

Meeting Report “CANNABIS SATIVA, SCIENTIFIC DAY EVENT”, NADOR, MOROCCO

The University Mohammed First and the Multidisciplinary Faculty of Nador organized on Saturday July 10, 2021, in Nador, Morocco, the First Edition of the Symposium “Research for Biodiversity and the Pharmaceutical and Medicinal Valorization of the plant *Cannabis sativa*”. This meeting brought together experts, scientific researchers from testing laboratories, medical practitioners, academics scientists and even novices interested in the topic to reflect together on the means to be implemented to promote science and education on the plant of *Cannabis* and on methods for the positive exploitation of this natural resource.



L'Université Mohammed Premier (UMP) et la Faculté Pluridisciplinaire de Nador (FPN) organise en partenariat avec l'Association Marocaine Consultative d'Utilisation du Cannabis (AMCUS) :

La Première Edition du Symposium “Recherche pour la Biodiversité et la Valorisation Pharmaceutique et Médicinale de la plante CANNABIS SATIVA”

Le samedi 10 juillet 2021, de 9h à 18h, à Nador, Maroc

APPEL A COMMUNICATION



Dernier délai de Soumission des Résumés : 25 juin 2021

Comité d'Honneur :

Pr. Yassine Zarhloule, Président de l'UMP
Pr. Ali Azdimoussa, Doyen de la FPN
Pr. Redouane Rabli, Président de l'AMCUS

Chair-Comite :

* Pr. Kamal Aberkani, FPN
* Pr. Hassan Ghazal
* Pr. Najib Al Idrissi, AMCUS

Préambule :

L'UMP et la FPN place au cœur de leurs missions et accordent, dans leurs politiques d'ouverture, une importance majeure aux journées et aux activités scientifiques. Le but de cette rencontre est de rassembler des experts, des chercheurs scientifiques des laboratoires d'essais, des praticiens médicaux, des décideurs voire des novices intéressés par la thématique pour réfléchir sur les moyens à mettre en œuvre pour promouvoir la science et l'éducation sur la plante du cannabis et sur les méthodes pour une exploitation positive de cette ressource naturelle.

Sessions :

- Cérémonie d'ouverture: 9h30-10h30
- Session 1 : Biologie du Cannabis : 11h-12h30
 - Session 2 : Biodiversité et Agriculture ; 14h-15h30
 - Session 3 : Valorisation Industrielle (Médicale, Pharmaceutique Cosmétique, Nutritive); 16h-17h30
 - Remarques/Recommandations et Clôture: 17h30-18h

Activités :

- Conférences plénières
- Communications orales
- Communication Affichées

Intervenants :

- Membres des Institutions académiques et universitaires
- Membres des Organismes publiques et semi-publiques
- Responsables d'Entreprises
- Doctorants



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This symposium was focused on two main topics: (i) analytical techniques, pharmacology and medicine; (ii) biochemistry, agronomy and biodiversity. Three plenary lectures, 14 oral communications and 15 poster presentations were projected during this meeting. This refers to research that has been conducted or is being done on *Cannabis sativa*, in Morocco. About fifty people attended this meeting, representing public and semi-public organizations, members of academic and university institutions, business managers, researchers and doctoral students. In an atmosphere of debate and scientific exchanges, the meeting was structured with relevant recommendations about the construction of multidisciplinary national research teams in order to promote research and investigation on this plant in terms of industrial, medical, pharmaceutical, cosmetic and nutritional valorization. Also, to setup scientific research in the field of agricultural production and practices, biodiversity, biochemistry, genetics, etc. This event was coordinated by Prof. Kamal Aberkani (Multidisciplinary Faculty of Nador, University Mohammed First) and Prof. Hassan Ghazal, (University Mohammed VI of Health Sciences).



The following table summarizes most of the subjects that were proposed during this first scientific event on *Cannabis sativa*, in Morocco.

