

## CURRICULUM VITAE

**Surname:** Imtara  
**First Name:** Hamada  
**Nationality:** Palestinian  
**Date of birth:** June 16<sup>th</sup> 1991, Hebron, Palestine  
**Position:** Assistant Professor at the Arab American University  
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### **EDUCATION CERTIFICATES**

- 2009** Baccalaureate (High School Certificate) in Scientific Stream. Bani Naeem Secondary School
- 2010-2013** Bachelor degree in biology at Sidi Mohamed Ben Abdellah University, Fez, Morocco.  
Bachelor project under the supervision of Prof. Jamila Bahi: Title of project: "***Nosocomial infection***".
- 2013 - 2015** Master degree in Biological sciences and health at Sidi Mohamed Ben Abdellah University, Fez, Morocco.  
Master thesis under the supervision of Prof. Badiaa Lyoussi: Title of thesis: "***The antioxidant properties of honey samples collected from Palestine; their diuretic and wound healing activities in rats and mice***".
- 2015 - 2018** PhD degree in physiology – pharmacology and environmental health at Sidi Mohamed Ben Abdellah University, Fez, Morocco.  
PhD thesis under the supervision of Prof. Badiaa Lyoussi: Title of thesis: "***Honey effect boosting with essential oil (from Morocco and Palestine): Physicochemical Characterization, Phytochemistry and pharmacological properties***".

### **EXPERIENCES**

- 2019- Present:** Assistant Professor at the Arab American University (**Anatomy and physiology I and II, pharmacology for nursing I and II, biochemistry course I, pre-Biology course, biochemistry course, biochemistry lab, biology for medical student course and lab, general biology lab**)

- 2015-2018:**
- Supervision of Master's Students
  - Supervision of professional license Students
  - Teaching laboratory material accompanied by Prof. Lyoussi Badiaa

### **AWARDS AND RECOGNITION**

- 2015:** Major of the promotion of the master and major of the major's students of Sidi Mohamed BenAbdellah University, Fez, Morocco.
- 2016:** The best oral communication at the 5th international congress of physiology and environmental biomonitoring (ATPBE'2016). Hammamet, Tunisia.
- 2017:** The best communication by poster at the 4th national days of oncology pharmacy, Rabat.

### **LIST OF PUBLICATIONS**

1. Sara Zarougui, Mohammed Er-raji, Abdelmoujoud Faris, **Hamada Imtara**, Mohamed El fadili, Ashraf Ahmed Qurtam,, Fahd A. Nasr, Mohammed Al-Zharani and Menana Elhallaoui. Conception of inhibitors by 3D computer modeling targeting the MCF-7 breast cancer cell line. *Frontier in chemistry*. 2024.
2. Omkulthom Al kamaly, **Hamada Imtara**, Ashwag S. Alanazi and Omar Noman. Phytochemical Composition and Cytotoxic Activity of Senecio asirensis Hexane Fraction Using In Vitro and In Silico Approaches. *Natural Product Communications*. 2024.
3. Asmae Baghouz, Yassir Bouchelta, Imane Es-safi, Rajae El Brahim, **Hamada Imtara**, Mashail N. AlZain, Omer M. Noman, Abdelaaty A. Shahat and Raja Guemmouh. Biocidal activity of Ziziphora hispanica L and Satureja calamintha Scheele L essential oils against the Callosobruchus maculatus (Fabricius) pest on cowpea seeds during storage. *Frontiers in Sustainable Food Systems*. 2024.
4. Malak Zirari, Marouane Aouji, **Hamada Imtara**, Driss Hmouni, Mahmoud Tarayrah, Omar M. Noman and Nouredine El Mejdoub. Nutritional composition, phytochemicals, and antioxidant activities of Abies marocana Trab. Needles. *Frontiers in Sustainable Food Systems*. 2024.
5. Abdellah Elmakaoui, Houda Damour, Ilhame Bourais, BouabidBadaoui, **Hamada Imtara**, Karima El kabous, Asmaa Oubibi, Omar M. Noman, Mahmoud Tarayrah and Souad El hajjaji. Chemical Composition, Antioxidant Potential and Antibacterial Activity of Pistacia atlantica Desf. Essential Oil Leaves, with A Focus on Variations in The Main Trunk Diameter. *Records of Natural Products*. 2024.
6. Naima Mammate, Fatima Ezzahra El Oumari, **Hamada Imtara**, Salim Belchkar, Ramzi A. Mothana, Hinde E.L. Fatemi, Mohammed Danouche, Sara Er-rahmani, Nabil Boucetta, Omar M. Noman, Mahmoud Tarayrah, and Tarik Sqalli Houssainia. The Anti-urolithiatic effect of the roots of Saussurea costus (falc) Lipsch agonist ethylene glycol and magnesium oxide induced urolithiasis in rats. *Saudi Pharmaceutical Journal*. 2024.
7. Mourad Aloui, Mohammed Er-Rajy, **Hamada Imtara**, Amina Goudzal, Sara Zarougui, Mohamed El Fadili, David E Arthur, Ramzi A Mothana, Omar M Noman, Mahmoud Tarayrah, Elhalaoui Menana. QSAR modelling, Molecular docking, Molecular dynamic and ADMET prediction of pyrrolopyrimidine derivatives as novel Bruton's tyrosine kinase (BTK) inhibitors. *Saudi Pharmaceutical Journal*. 2024.
8. Omkulthom Al kamaly, Ashwag S. Alanazi, Omar Noman, **Hamada Imtara**. In Vitro Evaluation of Chemical Compounds, Antiproliferative Activity, Efficacy in Apoptosis Induction and Cell Cycle Arrest of Heliotropium Bacciferum Extract and Fractions on the A549 Cell Line. *Journal of Biological Regulators and Homeostatic Agents*. 2023.
9. Khaoula Mzioud, Amar Habsaoui, **Hamada Imtara**, Sara Haida, Sara Rached, Soukaina Msairi,Allal Douira, Ali S. Alqahtani, Omar M. Noman, Mahmoud Tarayrah, Mohamed Ebn Touhami. Physicochemical characterization, antioxidant and antifungal activities of essential oils of Urginea maritima and Allium sativum. *Open chemistry*. 2023.
10. Sara Zarougui, Mohammed Er-raji, Abdelmoujoud Faris, **Hamada Imtara**, Mohamed El fadili, Omkulthom Al kamaly, Samar Zuhair Alshawwa, FahdA. Nasr, Mourad Aloui, Menana Elhallaoui. QSAR, DFT studies, Docking Molecular and simulation dynamic molecular of 2-styrylquinoline derivatives through their anticancer activity. *Journal of Saudi*

