**MAYSSA**

Bur Dubai, Oud Metha

Email: [mayssa-394775@2freemail.com](mailto:mayssa-394775@2freemail.com) Dubai, UAE

**EDUCATION**

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| **PhD -** National Institute of Applied Sciences, Lyon, France, Biochemistry | **May 2015** |

* Dissertation: “Study of the passage of a structured phospholipid AceDoPC

through an *in vitro* reconstituted blood-brain barrier and its cerebral bioavailability *in vivo* in rats”

* Committee: Prof. Michel Lagarde, Prof. Nathalie Bernoud-Hubac, Dr. Madeleine Picq, Dr. Gildas Breton, Dr. Jean-Jacques Martin, Dr. Franck Thies, Dr. Michel

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| **MS** | **-** National Institute of Applied Sciences, Lyon, France, Biochemistry | **Feb 2012** |

* Thesis: “Synthesis of a radiolabeled structured phospholipid and study of its passage through an *in vitro* reconstituted model of blood-brain barrier”
* Advisor: Prof. Nathalie Bernoud-Hubac, Dr. Madeleine Picq

**BS** **-** Faculty of Sciences, Lebanese University, Biochemistry **Sep 2004**

* Minored in Chemistry

**HONORS AND AWARDS**

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| **Academic Professional Award** | **Oct 2019** |

“Academic Professional Award" by International Business and Academic Excellence Awa rd (IBAE-2019) committee for Exceptional Calibre and Outstanding Performance as Academician, Researcher, Mentor, Advisor and a Thought Leader.

American College of Dubai, Dubai, UAE.

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| **Best Oral Presentation** | | **Mar 2015** |
| Chevreul Lipids | & Brain Conference, Paris, France. |  |
| Title: Metabolic | fate of AceDoPC, a stable form of LysoPC-DHA to target the brain. | |
| **Best Oral Presentation** | | **Jun 2014** |
| 14th Scientific Conference of the Multidisciplinary Institute of Lipid Biochemistry | | (IMBL), |
| INSA, Lyon, France | |  |
| Title: AceDoPC as a preferred carrier form of docosahexaenoic acid to the brain | |  |
| **Doctoral Research Grant** | | **Jul 2012** |

Doctoral Research Grant, Polaris-Lipides Nutritionnels Indutry, Pleuven, France for the PhD research project 2012-2015

**INSA Distinction Award** **Feb 2012**

Distinction Award from INSA, Lyon, France for Master Degree in Structural and Functional Biochemistry

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**TEACHING EXPERIENCE**

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| Dubai, UAE | **Sep 2017 to Present** |
| **Assistant Professor**, Department of Forensic Science |  |
| Courses Taught for Undergraduate Students per Academic Year: |  |

* ‘**Introduction to Biology’**, an undergraduate course averaging 40 students per semester, covering the following topics: Biological Classification, cell biology, introduction to cell physiology, applied biology. (3 credits)
* **‘Environmental Studies’**, an undergraduate course averaging 40 students persemester, covering the following topics: Multidisciplinary nature of

environmental studies, Natural Resources, Ecosystems, Environmenta l

Pollution, Social Issues and the Environment, Human Population and the

Environment, Biodiversity. (4 credits)

* **‘DNA Fingerprinting’**, an undergraduate course averaging 30 students per

semester, covering the following topics: Introduction to DNA Fingerprint ing , DNA Isolation Techniques, Techniques for DNA Fingerprinting, Types of DNA Fingerprinting Techniques, Practical application of DNA Fingerprint ing. (3 credits)

* **‘Instrumentation Chemical’**, an undergraduate course averaging 30 studentsper semester, covering the following topics: Chromatographic Techniques, TLC, HPLC, GC, Spectroscopic Techniques, UV- Visible spectrophotometry, AAS. IRS, Mass Spectrometry. (3 credits)
* **‘Introduction to Forensic Chemistry’,** an undergraduate course averaging 40students per semester, covering the following topics: Forensic Chemistry, Theory of Forensic Analysis, Presumptive Drug Analysis, Expert Witness. (3 credits)
* **‘Explosives and Post Blast Residue Analysis’**, an undergraduate courseaveraging 30 students per semester, covering the following topics: Explosives, IEDs, Post Blast residue Analysis, Laboratory examination of bomb and explosive evidence, Identification of RDX and PETN. (3 credits)
* **‘Forensic Examination of Edible Items’,** an undergraduate course averaging30 students per semester, covering the following topics: Adulteration in Edibles, Additives for Edible items, Examination of adulteration in edibles, Instrumental techniques. (3 credits)
* **‘Forensic Audio Video Examination’**, an undergraduate course averaging 30students per semester, covering the following topics: Introduction to Forensic Audio Video Examination, Handling and Processing of audio and video tapes, speaker recognition, tape authentication, report writing. (3 credits)
* ‘**Quality Management and Accreditation in Forensic Science’**, an undergraduate course averaging 30 students per semester, covering the

following topics: management requirements, technical requirements, ISO/IEC 17025, ISO/IEC 9001. (3 credits)

