



**Dr. Meherzia MOKNI**

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**Personal**

Date of birth : 24 June 1976  
Place of birth : Tunis, Tunisia  
Material status : Unmarried  
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**Education**

**2013** : HDR in Biological Sciences (speciality : Animal physiology) (Protective effect of bioactive phytochemicals on some physiological functions).

**2007**: Ph.D. in Biological Sciences (speciality : Animal physiology). (Effect of *Allium sativum* on blood glucose, blood lipids and cardiac activity in Wistar rats: Biochemical characterization and mechanism of action of isolated fractions).

**2001**: DEA in Genetics and Molecular Biology, Faculty of Sciences of Tunis (Grade: Very Good). (Modulation of cardiac activity by biomolecules of *Allium sativum*: biochemical and electrophysiological studies of isolated heart).

**1999**: Master of Natural Sciences, Faculty of Science Tunis (Main Session, Mention: fair).

**1997**: DEUS Natural Sciences, Faculty of Sciences Tunis (Main Session, Mention: Fair).

**1995**: Bachelor, High School Echabbi Tunis (Main Session, Mention: Fair).

## Positions

**2020:** Professor at the Higher Institute of Biotechnology, Béja (Tunisia).

**2013:** Lecturer at the Higher Institute of Biotechnology, Béja (Tunisia).

**2009-2013:** Assistant professor at the Higher Institute of Biotechnology, Beja (Tunisia), for the teaching of courses for Biotechnology Development and Fundamentals of Animal Production.

**2007- 2009:** Assigned to the Faculty of Science of Sfax (Tunisia) as an assistant professor in Biological Sciences (taking office: September 2007).

**2005-2007:** Temporary assistant of the practical lessons of the optional module of Nutrition at Faculty of Sciences of Tunis (Tunisia).

**2002-2005 :** Assistant contract at Faculty of Sciences of Tunis (Tunisia) responsible for the teaching of practical work of Animal Physiology for the students of the Masters of Science Life (SV2) and Life Sciences and Earth (SVT2).

## Main research topics

Anesthesia, Surgery and care of small animals

Pancreatectomy, castration, ovariectomy

Recording the electrical and mechanical activity of isolated amphibian heart.

Recording the electrical and mechanical activity of isolated mammalian heart.

Echocardiography in rats and mice.

Colorimetric assay (protein, cholesterol, triglycerides, transaminases)

Radio immunological assays (insulin).

Column chromatography.

Thin-layer chromatography.

Electrophoresis plate.

Westernblotting.

## Research projects

- **CMCU 2007-2009** : This research project investigates the involvement of glial cells; including astrocytes in the development of Alzheimer's disease. The main objective is to study the role of endozepines in the development of Alzheimer's disease.

- **CMPTM 2010-2012** : The effect of heavy metals (Pb, Al, Cd) of polluted water on brain health : neuro-protective effects of

some Moroccan and Tunisian medicinal plants in the chemical stress induced by heavy metals.

- **17TM03 2017-2020** : In vivo and in vitro study of heavy metals (copper / aluminum) induced intoxication of drinking water, on cerebral health: Experimental, epidemiological and clinical investigation of protection neurogliale by purified extracts of aromatic plants (*Curcuma longa* and *Crocus sativus*).
- **PHC-UTIQUE 2020-2022** : Study of the curative effect of grape seed extract, in this case called: GSE (Grape Seed Extract) on experimental autoimmune encephalomyelitis in mice.