*Chemical Society*. 2023.

11. Marouane Aouji, **Hamada Imtara**, Amine Rkhaila, Bouchra Bouhaddiou, Ahmad Alahdab, Mohammad Khalid Parvez, Mohamed Saleh Alzahrani, Lalla Aicha Lrhori and Rachid Bengueddour. Nutritional Composition, Fatty Acids Profile, Mineral Content, Antioxidant Activity and Acute Toxicity of the Flesh of *Helix aspersa* Müller. *Molecules*. 2023.
12. Fatima Zahra Jawhari, **Hamada Imtara**, Nabil Radouane, Abdelfattah El Moussaoui, Imane Es-safi, Amal Amaghnouje, Mashail N. AlZain, Omer Noman, Mohammad Khalid Parvez, Dalila Bousta and Amina Bari. Phytochemical, Morphological and Genetic Characterisation of *Anacyclus pyrethrum* var. *depressus* (Ball.) Maire and *Anacycluspyrethrum* var. *pyrethrum* (L.) Link. *Molecules*. 2023.
13. Mohamed El fadili, Mohammed Er-rajy, Wafa Ali Eltayb, Mohammed Kara, **Hamada Imtara**, Sara Zarougui, Nawal Al-Hoshani, Abdullah Hamadi & Menana Elhallaoui. An in-silico investigation based on molecular simulations of novel and potential brain-penetrant GluN2B NMDA receptor antagonists as anti-stroke therapeutic agents. *Journal of Biomolecular Structure and Dynamics*. 2023.
14. Rabab Ez-Zriouli, Houda ElYacoubi, **Hamada Imtara**, Abdelhalim Mesfioui, Aboubaker ElHessni, Omkulthom Al Kamaly, Samar Zuhair Alshawwa, Fahd A. Nasr, Zineb Benziane Ouaritini and Atmane Rochdi. Chemical Composition, Antioxidant and Antibacterial Activities and Acute Toxicity of *Cedrus atlantica*, *Chenopodium ambrosioides* and *Eucalyptus camaldulensis* Essential Oils. *Molecules*. 2023.
15. Soumaya Touzani, Noori Al-Waili, Hassan Laaroussi, Abderrazak Aboulghazi, Nawal Hamas, **Hamada Imtara**, Asmae ElGouizi, Ilham ElArabi, Ahmed Al-Waili, Badiaa Lyoussi. The effect of propolis and honey on oxidant and antioxidant parameters and D-glucose induced hyperglycemia, acute kidney injury and proteinuria in rats. *Research square*. 2023 (preprint).
16. Omkulthom Al kamaly, Ashwag S. Alanazi, Raffaele Conte and **Hamada Imtara**. Phytochemical Composition and Insight into Antibacterial Potential of *Origanum vulgare* Essential Oil from Saudi Arabia Using In Vitro and In Silico Approaches. *Processes*. 2023.
17. Mohamed El fadili, Mohammed Er-rajy, **Hamada Imtara**, Omar M. Noman, Ramzi A. Mothana. QSAR, ADME-Tox, molecular docking and molecular dynamics simulations of novel selective glycine transporter type 1 inhibitors with memory enhancing properties. *Heliyon*. 2023.
18. Asmaa Oubihi, Fatima Zahra Ballaoui, **Hamada Imtara**, Hassna Jaber, Abdessamad Ettouil, Sara Haida, Mohammed Ouhssine, Omar M. Noman, Ramzi A. Mothana, Mahmoud Tarayrah and Zineb Guessous. Phytochemical Compounds, Acute Toxicity, Anti-Inflammatory and Antioxidant Activities of *Thymus leptobotrys* Murb Essential Oil. *Molecules*. 2023.
19. Naima Mammate, Fatima Ezzahra El oumari, **Hamada Imtara**, Salim Belchkar, Ghita Benjelloun Touimi, Mohammed Al-Zharani, Hassan A. Rudayni, Ashraf Ahmed Qurtam, Mohammed S. Aleissa, Fahd A. Nasr, Omar M. Noman and Tarik Sqalli Houssaini. Anti-Struvite, Antimicrobial, and Anti-Inflammatory Activities of Aqueous and Ethanolic Extracts of *Saussurea costus* (Falc) Lipsch Asteraceae. *Molecules*. 2023.
20. Mohammed Er-rajy, Mohamed El fadili, **Hamada Imtara**, Aamir Saeed, Abid Ur Rehman, Sara Zarougui, Shaef A. Abdullah, Ahmad Alahdab, Mohammad Khalid Parvez and Menana Elhallaoui. 3D-QSAR Studies, Molecular Docking, Molecular Dynamic Simulation, and ADMET Proprieties of Novel Pteridinone Derivatives as PLK1 Inhibitors for the Treatment of Prostate Cancer. *Life*. 2023.
21. Fatima Zahra Jawhari, **Hamada Imtara**, Abdelfattah El Moussaoui, Hind Khalis, Imane Es-safi, Asmaa Saleh, Omkulthom Al kamaly, Mohammad Khalid Parvez and Amina Bari. Effects of Pre-Treatments and Conservation Conditions on Seed Viability and Germination of Two Varieties of an Endangered Species *Anacyclus pyrethrum* (L.) Link (Asteraceae). *Horticulturae*. 2023.
22. Sara Rached, **Hamada Imtara**, Amar Habsaoui, Khaoula Mzioud, Sara Haida, Asmaa Saleh, Omkulthom Al kamaly, Ahmad Alahdab, Mohammad Khalid Parvez, Samah Ourras and Souad El Fartah. Characterization, Chemical Compounds and Biological Activities of *Marrubium vulgare* L. Essential Oil. *Processes*. 2022.
23. Badiaa Lyoussi, Meryem Bakour, Redouan El-Haskouri, **Hamada Imtara**, Christophe Hano, and Katarína Bíliková. Characterization of Various Honey Samples from Different Regions of Morocco Using Physicochemical Parameters, Minerals Content, Antioxidant Properties, and Honey-Specific Protein Pattern. *Journal of Food Quality*. 2022.
24. Mohamed El fadili, Mohammed Er-rajy, **Hamada Imtara**, Mohammed Kara, Sara Zarougui, Najla Altwaijry, Omkulthom M. Al kamaly, Aisha Al Sfouk and Menana Elhallaoui. 3D-QSAR, ADME-Tox in Silico Prediction and Molecular Docking Studies for Modeling the Analgesic Activity Against Neuropathic Pain of Novel NR2B-Selective NMDA Receptor

