# Mounir

E-Mail: mounir.363055@2freemail.com

###### PhD – Biochemistry and Pharmacology

### Academic qualifications

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| 2007-2012 2004-20062001- 20032000- 20011998- 1999 | **:** **:****:****:****:** | **PhD**, speciality: Biochemistry and pharmacology. Sultan Moulay Slimane University, Morocco. **Research topic**: **Antitumor Activity *of* Natural Product: Chemical, cellular and molecular analysis.****Master’s degree,** speciality: Biotechnology (health and nutrition).Faculty of Science, Tétouan. Morocco**Master in Science** degree **(maîtrise)**, specialty: Food Technology*.*Cadi Ayyad University, Marrakech. Morocco**Higher Diploma** in Science, Speciality: Biology. Cadi Ayyad University. Marrakech. Morocco***Bachelor’s degree*** *in experimental sciences*. El Amria High School, Beni Mellal. Morocco |

### Professional positions held

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| November 2013to March 2017September 2012 to September 2013 | **Postdoctoral Researcher (Research project N° 09/AP2013)** **- Research topics: Natural Product-Based Anticancer Drug Discovery / Gene expression profiles for triple-negative breast cancer in Moroccan population.** Cellular and Molecular Immuno-pharmacology, Immunobiology of Cancer Cells Cluster. Faculty of Science and Technology. **Sultan Moulay Slimane University, Beni-Mellal - Marrakech University Hospital Centre. Morocco**.**Postdoctoral Researcher, Research topic: Effects of Chemopreventive Agents on Activation of the Intrinsic Apoptotic Pathway in Cancer.** Department of chemical and life sciences, pharmaceutical and molecular biotechnology research center - **Waterford Institute of Technology. Ireland**. |

### Academic Publications and Conference Presentations

***Peer-reviewed journal articles list***

**Tilaoui, M**., Mouse, H.A., Jaafari, A. and Zyad, A., 2015. Comparative phytochemical analysis of essential oils from different biological parts of Artemisia herbaalba and their cytotoxic effect on cancer cells.

PloS one, 10(7), p.e0131799.

**Tilaoui, M**., Mouse, H.A., Jaafari, A. and Zyad, A., 2014.Differential effect of artemisinin against cancer cell lines. Natural products and bioprospecting, 4(3), pp.189-196.

**Tilaoui, M**., Mouse, H.A., Jaafari, A., Aboufatima, R., Chait, A. and Zyad, A., 2011.Chemical composition and antiproliferative activity of essential oil from aerial parts of a medicinal herb Artemisia herba-alba. *Revista Brasileira de Farmacognosia*, *21*(4), pp.781-785.

Oukerrou, M. A., **Tilaoui, M**., Mouse, H. A., Bouchmaa, N. and Zyad, A. (2017), Differential Cytotoxic Activity of Essential Oil of Lippia citriodora from Different Regions in Morocco. Chem. Biodiversity, e1600497. doi:10.1002/cbdv.201600497

M. A Oukerrou, **MounirTilaoui**, Hassan Ait Mouse, InassLeouifoudi, AbdeslamJaafari, and AbdelmajidZyad, (2017)“Chemical Composition and Cytotoxic and Antibacterial Activities of the Essential Oil of Aloysiacitriodora Palau Grown in Morocco,” Advances in Pharmacological Sciences, vol. 2017, Article ID 7801924, 10 pages, 2017. doi:10.1155/2017/7801924.

Jaafari, A., **Tilaoui**, M., Mouse, H.A., M'bark, L.A., Aboufatima, R., Chait, A., Lepoivre, M. and Zyad, A., 2012. Comparative study of the antitumor effect of natural monoterpenes: relationship to cell cycle analysis. *Revista Brasileira de Farmacognosia*, *22*(3), pp.534-540.