### Academic affiliation

**2014 - 2019** : Board member of the Tunisian Association of Biotechnology and Bioresources valuation

**2011 - 2014** : Board member of the Tunisian Association of Biological Sciences, for a term of 3 years.

**2006 - 2008**: Member of the Association of Biotechnology Maghreb.

**2004 - 2008**: Member of the Association of Women and Science.

**2001 - 2011**: Member of the Tunisian Association of Biological Sciences.

### List of publications

- 1. Mehrzia MOKNI, Ferid LIMAM, Mohamed AMRI, & Ezzedine AOUANI. (2006).** Acute effects of a partially purified fraction from garlic on plasma glucose and cholesterol levels: putative involvement of nitric oxide. *Indian Journal of Biochemistry and Biophysics*. 43: 386-390.
- 2. Meherzia MOKNI, Ferid LIMAM, Salem ELKAHOUI, Mohamed AMRI & Ezzedine AOUANI. (2007).** Strong cardioprotective effect of resveratrol, a red wine polyphenol, on isolated rat hearts after ischemia/reperfusion injury. *Archives of Biochemistry and Biophysics*. 457: 1-6.
- 3. Meherzia MOKNI, Salem ELKAHOUI, Ferid LIMAM, Mohamed AMRI & Ezzedine AOUANI. (2007).** Effect of resveratrol on antioxidant enzyme activities in the brain of healthy rat. *Neurochemical Research*. 32: 981-987.
- 4. MOKNI Meherzia, LIMAM Ferid, AMRI Mohamed, & AOUANI Ezzedine. (2009).** Plasma lipid modulating activity of intraperitoneally administered aqueous extract from raw garlic: acute studies in normo-lipidemic rat. *Journal of Food Biochemistry*. 33: 355-367.
- 5. MOKNI Meherzia, HAMLAOUI-GUESMI Sonia, AMRI Mohamed, MARZOUKI Lamjed, LIMAM Ferid & AOUANI Ezzedine. (2012).** Grape Seed and Skin Extract Protects Against Acute Chemotherapy Toxicity induced by Doxorubicin in Rat Heart. *Cardiovascular Toxicology*. 12 : 158-165.
- 6. Meherzia MOKNI, Sonia HAMLAOUI, Ines KARKOUCH, Mohamed AMRI, Lamjed MARZOUKI, Ferid LIMAM & Ezzedine AOUANI. (2013).**

Resveratrol provides cardioprotection after ischemia/reperfusion injury. *Iranian Journal of Pharmaceutical Research*. 12(4): 867–875

**7. Meherzia MOKNI**, Sonia HAMLAOUI, Ferid LIMAM, Mohamed AMRI, Ezzedine AOUBANI. (2013). Acute modulation of rat plasma glucose by an aqueous extract of garlic. *African Journal of Pharmacy and Pharmacology*. 7(30): 2167-2172

**8. MOKNI Meherzia**, HAMLAOUI Sonia, KADRI Safwen, AMRI Mohamed, MARZOUKI Lamjed, LIMAM Ferid & AOUBANI Ezzedine. (2015). Grape Seed and Skin Extract Attenuates Oxidative Stress induced by Doxorubicin in Rat Liver. *Pakistan Journal of Pharmaceutical Sciences*. 28 : 1971-1978.

**9. MOKNI Meherzia**, HAMLAOUI Sonia, KADRI Safwen, AMRI Mohamed, MARZOUKI Lamjed, LIMAM Ferid & AOUBANI Ezzedine. (2016). Grape Seed and Skin Extract Protects Kidney from Doxorubicin Induced Oxidative Injury. *Pakistan Journal of Pharmaceutical Sciences*. 29 : 961-968.

**10. MOKNI Meherzia**, AMRI Mohamed, LIMAM Ferid & AOUBANI Ezzedine. (2016). Effect of grape seed and skin supplement on milk yield and composition of dairy ewes. *Tropical Animal Health and Production*. 29 : 961-968.

**11. HAMLAOUI-GUESMI Sonia**, **MOKNI Meherzia**, AOUBANI Ezzedine, AMRI Mohamed & MARZOUKI Lamjed. (2011). Modulation of haematological parameters by garlic based on route of administration in rat. *Journal of Food Biochemistry*. 35: 442-453.

**12. Sonia HAMLAOUI-GUESMI**, **Meherzia MOKNI**, Nadia LIMAM, Ferid LIMAM, Mohamed AMRI, Ezzedine AOUBANI and Lamjed MARZOUKI. (2011). Effect of the route of garlic treatment on modulation of liver and spleen redox status in rats. *Journal of Medicinal Plants research*. 5: 3466-3474.

**13. Sonia HAMLAOUI-GASMI**, **Meherzia MOKNI**, Ferid LIMAM, Mohamed AMRI, Ezzedine AOUBANI and Lamjed MARZOUKI. (2011). Effect of the route of garlic treatment on modulation of erythrocytes and plasma redox status in rats. *Journal of Medicinal Plants research*. 5: 2508-2513.

