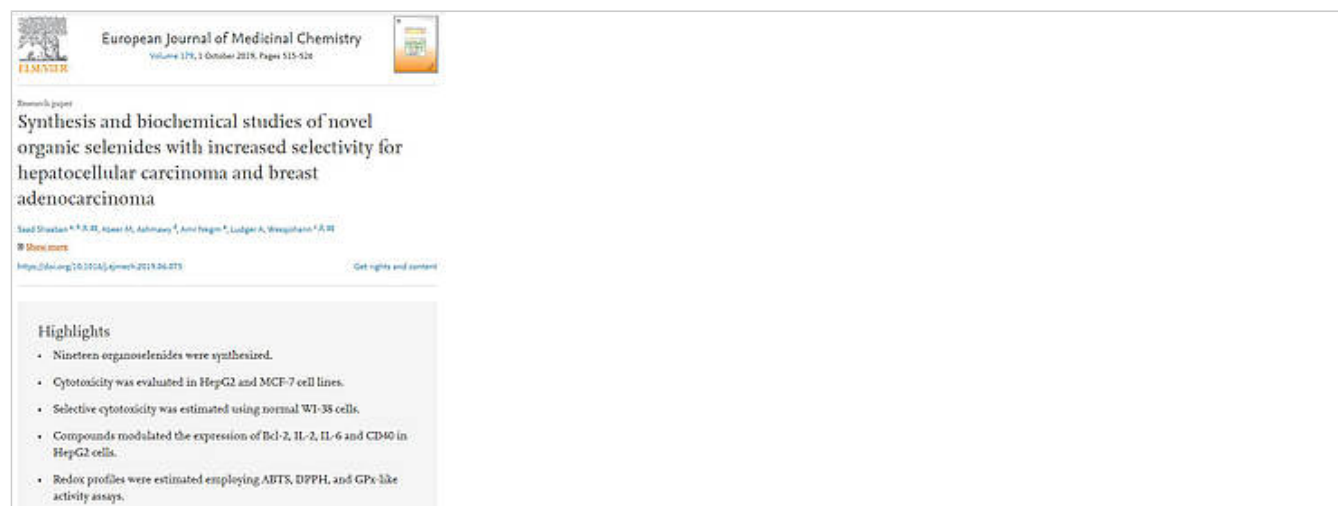


21.10.2019

+++ News Ticker Science #10 +++ Bioactives +++



The screenshot shows the abstract of a research paper titled "Synthesis and biochemical studies of novel organic selenides with increased selectivity for hepatocellular carcinoma and breast adenocarcinoma" published in the *European Journal of Medicinal Chemistry*, Volume 179, 1 October 2019, Pages 515-526. The authors listed are Saad Shaaban, Abeer M. Ashmawy, Amr Negme, Ludger A. Wessjohann, and A. H. The abstract includes a "Highlights" section with the following points:

- Nineteen organoselenides were synthesized.
- Cytotoxicity was evaluated in HepG2 and MCF-7 cell lines.
- Selective cytotoxicity was estimated using normal WI-38 cells.
- Compounds modulated the expression of Bcl-2, IL-2, IL-6 and CD40 in HepG2 cells.
- Redox profiles were estimated employing ABTS, DPPH, and GPr-like activity assays.

Novel organic selenides with increased cytotoxic selectivity for hepatocellular carcinoma and breast adenocarcinoma.

In cooperation with the IPB, scientists from Egypt and Saudi Arabia synthesized 19 organoselenides and tested them for intrinsic cytotoxicity in hepatocellular carcinoma and breast adenocarcinoma cell lines. Their corresponding selective cytotoxicity was estimated using normal lung fibroblast cells. Most of the organic selenides exhibited good anticancer activity, especially on hepatocellular carcinoma cells. Some of them, the naphthoquinone-, the thiazol-, and the azo-based organic selenides demonstrated promising selective cytotoxicity. Moreover, most of the synthesized candidates manifested good free radical-scavenging activities comparable to vitamin C. The study was published in *European Journal of Medicinal Chemistry*.

Reference:

Saad Shaaban, Abeer M. Ashmawy, Amr Negme & Ludger Wessjohann. Synthesis and biochemical studies of novel organic selenides with increased selectivity for hepatocellular carcinoma and breast adenocarcinoma. *European Journal of Medicinal Chemistry* **179**, 515-526.