Lébri, M., **Tilaoui, M**., Bahi, C., Achibat, H., Akhramez, S., Fofié, Y.B.N., Gnahoué, G., Lagou, S.M., Zirihi, G.N., Coulibaly, A. and Zyad, A., 2015. Phytochemical analysis and in vitro anticancer effect of aqueous extract of Abrus precatorius Linn. *Der Pharma Chemica*, , 7(8):112-117

S. M. Lagou, M. Lébri, **Tilaoui, M.** , H. Achibat , W. M. Koné , H. F. Tra Bi , H. Ait Mousse , H. Ouchetto , A. Hafid , A. Zyad and M. Khouili. , 2016, Phytochemical analysis and in vitro antioxidant activity of extracts of Entandophragmaangolense (Welw.) C.DC. (Meliaceae) a medicinal plant used in the treatment of obstetric fistula in Ivory Coast. *Der Pharma Chemica* 8(10):192-197

Mouse, H.A., **Tilaoui**, **M**., Jaafari, A., M'barek, L.A., Aboufatima, R., Chait, A. and Zyad, A., 2012. Evaluation of the in vitro and in vivo anticancer properties of Moroccan propolis extracts. *Revista Brasileira de Farmacognosia*, *22*(3), pp.558-567

Leouifoudi, I., Mbarki, M**., Tilaoui, M**., Amechrouq, A., Rakib, E.M., Mouse, H.A. and Zyad, A., 2014. Study of the in vitro anticancer activity of Moroccan phenolic olive cake extracts. *Journal of Pharmacognosy and Phytochemistry*, *2*(6).

Dehbi, F., Hasib, A., **Tilaoui, M**., El Batal, H., Zaki, N., Ouatmane, A., Jaouad, A. and Zyad, A., 2013. Bioactive constituents, antioxidant activity and in vitro cancer cell cytotoxicity of moroccan prickly pear (Opuntiaficusindica L.) juices. *Journal of Natural Sciences Research*, *3*(14), pp.12-20.

AbdeslamJaafari, Hassan Ait Mouse, LahcenAitM’bark, **Tilaoui, M**., Mohamed Elhansali, Michel Lepoivre, RachidaAboufatima, Ahmed Melhaoui, Abderrahmane Chait, Abdelmajid Zyad., 2009. Differential antitumor effect of essential oils and their major components of Thymus broussonettii: relationship to cell cycle and apoptosis induction. *J.Herba Polonica*. Vol.55 N 2.

Jaafari, A., Mouse, H.A., Rakib, E.M**., Tilaoui**, **M**., Benbakhta, C., Boulli, A., Abbad, A. and Zyad, A., 2007.Chemical composition and antitumor activity of different wild varieties of Moroccan thyme. *Revista Brasileira de Farmacognosia*, *17*(4), pp.477-491.

***Papers submitted***

* More insights into the pharmacological effects of artemisinin. Zyad, Abdelmajid; **Tilaoui, Mounir**; Jaafari, Abdeslam; Oukerrou, MoulayAli ;Ait Mouse, Hassan. **(**Paper submitted to Phytotherapy Research)
* *In vitro* antitumor activity of newly synthesized Pyridazin-3(2H)-one derivatives by apoptosis induction.Najat Bouchmaa, **Mounir Tilaoui**, Youness Boukharsa, AbdessalamJaâfari, Hassan Aît Mouse, My. Ali Oukerrou, Jamal Taoufik, M’hammed Ansar, Abdelmajid Zyad. **(**Paper submitted to Pharmaceutical Chemistry Journal)
* Anticancer and apoptotic activity of *Artemisia herbaalba* ethyl acetate extracte towards CCRF-CEM cells**.**

**Mounir Tilaoui,** John Paul Phelan, Michael Harrison, Hassan Ait Mouse, Abdelmajid Zyad and Orla O’Donovan (Under submission)

* Antitumor study of A Novel Class of Ethacrynic Acid Derivatives.

