



Date of Birth: 17/05/1985

Nationality: French & Lebanese

### Contact

Address:

Via Pollaiuolo, 15

20159 Milan, Italy

Email

manar.aoun@gmail.com

## Special skills

### Technical expertise

- Transferred and designed new procedures in lipidomics and mitochondria purification
- manipulated mitochondria and biological membranes, explored molecular pathways implicated in lipid metabolism, mitochondrial disorders and liver Carcinoma
- solid knowledge of analytical and molecular biology methods: chromatography techniques (GC, GC/MS, TLC), in vivo and in vitro skills, robots, RNA Labchips, qPCR, SDS/PAGE, ELISA, development of bioluminescent cell-based assays and read-out methods on 96 wells plates...

### Communications/collaborations

- participated in international and local scientific congresses
- developed a large multidisciplinary network in academic, clinical and private research organizations in France (Montpellier) and Italy (Bologna)
- Contributed to final reports and published papers in peer-reviewed journals

### Project management

- elaborated Spec sheet and managed purchase orders
- participated to the development of clinical trial protocols and completed funding request

### Computer skills

- holding a diploma in internet and computer (C2i1, C2i2), familiar with softwares : MS Office (excel, ppt,...), Statview, chromatography softwares, e-learning

### Languages skills

- trilingual (Lebanese, French, English TOEIC = 860/990), Fluent Italian

## Experiences

- |           |  |
|-----------|--|
| 2014      | <p><b>Experience Researcher (Marie Curie ITN fellowship)</b>, M.E.E.T. Project, Institute C Besta, Milan (Italy)</p> <p><i>Therapeutic approaches in animal models of mitochondrial disorders responsible for neurodegeneration</i></p>  |
| 2012-2013 | <p><b>Research associate (post-doctoral fellow)</b>, platform « Transcriptional Modulators Screening », ICM (Institut régional du Cancer de Montpellier)</p> <p><i>Establishment of stable bioluminescent cell lines to evaluate effect of endocrine disrupting chemicals in water and dietary nutrients on nuclear receptors</i></p>                                      |
| 2011-2012 | <p><b>Engineer in clinical research</b> (Obesity and metabolic syndrom clinical trials), Lapeyronie hospital, Montpellier (France)</p>   |
| 2010-2012 | <p><b>Scientific and communications short missions</b>, in ISOF CNR &amp; LipiNutragen srl, 1-2 months per year in Bologna (Italy)</p> <p><b>Young Investigator in the inter-European Network 'COST Office'</b></p> <p><i>Action CM1201 Biomimetic Radical Chemistry, member of the WG3: Membrane Stress, Signaling and Defenses (Action end date : december 2016)</i></p> |
| 2009-2013 | <p><b>Lecturer</b>, universities of Montpellier &amp; Nimes (France)</p> <p><i>Molecular and biochemical nutrition, metabolism disorders (60-90 hours/year)</i></p>  |
| 2008-2011 | <p><b>Research assistant (doctorate)</b> in Biochemistry/metabolism, INRA UMR 866 &amp; Lapeyronie Hospital &amp; NutriPass, Montpellier (France)</p> <p><i>Modulation of lipid metabolism and mitochondrial functions in hepatic steatosis and insulin-resistance: effects of fatty acids and polyphenols</i></p>   |
| 2008      | <p><b>Research trainee</b> - INSERM/INRA (H Vidal) - Lyon-Sud Hospital, Lyon (France)</p> <p><i>Development of transcriptomic analysis on affymetrix microarrays</i></p>   |

## Education

- |      |  |
|------|--|
| 2013 | Diploma in <b>Clinical Research</b> - faculty of Medicine – University Montpellier 1                         |
| 2011 | <b>PhD in Biochemistry</b> - faculty of Sciences & Lapeyronie Hospital -Montpellier (France)                 |
| 2008 | <b>Master's degree</b> in Structural and Functional Biochemistry - University Claude Bernard - Lyon (France) |
| 2006 | <b>Bachelor degree</b> in Biochemistry - University of Beirut (Lebanon)                                      |

## Others

### Hobbies

- Photography
- Sports activities: Combat training, footing, bollywood dance
- Travelling: 3-months eurotrip (Spain, France, Italy, Croatia, Poland, Germany, England), Switzerland, Hongry, Holland, Czech , Lebanon
- World gastronomy

### Volunteer work

- Leader of workshops on nutrition/culture - Elementary School St Odile in Montpellier
- Active member and **Treasory** of the "CONTACT" association of young researchers in Montpellier (2011- present)