Antagonists. *Processes*. 2022.

25. Houda ElYacoubi, Fatine Mouhssine, **Hamada Imtara**, Imane Ouallal, Sara Ech-cheddadi, Ayolié Koutoua, Mohamed Lagzouli, Badriyah S. Alotaibi, Omkulthom Al kamaly, Mohammad Khalid Parvez and Atmane Rochdi. Insight into Membrane Stability and Physiological Responses of Selected Salt-Tolerant and Salt-Sensitive Cell Lines of Troyer Citrange (*Citrus sinensis* [L.] x *Citrus trifoliata* [L.] Raf.) under Salt Stress. *Sustainability*. 2022.
26. Fatima Zahra Jawhari, **Hamada Imtara**, Abdelfattah El Moussaoui, Hind Khalis, Imane Es-Safi, Omkulthom Al Kamaly, Asmaa Saleh, Mohammad Khalid Parvez, Raja Guemmouh and Amina Bari. Reproductive Biology of the Two Varieties of *Anacycluspyrethrum* L.—*Anacyclus pyrethrum* var. *pyrethrum* (L.) Link and *Anacyclus pyrethrum* var. *depressus* (Ball.) Maire—An Endemic Endangered Species. *Plants*. 2022.
27. Rabab Ez-Zriouli, Houda El Yacoubi, **Hamada Imtara**, Aboubaker El-Hessni, Abdelhalim Mesfioui, Mahmoud Tarayrah, Ramzi A. Mothana, Omar Mohammed Noman, Fatine Mouhsine, Atmane Rochdi. Chemical composition and antimicrobial activity of essential oils from *Mentha pulegium* and *Rosmarinus officinalis* against multidrug-resistant microbes and their acute toxicity study. *Open chemistry*. 2022.
28. Fatima Ezzahra El oumari, Naima Mammate, **Hamada Imtara**, Anissa Lahrichi, Radouane Elhabbani, Ghita El mouhri, Ali S. Alqahtani, Omar M. Noman, Mansour N. Ibrahim, Andriy Grafov, Dalila Bousta and Tarik Sqalli Houssaini. Chemical Composition, Antioxidant Potentials, and Calcium Oxalate Anticrystallization Activity of Polyphenol and Saponin Fractions from *Argania spinosa* L. Press Cake. *Plants*. 2022.
29. Naima Mammate, Fatima Ezzahra El oumari, **Hamada Imtara**, Salim Belchkar, Anissa Lahrichi, Ali S. Alqahtani, Omar M. Noman, Mahmoud Tarayrah and Tarik Sqalli Houssaini. Anti-Urolithiatic Activity of Aqueous and Ethanolic Extracts from *Saussurea costus* (Falc) Lispich Using Scanning Electron Microscopy. *Life*. 2022.
30. Fatima Ezzahra El oumari, Dalila Bousta, **Hamada Imtara**, Anissa Lahrichi, Radouane Elhabbani, Ghita El mouhri, Omkulthom M. Al kamaly, Asmaa Saleh, Mohammad Khalid Parvez, Andriy Grafov and Tarik Sqalli Houssaini. Chemical Composition and Anti-Urolithiatic Activity of Extracts from *Argania spinosa* (L.) Skeels Press-Cake and *Acacia senegal* (L.) Willd. *Molecules*. 2022.
31. Kelthoum Tarfaoui, Najiba Brhadda, Rabea Ziri, Asmaa Oubih, **Hamada Imtara**, Sara Haida, Omkulthom Al kamaly, Asmaa Saleh, Mohammad Khalid Parvez, Saad Fettach and Mohammed Ouhsine. Chemical Profile, Antibacterial and Antioxidant Potential of *Zingiber officinale* Roscoe and *Elettaria cardamomum* (L.) Maton Essential Oils and Extracts. *Plants*. 2022.
