



Influence of the Endophytic Fungus *Phomopsis* sp. in the Production of Secondary Metabolites in *Erythrina crista-galli*

Flavia REDKO¹, María L. CLAVIN¹, Gustavo C. GIBERTI²,
Timm ANKE³ & Virginia S. MARTINO^{1*}

¹ Cátedra de Farmacognosia, IQIMEFA (UBA CONICET), Facultad de Farmacia y Bioquímica,
Universidad de Buenos Aires Junín 956, 2° P, C1113AAD Buenos Aires, Argentina.

² Museo de Farmacobotánica, Facultad de Farmacia y Bioquímica,
Universidad de Buenos Aires, Junín 956, 2° P, C1113AAD Buenos Aires, Argentina.

³ Institut für Biotechnologie und Wirkstoff-Forschung IBWF,
Paul Ehrlich Str. 23, Kaiserslautern, Germany.

SUMMARY. The aim of this investigation was to determine if the production of daidzein, genistein and coumestrol, compounds reported as antimicrobial principles in this species, is affected by the presence of the endophyte *Phomopsis* sp. in the young twigs of *Erythrina crista-galli*. HPLC profiles of the acetone extracts from cultivated plants and plants over-infected with *Phomopsis* sp. were obtained. Daidzein, coumestrol, genistein, biochanin A, and formononetin were identified in all the acetone extracts. Coumestrol and daidzein content (0.04 and 0.05 %) was higher in over infected plants than in control plants (0.01 and 0.02%). A major peak was observed in the HPLC/DAD profile of the acetone extract from over-infected plants. This was partially identified as a 3-glucosyl-rhamnosyl isorhamnetin derivative.

KEY WORDS: *Erythrina crista-galli*, *Phomopsis* sp., Isoflavonoids, Isorhamnetin glycoside.

* Author to whom correspondence should be addressed. E-mail: vmartino@ffyb.uba.ar