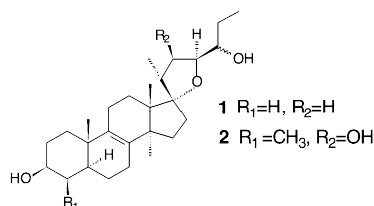


B091 Some chemical constituents of *Scilla natalensis* and *Urginea altissima* (Hyacinthaceae)D.A. Mulholland^a, N. Moodley^a, N.R. Crouch^{a,b}, F. Ismail^a and E. Ndlovu^a^a Natural Products Research Group, School of Pure and Applied Chemistry, University of Natal, Durban, 4041, South Africa.^b Ethnobotany Unit, National Botanical Institute, PO Box 52099, Berea Road 4007, South Africa.

The Hyacinthaceae family is one of the two most widely used plant families by the Zulu of KwaZulu-Natal (1). Recent investigations in our laboratory of several members of the three Southern African sub-families of the Hyacinthaceae have yielded a range of novel homoisoflavanones, nor-triterpenoids, bufadienolide glycosides, cholestane glycosides, chalcones, and benzopyranones. These include a novel bufadienolide glycoside, urginin, (3 β -O-(α -L-rhamnopyranosyl-[(1 \rightarrow 4)- β -D-glucopyranosyl] 1 \rightarrow 3)- α -L-rhamnopyranoside) which precipitated out from the methanol extract of the bulbs of *Urginea altissima*, and the novel trisnor-triterpenoid, (23S)-17 α ,23-epoxy-3 β ,24 ξ -dihydroxy-27,28,29-trisnor-lanost-8-ene, **1**, and bisnor-triterpenoid, (22R,23S)-17 α ,23-epoxy-3 β ,22,24 ξ -trihydroxy-27,28-bisnor-lanost-8-ene, **2**, isolated from the dichloromethane extract of the bulbs of *Scilla natalensis*. Compounds **1** and **2** were isolated using column chromatography over silica gel and structures were determined using 2D-NMR techniques and LC-MS/MS methods for urginin and GC-MS for compounds **1** and **2**.

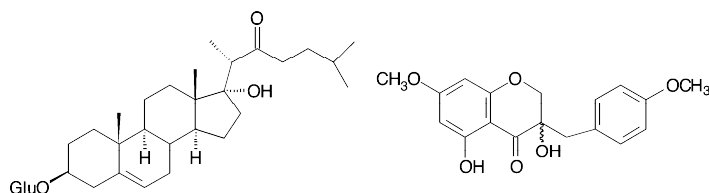


Acknowledgements: We are grateful to Mr D. Jagivan, Mr M. Watson and Mr Bret Parel for technical assistance, and gratefully acknowledge funding by the NRF, the University of Natal Research Fund, and the Wellcome Trust (Equipment Grant number 052451).

References: 1. Pohl, T.S. et al. (2000) *Curr. Org. Chem.* 4: 1287-1324.

B092 Chemical constituents of the Zulu medicinal plant *Galtonia princeps* (Hyacinthaceae)K. du Toit^a, N.R. Crouch^{a,b}, S.E. Drewes^c, D.A. Mulholland^a and E. Ndlovu^a^a Natural Products Research Group, School of Pure and Applied Chemistry, University of Natal, Durban, 4041, South Africa.^b Ethnobotany Unit, National Botanical Institute, PO Box 52099, Berea Road 4007, South Africa. ^c Department of Chemistry, University of Natal, Pietermaritzburg, South Africa.

Galtonia princeps is a member of the Ornithogaloideae subfamily of the Hyacinthaceae family. Bulbs of this plant are used for magical purposes by the Zulu people of KwaZulu-Natal. An investigation of the chemistry of the bulbs of this species has yielded a novel cholestane glucoside from the methanol extract, and a homoisoflavanone from the dichloromethane extract, as shown below. This is the first report of the isolation of a homoisoflavanone from outside the Hyacinthoideae sub-family of the Hyacinthaceae (1). Compounds were purified by means of column chromatography over silica gel and structures were determined using 2D-NMR and MS techniques. The identity of the sugar was determined using an acid hydrolysis and identification of the sugar obtained.



Acknowledgements: We are grateful to Mr D. Jagivan, Mr M. Watson and Mr Bret Parel for technical assistance, and gratefully acknowledge funding by the NRF, the University of Natal Research Fund, and the Wellcome Trust (Equipment Grant number 052451).

References: 1. Pohl, T.S. et al. (2000) *Curr. Org. Chem.* 4: 1287-1324.