

## Synthesis of Dihydropyran Derivatives and Evaluation of Their Anti-choroidal Melanoma Cell Activity *In Vitro*

Tong WU<sup>1</sup>, Bai-Nan ZHENG<sup>1</sup>, Zhou-Fang CHAI<sup>2</sup> & Rui-Li WEI<sup>1\*</sup>

<sup>1</sup> *Department of Ophthalmology, Second Affiliated Hospital, Second Military Medical University, Shanghai, China*

<sup>2</sup> *Maternal and Child Health Hospital of Jiangshan City, Jiangshan, Zhejiang, China*

**SUMMARY.** Four novel pyran derivatives (1-4) were synthesized and characterized via IR, <sup>1</sup>H NMR and HRMS. The stereo structure of compound 4 was further determined by single crystal X-ray crystallography. In addition, the anticancer effects of the four compounds were studied on three human choroidal melanoma cells including B16F10, OCM1 and IIB. It was found that compared with compounds 1 and 2, compounds 3 and 4 exerted rather potent activities against the three cell lines.

**RESUMEN.** Se sintetizaron y caracterizaron cuatro nuevos derivados de pirano (1-4) por IR, <sup>1</sup>H NMR y HRMS. La estructura estérica del compuesto 4 se determinó adicionalmente mediante cristalografía de rayos X de cristal único. Además, se estudiaron los efectos anticancerígenos de los cuatro compuestos en tres líneas celulares humanas de melanoma coroidal incluyendo B16F10, OCM1 y IIB. Se encontró que en comparación con los compuestos 1 y 2, los compuestos 3 y 4 ejercían actividades bastante potentes contra las tres líneas celulares.

**KEY WORDS:** anticancer, crystal, pyran derivatives.

\* Authors to whom correspondence should be addressed. *E-mail:* ruili\_wei666@163.com