

Roula Ajrouche, PharmD, PhD

CONTACT

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EDUCATION

PhD in public health- Epidemiology 2012 — 2015
Paris-Sud University

Master 2 research in Clinical pharmacy and Epidemiology 2011 — 2012
Lebanese University

Master 1 research in pharmaceutical and biological science 2010 — 2011
Saint-Joseph University

Doctor in Pharmacy (PharmD) 2005 — 2011
Lebanese University

WORK EXPERIENCE

Lebanese University 2018 — Present
Assistant Professor/Associate Professor (Since 2020)

Lebanese University 2013 — Present
Lecturer in Pharmacoeconomics

French Institute of Radioprotection and Nuclear Safety 2015 — 2017
Postdoctoral researcher

Centre of Research in Epidemiology and Statistics- UMR 1153 2012 — 2015
Doctoral Researcher

Community pharmacist 2010 — 2012

CERTIFICATIONS

Digitalization of Health & Medical Education Teaching Methods, Techniques and Technologies: Team-Based Learning (TBL), Problem-Based Learning (PBL), Course/Curricula Design - University of Genoa and Linnaeus University, 2021.
Radiobiology & Radiotoxicology- French National Institute for Nuclear Science and Technology (INSTN), 2016.

SKILLS

Languages: **English** (Professional working), **French** (Bilingual), **Arabic** (Native), **Spanish** (Basic knowledge).

Teaching Tools: Microsoft Teams, Google Classroom, Promethean ActivInspire, Padlet.

Research Tools: SAS, R, SPSS, QGIS, DAGitty, RevMan, Epi-info.

QUALIFICATIONS

Qualified by the Lebanese University with the approval of the Lebanese Ministry of Education as "Associate Professor", in 2020.

Qualified by the French ministry of national education as "Maitre de conférences" of Drug Science (Section 86- N°17286305454), in 2017.

TEACHING ACTIVITIES

Specific courses taught at Lebanese University:

- Graduate courses: Pharmacoeconomics, Health Economics and Systems, Pharmacy Practice, Preclinical Research, New trends in Pharmaceutical Industry.
- Undergraduate courses: Biostatistics, Hematology practical work, Clinical Pharmacy Practice.

Other courses taught at Paris Descartes University and Paris XII University:

- Graduate course: Health Risk Assessment.
- Undergraduate course: Radon Risk and Pollution.

RESEARCH INTERESTS

Cancer Epidemiology, Clinical epidemiology and Pharmacoepidemiology, Health economic evaluation and Pharmacoeconomics.

Master 2 student project supervision:

- Abou Assi, Aline (PharmD, UL). Study of the association between air pollutant levels and the risk of lymphoma in the E3N cohort (Internship in France for 4 months). *Co-supervised with Dr. Gianluca Severi & Dr. Caroline Besson.* M.Sc. thesis in Clinical Pharmacy and Epidemiology, 2020-2021.
- Saryeddine, Rida (PharmD, UL). Parents' knowledge and attitude towards COVID-19 in children. M.Sc. thesis in Clinical Pharmacy and Epidemiology, 2020-2021.
- Kalash, Ali. (PharmD, UL). Public perceptions about pharmacists' role in providing education and delivering medications during the COVID-19 pandemic. M.Sc. thesis in Clinical Pharmacy and Epidemiology, 2020-2021.
- Kabalan, Mayssan (BS, LAU). Public Awareness of Environmental Risk Factors of Cancer Among the Lebanese General Population. M.Sc. thesis in Clinical Pharmacy and Epidemiology, 2019-2020.
- Jadayel, Marwa (BS, BAU). Efficacy and safety of Chloroquine derivatives for the treatment of COVID-19: A systematic review and meta-analysis. M.Sc. thesis in Clinical Pharmacy and Epidemiology, 2019-2020.
- Karam, Marie Michele (PharmD, USJ). Abdel Baki, Jwana (PharmD, USJ). Willingness to Pay for A Coronavirus Vaccine and Its Associated Determinants in Lebanon. M.Sc. thesis in Clinical Pharmacy, 2019-2020.
- Habli, Reem (PharmD, LU). Cost-effectiveness analysis of Ticagrelor vs Clopidogrel in patients with acute coronary syndromes. M.Sc. thesis in Clinical Pharmacy, 2019-2020.
- Chandab, Ghinaj (PharmD, LU). Genetic polymorphisms of Th2 interleukins, allergies and childhood leukemia (Internship in France for 5 months). *Co-supervised with Dr. Jacqueline Clavel & Dr. Audrey Bonaventure.* M.Sc. Thesis in Clinical Pharmacy and Epidemiology, 2018-2019.
- Sraj, Mariam (PharmD, LAU). Capacity buildings through Pharmacoeconomics in Lebanon. (Internship in HOPE center, Arizona for 1 month). M.Sc. thesis in Clinical Pharmacy, 2017-2018.
- Jaafar, Fatima (BS, LU). Pharmacoepidemiologic evaluation of contraceptive use in Lebanon. M.Sc. thesis in Clinical Pharmacy, 2017-2018.

