

## Novel Purine Thioglycoside Analogs: Synthesis, Nanoformulation and Biological Evaluation in in vitro Human Liver and Breast Cancer Models [Retraction]

Abu-Zaied MA, Loutfy SA, Hassan AE, Elgemeie GH. *Drug Des Devel Ther.* 2019;13:2437–2457.

The Editor and Publisher of *Drug Design, Development and Therapy* wish to retract the published article. Concerns were raised regarding the duplication of images in Figure 5. Specifically,

- Figure 5A, image for compound 4, appears to have been duplicated with Figure 5A, image for compound 8a.
- Figure 5B, image for compound 4, appears to have been duplicated with Figure 5B, image for compound 8a.

In addition, the article was also found to contain a significant amount of overlap with a previously published and unreferenced article by the same authors:

- Elgemeie GH, Abu-Zaied MA, Loutfy SA. 4-Aminoantipyrine in carbohydrate research: Design, synthesis and anticancer activity of thioglycosides of a novel class of 4-aminoantipyrines and their corresponding pyrazolopyrimidine and pyrazolopyridine thioglycosides. *Tetrahedron.* 2017;73(40):5853-5861 (<https://doi.org/10.1016/j.tet.2017.08.024>).

The authors did respond to our queries but were unable to provide a satisfactory explanation for the alleged image duplication or the overlap with the previously published article. The decision was made to retract the article and the authors were notified of this.

Our decision-making was informed by our policy on publishing ethics and integrity and the COPE guidelines on retraction.

The retracted article will remain online to maintain the scholarly record, but it will be digitally watermarked on each page as “Retracted”.