**Mounir Tilaoui,** Serge Mignani, Nabil El Brahmi, Saïd El Kazzouli, Jean-Pierre Majoral, Hassan Ait Mouse, Abdelmajid Zyad (Under submission)

* Studies on the dual *in vitro* anticancer and antioxidant properties of Berberis vulgaris extracts and its main constituent berberine

Lamyae El khalki, **Mounir Tilaoui**, AbdeslamJaafari, Hassan Ait Mouse and AbdelmajidZyad(Paper submitted to Advances in Pharmacological SciencesJournal )

***Conference Presentations* (Participation at more than twenty scientific manifestations events, below some of them)**

* Artemisinin as an anticancer agent: evidence from inhibition of cancer cells viability and tumor growth**.Tilaoui Mounir**, Ait Mouse Hassan, Jaafari Abdeslam, Zyad Abdelmajid.

2nd International Congress on Cancer (ICCBM-2016), which will be held in Beni Mellal on May 19-21, 2016.

* Potential anti-cancer activities of Artemisinin, a sesqueterpene lactone from *Artemisia annua.*

**Mounir Tilaoui**, Hassan Ait Mouse, Abdeslam jaafari, &Abdelmajid Zyad (Sao Paulo advanced school on Redox processes in biomedicine” August, 13th – 21st. 2011 Sao pedro, Brazil.

* Comparative chemical composition and antiproliferative activity of *Artemisia herba alba* asso against cancer cell lines.

**Tilaoui Mounir**, Ait Mouse Hassan, JaafariAbdeslam, and ZyadAbdelmajid( International Congress on Aromatic and Medicinal Plants April, 13th - 15th, 2011 - Cagliari, Italy).

* Artemisinin: a promising anti-cancer drug from natural sources.

**Tilaoui, M.;** Ait Mouse, H.; Jaafari, A.; AitM'barek, L. and A Zyad (Biosystematics Berlin 2011 congress: 7th International Congress of Systematic and Evolutionary Biology. 21-27 February, Berlin. Germany)

* Cytotoxic effect of Propolis extracts on tumor cells, apoptosis induction and cell cycle arrest.

Ait Mouse H., Jaafari A**., Tilaoui M**., Zyad A. International congress of Oncology. The cancer, from scientific research at the clinical practice. May, 6 – 7, 2011. Beni mellal. Morocco.

* Identification, characterization and study of the antitumor activity of phenolic compounds extracts from olive cake and olive waste waters.

Leouifoudi I, Mbarki M, **Tilaoui M**, Rakib El, , H. A Mouse, Z Abdelmajid (5th international conference on polyphenols and health, 17-20 October 2011. Barcelona, Spain.)

* Contribution to profile a Moroccan propolis extracts by LC/ESI- MS and assays for some their biological activities.

H.A Mouse, **M. Tilaoui** A jaafari, L.A M’barek, A. Chait& A. Zyad (International congress of Oncology. The cancer, from scientific research at the clinical practice. May, 6 – 7, 2011. Béni mellal. Morocco.

**Summary of Key Research Techniques/Experience**

* Techniques in biochemistry, molecular biology, immunology, immunohistochimy and genotoxicity.
* Experience in tissue culture, tissue transplantation and in cell culturing.
* 3-Dimentional cell culture and mammary gland tumour engraftment as models for studying cancer biology
* Flow cytometry (study of cell death and cell cycle)
* Scanning electron microscope
* Microbiology techniques (microbial cultures, colony forming units enumeration...)
* Significant graduate experience in biological laboratory environment
* Bioinformatics (proteomics, and drug design)
* Extraction and purification of natural molecules from plants using chromatographic techniques (Column chromatography, Planar chromatography, Gas chromatography and Liquid chromatography), and mass spectrometry.
* Presentation of scientific research and peer reviewed publication
* Ability to undertake basic trouble shooting and problem solving

### TEACHING EXPERIENCE

More than 10 years of teaching experience and supervision of Master’s degree, postgraduate and graduate students at the Moroccan University and in the Waterford Institute of Technology - Ireland.

