



## CURRICULUM VITAE

**Rania HARATI**

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Department of Pharmacy Practice & Pharmacotherapeutics  
College of Pharmacy, University of Sharjah, UAE*

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### PERSONAL INFORMATION

Nationality: French - Lebanese - Brazilian

### CONTACT INFORMATION

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### EDUCATIONAL BACKGROUND

- 2009 – 2013**      **PhD in Experimental & Clinical Pharmacology**  
**Paris-Sud (XI) University (University of Paris-Saclay)**  
**Distinction: Very Honorable**  
Graduate school ED425 «Therapeutic innovation»  
Paris, France
- 2007 – 2009**      **Master II in Pharmacology**  
**Louis Pasteur University (University of Strasbourg)**  
Faculty of Pharmacy  
Strasbourg, France
- 2003 – 2007**      **Master I in Biochemistry**  
**Lebanese University**  
Faculty of Sciences (I)  
Beirut, Lebanon

### PROFESSIONAL EXPERIENCE

**September 2015 – Present: Assistant Professor**  
(University of Sharjah / College of Pharmacy / Department of Pharmacy Practice & Pharmacotherapeutics / Sharjah, UAE)

**Coordinator & Instructor of four under- and post-graduate courses:** Human Biology (3:0-3 Cr) / Pathophysiology I (3:0-3 Cr) / Pathophysiology II (2:3-3 Cr) / Molecular Pharmacology (3:0-3 Cr)

**Supervision of Master Thesis in Pharmacology**

-Master Thesis: *“Enhancing anti-epileptic drug delivery to the brain: miR-27a as a potential therapeutic target to modulate P-glycoprotein expression at the blood-brain barrier”*. **Ms Saba Hammad**. Sept 2020. Masters in Pharmaceutical Sciences (Pharmacology), College of Pharmacy, UOS.

-Master Thesis: *“Evaluating the therapeutic potential of miR-623 to suppress extravasation of brain metastatic breast cancer cells”*. **Mrs Duaa Hammash**. Sept 2020. Masters in Pharmaceutical Sciences (Pharmacology), College of Pharmacy, UOS.

-Master Thesis: *“Role of miR-let-7c in brain metastasis of triple negative breast cancer”*. **Ms Rama Al-Sabbagh**. Nov 2020. Masters in Pharmaceutical Sciences (Pharmacology), College of Pharmacy, UOS

-Master Thesis: *“Role of exosomes in extravasation of brain metastatic triple negative breast cancer cells”*. **Mrs Manal AbdelSalam**. Feb 2020. Masters in Pharmaceutical Sciences (Pharmacology), College of Pharmacy, UOS.

**September 2014 – August 2015: Post-Doctoral Fellow**

(Pierre & Marie Curie Faculty of Medicine / Saint-Antoine Hospital / INSERM, Paris, FRANCE)

Project subject: *«Evaluating the anti-tumoral properties of an anti-diabetic, the Metformin, for the treatment of hepatocellular carcinoma»*

**Teaching at the Pierre & Marie Curie Faculty of Medicine – Sorbonne Universities - Paris**

**January 2015 – July 2015:** Master II thesis co-Supervision (**6 months**)

*Miss Amélie Maury «Optimizing the Sorafenib treatment of hepatocellular carcinoma»*

**April 2015:** Supervision of Master’s students in the setting of a Master I training program (**23 hours**) *“Initiation to medical research”*

**April 2015:** Course, Master II *«Role of the efflux transporters in cancer drug resistance»*

**February 2015:** Course, Master I *«The use of animal models in diabetes research»*

**December 2014:** Supervision of medical students in the setting of a combined MD/PhD training program (**32 hours**) *“Initiation to medical research”*

**February 2013 – August 2014: Post-Doctoral Fellow**

(TOXI / VIVA / DRC / INERIS, Verneuil-en-Halatte, FRANCE)

Project subject: *«Optimization and characterization of a three-Dimensional (3D) in vitro Blood-Testis Barrier (BTB) model»*

**October 2009 – December 2012: PhD in Pharmacology**

(LEMM / SPI / iBiTec-S / CEA, Saclay, FRANCE)

Thesis subject: *«Blood-Brain Barrier (BBB) and Neuro-inflammation during Brain Maturation»*

**January 2008 – June 2008: Master II training**

(UMR 7213 / CNRS, Illkirch-Graffenstaden, FRANCE)

Training subject: *«Role of the Low-density lipoprotein Receptor-related Protein-1 (LRP1) in regulation of chondrocyte differentiation»*

