medicine) to jasmonic acid, in order to better characterize the genes involved in secondary metabolite production and its response to stress. We observe coordinated upregulation of flavonoid biosynthesis pathway leading to flavonols, flavones and anthocyanins but no similar coordination of the monoterpene indole alkaloid pathway.

Keywords : medicinal plants, *Rhazia stricta*, jasmonic acid, transcriptional analysis

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