Ministry of Higher Education& Scientific Research
Diyala University
College of Sciences

وزارة التعليم العالي والبحث العلمي
جامعة ديالى
كلية العلوم

Dr. Shaymaa Al-Majmaie

ا.م.د. شيماء حاتم عبدالله المجمعي

Phone: (+964) 7728788103

Email address: shaymaa@uodiyala.edu.iq



Professional summary

Academic researcher and university faculty member in the Department of Biotechnology, College of Science, University of Diyala, Iraq. Holds a PhD in Biology, specializing in medicinal plants, phytochemistry, natural products, and medicinal chemistry. Research expertise includes the extraction, isolation, and characterization of plant-derived bioactive compounds, phytochemical analysis, essential oils, and evaluation of biological activities, particularly antioxidant and antimicrobial properties. Experienced in undergraduate and postgraduate teaching, scientific research, academic writing, and research methodology. Actively involved in academic administration, curriculum development, quality assurance, and academic accreditation. Research interests focus on the scientific investigation of medicinal plants and the development of natural products for potential pharmaceutical, industrial, and biotechnological applications.

Professional Training and Technical Courses

- Nuclear Magnetic Resonance (NMR) Training – Liverpool John Moores University, UK.
- NMR Training – University of Manchester, UK.
- NMR Training – University of Liverpool, UK.
- High-Performance Liquid Chromatography (HPLC) – Analytical Training, Liverpool John Moores University, UK.
- Preparative HPLC Training – Liverpool John Moores University, UK.
- Mass Spectrometry Training – Keele University, UK.
- Plant Forensics: Chemical Compound-Based Identification – Keele University, UK.
- Mass Spectrometry Training – University of Liverpool, UK.
- Plant Forensics: Chemical Compound-Based Identification – University of Kiel, Germany.
- Laboratory Safety Training - Funded by Sandia National Laboratories, USA.

- R Programming Training.
- 3iS Software Training.

Professional Memberships and Affiliations

- Member, Phytochemical Society of Europe (PSE).
- Member, Centre for Natural Products Discovery (CNPD), United Kingdom.

Education

B.S.C	BSc. Biology, College of Education for Pure Science/ University of Diyala/ Baqubah- Diyala – Iraq.	2002
M.S.C	MSc. Degree in Medicinal plants, College of Education for Pure Science/University of Diyala/ Baqubah- Diyala – Iraq	2005
P.h.D	PHD degree in Medicinal plants from School of Pharmacy and Biomolecular Sciences – Liverpool John Moores University. Liverpool- UK.	2019

Languages

- English (Fluent)
- Arabic (Native language)

Skills

1. Research and Laboratory Skills

- Medicinal plant investigation and phytochemical research.
- Extraction, isolation, and purification of natural products.
- Phytochemical screening and identification of secondary metabolites.
- Extraction and analysis of phenolic compounds.
- Essential oil extraction using hydrodistillation and Soxhlet extraction.
- Analytical and preparative High-Performance Liquid Chromatography (HPLC).

- Nuclear Magnetic Resonance (NMR) spectroscopy.
- Mass spectrometry (MS).
- Gas Chromatography-Mass Spectrometry (GC-MS).
- Evaluation of antioxidant and antimicrobial activities.
- Laboratory experimental design and optimization.
- Laboratory safety and good laboratory practices.

2. Technical and Software Skills

- Statistical analysis and data interpretation using R.
- Statistical analysis using SPSS.
- Chromatographic and spectroscopic data interpretation.
- Scientific data presentation and graphical preparation.
- Microsoft Office (Word, Excel, and PowerPoint).
- Scientific literature searching and reference management.

3. Academic and Professional Skills

- University teaching and academic lecture preparation.
- Undergraduate and postgraduate research supervision.
- Scientific research design and methodology.
- Academic writing and scientific manuscript preparation.
- Critical analysis and interpretation of research findings.
- Scientific publication and peer-review activities.
- Curriculum development and course evaluation.
- Academic quality assurance and accreditation.
- Academic committee participation and report preparation.
- Research collaboration and interdisciplinary teamwork.

Peer Reviewer

- Academic Science Journal.
- Iraqi Journal of Science.
- Natural Product Analysis.

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Researcher Identifiers and Academic Profiles

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[1] ORCID ID: 0000-0003-3860-8188.

[2] Scopus Author ID: 57198446659

[3] Scopus Profile: https://www.scopus.com/authid/detail.uri?authorId=57198446659

[4] Google Scholar Profile: https://scholar.google.com/citations?user=SYprwWMAAAAJ.