Doctor in pharmacy thesis supervision:

- Al Saleh, Alaa. Al Baarini, Iman. The impact of introducing a system of generic substitution on the community drug schemes in Lebanon: An application to the cardiovascular field, 2019-2020.
- Chehade, Rim. Faytrouni, Abir. Pharmacist's role in Managing Contraceptive Care. 2018-

2019.

Bachelor in pharmacy thesis supervision:

- El Khatib, Farah. Lymphome Non Hodgkinien: Epidémiologie, Etiologie et Traitement. 2020-2021.

- Lahlouh, Nour. COVID-19 in children; Epidemiology, Clinical characteristics and Treatment guidelines. 2020-2021.

- Kteich, Walaa. Developing new vaccines against emerging viruses. 2019-2020.

-Andraos, Sandra. Les leucémies aiguës lymphoblastiques de l'enfant: Epidémiologie, Etiologie et Traitement. 2019-2020.

Also served on the supervisory committees of more than 30 MSc thesis and project students.

PUBLICATIONS

Articles in refereed international journals:

-Noun H, Atat R, Hatem G, **Ajrouche R**, et al. Health-related quality of life of relapsing or remitting multiple sclerosis patients: A case-control study. *Palliat. Med. Pract.* 2023 Jan 25.

- Hatem G, Itani R, **Ajrouche R**, et al. Knowledge, perception and acceptance of generic drugs in the general Lebanese population: A cross-sectional survey among adults. *J Med Access.* 2023 Jan 17;7:27550834221147789.

-Saryeddine R, Ajrouch Z, El Ahmar M, Lahoud N, **Ajrouche R**. Parent's knowledge, attitude, and practices towards COVID-19 in children: a Lebanese cross-sectional study. *J Prev Med Hyg.* 2022; 63:E1-E16.

- Mosleh R, Hatem G, Navasardyan N, **Ajrouche R**, et al. Triggering and relieving factors of migraine among university students: A cross-sectional study in Lebanon. *Headache Med [Internet].* 2022 Dec. 28.

- Karam MM, Baki JA, Al-Hajje A, Sraj M, Awada S, Salameh P, **Ajrouche R**. Willingness to Pay for a Coronavirus Vaccine and Its Associated Determinants in Lebanon. *Value Health Reg Issues.* 2022 Jan 13;30:18–25.

- Karam MM, Abdel Baki J, Al Hajje A, Sraj M, Awada S, Salameh P, **Ajrouche R**. Author Reply. *Value Health Reg Issues.* 2022 Jul;30:166–7.