32. Imane Ouallal, Younes Abbas, Houda ElYacoubi, **Hamada Imtara**, Mashail N. Al Zain, Mohamed Ouajdi, Younes El Goumi, Nurah M. Alzamel, Omar Mohammed Noman and Atmane Rochdi. Effects of Arbuscular Mycorrhizal Inoculation by Indigenous Fungal Complexes on the Morpho-Physiological Behavior of *Argania spinosa* Subjected to Water Deficit Stress. *Horticulturae*. 2022.
33. Saloua Biyada, **Hamada Imtara**, Karima Elkarrach, Omar Laidi, Asmaa Saleh, Omkulthom Al Kamaly and Mohammed Merzouki. Bio-Augmentation as an Emerging Strategy to Improve the Textile Compost Quality Using Identified Autochthonous Strains. *Applied sciences*. 2022.
34. Soumaya Touzani, Noori Al-Waili, **Hamada Imtara**, Abderrazak Aboulghazi, Nawal Hammas, Soraia Falcão, Miguel Vilas-Boas, Ilham El Arabi, Wail Al-Waili, Badiaa Lyoussi. *Arbutus Unedo* Honey and Propolis Ameliorate Acute Kidney Injury, Acute Liver Injury, and Proteinuria via Hypoglycemic and Antioxidant Activity in Streptozotocin-Treated Rats. *Cell Physiol Biochem*. 2022.
35. Mostafa El Khomsi, **Hamada Imtara**, Mohammed Kara, Anouar Hmamou, Amine Assouguem, Brahim Bourkhiss, Mahmoud Tarayrah, Mashail N. AlZain, Nurah M. Alzamel, Omar Noman and Driss Hmouni. Antimicrobial and Antioxidant Properties of Total Polyphenols of *Anchusa italicica* Retz. *Molecules*. 2022.
36. Soumaya Touzani, **Hamada Imtara**, Shankar Katekhaye, Hamza Mechhate, Hayat Ouassou, Ali S. Alqahtani, Omar M. Noman, Fahd A. Nasr, Hugo Fearnley, James Fearnley, Anant Paradkar, Ilham ElArabi and Badiaa Lyoussi. Determination of Phenolic Compounds in Various Propolis Samples Collected from an African and an Asian Region and Their Impact on Antioxidant and Antibacterial Activities. *Molecules*. 2021.
37. Nasreddine El Omari, Mohamed Bakha, **Hamada Imtara**, Fatima-Ezzahrae Guaouquaoua, Abdelaali Balahbib, Gokhan Zengin, Abdelhakim Bouyaha. Anticancer mechanisms of phytochemical compounds: focusing on epigenetic targets. *Environmental Science and Pollution Research*. 2021.
38. Youssef Elamine, **Hamada Imtara**, Maria Graça Miguel, Ofélia Anjos, Letícia M. Estevinho, Manuel Alaiz, Julio Girón-Calle, Javier Vioque, Jesús Martín and Badiâa Lyoussi. Antibacterial Activity of Moroccan Zantaz Honey and the Influence of Its Physicochemical Parameters Using Chemometric Tools. *Applied science*. 2021.
39. Abdelhakim Bouyaha, Naser El Omari, Naoual el Meniyi, **Hamada Imtara**. Moroccan antidiabetic medicinal plants: Ethnobotanical studies, phytochemical bioactive compounds, preclinical investigations, toxicological validations and clinical evidences; challenges, guidance and perspectives for future management of diabetes worldwide. *Trends in Food Science & Technology*. 2021.
40. Ashraf Ahmed Qurtam, Hamza Mechhate, Imane Es-safi, Mohammed Al-zharani, Fahd A. Nasr, Omar M. Noman,