**14. Sonia HAMLAOUI-GASMI**, **Meherzia MOKNI**, Nadia LIMAM, Ferid LIMAM, Mohamed AMRI, Ezzedine AOUBANI and Lamjed MARZOUKI. (2011). Grape seed extract mitigates garlic-induced oxidative stress in rat spleen and plasma. *Journal of Medicinal Plants research*. 5: 6076-6084.

**15. HAMLAOUI Sonia**, **MOKNI Meherzia**, LIMAM Nadia, CARRIER Alice, LIMAM Ferid, AMRI Mohamed, MARZOUKI Lamjed & AOUBANI Ezzedine. (2012). Resveratrol protects against acute chemotherapy induced by doxorubicin in rat erythrocyte and plasma. *Journal of Physiology and Pharmacology*. 63 : 293-301.

**16. Sonia HAMLAOUI**, **Meherzia MOKNI**, Nadia LIMAM, Alice CARRIER, Ferid LIMAM, Mohamed AMRI, Lamjed MARZOUKI, & Ezzedine AOUBANI. (2012). Grape Seed and Skin Extract protects against acute chemotherapy toxicity induced by doxorubicin in rat red blood cells. *Bangladesh Journal of Pharmacology*. 7: 54-62.

17. Sonia HAMLAOUI-GUESMI, **Meherzia MOKNI**, Nadia LIMAM, Prudence N'GUESSAN, Alice CARRIER, Ferid LIMAM, Mohamed AMRI, Ezzedine AOUBANI & Lamjed MARZOUKI. (2012). Grape Seed and Skin Extract mitigates garlic-induced oxidative stress in rat liver. *Canadian Journal of Physiology and Pharmacology*. 90: 547-556.
18. Sonia HAMLAOUI-GASMI, **Meherzia MOKNI**, Nadia LIMAM, Ferid LIMAM, Mohamed AMRI, Ezzedine AOUBANI and Lamjed MARZOUKI. (2012). Effect of garlic's mode of administration on erythrocytes and plasma parameters in Wistar rats. *African Journal of Biochemistry*. 11: 8259-8263.
19. Sonia HAMLAOUI-GASMI, Nadia LIMAM, **Meherzia MOKNI**, Ferid LIMAM, Ezzedine AOUBANI, Mohamed AMRI, and Lamjed MARZOUKI. (2011). Garlic-mode treatment effects on rat brain redox status. *Journal of Medicinal Plants research*. 5: 5094-5098.
20. Sonia HAMLAOUI-GASMI, Nadia LIMAM, **Meherzia MOKNI**, Ferid LIMAM, Ezzedine AOUBANI Mohamed AMRI, and Lamjed MARZOUKI. (2011). Grape seed extract mitigates high dosage garlic-induced toxic effects on erythrocyte and plasma parameters. *African Journal of Pharmacy and Pharmacology*. 5: 1945-1949.
21. Sonia HAMLAOUI-GASMI, Nadia LIMAM, **Meherzia MOKNI**, Ferid LIMAM, Ezzedine AOUBANI, Mohamed AMRI, and Lamjed MARZOUKI. (2012). Modulation of heart redox status by garlic based on route of administration in rat. *African Journal of Biotechnology*. 11: 912-918.
22. Sonia HAMLAOUI, Oumayma SAMTI, **Meherzia MOKNI**, Nadia LIMAM, Alice CARRIER, Ferid LIMAM, Mohamed AMRI, Ezzedine AOUBANI and Lamjed MARZOUKI. (2012). Protective effect of grape seed and skin extract on high dosage garlic-induced renal oxidative stress. *Bangladesh Journal of Pharmacology*. 7: 77-86.
23. Sonia HAMLAOUI, Oumayma SAMTI, **Meherzia MOKNI**, Nadia LIMAM, Ferid LIMAM, Ezzedine AOUBANI, Mohamed AMRI, and Lamjed MARZOUKI. (2012). Modulation of renal redox status by garlic based on route of administration in rat. *African Journal of Pharmacy and Pharmacology*. 6: 1843-1849.
24. Yosra HAMDY, Olfa MASMOUDI-KOUKI, Hadhemi KADDOUR, Feten BELHADJ, Pierrick GANDOLFO, David VAUDRY, **Meherzia MOKNI**, Jérôme LEPRINCE, Raya HACHEM, Hubert VAUDRY, Marie-Christine TONON, Mohamed AMRI. (2011). Protective effect of the octadecaneuropeptide on hydrogen peroxide-induced oxidative stress and cell death in cultured rat astrocytes. *Journal of neurochemistry*. 118(3): 416-28.
25. HAMMAMI Imen, NAHDI Afef, ATIG Fatma, KOUIDHI Wided, AMRI Mohamed, **MOKNI Meherzia**, EL MAY Ahmed, EL MAY Michèle. (2013). Effects of garlic fractions consumption on male reproductive functions. *Journal of Medicinal Food*. 16(1):82-87.
26. KADRI Safwen, SMINE Selima, ELAYED Mohamed, LIMAM Ferid, COSETTE Pascal, AMRI Mohamed, AOUBANI Ezzedine, and **MOKNI Meherzia**, (2015). Protective effect of grape seed and skin extract on cerebral ischemia in rat: implication of transition metals. *Stroke*. 10(3):415-424