* **‘Forensic Biology and Serology Practical’,** an undergraduate practical courseaveraging 30 students per semester, covering the following topics: Introduction to the preliminary and confirmatory tests for identification of blood and

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biological fluids, determination of human species, other techniques for species identification. (3 credits)

Courses Taught for Postgraduate Students per Academic Year:

* **‘Advanced Forensic Chemistry’,** a postgraduate course averaging 5 students persemester, covering the following topics: Arson, motor vehicle fire, Analysis of Petroleum Products, Organic and Inorganic Substances, Expert Witness, Explosives. (3 credits)
* **‘Advanced Forensic Explosives’,** a postgraduate course averaging 5 students persemester, covering the following topics: Development & Classification of Explosives , Location, Collection and Examination of Explosive Residue, Assessment and

Thermochemistry of Explosives, Detection of Hidden Explosives, Instrumental Techniques in Explosive Residue Analysis. (3 credits)

* **‘Advanced Forensic Toxicology and Pharmacology’,** a postgraduate courseaveraging 5 students per semester, covering the following topics: Pharmacology, Toxicology and Isolation techniques of toxins, different toxins. (3 credits)
* **‘Forensic Biology and Serology’,** a postgraduate course averaging 5 students persemester, covering the following topics: Hair and fiber, Introduction to Botanical

evidences and Diatoms, Introduction to Forensic Anthropology, Introduction to Forensic Serology, Introduction to DNA profiling. (3 credits)

* **‘Instrumental-Chemical Analysis’,** a postgraduate course averaging 6 students persemester, covering the following topics: Chromatographic Techniques, TLC, HPLC,

GC, Spectroscopic Techniques, UV- Visible spectrophotometry, AAS. IRS, Mass Spectrometry. (3 credits)

For all the Undergraduate and Postgraduate Courses:

* Developed quizzes, exams, and homework
* Revised the syllabus to meet accreditation standards
* Coordinated grading and labs with a team of 2 teaching assistants

**Masters Students Supervised**

* + Sharmila Narayanan, “Investigation of pattern of Gunshot injuries to the skull”,

2017-2019.

* + Jenvita Castelino, “Investigation of pattern of Gunshot injuries to the skull”,

2017-2019.

* + Subah Sharma, “Investigation of pattern of Gunshot injuries to the skull”,

2017-2019.

* + Ishani Pilankar, “Analysis of soil considered as evidence in forensic investigations” , 2017-2019.
  + Nashrah Anwar, “Analysis of soil considered as evidence in forensic investigations” , 2017-2019.

**Undergraduate Students Supervised**

* Nilufar Kausar, “Correlation between blood and brain level of omega 3

polyunsaturated fatty acids and mental health in forensic psychology”, 2019.

* Areesha Lakhani, Mohammed Zayed, “Lipid analysis on soil products for determination of time of death in forensic investigations”, 2019.

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* Mohammed Asad Jalal, Mohammad Inayatullah, “Analysis of Fatty acids

compounds in Fingerprints as evidentiary value in forensic investigations”, 2019.

* Jyotika Nigam, “Effect of Paracetamol on the human body”, 2019.

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| **Compiegne,France** | **Sep 2016 to Apr 2017** |
| **Assistant Professor**, Department of Biological Engineering |  |

* Courses:
  + Biological Sciences for engineer
  + Chemistry of organic and biological substances
  + Initiation for Histology
  + Enzyme Linked Immunosorbent Assay ELISA Practicals

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|  |  |  |  |  |  |  | **France** |
|  |  |  |  |  | **Jul 2012 to May 2015** | | |

**Lecturer,** Biochemistry and Bioengineering Department

* Courses:
  + Practical Lessons in Structural and Dynamic Biochemistry
  + Industrial Processes Practical Project
  + Biomolecules

**RES EARCH EXPERIENCE**

**Department of Forensic Science, Amity University Dubai, Dubai, UAE** **2017-Present**

* Investigation of pattern of Gunshot injuries to the skull
* Analysis of soil considered as evidence in forensic investigations
* Correlation between blood and brain level of omega 3 polyunsaturated fatty acids and mental health in forensic psychology
* Lipid analysis on soil products for determination of time of death in forensic investigations
* Analysis of Fatty acids compounds in Fingerprints as evidentiary value in forensic investigations
* Effect of Paracetamol on the human body