## Scientific achievements

## Publications

- A polyphenol extract modifies quantity but not quality of liver fatty acid content in high-fat high-sucrose diet-fed rats: possible implication of the sirtuin pathway - [M Aoun et al](#) - **British Journal of Nutrition** (2010), **104**: 1760-1770
- A grape polyphenol extract modulates muscle membrane fatty acid composition and lipid metabolism in high-fat-high-sucrose diet-fed rats - [M Aoun et al](#) - **British Journal of Nutrition** (2011); **106(4)**:491-501
- Rat liver mitochondrial membrane characteristics and mitochondrial functions are more profoundly altered by dietary lipid quantity than by dietary lipid quality: effect of different nutritional lipid patterns - [M Aoun et al](#) - **British Journal of Nutrition** (2012);**107(5)**:647-59
- Trans fatty acids: chemical synthesis of Eicosapentaenoic Acid isomers and detection in rats fed a deodorized fish oil diet - C Ferreri, S Grabovskiy, [M Aoun et al](#) - **Chem Res Toxicol.** (2012); **25(3)**:687-94
- Dietary fatty acids modulate cardiolipin content and fatty acid composition of liver mitochondria in rats with non alcoholic fatty liver disease - [M Aoun et al](#) - **J Bioenerg Biomembr.** (2012); **44(4)**:439-52.
- Effects of long term administration of saturated and n-3 fatty acids-rich diets on lipid utilization and oxidative stress in rat liver and muscle tissues – C Feillet-Coudray, [M Aoun et al](#) **British Journal of Nutrition** (2013) – doi:10.1017/S0007114513001311
- Xanthine oxidase is variably involved in nutritional and physiopathologic oxidative stress situations - C Feillet-Coudray, G Fouret, B Bonafos, [M Aoun et al](#) – **J of Physio-biochemical Metabolism** (2013) – In press.
- Hepatitis C driven steatosis is associated with an altered metabolic liver zonation – M Moreau, B Rivière, [M Aoun](#), C Gard, J Ramos, E Assenat, U Hibner – **submitted to PLOS Pathogens** (August 2013)
- New reporter cell lines to study androgenic activity of natural and pharmaceutical toxic pollutants. [M Aoun](#), A Boulahtouf, A Velati, M Grimaldi, V Cavailles and P Balaguer – **in preparation** (2013)
- Regulation of activities of steroid hormone receptors by pregnenolone. [M Aoun](#), A Boulahtouf, M Grimaldi, and P Balaguer – **in preparation** (2013)

## Oral Contributions

- A grape polyphenol extract reduces liver lipid content in rats fed a high fat-high sucrose diet: the SIRT1/AMPK signalling pathway - Manar Aoun - **First Congress of fatty liver and metabolic syndrome** 12-14 November 2009, Budapest, Hongrie (Clinical and Experimental Medical Journal/ Vol3, N°4, p562) & **4th Congress of the « Société Française de la Nutrition » (SFN)** 10-12 December 2009, Montpellier, France
- Absorption and hydrolysis of alpha-tocopheryl acetate: a comparative study with alpha-tocopherol - Manar Aoun – **Young researchers Summer School** 5-9 July 2010, Talloires, France
- Trans Fatty Acids in Mitochondrial membrane: Measurement and Biological Significance - Manar Aoun - **Final Meeting of the Action CM0603 COST Office “ChemBioRadical”**, 14-17 June 2011, Zagreb, Croatia
- Nutrition and Mitochondrion - Manar Aoun – **the valorization of Doctors’ soft skills (NCT)** directed by ABG-Intelli’Agence ,24 June 2011, Montpellier, France
- Novel biomarkers for radical stress attack in clinical trials: mtDNA lesions, trans-PUFA in membrane phospholipids and isoprostanes - Manar Aoun – **Joint Management Committee and Working Group Meetings of the COST Action “Biomimetic Radical Chemistry”**, 05-07 May 2013, Bologna, Italy
- Dietary fatty acids modulate liver mitochondrial membranes structures and functions in rats with non alcoholic fatty liver disease - Manar Aoun – **EYIC 2013/6th European Young Investigator Conference/Training School**, 26-30 June 2013, Slubice, Poland

## Posters

- Nutritional effects of diet lipids and micronutrients on tissues and mitochondrial membranes structure of liver and skeletal muscle: redox status and inflammation - Manar Aoun – **“Cross Border Doctorials”** 18-24 October 2009, Majorque, Spain
- A red wine polyphenol extract modulates muscle lipid composition in rats fed a high fat high sucrose diet - Manar Aoun - **4th Congress of the «Société Française de la Nutrition»** 10-12 December 2009, Montpellier, France