Experience in teaching**: Molecular biology**, **Cell biology**, **Biochemistry**, **Biochemistry analysis methods**, **Food biochemistry**, **Enzymology, Immunology, Pharmacology and Pharmacognosy.**

**awards and grants**

* Travel Award to attend the AACR Annual Meeting 2016 - April 16-20, 2016New Orleans, Louisiana, **USA** (One of five awardees selected to receive an American Association for Cancer Research (AACR) African Travel Award).
* Postdoctoralscholarshipfellow (Erasmus Mundus programe, academic year: 2012-2013) at Waterford Institute of Technology in **Ireland**, Department of Chemical and life Sciences. Pharmaceutical and molecular biotechnology research center.
* Fellowship Award to participate at the Sao Paulo School of Advanced Science on neglected diseases drug discovery June 14-24, 2015. **Brazil**
* Scholarship award to participate at the Advances courses in Molecular Oncology: Translating Molecular Biology into Cancer Treatment. February 2nd – 8th, 2013**.** Sao Paulo-**Brazil**.
* Scholarship award to participate at the proteomics, and drug design course. March 20-24, 2012, Pasteur Institute of Tunis- **Tunisia**.
* Travel and Young Investigator award to participate at the joint meeting “Free Radicals in Brazil” which includes “VII Meeting of South American group of the SFRBM held on August 17th – 21st and the “I Sao Paulo advanced school on Redox processes in biomedicine” August, 13th – 21st. 2011. Sao pedro, **Brazil**.
* Scholarship award to participate at Sao Paulo School of Advanced Science – Advanced Topics in Human Molecular Genetics. February 28th to March 4th, 2011. Sao Paulo- **Brazil**.
* Travel grant to participate at the 37thForum of Young Researchers of the French society for biochemistry and molecular biology (SFBBM). Strasbourg, 14-17 December, 2010. **France**.
* Grant to Participation at the 3rd International congress of biochemistry and molecular biology, special meeting on plant stresses and the 6th FASBMB congress. 20-24, April 2009 Marrakech**. Morocco**.

### Computer Skills

* Bioinformatic databases: GenBan and protein sequence databases
* Flow-cytometry data analysis software
* Statistical software – STATISTICA, Sigma Plot.
* Word processing, spreadsheets, databases, design, web publishing and HTML.

### Languages

**Arabic**: mother tongue. **English, French**: fluent. **Spanish**: intermediate. **Portuguese:** Beginning.

### Memberships

* 2016-present, Member of the American Association for Cancer Research (ACCR)
* 2014- Present, Memeber of the Association la Soursse against cancer, BeniMellal. Morocco
* 2013-2014, Member of the biochemical society
* 2011-2013, Member of the Society for Free Radical Biology and Medicine (SFRBM),
* 2010-2012, Member of the African Society for Bioinformatics and Computational Biology
* 2004-2006, Memeber of the scientific research association, Tetoun Morocco
* 2009-2010, member of the Moroccan Society of Biochemistry and Molecular Biology

### Extracurricular and leisure activities

* Coordinator of the 1st Moroccan PhD student congress. March 2014, Faculty of technical sciences. Béni Mellal. Morocco.
* Organizing committee member of the 1st national workshop: Biotechnology in sustainable development service: Challenges and Opportunities for Morocco.25-26, 2012, December, Faculty of technical sciences. Béni Mellal. Morocco.
* Organizing committee member of the 3rdedition of regional olive. 03 January 2008 at Faculty of Béni Mellal Morocco.
* Organizing committee member of the first Scientifics days of student.April 2004, Faculty of technical sciences, Beni Mellal. Morocco.
* Association Abdelmalek Essaadi member, for scientific research in Tetouan. Morocco
* Association member of Moroccan Society of Biochemistry and Molecular Biology at Semlalia Sciences Faculty of Marrakech. Morocco
* **Leisure**: Reading, scrabble, travel, swimming, mountaineering, caving,volleyball (Ex player at Beni Mellal Raja Club).