27. Hamdi Yosra, Madfai Heyfa, Belhareth Rym, **MOKNI Meherzia**, Masmoudi-Kouki Olfa, Amri Mohamed. (2016). Prenatal exposure to cigarette smoke enhances oxidative stress in astrocytes of neonatal rat. *Toxicol Mech Methods*. 21:1-7.
28. Dhouha Karoui-Kharrat, Hadhemi Kaddour, Yosra Hamdi, **Meherzia Mokni**, Mohamed Amri, Sana Mezghani. (2017). Response of antioxidant enzymes to cadmium induced cytotoxicity in rat cerebellar granule neurons. *Open Life Sci*. 12:113–119
29. Amira Hammami, Mohamed Amri and **Meherzia Mokni**. (2018). Low-level laser irradiation protects the chick embryo chorioallantoic membrane from UV cytotoxicity. *Arch Biol Sci*. 70(1):119-127.
30. Protective role of vitamin E against cadmium induced oxidative stress into the rat liver Sana Bahri, Hadhemi Kaddour, Dhouha Karoui, Saadia Bouraoui, Mohamed Amri, Meherzia Mokni
29. Kadri Safwen, El Ayed Mohamed, Mabrouk Maha, Limam Ferid, Elkahoui Selem, Aouani Ezzedine, **Mokni Meherzia**. (2019). Characterization, anti-oxidative effect of grape seed powder and in silico affinity profiling of polyphenolic and extra-phenolic compounds for calpain inhibition. *J Pharm Biomed Anal*. 164:365-372.
30. Safwen Kadri, Mohamed El Ayed, Pascal Cosette, Thierry Jouenne, Salem Elkhaoui, Sami Zekri, Ferid Limam, Ezzedine Aouani, **Meherzia Mokni**. (2019). Neuroprotective effect of grape seed extract on brain ischemia: a proteomic approach. *Metabolic Brain Disease*. 34 : 889-907.
31. Safwen Kadri, Mohamed Elayed, Ferid Limam, Ezzedine Aouani, **Meherzia Mokni**. (2020). Protective effect of (Xenical+GSF) against I/R-induced blood brain barrier disruption, ionic edema, lipid deregulation and neuroinflammation. *Microvasc Res*. 132 : 104054.
32. Safwen Kadri, Mohamed El Ayed, Ferid Limam, Ezzedine Aouani, **Meherzia Mokni**, (2020). Preventive and curative effects of grape seed powder on stroke using in vitro and in vivo models of cerebral ischemia/reperfusion. *Biomedicine & Pharmacotherapy*. 125.
33. Safwen Kadri, Mohamed El Ayed, Amal Kadri, Ferid Limam, Ezzedine Aouani, **Meherzia Mokni**. (2021). Protective effect of grape seed extract and orlistat co-treatment against stroke: Effect on oxidative stress and energy failure. *Biomedicine & Pharmacotherapy*. 136 : 111282.
34. Heyfa Hadriche-Jarraya, Ferid Limam, Ezzedine Aouani, Mohamed Amri and **Meherzia Mokni**. (2021). Vasomodulatory effects of semi-purified fractions of garlic aqueous extract on chick chorioallantoic membrane. *Pak. J. Pharm. Sci*.