



Some New 1,3-Thiazine and 1,3,4-Thiadiazole Derivatives with Study of their Biological Activities

Moktar M. ABURZEZA ¹, Ismail M. AWHEDA ², Wesam. A .KOLLAB ¹ & Alkhansa O. ABDULNNOUR ²

¹ Department of Chemistry, Faculty of Science, Alasmarya Islamic University, Zliten, Libya

² Department of Chemistry, Faculty of Science, El-Mergib University, Al-Khums, Libya

SUMMARY. A series of novel 1,3-thiazine and 1,3,4-thiadiazole derivatives and were synthesized by using of 2-(pyridin-4-ylmethylene)hydrazine-1-carbothioamide as key starting material. *in vitro* antimicrobial and antiviral activities were evaluated. The synthesized compounds were characterized by elemental analyses, FT-IR, ¹H NMR and LC-MS spectral studies.

RESUMEN. Se sintetizaron una serie de nuevos derivados de 1,3-tiazina y 1,3,4-tiadiazol utilizando 2-(piridin-4-il-metileno)hidrazina-1-carbothioamida como material de partida clave. Se evaluaron sus actividades antimicrobianas y antivirales *in vitro*. Los compuestos sintetizados se caracterizaron mediante análisis elemental, FT-IR, ¹H RMN y estudios espectrales de LC-MS.

KEYWORDS: antimicrobial, antiviral, 1,3-thiazine, 1,3,4-thiadiazole.

* Author to whom correspondence should be addressed. E-mail: moktar@gmail.com