- Mohammed Aleissa, **Hamada Imtara**, Abdulmalik M. Aleissa, Mohamed Bouhrim and Ali S. Alqahtani. Citrus Flavanone Narirutin, In Vitro and In Silico Mechanistic Antidiabetic Potential. **Pharmaceutics**. 2021.
41. Mohamed Bouhrim, Noureddine Bencheikh, **Hamada Imtara**, Nour Elhouda Daoudi, Hamza Mechchate, Hayat Ouassou, Loubna Kharchoufa, Mostafa Elachouri, Hassane Mekhfi, Abderrahim Ziyyat, Abdelkhaleq Legssyer, Mohammed Aziz and Mohamed Bnouham. Protective Effect of Opuntia dillenii (Ker Gawl.) Haw. Seed Oil on Gentamicin-Induced Nephrotoxicity: A Biochemical and Histological Analysis. **The Scientific World Journal**. 2021.
42. Mohammed Kara, Amine Assouguem, Omkulthom Mohamed Al kamaly, Safaâ Benmessaoud, **Hamada Imtara**, Hamza Mechchate, Christophe Hano, Abdou Rachid Zerhouni and Jamila Bahhou. The Impact of Apple Variety and the Production Methods on the Antibacterial Activity of Vinegar Samples. **Molecules**. 2021.
43. Imane Es-safi, Hamza Mechchate, Amal Amaghnuje, Omkulthom Mohamed Al Kamaly, Fatima Zahra Jawhari, **Hamada Imtara**, Andriy Grafov and Dalila Bousta. The Potential of Parsley Polyphenols and Their Antioxidant Capacity to Help in the Treatment of Depression and Anxiety: An In Vivo Subacute Study. **Molecules**. 2021.
44. Bouchra el guerrouj, Noureddine bencheikh, Mohamed bouhrim, Loubna kharchoufa, Hayat ouassou, **Hamada imtara**. Attitude and awareness of medicinal plants in treatment of kidney lithiasis in eastern Morocco: a retrospective study. **Herba polinca**. 2021.
45. Omar Sadeq, Hamza Mechchate, Imane Es-safi, Mohamed Bouhrim, Fatima zahra Jawhari, Hayat Ouassou, Loubna Kharchoufa, Mashail N. AlZain, Nurah M. Alzamel, Omkulthom Mohamed Al kamaly, Abdelhakim Bouyahya, Amina Benoutman and **Hamada Imtara**. Phytochemical Screening, Antioxidant and Antibacterial Activities of Pollen Extracts from Micromeria fruticosa, Achillea fragrantissima, and Phoenix dactylifera. **Plants**. 2021.
46. Saloua Biyada, Mohammed Merzouki, **Hamada Imtara**, Mohamed F. Alajmi, Karima Elkarrach, Hamza Mechchate, Raffaele Conte and Mohamed Benlemlih. Advanced Characterization of Organic Matter Decaying during Composting of Industrial Waste Using Spectral Methods. **Processes**. 2021.
47. Hamza Saghrouchni, Azeddin El Barnossi, Ahmad Mohammad Salamatullah, Mohammed Bourhia, Abdulhakeem Alzahrani, Mohammed Saeed Alkaltham, Heba Khalil Alyahya, Nour El Houda Tahiri, **Hamada Imtara** and ,sil Var. Carvacrol: A Promising Environmentally Friendly Agent to Fight Seeds Damping-Off Diseases Induced by Fungal Species. **Agronomy**. 2021.
48. Imane Es-safi, Hamza Mechchate, Amal Amaghnuje, Fatima Zahra Jawhari, **Hamada Imtara**, Andriy Grafov, Amina Bari, Dalila Bousta. An Insight into the Anxiolytic and Antidepressant-Like Proprietes of Carum Carvi L. and Their Association with Its Antioxidant Activity. **Life**. 2021.
49. Mohamed Bouhrim, Hayat Ouassou, Salima Boutahiri, Nour Elhouda Daoudi, Hamza Mechchate, Bernard Gressier, Bruno Eto, **Hamada Imtara**, Amal A. Alotaibi, Mohammed Al-zharani, Abderrahim Ziyyat, Hassane Mekhfi, Abdelkhaleq Legssyer, Mohammed Aziz, Mohamed Bnouham Opuntia dillenii (Ker Gawl.) Haw., seeds oil anti-diabetic potential using in vivo, in vitro, in situ and ex vivo approaches to reveal its underlying mechanism of action. **Molecules**. 2021.
50. Driss Ousaaid, **Hamada Imtara**, Hassan Laaroussi, Badiaa Lyoussi, and Ilham Elarabi. An Investigation of Moroccan Vinegars: Their Physicochemical Properties and Antioxidant and Antibacterial Activities. **Journal of Food Quality**. 2021.
51. Jawhari Fatima zahra, Moussaoui Abdelfattah, **Imtara Hamada**, Kenza Ammor, Bari Amina. Anacyclus pyrethrum var. pyrethrum (L.) and Anacyclus pyrethrum var. depressus (Ball) Maire: Correlation between total phenolic and flavonoid contents with antioxidant and antimicrobial activities of chemically characterized extracts. **Plants journal**. 2021.
52. Hayat Ouassou, Mohamed Bouhrim, Loubna Kharchoufa, **Hamada Imtara**, Nour elhouda Daoudi, Amina Benoutman, Noureddine Bencheikh, Saber Ouahhoud, Amine Elbouzidi, and Mohamed Bnouham. Caralluma europaea (Guss) N.E.Br.: A review on Ethnomedicinal uses, Phytochemistry, Pharmacological Activities, and Toxicology. **Journal of Ethnopharmacology**, 2021.
53. Amine Assouguem, Mohammed Kara, Hamza Mechchate, Mashail N. AlZain, Omar Mohammed Noman, **Hamada Imtara**, Christophe Hano, Mansour N. Ibrahim, Safaâ Benmessaoud, Abdellah Farah and Abderahim Lazraq. Evaluation of the Effect of Different Concentrations of Spirotetramat on the Diaspine Scale Parlatoria zizophiin Citrus Orchards. **Agronomy**. 2021.
54. Amine Assouguem, Mohammed Kara, Ismail Mansouri, **Hamada Imtara**, Mashail N. AlZain, Hamza Mechchate, Raffaele Conte, Wafae Squalli, Abdellah Farah and Abderrahim Lazraq. Evaluation of the Effectiveness of Spirotetramat on the Diaspine Scale Parlatoria pergandii in Citrus Orchards. **Agronomy**. 2021.
55. **Hamada Imtara**, Abderrazak Aboulghazi, Abdelfattah Abdellaoui and Badiaa Lyoussi. Chemical composition and

antioxidant activity of Aromiel formulation (honey and essential Oil) and its effect on carbon tetrachloride-Induced toxicity in Wistar. *Veterinary world*. 2021.

