

## Antiproliferative xanthone derivatives from *calophyllum inophyllum* and *calophyllum soulattri*

### ABSTRACT

Structure-activity relationships of eleven xanthenes were comparatively predicted for four cancer cell lines after the compounds were subjected to antiproliferative assay against B-lymphocyte cells (Raji), colon carcinoma cells (LS174T), human neuroblastoma cells (IMR-32) and skin carcinoma cells (SK-MEL-28). The eleven chemical constituents were obtained naturally from the stem bark of *Calophyllum inophyllum* and *Calophyllum soulattri*. Inophinnin (1) and inophinone (2) were isolated from *Calophyllum inophyllum* while soulattrin (3) and phylattrin (4) were found from *Calophyllum soulattri*. The other xanthenes were from both *Calophyllum* sp. and they are pyranojacareubin (5), rheediaxanthone A (6), macluraxanthone (7), 4-hydroxyxanthone (8), caloxanthone C (9), brasixanthone B (10) and trapezifolixanthone (11). Compound 3 was found to be the most cytotoxic towards all the cancer cell lines with an IC<sub>50</sub> value of 1.25 µg/mL while the simplest xanthone, compound 8 was inactive.