ISOLATION AND STRUCTURE ELUCIDATION OF ANTIPROLIFERATIVE AGENTS FROM MADAGASCAR RAINFORESTS.

by

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Abstract

Through our continuing search for anticancer agents from Madagascar rainforests as a part of International Cooperative Biodiversity Group (ICBG), we received two extracts which were active against the A2780 human ovarian cancer cell line and hence were selected for further fractionation. Six compounds were isolated from these extracts. The structure elucidation and characterization of these compounds was carried out using mass spectrometry and 1D and 2D NMR techniques.

The bioassay-guided fractionation of *Roupellina* (*Strophanthus*) *boivinii* yielded three new and one known cardenolide glycosides. The structure of the known cardenolide glycoside was determined after comparison of NMR data to that found in literature for digitoxigenin 3-O-β-D-glucopyranosyl-(1→4)-α-L-acofriopyranoside. All four compounds exhibited good antiproliferative activity on the A2780 bioassay.

The fractionation of the extract of *Grewia* sp. led to the isolation of one new and one known triterpenoid. The known triterpenoid was identified as 7*β*-hydroxy-23-deoxojessic acid and its structure was confirmed by comparison of its 1D and 2D NMR data to that found in literature.