



## Lara Bou Malhab

32 years old

Nationality: Lebanese

Future Tower II, Al Khan, Sharjah,  
UAE

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Lara.boumalhab@hotmail.com

### Education:

**2012-2016:** PhD, health biology at  
Université de Montpellier, France

**2009-2011:** Master of science  
"structure and interaction of  
macromolecules and functional  
genetics" at Saint-Joseph University,  
Lebanon

**2006-2009:** Bachelor's degree,  
double major in biochemistry and  
life sciences at Saint-Joseph  
University, Lebanon

**2006-2007:** French and Lebanese  
Baccalaureate in life science at  
Antonin Fathers school, Lebanon

### Personal qualities:

Enthusiastic

Creative

Well-organized

Adaptable

### Language skills:

Arabic: mother tongue

French: read, written and spoken  
fluently

English: read, written and spoken  
fluently (*High intermediate:*

*Georgetown university proficiency test*)

Spanish: beginner

### Hobbies:

Athletism (trophies/medals)

Painting (awards)

Travelling, writing, reading

## Skills

**Cellular biology:** Cell culture, cells transfection, plasmids overexpression, siRNA-shRNA transfection. Immunofluorescence. Immunohistochemistry. Flow Cytometry, viability tests (CellTiter-Glo kit), proliferation test (SRB), clonogenic assay, invasion test (3D matrix), migration test (scratch assay), luciferase assay, caspase and Annexin assay. Microbiological culture.

**Molecular biology:** PCR, real time PCR (Q-PCR), RNA sequencing.

**Biochemistry:** Western Blot, pulldowns (GST PD, Ni PD, GFP trap PD), fractionation.

**Animal manipulation:** I learnt how to handle, manipulate and treat zebrafish embryos.

**Computer skills:** Database exploitation (NCBI, ExPASy, PANTHER, genecards). Results processing (ImageJ, Cell Quest, ...). Office tools: MS office.

## Professional experience

### 2019 - present: Post-doctoral researcher associate

SIMR- M32 Sharjah, UAE

**Major focus:** (1) Molecular study of colon and breast cancer development in obesity  
(2) HSP60 and  $\beta$ -catenin: expression and role in colorectal cancer metastasis

- Students supervision
- Writing proposals for grants requests

### 2018 - 2019: Post-doctoral researcher

CRBM - CNRS - UMR5237 Montpellier, France

**Major focus:** Role of p53 isoforms in cancer cell invasion of colorectal cancer

- Identify mechanisms through which p53 isoforms induce cancer cells invasion
- Perform high-throughput analysis to establish intra and extracellular programs which control p53 isoforms during cancer cell invasion
- Validate  $\Delta 133p53\beta$  as a biomarker of relapse in colorectal cancer

### 2017 - 2018: Post-doctoral researcher

CRBM - CNRS - UMR5237 Montpellier, France

**Major focus:** The role of the NEDD8 pathway in cell invasion and strategies for the use of NEDD8 inhibitors in the clinic

- study the correlation between oncogenes controlled by the NEDD8 pathway and small Rho GTPases to reveal molecular mechanisms for the anti-invasive effects of NEDD8 inhibitors

### 2012 - 2016: PhD fellow

CRBM - CNRS - UMR5237 Montpellier, France

**Major focus:** The role of the NEDD8 pathway in cell invasion and strategies for the use of NEDD8 inhibitors in the clinic

- Determine the mechanisms through which protein NEDDylation controls the stability of the Mdmx oncogene
- Study the potential use of the NEDD8 inhibitor MLN4924 in a "p53 based cyclotherapy approach" to specifically target tumour cells with mutant or no p53

### 2011 - 2012: Master 2 internship

Institut Gustave Roussy - Paris, France

**Major focus:** monitor gene expression in thyroid cells upon overexpression/re-expression of the transcription factors TTF-1 and PAX8 in anaplastic (non differentiated) thyroid cells

### 2010 - 2011: Master 1 internship

Faculty of science - Saint-Joseph University - Beirut, Lebanon

**Major focus:** Characterize the Lebanese strain of *Bacillus thuringiensis* (Lip)

- Among the BT strains used to produce biopesticides, Lip was the most toxic. We tried to determine the cause of this over toxicity
- Generate mutations in the sporulation genes to produce ecofriendly biopesticides

