



الجمهورية الجزائرية الديمقراطية الشعبية وزارة التعليم العالي و البحث العلمي

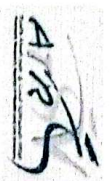
REPUBLIQUE ALGERIENNE DEMOCRATIQUE ET POPULAIRE

MINISTERE DE L'ENSEIGNEMENT SUPERIEUR ET DE LA RECHERCHE SCIENTIFIQUE

جامعة سعد دحلب البليدة 1

Université Saad Dahlab BLIDA 1

Faculté des Sciences de la Nature et de la Vie



EXPENSIMED



Attestation de Participation

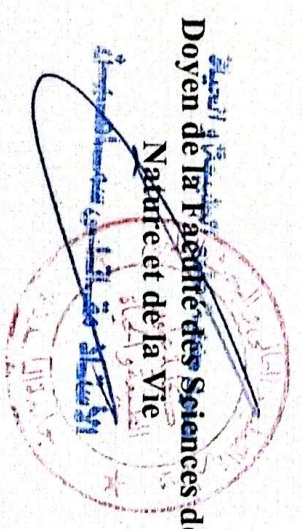
La présidente du 2^{ème} Symposium National de Biologie Pharmacotoxicologie & Bioproduits des Plantes Aromatiques et Médicinales (2SNBPT-PAM-2025), tenu le 28-29 Mai 2025 au niveau de l'Université de Blida -1, atteste que :

Pr BOUDJELAL Amel (Université de Msila) a participé activement au Symposium et a présenté une

Communication Orale Intitulée : « Pharmacotoxicological Investigation of Arisarum vulgare Tubers:

Chemical Characterization and Anticancer Activity »

Co-auteurs : KOCAMAN Asil Yildirim, BOUAFIA Zineb, CHABANE Sarra, DEMIRTAS Ibrahim



Présidente du 2^{ème} Symposium de Biologie Pharmacotoxicologie & Bioproduits des Plantes Aromatiques et Médicinales
Pr. KHALDOUN Hassina



Blida : 28 - 29 MAI 2025

Pharmacotoxicological Investigation of *Arisarum vulgare* Tubers: Chemical Characterization and Anticancer Activity

Amel Boudjelal^{1,2}, Aslı Yıldırım Kocaman³, Zineb Bouafia^{1,2}, Sarra Chabane^{1,2}, Ibrahim Demirtas^{4,5}

¹Department of Microbiology and Biochemistry, Faculty of Sciences, University of M'sila, Algeria.

²Laboratory of Biology: Applications in Health and Environment, University of M'sila, Algeria.

³Research Laboratory Practice and Research Center, Iğdir University, 7600, Iğdir, Turkey.

amel.boudjelal@univ-msila.dz

Abstract

The pharmacotoxicological exploration of plant-derived bioactive compounds is essential for the scientific validation of traditional remedies and their potential therapeutic use. *Arisarum vulgare*, a medicinal plant widely used in Algerian folk medicine for cancer-related treatments, was investigated for its cytotoxic effects and chemical composition. An aqueous extract of its tubers was subjected to phytochemical screening (LCMS-MS), revealing the presence of key secondary metabolites such as phenolics, flavonoids, and alkaloids.

In vitro cytotoxicity assays were performed using the MTT method on two human cancer cell lines: HT-29 (colorectal cancer) and HepG2 (liver cancer), with 5-Fluorouracil (5-FU) as a reference drug. The extract demonstrated a dose- and time-dependent reduction in cell viability, with IC₅₀ values indicating notable antiproliferative activity, particularly after 48 hours of treatment at concentrations between 50–100 µg/mL.

These findings support the pharmacological relevance of *Arisarum vulgare* tubers as a potential source of anticancer agents and highlight the importance of toxicological assessment in the development of safe and effective plant-based therapies. This study contributes to the scientific valorization of a traditional medicinal plant within the framework of pharmacotoxicology.

Keywords: *Arisarum vulgare*, traditional medicine, bioactive compounds, cytotoxicity, MTT assay, cancer therapy,