Stereoselective Synthesis of 5-[(*Z*)-Heteroarylmethylidene] Substituted Hydantoins and Thiohydantoins as Aplysinopsin Analogs*

Renata Jakše[a], Vesna Krošelj[a], Simon Rečnik[a], Gorazd Soršak[a], Jurij Svete[a], Branko Stanovnik[a], and Simona Golič Grdadolnik[b]

[a] Faculty of Chemistry and Chemical Technology, University of Ljubljana, Aškerčeva 5, 1000 Ljubljana, Slovenia
[b] National Institute of Chemistry, Hajdrihova 19, 1000 Ljubljana, Slovenia

Reprint requests to Prof. Dr. Branko Stanovnik. Fax: +3861241922 0

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3-Substituted 5-[(*Z*)-heteroarylmethylidene]imidazolidine-2,4-dione and 5-[(*Z*)-heteroarylmethylidene]-2-thiooxoimidazolidin-4-one derivatives were prepared stereoselectively by coupling of 5-(dimethylamino)methylidene substituted hydantoin and thiohydantoin derivatives with carbocyclic and heterocyclic *C*-nucleophiles. Configuration around the exocyclic C=C double bond was determined by NMR, using NOESY and 2D HMBC techniques.