### 2009 - 2010 : Internship

Ecole Supérieure des Ingénieurs de Beirut - Lebanese ministry of environment - UNDP - Beirut, Lebanon

**Major focus:** stabilization and solidification of highly contaminated sands with quicklime.

## Posters, presentations and formations

### Posters:

- 2015 – 2016:** CBS2 annual PhD students meeting (**Best poster award**)  
Second international p53 isoforms conference, Aix-en-Provence, France
- 2014 – 2015:** Cancéropôle Grand-Sud Ouest meeting, Toulouse, France  
CBS2 annual PhD students meeting
- 2013 – 2014:** CRBM retreat

### Presentations:

- 2020 - 2021:** SIMR internal seminar, Sharjah, UAE
- 2015 – 2016:** CRBM annual PhD students meeting, Montpellier, France
- 2016 – 2015:** CRBM annual PhD students meeting, Montpellier, France

### Formations:

- Laboratory safety skills
- Preparing research project and taking notes on scientific literature
- Communiquer auprès des recruteurs : marketing du soi, entretiens de recrutement

## Leadership

- 2017 – present:** twinning between Montpellier city (France) and Bmahray village (Lebanon)
- 2010 – 2011:** responsible for the faculty's cultural affairs
- 2009 – 2010:** student front's vice president
- 2007 – 2008:** responsible for the faculty external affairs

## Grants acquisition

- 2020 – 2022:** competitive research project funding (No 2001050156)
- 2015 – 2016:** Fondation ARC pour la recherche sur le cancer



## List of publications

**Lara J. Bou Malhab**, Maha M. Saber-Ayada, Ranyah Al Hakm, Vidhya A Naira, Panagiotis Paliogiannis, Gianfranco Pintusa, and Wael M. Abdel-Rahmana. *The role of vascular inflammation in cancer development and metastasis. Vascular inflammation & cancer (accepted)*

El-Huneidi W, Shehab NG, Bajbouj K, Vinod A, El-Serafi A, Shafarin J, **Bou Malhab LJ**, Abdel-Rahman WM, Abu-Gharbieh E. *Micromeria fruticosa Induces Cell Cycle Arrest and Apoptosis in Breast and Colorectal Cancer Cells. Pharmaceuticals (Basel). 2020 Jun 3;13(6):115. doi: 10.3390/ph13060115. PMID: 32503209; PMCID: PMC7345572*

**Malhab LJ**, Descamps S, Delaval B, Xirodimas DP. *The use of the NEDD8 inhibitor MLN4924 (Pevonedistat) in a cyclotherapy approach to protect wild-type p53 cells from MLN4924 induced toxicity. Sci Rep. 2016;6:37775. Published 2016 Nov 30. doi:10.1038/srep37775*

Bailly, A., Perrin, A., **Bou Malhab, L.** et al. *The NEDD8 inhibitor MLN4924 increases the size of the nucleolus and activates p53 through the ribosomal-Mdm2 pathway. Oncogene 35, 415–426 (2016). <https://doi.org/10.1038/onc.2015.104>*

Amina Laham, Fatema Omar, Dana Zaher, Arya Vinod, Vidhya Nair, Maha Guimei, **Lara J Bou Malhab**, Thenmozhi Venkatachalam, Hany Omar, Wael Hassan Abdel-Rahman, Maha Saber-Ayad. *The anti-diabetic glucagon-like peptide-1 receptor agonist inhibits the viability of breast cancer cells by suppressing the MAPK and NFκB pathways (under submission)*

**Lara J. Bou Malhab**, Emmanuelle Pion, Gilles Gadea, Susanne Schmidt, Pierre Roux, Anne Debant & Dimitris Xirodimas. *A p53 independent role of Mdmx in cell invasion. (under submission)*

**Lara J. Bou Malhab**, Vidhya Anish Nair, Wael Abdel-Rahman Hassan. *Obesity promotes tumor development and drug resistance in colon and breast cells. (manuscript in preparation)*

**Lara J. Bou Malhab**, Wael Abdel-Rahman Hassan. *Obesity and inflammation: CRC engines. (under submission)*

Expert report: *stabilization of highly contaminated sands with quicklime, july 2009.*