

13—14 Décembre

2022 Premier séminaire national 'webinaire' sur les substances bioactives

**SUBSTANCE NATURELLE AUJOURD'HUI, MÉDICAMENT PROMETTEUR
DEMAIN !**

ATTESTATION DE PARTICIPATION

Je soussigne, Dr. Thamere CHERIET, président du premier séminaire national sur les substances

bioactives SNAMPD, atteste que Mme, Mlle, Mr : **Abdallah Kherbache**

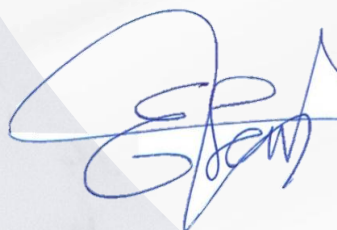
a participé avec une communication poster intitulée :

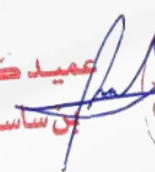
**Free radical scavenging, metal chelating, reducing power and lipid peroxidation inhibition of
aqueous extract of *Anacyclus clavatus***

Co-auteurs: Hamama Bouriche, Saliha Laouicha, Seoussen Kada et Abderrahmane Senator

Le Président du Séminaire
Dr. Thamere Cheriet

Le Doyen de la Faculté des Sciences
Pr. Ettayib BENSACI


SNAMPD
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**“SUBSTANCE NATURELLE AUJOURD’HUI, MEDICAMENT
 PROMETTEUR DEMAIN”**

Le contenu des résumés n'engage que la responsabilité des auteurs.

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Free radical scavenging, metal chelating, reducing power and lipid peroxidation inhibition of aqueous extract of *Anacyclus clavatus*

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Excessive reactive oxygen species generation leading to oxidative stress in the biological system, has been implicated in the pathology of several human diseases. Recently, interest has increased considerably in finding naturally occurring antioxidants to replace synthetic antioxidants, which are being restricted due to their potential health risks and toxicity. This study was carried out to determine the phenolic content and the antioxidant activity of aqueous extract of aerial part of *Anacyclus clavatus* using the DPPH free radical, metal chelating, linoleic acid peroxidation and reducing power assays. The total polyphenol, flavonoid and tannin content of the aqueous extract was found to be $79,06 \pm 3,24$ µg/mg gallic acid equivalent, $16,39 \pm 1,38$ µg/mg quercetin equivalent and $31,14 \pm 2,27$ µg/mg tannic acid equivalent, respectively. The aqueous extract showed a good free radical scavenging activity with IC₅₀ value of $68,98 \pm 1,64$ µg/ml, while the IC₅₀ value of the butylated hydroxyl toluene (BHT), used as standard antioxidant was 44.36 ± 3.10 µg/ml. In addition, the extract showed a good concentration-dependent chelating activity with IC₅₀ of $74,64 \pm 11,68$. Moreover, the extract at 50 µg/ml inhibited strongly (76%) linoleic acid peroxidation. Whereas, aqueous extract exerted a strong concentration-dependent reducing power. These results revealed the high phenolic contents and the antioxidant and free radical scavenging potential of *Anacyclus clavatus*. Thus, our findings provide evidence that *Anacyclus clavatus* is a potential source of natural antioxidants.

Keywords: Oxidative stress, antioxidant activity, *Anacyclus clavatus*, plant extract, phenolic content.