- Hatem G, Navasardyan N, Lahoud E, Awada S, Itani R, **Ajrouche R**, et al. Predictors of substitution to generic drugs and physicians' perceived exclusivity of substitution: A cross sectional survey among physicians. *J Generic Med Bus .* 2022 Jun 12;174113432211075.

- Bassam S, Mansour S, **Ajrouche R**, et al. Drug-Related Problems and Factors Involved in the Imbalance of Oral Anticoagulants in Lebanese Patients: A Cross-Sectional Study. *Dr Sulaiman Al Habib Med J.* 2022 Jun;4(2):77–85.

- **Ajrouche R**, Chandab G, et al. Allergies, genetic polymorphisms of Th2 interleukins, and childhood acute lymphoblastic leukemia: The ESTELLE study. *Pediatr Blood Cancer.* 2021 Oct 18;e29402.

- Kabalan M, El-Hajj M, Khachman D, Awada S, Rachidi S, Al-Hajje A, **Ajrouche R**. Public awareness of environmental risk factors of cancer and attitude towards its prevention among the Lebanese general population. *J Prev Med Hyg.* 2021 Jun;62(2):E466–78.

- El-Hajj M, **Ajrouche R**, et al. Evaluation of risk factors and drug adherence in the occurrence of stroke in patients with atrial fibrillation. *Pharm Pract.* 2020 Jun;18(2):1860.

- Awada S, **Ajrouché R**, et al. Rheumatoid Arthritis in the Lebanese Adults: Impact on Health-Related Quality of Life. *J Epidemiol Glob Health*. 2019 Dec;9(4):281–7.
- **Ajrouché R**, et al. Quantitative health impact of indoor radon in France. *Radiat Environ Biophys*. 2018 Aug;57(3):205–14.
- **Ajrouché R**, et al. Quantitative Health Risk Assessment of Indoor Radon: A Systematic Review. *Radiat Prot Dosimetry*. 2017 Nov 1;177(1–2):69–77.
- Marcotte EL, Thomopoulos TP, Infante-Rivard C, Clavel J, Petridou ET, Schüz J, Ezzat S, Dockerty JD, Metayer C, Magnani C, Scheurer ME, Mueller BA, Mora AM, Wesseling C, Skalkidou A, Rashed WM, Francis SS, **Ajrouché R**, et al. Caesarean delivery and risk of childhood leukaemia: a pooled analysis from the Childhood Leukemia International Consortium (CLIC). *Lancet Haematol*. 2016 Apr;3(4):e176-185.
- **Ajrouché R**, et al. Childhood acute lymphoblastic leukaemia and indicators of early immune stimulation: the Estelle study (SFCE). *Br J Cancer*. 2015 Mar;112(6):1017–26.
- Orsi L, Rudant J, **Ajrouché R**, et al. Parental smoking, maternal alcohol, coffee and tea consumption during pregnancy, and childhood acute leukemia: the ESTELLE study. *Cancer Causes Control CCC*. 2015 Jul;26(7):1003–17.
- **Ajrouché R**, et al. Maternal reproductive history, fertility treatments and folic acid supplementation in the risk of childhood acute leukemia: the ESTELLE study. *Cancer Causes Control CCC*. 2014 Oct;25(10):1283–93.
- El Helou N, Al-Hajje A, **Ajrouché R**, et al. Adverse drug events associated with vitamin K antagonists: factors of therapeutic imbalance. *Vasc Health Risk Manag*. 2013 Mar;81.
- **Ajrouché R**, et al. Statins decrease mortality in Lebanese patients with sepsis: A multicenter study. *Pharm Pract*. 2013 Apr;11(2):102–8.

