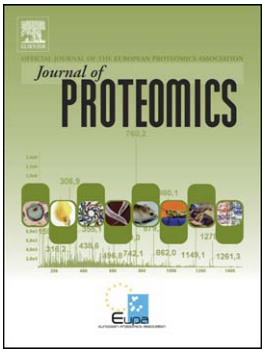

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Comparative proteomics analysis of developing peanut aerial and subterranean pods identifies pod swelling related proteins

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Abstract

The peanut plant produces flowers aerially, while develops the fruits and seeds underground. Pod swelling is a vital process of peanut pod and seed development only occurring after the gynophore carrying the ovule into the soil. The failure of gynophore penetration into the soil leads to suppression of pod swelling initiation. However, the molecular mechanism underlying the process remains unknown. A comparative proteome analysis between developing aerial and subterranean pods at various developmental stages was performed using 2-DE approach. 47 significantly differentially expressed spots were selected to further identification by MALDI-TOF-TOF MS. They were corresponded to 31 distinct proteins, suggesting