56. Jawhari Fatima zahra, El Moussaoui Abdelfattah, **Hamada Imtara**, Mechchate Hamza, Es-safi Imane, Miry Achraf, Bousta Dalila, Bari Amina. Evaluation of the acute toxicity of the extracts of *Anacyclus pyrethrum var. pyrethrum (L)* and *Anacyclus pyrethrum var. depressus* (Ball) Maire in Swiss mice. *Veterinary world*. 2021.
57. Fatima Zahra Jawhari, Abdelfattah El Moussaoui, Mohammed Bourhia, **Hamada Imtara**, Hamza Mechchate, Imane Es-Safi, Riaz Ullah, Essam Ezzeldin, Gamal A. Mostafa, Andriy Grafov, Samir Ibenmoussa, Dalila Bousta and Amina Bari. *Anacyclus pyrethrum (L): Chemical Composition, Analgesic, Anti-Inflammatory, and Wound Healing Properties. Molecules*, 2020.
58. Jamila Daraghmeh, **Hamada Imtara**. In Vitro evaluation of Palestinian propolis as a natural product with antioxidant properties and Antimicrobial activity against multidrug-resistant clinical isolates. *Journal of Food Quality*, 2020.
59. Hayat Ouassou, Loubna Kharchoufa, Mohamed Bouhrim, Nour Elhouda Daoudi, **Hamada Imtara**, Noureddine Bencheikh, Amine ELbouzidi, and Mohamed Bnouham. The Pathogenesis of Coronavirus Disease 2019 (COVID-19): Evaluation and Prevention. *Journal of Immunology Research*, 2020.
60. Bouchra El Guerrouj, Mohamed Bouhrim, Noureddine Bencheikh, **Hamada Imtara**, Loubna Kharchoufa, Hayat Ouassou, Yassamine Bentata, Michel Daudon and Mohammed Melhaoui. Morphological and crystallographic analysis of kidney stones in Eastern Morocco. *Mediterranean Journal of Chemistry*. 2020, 10(5), 539-546.
61. Soumaya Touzani, Walaa Embaslat, **Hamada Imtara**, Abdalsalam Kmail, Sleman Kadan, Hilal Zaid, Ilham ELARABI, Lyoussi Badiaa and Bashar Saad. *In vitro* evaluation of the potential use of propolis as a multi-target therapeutic product: Physicochemical properties, chemical composition, immunomodulatory, antibacterial, and anticancer properties. *BioMed Research International*, 2019.
62. Bouchra El Guerrouj, Mohamed Bouhrim, Yassamine Bentata, Michel Daudon, Mohammed Melhaoui, Loubna Kharchoufa, Noureddine Bencheikh, Oussama Bekkouch, **Hamada Imtara**. Kidney stone disease (Urolithiasis): epidemiological study in the eastern region of Morocco. *European journal of scientific research*, 2019.
63. Meryem Bakour, Maria Graça Campos, **Hamada Imtara**, Badiaa Lyoussi. Antioxidant content, free radical scavenging activity and identification of Phenolic/Flavonoid compounds in pollen of fourteen plants using HPLC-DAD analysis. *Journal of Apicultural Research*. 2019.
64. Saloua Biyada, Mohammed Merzouki, **Hamada Imtara**, Mohamed Benlemlih. Assessment of the maturity of textile waste compost and their capacity of fertilization. *European journal of scientific research*, 2019.
65. **Hamada Imtara**, Abdalsalam Kmail, Soumaya Touzani, Mira Khader, Hadeel Hamarshi, Bashar Saad and Badiaa Lyoussi. Chemical analysis, cytotoxic and cytostatic effects of twelve honey samples collected from different regions in Morocco and Palestine. *Evidence-Based Complementary and Alternative Medicine*. 2019.
66. **Hamada Imtara**, Youssef Elamine, and Badiâa Lyoussi. Physicochemical characterization and antioxidant activity of Palestinian honey samples. *Food Science & Nutrition*. 2018.
67. **Hamada Imtara**, Youssef Elamine, and Badiâa Lyoussi. Honey Antibacterial Effect Boosting Using *Origanum vulgare* L. Essential Oil. *Evidence-Based Complementary and Alternative Medicine*. 2018.
68. **Hamada Imtara**, Noori Al-Waili, Meryem Bakour, Wail Al-Waili and Badiaa Lyoussi. Evaluation of antioxidant, diuretic, and wound healing effect of Tulkarm honey and its effect on kidney function in rats. *Veterinary World*, 11(10): 1491-1499.
69. Meryem Bakour, Noori S. Al-Waili, Nawal El Meniy, **Hamada Imtara**, Anna Cristina Figuira, Thia Al-Waili, Badiaa Lyoussi. Antioxidant activity and protective effect of bee bread (honey and pollen) in aluminum-induced anemia, elevation of inflammatory makers and hepato-renal toxicity. *J Food Sci Technol*. 6 October 2017.
70. Abdalsalam Kmail, Badiaa Lyoussi, Hilal Zaid, **Hamada Imtara**, Bashar Saad. In vitro evaluation of anti-inflammatory and antioxidant effects of *Asparagus aphyllus* L., *Crataegus azarolus* L., and *Ephedra alata* Decne. in monocultures and co-cultures of HepG2 and THP-1- derived macrophages. *Pharmacogn. Commun.* 2017; 7(1)24-33.

