

**Pellitorine, a potential anti-cancer lead compound against HL60 and MCT-7 cell lines and microbial transformation of piperine from Piper nigrum.**

ABSTRACT

Pellitorine (1), which was isolated from the roots of *Piper nigrum*, showed strong cytotoxic activities against HL60 and MCT-7 cell lines. Microbial transformation of piperine (2) gave a new compound 5-[3,4-(methylenedioxy)phenyl]-pent-2-ene piperidine (3). Two other alkaloids were also found from *Piper nigrum*. They are (E)-1-[3',4'-(methylenedioxy)cinnamoyl]piperidine (4) and 2,4-tetradecadienoic acid isobutyl amide (5). These compounds were isolated using chromatographic methods and their structures were elucidated using MS, IR and NMR techniques.

**Keyword:** *Piper nigrum*; Pellitorine; Alkaloids; Cytotoxicity; Microbial transformation; *Aspergillus niger*.