

## The -174 G/C polymorphism of the IL6 gene is associated with elite power performance

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### Abstract:

The industrial use of elicitors as alternative tools for disease control needs the identification of abundant sources of them. We report on an elicitor obtained from the green algae *Ulva* spp. A fraction containing most exclusively the sulfated polysaccharide known as ulvan-induced expression of a GUS gene placed under the control of a lipoxygenase gene promoter. Gene expression profiling was performed upon ulvan treatments on *Medicago truncatula* and compared to phytohormone effects. Ulvan induced a gene expression signature similar to that observed upon methyl jasmonate treatment (MeJA). Involvement of jasmonic acid (JA) in ulvan response was confirmed by detecting induction of protease inhibitory activity and by hormonal profiling of JA, salicylic acid (SA) and abscisic acid (ABA). Ulvan activity on the hormonal pathway was further consolidated by using *Arabidopsis* hormonal mutants. Altogether, our results demonstrate that green algae are a potential reservoir of ulvan elicitor which acts through the JA pathway.

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