## PUBLICATIONS

1. **R Harati\***, A Mabondzo, A Tlili, G Khoder, M Mahfood & R Hamoudi. Combinatorial targeting of microRNA-26b and microRNA-101 exerts a synergistic inhibition on cyclooxygenase-2 in brain metastatic triple negative breast cancer cells. *Breast Cancer Research and Treatment*. 2021 Jun;187(3):695-713. doi: 10.1007/s10549-021-06255-y. Epub 2021 May 26. PMID: 34041621.
2. **R Harati**, M Vandamme, B Blanchet, C Bardin, F Praz, R Hamoudi and C Desbois-Mouthon. Drug-drug interaction between metformin and sorafenib alters antitumor effect in hepatocellular carcinoma cells. *Molecular Pharmacology*. 2021 Jul;100(1):32-45. doi: 10.1124/molpharm.120.000223. Epub 2021 May 14. PMID: 33990407.
3. M Ahmed, G Hope Daoud, A Mohamed, **R Harati\***. New Insights into the Therapeutic Applications of CRISPR/Cas9 Genome Editing in Breast Cancer. *Genes (Basel)*. 2021 May 12;12(5):723. doi: 10.3390/genes12050723. PMID: 34066014.
4. M Mahfood, J Chouchen, W Kamal Eddine, AM Al Mutery, **R Harati**, A Tlili. Whole exome sequencing, in silico and functional studies confirm the association of the *GJB2* mutation p.Cys169Tyr with deafness and suggest a role for the *TMEM59* gene in the hearing process. *Saudi J Biol Sci*. 2021 Aug;28(8):4421-4429. doi: 10.1016/j.sjbs.2021.04.036. Epub 2021 Apr 20. PMID: 34354426.
5. G Khoder, S Mina, I Mahmoud, JS Muhammad, **R Harati**, C Burucoa. *Helicobacter pylori* Infection in Tripoli, North Lebanon: Assessment and Risk Factors. *Biology (Basel)*. 2021 Jun 28;10(7):599. doi: 10.3390/biology10070599. PMID: 34203570.
6. **R Harati\***, S Hafezi, A Mabondzo, A Tlili. Silencing miR-202-3p increases MMP-1 and promotes a brain invasive phenotype in metastatic breast cancer cells. *PLoS One*. 2020 Oct 1;15(10):e0239292. doi: 10.1371/journal.pone.0239292. eCollection 2020. PMID: 33002044.
7. **R Harati\***, MG Mohammad, A Tlili, RA El-Awady, R Hamoudi. Loss of miR-101-3p Promotes Transmigration of Metastatic Breast Cancer Cells through the Brain Endothelium by Inducing COX-2/MMP1 Signaling. *Pharmaceuticals (Basel)*. 2020 Jul 7;13(7):144. doi: 10.3390/ph13070144. PMID: 32645833.
8. Khan FM, Saleh E, Alawadhi H, **Harati R**, Zimmermann WH, El-Awady R. Inhibition of exosome release by ketotifen enhances sensitivity of cancer cells to doxorubicin. *Cancer Biol Ther*. 2018 Jan 2;19(1):25-33. doi: 10.1080/15384047.2017.1394544. Epub 2017 Dec 15. PMID: 29244610.
9. **R Harati**, H Benech, AS Villegier and A Mabondzo. P-glycoprotein, Breast cancer resistance protein, Organic anion transporter 3 and transporting peptide 1a4 during Blood-Brain Barrier Maturation: Involvement of Wnt/ $\beta$ -Catenin and Endothelin-1 Signaling. *Molecular Pharmaceutics*. 2013 May 6;10(5):1566-80. doi: 10.1021/mp300334r. Epub 2012 Oct 12. PMID: 22998451.

10. **R Harati**, AS Villegier, WA Banks and A. Mabondzo Susceptibility of juvenile and adult blood-brain barrier to endothelin-1: regulation of P-glycoprotein and breast cancer resistance protein expression and transport activity. *J Neuroinflammation*. 2012 Dec 19;9:273. doi: 10.1186/1742-2094-9-273.PMID: 23253775.

## SELECTED GRANTS & RESEARCH PROJECTS

- 1- **R Harati** (Principal investigator): Restoring MicroRNA-101 and MicroRNA-26b Expression to Suppress Breast Cancer Brain Metastasis. *The Terry Fox Foundation* (300000 AED).
- 2- **R Harati** (Principal investigator): Targeting the microRNA-30 and microRNA-200 families to prevent brain metastasis of breast cancer cells. *University of Sharjah Competitive Research Grant* (80000 AED).
- 3- **R Harati** (Principal investigator): Evaluating the therapeutic potential of microRNAs in restoring normal function and immunoquiescence of the Blood-Brain Barrier in multiple sclerosis. *University of Sharjah Competitive Research Grant* (80000 AED).
- 4- M Ghaleb (Principal investigator), **R Harati** (co-investigator): Dendritic cells and immunoregulation in central nervous system in mice model of multiple sclerosis. *University of Sharjah Targeted Research Grant* (193000 AED).

## SELECTED CONFERENCES

- 1- **R. Harati**. Breast cancer brain metastasis: Role of miR-101/COX2 axis in transmigration of metastatic cells through the brain endothelium. *International Conference on Cancer Diagnosis & Treatment*. November 05-06, 2020 Webinar.
- 2- **R. Harati**. Regulation of MMP-1 by miR-202-3p in brain metastatic breast cancer cells. *39th World Cancer Conference*. November 25-26, 2020 Webinar.
- 3- **R. Harati**. Regulation of P-glycoprotein and Breast Cancer Resistance Protein by miR-27a at the Blood-Brain Barrier. Poster. *The 24th edition of Dubai International Pharmaceutical and Technology Conference and Exhibition*. Feb 26-28, 2019. Dubai, UAE.
- 4- **R. Harati**. Heterogeneity of the Blood-Brain Barrier. *The 6th Emirati-German Congress in Medicine and the 2nd International Conference of Pharmacy and Medicine*. Nov 18-21, 2018, Sharjah, UAE.