**Laboratory of Enzym and Cell Engineering FRE CNRS 3580 (GEC) Sorbonne University, University of Technology Compiègne (UTC), Compiègne, France . 2016-2017**

* Metabolic regulation during the synthesis of unusual oils in oleaginous plants for adaptation of plant systems to lipid bio-refinery
* Advisor: Prof. Yolande Perrin
* Funding: REGULIPIDE Project- SAS PIVERT

**Cardiovascular, Metabolism, Diabetology and Nutrition CarMeN research Unit, INSA,**

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| **Lyon, France .** | **2012-2015** |

* Study of the passage of a structured phospholipid AceDoPC through an *in vitro*

reconstituted blood-brain barrier and its cerebral bioavailability *in vivo* in rats

* Advisor: Prof. Nathalie Bernoud-Hubac, Dr. Madeleine Picq
* Funding: Polaris-Lipides Nutritionnels Indutry, Pleuven

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**Cardiovascular, Metabolism, Diabetology and Nutrition CarMeN research Unit, INSA,**

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| **Lyon, France .** | **2011-2012** |

* Synthesis and analytical study of structured phospholipids: Determination of their structure and purity
* Advisor: Prof. Nathalie Bernoud-Hubac, Dr. Madeleine Picq
* Funding: National Institute of Health and Medical Research INSERM, France

**Cardiovascular, Metabolism, Diabetology and Nutrition CarMeN research Unit, INSA,**

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| **Lyon, France .** | **2010-2011** |

* Synthesis of a radiolabeled structured phospholipid and study of its passage through an in vitro model of reconstituted blood-brain barrier
* Advisor: Prof. Nathalie Bernoud-Hubac, Dr. Madeleine Picq
* Funding: National Institute of Health and Medical Research INSERM, France

**Center for Biotechnology, Laboratory of Applied Che mistry, Faculty of Science 3,**

**Tripoli, Lebanon** **2009-2010**

* Remediation of waters polluted by dyes using natural beet fibers and sawdust
* Advisor: Prof. Chawki Boukarim, Prof. Fawaz Al Omar
* Funding: Regional

**PUBLICATIONS**

**PRES ENTATIONS**

**PROFES S IONAL TRAINING**

**Professional Certificate in Manipulating Radioactivity, Category B,** IRSN - French publicexpert in nuclear and radiological risks, 2017.

**Certificate in Research and Education Practice in Biological, Fundamental and Clinical Sciences,** French Ministry of Higher Education, Paris, France, 2016.

**Diploma in Biological experimentation level 1, FELSA C 013 -06**, Claude BernardUniversity (Lyon I) and National School of Veterinary, Lyon, France, 2014.

**Certificate in Intellectual Property in Research and Industry**, University of Lyon, 2013.

**PROFES S IONAL AFFILIATIONS**

**American Society for Biochemistry and Molecular Biology,** 2018-Present.

**Technical Committee & Editorial Review Board on Biotechnology and Bioengineering of International Research Conference Scientific,** 2018-Present.

**Chairman at AICAI international conference, Amity University Dubai, Dubai, UAE, 2 -4** February 2019.

**Secretary of ICCIKE international conference, Amity University Dubai, UAE, 11 -12** December 2019.

**COMMUNITY SERVICES**

Visit to General Department of Forensic Science & Criminology, Dubai Police, Dubai, UAE, 07-08/01/2019

Visit to Malaysia for ten working days training in forensic science, Visit to Royal Malaysian Police, 28 Feb-10 March/2019

**LANGUAGES**

**Arabic**: Native Language

**English**: Intermediate Listener, Novice Speaker, Advanced Reading and Writing

**French:** Intermediate Listener, Novice Speaker, Advanced Reading and Writing

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**COMPUTER SKILLS**

**Academic:** lecturing, tutoring, developing course curriculum, excellent presentation skills(theoretical and practical), and excellent communication skills.

**Technics:** lipid biochemistry, molecular and cellular biology techniques, bioengineering,medicinal chemistry , analytical chemistry, radiolabeling (3H, 14C) molecules, clinical studies, *in vivo* and *in vitro* studies of biomolecules, drug synthesis, drug delivery, molecular imaging,molecular and cellular biology, plant (biology, anatomy, genetics, culture and metabolism), biomass analysis, forensic science.

**Software:** office (Excel, Word, PowerPoint), Graph Pad Prism, ChemDraw, Anova Stat.

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