## **Biomaterials**

## MIM.5.P074 Microscopic study of Calcium Oxalate Crystallization in presence of *Triticum aestivum* L extract

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Urolithiasis is a renal pathological condition that occurs due to formation of calculi in the urinary tract. Among the different types of stone constituents, calcium oxalate. The formation of these stones involves several physicochemical events, beginning with crystal nucleation, growth and aggregation, and ending with retention within the urinary tract [1]. The principle causative factor of the formation of stones is attributed to the supersaturation of precipitating salts [2]. As part of our investigation into medicinal plants used by indigenous population in the Algerian Sahara [3], we report here the *in vitro* effect of wheat bran (*Triticum aestivum* L) aqueous extract on calcium oxalate crystallization. The microscopic study of crystallization in absence and in presence of plant extract show the decrease in the size of crystals in the test made in the presence of the wheat bran extract compared with that made in its absence.

<sup>1.</sup> K. Sekkoum, A. Cheriti, S. Taleb and N. Belboukhari. *Arab. J.Chem.* (2011), doi: 10.1016/j.arabjc .2011.10.010 .

<sup>2.</sup> K Sekkoum, A Cheriti, S Taleb Y Bourmita and N Belboukhari. E.J.E.A.F.Ch. (2011), 10(8): 2616-2622.

<sup>3.</sup> K. Sekkoum, A. Cheritia and S. Taleb. Nat. Prod. Comm. (2011), Vol. 6 (10): 1445 – 1446