## **LIST OF BOOK PUBLISHED**

1. **Hamada Imtara**, Badiaa Lyoussi, Saloua Biyada. Propriétés pharmacologiques des miels de Palestine: Importance du miel pour le corps humain. *Éditions universitaires européennes*. 2019.

## **LIST OF ABSTRACT PUBLISHED**

1. Meryem BAKOUR, Najoua SOULO, **Hamada Imtara** and Badiaa LYOUSSE. Argan Oil and Clove Essential Oil Improves Biochemical and Histological Change by Reducing Oxidative Stress Induced by Hydrogen Peroxide in Wistar Rats. *Int. J. Mol. Sci.* 2017.
2. M. Bakour, **H. Imtara**, N. Soulo and B. Lyoussi. Protective Effect of Argan Virgin Oil on Titanium Dioxide Nanoparticles Induced Toxicity and Oxidative Stress in Wistar Rats. *Int. J. Mol. Sci.* 2017.

## **ORGANIZATION OF NATIONAL AND INTERNATIONAL CONGRESS**

1. 2<sup>nd</sup> scientific day dedicated to PhD students under the theme: (**Biotechnology, Health and Environment**) organized on 10-11 october 2018 at Sidi Mohamed Ben Abdellah University, Fez, Morocco.
2. 1<sup>st</sup> scientific day dedicated to PhD students under the theme: (**Biotechnology, Ecology and Phyto-resource Valorisation**) organized on 25 december 2017 at Sidi Mohamed Ben Abdellah University, Fez, Morocco.
3. Second international symposium on Api-phytotherapy (**Api-quality and Api-research**). Fez, Morocco 5-7 December 2014.

## **ORAL COMMUNICATIONS**

1. **Hamada Imtara**, Youssef Elamine, and Badiâa Lyoussi. Honey Antibacterial Effect Boosting Using Origanum vulgare L. Essential Oil. *6ème international congress of physiology and environmental biomonitoring (ATPBE'2017)*. Tunisia. Decembre2017.
2. **Hamada Imtara**, Meryem Bakour, Badiaa Lyoussi. The protective effect of thymus vulgaris honey, origanum vulgare essential oil, and their aromiel against ccl4-induced liver injuries in rats. *4<sup>th</sup> national days of oncology pharmacy*. Rabat, 3-4 Mars 2017.
3. **Hamada Imtara**, Meryem Bakour, Badiaa Lyoussi. Effet synergique du miel et de l'huile essentielle sur l'amélioration de la fonction hépatique. *6<sup>th</sup> International Symposium on aromatic and medicinal plants SIPAM*. Marrakech, 5-6 Mares 2017.
4. **Hamada IMTARA**, Meryem BAKOUR, Badiaa LYOUSSE. The protective effect of thymus vulgaris honey, origanum vulgare essential oil, and their aromiel against ccl4-induced liver injuries in rats. *5<sup>th</sup> international congress of physiology and environmental biomonitoring (ATPBE'2016)*. Hammamet, Tunisia. 18-21 Decembre2016.

## **POSTER COMMUNICATIONS**

1. **Hamada Imtara**, Youssef Elamine, Soumya Touzani and Badiâa Lyoussi. Honey effect boosting with essential oil from Morocco and Palestine (Aromiels): Physicochemical characterization, phytochemistry and pharmacologicalproperties. *The first international conference on Apiculture, Hive products and sustainable development* 25-27 November 2018/Mostaganem, Algeria.
2. **Hamada Imtara**, Meryem Bakour, Badiaa Lyoussi. The protective effect of thymus vulgaris honey, origanum vulgare

essential oil, and their aromiel against ccl4 -induced liver injuries in rats. **10th scientific days of the ISPITS: health, quality, environment and sustainable development**. Oujda, 9-10 May2017.