Oral communications:

- **Ajrouché R**. Leukemia: Epidemiologically. *Leukemia conference*, Lebanon, May 2021.
- Sraj M, **Ajrouché R**. Regional Adaptation of Pharmacoeconomics to Shape Efficient Healthcare System. *LIU conference*. April 2019.
- **Ajrouché R**, et al. Évaluation quantitative de l'impact sanitaire du radon domestique en France métropolitaine. *Congrès national de radioprotection*, Lille, Juin 2017.
- **Ajrouché R**, et al. Évaluation quantitative de l'impact sanitaire du radon domestique en France. *7ème congrès national en Santé-environnement*, Strasbourg, November 2016.
- **Ajrouché R**, et al. Quantitative health risk assessment of indoor radon. *8th International Conference on Protection against Radon*, Prague, September 2016.
- **Ajrouché R**, et al. Exposure to animals in early life, other indicators of early immune stimulation and childhood acute lymphoblastic leukemia: The Estelle case-control study. *ISEE 27th conference*, Sao Paulo, September 2015.
- **Ajrouché R**, et al. Are difficulty of becoming pregnant and fertility treatments associated with childhood acute leukemia? *20th world congress on controversies in obstetrics, gynecology and infertility (COGI)*, Paris, December 4-7 2014.
- **Ajrouché R**, et al. Contact avec les animaux durant l'enfance, allergie et leucémie de l'enfant : Étude ESTELLE, France, *VIe Congrès International d'Épidémiologie Adelf Epiter*, Nice, 10-12 september 2014.
- El Helou N, **Ajrouché R**, Berberi C, Al Hajje A. Adverse Drug Events Associated with Vitamin K Antagonists: Factors of Therapeutic Imbalance, *17th LEA Annual Conference*, Beirut, Lebanon: November 2012.

Posters:

- Habli R, ..., **Ajrouche R**. Cost-effectiveness analysis of Ticagrelor vs Clopidogrel in patients with acute coronary syndromes. *7 th National Prevention Conference, Ireland*, November 2020.
- Chandab G, **Ajrouche R**, et al. History of allergy, genetic polymorphisms of Th2 interleukins, and childhood acute lymphoid leukaemia, *Biobeirut 9*, December 2019.
- Cléro E, Marant-Micallef C, **Ajrouche R**, et al. Évaluation quantitative de l'impact sanitaire du radon dans l'habitat : incidence et mortalité du cancer du poumon en France. *9ème congrès national en Santé-environnement*, Montpellier, December 2018.
- **Ajrouche R**, et al. An Update of the quantitative evaluation of the health impact of indoor radon in France. *ISEE*, Rome, September 2016.
- **Ajrouche R**, et al. Fertility treatments, maternal reproductive history, and folic acid supplementation in the risk of childhood acute leukemia: the ESTELLE Study, *Society for Pediatric and Perinatal Epidemiologic Research (SPER)*, Seattle, 23-24 June 2014.
- **Ajrouche R**, et al. Fertility treatments, getting pregnant on birth control, folic acid supplementation and childhood acute leukemia: The ESTELLE study, *Society for Epidemiologic Research (SER)*, Seattle, 25-27 June 2014.
- **Ajrouche R**, et al. Fertility treatments, getting pregnant on birth control, folic acid supplementation and childhood acute leukemia: The ESTELLE study, *Children with Cancer UK*, London, 2-3 June 2014.
- **Ajrouche R**, et al. Effet bénéfique des statines sur la réduction de la mortalité des patients Libanais hospitalisés pour un sepsis, *RQRM*, Québec : May 2012.

INTERNATIONAL
SCIENTIFIC
ACTIVITIES

Reviewer in *Int J Cancer, cancer causes & control, Pharm pract, Hosp pharm, J prev med hyg and Value health reg issues*.

Chairwoman in an international conference on *Protection against Radon*.

HONORS &
AWARDS

Postdoctoral Fellowship Award from the International Agency for Research on Cancer (IARC), 2015.

Young Scientist Award

(<https://congressmed.com/cogiparis/index.php/scientific/awards.html>) & Best abstract award 20th World Congress on Controversies in Obstetrics, Gynecology and Infertility (COGI), 2014.

Ph.D. fellowship Award from the Lebanese University, 2013.