TOPIC 1: Analysis Techniques, Pharmacology and Medicine
✓ Cardiovascular pharmacological effects of cannabinoids in general and cannabidiols in particular: Project ANPMA / CNRST / USMBA (VPMA 2019-9)
✓ How to evaluate bioactivity of cannabinoids on the basis of modern bioinformatics pom theory: a new fast way to get success in pharmaceutical applications of <i>Cannabis sativa</i> L.
✓ AGQ LABS MAROC: Innovative methods and technologies for the analysis of <i>Cannabis sativa</i> L.
✓ Activation of muscarinic receptors by ethanolic fraction of <i>Cannabis sativa</i> induces vascular relaxation on rat arterial mesenteric bed
✓ Study of the spasmogenic effect of ethanolic extract of <i>Cannabis sativa</i> on rabbit jejunum
✓ Can cannabinoids suppress the cytokines cascade in patients with coronavirus disease COVID-19?
✓ Cannabinoids: analgesics of the future: role of CB2 receptors in opioid signaling in pain and addiction

- ✓ Acute cannabidiol treatment attenuates ethanol-induced place preference and reduces aggressivity in group housed male rats
- ✓ Place of cannabinoids in pediatrics
- ✓ Skin and cannaboids
- ✓ SHUMADZU instruments research platforms for the analysis of *Cannabis sativa* L.
- ✓ Depicting the aetiology of Parkinson's disease: possible role for the endocannabinoid system in the regulation of neuroinflammation and oxidative stress in LPS and 6OHDA-induced neuroinflammation
- ✓ Energy metabolism and anti-inflammatory therapy: role of cb1 cannabinoid receptors in the regulation of astrocytic metabolic "switches" in a cellular model of neuroinflammation
- ✓ Behavioural and epigenetic effects of paternal exposure to cannabinoids during adolescence on offspring vulnerability to stress
- ✓ Molecular modeling for drug discovery and development: hit identification targeting ACE2 receptor using *Cannabis sativa*'s active ingredients for an antiviral drug development against SARSCOV2 infections
- ✓ Cannabis compound prevents SARS-COV-2 replication in human lung cells
- ✓ Valorization of cannabinoid and non-cannabinoid compounds of the *Cannabis sativa* L. plant for pharmaceutical and medicinal purposes
- ✓ M-Health apps to reduce cannabis consumption: An app store review

TOPIC 2: Biochemistry, Biodiversity and Agronomy

- ✓ Industrial Valorization of *Cannabis sativa* L. seeds by incorporation into the diet of laying hens. ump oujda project, valorization of medicinal and aromatic plants under the reference of the CNRST: 2nd PMA 2020/1. UMP-Oujda/ANAPAM-Taounate/ IRTSEF-Kenitra collaboration
- ✓ TLC Phytochemical characterization test of *Cannabis sativa* seed extracts from five Moroccan morphotypes
- ✓ Nutraceutical anticancer potential of hemp seeds of five species of *Cannabis sativa* L.
- ✓ Hemp (*Cannabis sativa* L.) Seed and co-products incorporation in animal nutrition as an alternative for eggs and meat enrichment with Omega-3 fatty acids: A review
- ✓ Analysis of fatty acids and triglycerides of *Cannabis* seed oil of critical as a European variety of hemp cultivated in northern Morocco
- ✓ Chromatographic analysis of Moroccan *Cannabis* seed oil
- ✓ *Cannabis Sativa* organelles' genomes analysis
- ✓ Quality of hemp seed oil (*Cannabis sativa* L.) obtained by aqueous enzymatic extraction
- ✓ Anti-parasitic and insecticidal effect of cannabis: case of Leishmaniasis control
- ✓ Study of the germination of seeds of 5 morphotypes of Moroccan cannabis under different abiotic constraints
- ✓ Traditional use of *Cannabis sativa* L. in Morocco
- ✓ Taxonomic, botanical and chemical aspects of *Cannabis sativa* L. grown in Morocco