3. **Hamada Imtara**, Meryem Bakour, Badiaa Lyoussi. Antimicrobial activity for the aromials of Morocco and Palestine. . **6th International Symposium on aromatic and medicinal plants SIPAM**. Marrakech, 5-6 Mares 2017.
4. **Hamada Imtara**, Abdalsalam Kmail, Bashar Saad, Hilal Zaid, Badiaa Lyoussi. Evaluation of anti-inflammatory and antioxidant effects of Asparagus aphyllus L., Crataegus azarolus L., and Ephedra alata Decne. in monocultures and co-cultures. **4th national days of oncology pharmacy**. Rabat, 3-4 Mars 2017.
5. **Hamada Imtara**, Meryem Bakour, Badiaa Lyoussi. Physico-chemical parameters and antioxidant properties of twelve Palestinian honeys. **5ème international congress of physiology and environmental biomonitoring (ATPBE'2016)**. Hammamet, Tunisia. 18-21 Decembre 2016.
6. **Hamada Imtara**, Meryem Bakour, Badiaa Lyoussi.. Diuretic and wound healing effect of a Palestinian multifloral honey. . **5ème international congress of physiology and environmental biomonitoring (ATPBE'2016)**. Hammamet, Tunisia. 18-21 Decembre2016.
7. **Hamada Imtara**, Meryem Bakour, Badiaa Lyoussi. Diuretic and wound healing effect of a Palestinian multifloral honey. **International Symposium: Natural Substances: Stress and Cellular Metabolisms**. Stat, Morocco 15-16 December2016.
8. **Hamada Imtara**, Meryem Bakour, Badiaa Lyoussi. The protective effect of thymus vulgaris honey, origanum vulgare essential oil, and their aromiel against ccl4 -induced liver injuries in rats. **International Symposium: Natural Substances: Stress and Cellular Metabolisms**. Stat, Morocco 15-16 December 2016.
9. **Hamada Imtara**, Meryem Bakour, Badiaa Lyoussi. A comparative study of physicochemical characterizatics and antioxidant activity of Moroccan and Palestinian honeys. **5th international edition of Young Researcher Days of Therapeutic Chemistry: Place of phytotherapy and medicinal chemistry in the process of drug discovery**. 28-29 November, 2016.
10. **Hamada Imtara**, Meryem Bakour, Youssef Elamine, Badiaa Lyoussi. Physico-chemical parameters and antioxidant properties of twelve Palestinian honeys. **The 13th International Congress of Asian Apicultural Association Conference** organized on 24-26 April 2016.
11. **Hamada IMTARA**, Badiaa LYOUSSI. Pharmacological properties of aromiels from Morocco and Palestine aromatics. **Second forum of PhD students. Faculty of Medicine and Pharmacy**, Fez, Morocco. November 3, 2016.
12. **Hamada Imtara**, Meryem Bakour, Achraf El Asri, Badiaa Lyoussi. Diuretic and wound healing effect of a Palestinian multifloral honey. **The 13th International Congress of Asian Apicultural Association Conference** organized on 24-26 April 2016.
13. Meryem Bakour, Nawal El Meniyi, **Hamada Imtara**, Badiaa Lyoussi. Composition, antioxidant properties and protective effect of Bee-bread against aluminum toxicity in rats. **the 13th International Congress of Asian Apicultural Association Conference** organized on 24-26 April 2016.
14. Meryem Bakour, Nawal El Meniyi, **Hamada Imtara**, Badiaa Lyoussi. Bee bread: Origin, Composition, Properties and Uses against aluminium chloride-induced anemia in wistar rats. **The International Congress "Biotechnology for society"** 22-24 October 2015.
15. Meryem Bakour; **Hamada Imtara**; Soumaya Touzani; Soumaya Soulo; Meryem Soulo; Btissam Zarouq; Badiaa Lyoussi. Survey on the use and poisoning by toxic plants in the population of Fez and its surrounds. The international

toxicology conference organized on 22-23 October 2015.

16. Meryem Bakour; **Hamada Imtara**; Soumaya Touzani; mostafa EL Arrouch; latifa Rouzi; Btissam Zarouq; Badiaa LYOUSSE. Investigation of the use of natural khol. ***The international toxicology conference*** organized on 22-23 October 2015.

### **PRACTICAL EXPERIENCE (Skills)**

- **Physicochemical analysis and antioxidant activity of Natural products:** In vitro assays to assess the antioxidant activities (DPPH, ABTS, reducing power, H<sub>2</sub>O<sub>2</sub>, polyphenol, flavonoids, TAC, tannins, flavonol, etc) of natural products, *In vivo* assays to assess the antioxidant activities (rats, mice), physicochemical analysis (pH, Free acidity, Moisture, Conductivity, Ash, Proline, HMF, Mineral content...).
- **Phytochemical and Screening analysis of bioactivity compounds:** Screening the bioactivity compounds of plants medicinal, GC-MS analysis, HPLC analysis.
- **Technical in animal models:** Gavage of the animals, Technical of hyperfusion for evolution bioavailability of natural products, Evolution activity of the natural product against certain diseases (diabetes type 1 and type 2, hepato and nephrotoxicity...), sacrifice animals, blood sampling with different methods and technical...
- **Microbiological technical:** Media preparation, maintaining stock culture, evolution antibacterial and antifungal activity by different methods (Agar Well Diffusion (AWD) Assay, Determination of the Minimum Inhibitory Concentration (MIC), Checkerboard Assay, Determination of the Minimum bactericide Concentration (MIC), Antifungal Combinations ....etc...).
- **Medical analysis:** Enzymatic parameters (aspartate aminotransferase-AST, alanine aminotransferase-ALT and alkaline phosphatase-ALP), lipid profile (total cholesterol-TC, triglyceride-TG, very low density lipoproteins-VLDL and high density lipoproteins-HDL), Bilirubin and protein (total bilirubin, direct bilirubin and total proteins), Kidney parameters (creatinine, urea, sodium, potassium, calcium).
- **Characterization of bee products:** Honey, Propolis, Pollen, Bee bread...
- **Cell Culture technique:** Determination of the effects plant extracts on the cell viability using the MTT test and the LDH assay.
- **Computer skills:** Good command of Microsoft Office™ tools, Graph pad prism for statistical analysis, Matlab, biplot and SPSS for data analysis...

### **LANGUAGES**

Arabic, English and French

## **Reference**

- [https://www.researchgate.net/profile/Hamada\\_Imtara](https://www.researchgate.net/profile/Hamada_Imtara).
- <https://scholar.google.com/citations?user=iv1b08oAAAAI&hl=ar>.



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