

CURRICULUM VITAE

1. PERSONAL DATA

Name: Aysha Belgasem Mezoughi

Nationality: Libyan

Current position: Assistant Professor, Chemistry Department, Faculty of Science, Tripoli University, Tripoli, Libya.

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2. EDUCATION AND DEGREES

- **2019:** PhD degree in biological chemistry, School of Chemistry, Cardiff University, Cardiff, UK
- **2005:** MSc degree in organic chemistry, Chemistry Department, Faculty of Science, Tripoli University, Tripoli, Libya
- **1997:** BSc degree in chemistry, Chemistry Department, Faculty of Science, Tripoli University, Tripoli, Libya

3. EXPERIENCE

2022-Present: Assistant Professor, Chemistry Department, Faculty of Science, University of Tripoli.

2010-2022: Lecturer, Chemistry Department, Faculty of Science, University of Tripoli.

2013-2019: PhD Student, School of Chemistry, Cardiff University, Cardiff, UK.

2005-2010: Lecturer assistant, Chemistry Department, Faculty of Science, University of Tripoli.

2000-2005: Demonstrator in general and organic chemistry laboratories, Chemistry Department, Faculty of Science, Tripoli University, Tripoli, Libya.

4. Teaching Responsibilities

- **2023- to date** Teaching undergraduate and postgraduate students, Chemistry Department, Faculty of Science, Tripoli University, Tripoli, Libya.
- **2021-2023:** Teaching undergraduate students in theoretical and practical general and biochemistry, Chemistry Department, Faculty of Science, Tripoli University, Tripoli, Libya.
- **2005-2013** Teaching undergraduate students in theoretical and practical organic and general chemistry, Chemistry Department, Faculty of Science, Tripoli University, Tripoli, Libya.

- Teaching undergraduate students in theoretical and practical in organic and general chemistry, Tripoli University of Medicinal Science, Tripoli, Libya.
- **2000-2005** Teaching undergraduate students in tutorials and practical general and organic chemistry, Chemistry Department, Faculty of Science, Tripoli University, Tripoli, Libya.
- Teaching undergraduate students in practical general chemistry, Tripoli University of Medicinal Science, Tripoli, Libya.

5. ACADEMIC / PROFESSIONAL PARTICULARS

✓ **Field of specialisation:**

Organic chemistry, Medicinal Chemistry, Drug Discovery, Biochemistry.

✓ **Language proficiency:**

Arabic and English

✓ **Membership of professional bodies**

Libyan chemical society, Member, 2000

✓ **Academic Qualifications:**

- PhD in chemical biology, The synthesis and evaluation of soluble lytic transglycosylase inhibitors.
- MSc in organic chemistry, synthesis of heterocyclic compounds.
- BSc in chemistry.

✓ **Administrative Positions Held:**

- **Present:** Head of the Postgraduate studies Committee in the Chemistry Department, Faculty of Science, University of Tripoli, Tripoli.
- **2023- to present:** Coordinator of BSc and MSc programs, biochemistry, chemistry department, Faculty Science, University of Tripoli.
- **2023:** Member of the preparatory committee of the first International Conference on Nano Science and Nano Technology, Tripoli, Libya.
- **2022- to present:** Academic advisor, Chemistry Department, Faculty of Science, University of Tripoli, Tripoli.
- **2005-2013:** Coordinator of general chemistry course, chemistry department, Faculty Science, University of Tripoli.

6. Areas of Research Interest and Activity

Enzyme Inhibition Kinetics: synthesis, biological evaluation, and molecular docking analysis of small molecules as potent tyrosinase inhibitors.

Organic synthesis and Drug Discovery: Design and synthesis small molecules and evaluate their biological activities, such as antioxidant and antimicrobial.

Biosurfactants: Production of biosurfactants by bacteria isolated from petroleum contaminated soils and their potential applications in the petroleum industry and its associated environmental remediation

Amino acids: Study the effect of amino acids on the surface catalysis.

Nanoscience: Synthesis and biological evaluation of metal nanoparticles.

7. CONFERENCES

The First International Conference on Nano Science and Nano Technology, 13th and 14th December 2023, Tripoli, Libya.

RSC South West Regional Meeting, 17th January 2018, Bristol, UK.

5th Global Chemistry Congress, September 04-06, 2017, London, UK.

16th Annual Cardiff Chemistry Conference, 15th and 16th May 2017, School of Chemistry, Cardiff University, Cardiff, UK

EFMC-ISMIC 2016-XXIV EFMC International Symposium on Medicinal Chemistry, August 28- September 1, 2016 Manchester, UK

15th Annual Cardiff Chemistry Conference, 9th and 10th May 2016, School of Chemistry, Cardiff University, Cardiff, UK

Speaking of Science, An inter disciplinary conference for all natural and applied scientists 5th May 2016, Cardiff University, Cardiff, UK

10th Ibn Sina International Conference on Pure Applied Heterocyclic Chemistry, Ketene-N, S-acetals in Heterocyclic Synthesis. Part (II): Synthesis and Reactions of 3-Amino-thiophene derivatives. February 17-20, 2007 Luxor, Egypt

International Conference on Recent Developments in Chemistry and their Applications "RDCA-01" Synthesis of *N*-phenyl-2-ylidene and 2,5-diylidene-4-thiazolidinone derivatives. November 14-17, 2006 Sebha University, Sebha, Libya

8. WORKSHOPS

- CCG workshops (Advanced Structure-based Drug Design and MOE Project and Protein family modelling), 30th September 2016, St John's Innovation Centre, Cambridge, UK.
- Cancer Research Wales Workshop on Anticancer Computer Aided Drug Design, 22nd January 2016, School of pharmacy, Cardiff University, Cardiff, UK.
- Advion Workshop on Compact Mass Spectrometry, 30th August 2016, Manchester, UK
- Kinetics, Binding & Biophysics in Drug Discovery workshop, 12-13 September 2016, Cambridge Science Park, Cambridge, UK
- CCG (Chemical Computing Group) workshops, 31th August 2016, Manchester, UK
- Safety Induction Course for GMO Workers, 1st May 2015, Cardiff University, Cardiff, UK

9. PUBLICATIONS

2024

- Synthesis, and Characterization of Silver Nanoparticles Functionalized with a Chalcone for Potential Antioxidant Activity, (2024) *Journal of Nano Research*, accepted.
- Exploring the role of aspartic acid in modulating behavior of cationic cetyltrimethylammonium bromide, (2024) *Journal of Molecular Liquids*, **412**, 125856.

2023

- Novel Compatible Silver Nanoparticles Functionalized by Vitamin C and its Derivatives: Characterization and their antibacterial Activity against *Escherichia coli* and *Staphylococcus aureus*, (2023) *Biointerface Research in Applied Chemistry* **13(6): 590**.

2022

- Comparative Analysis of Novel Iron Oxide Nanoparticles Synthesized by Different Approaches with Evaluation of Their Antibacterial Activities, (2022) *Biointerface Research in Applied Chemistry* **13: 1-19**.
- Study on the Effects of Biologically Active Amino Acids on the Micellization of Anionic Surfactant Sodium Dodecyl Sulfate (SDS) at Different Temperatures, (2022) *Chemistry* **4: 146-155**.

2021

- Synthesis of high stabilized AuNPs using 3,5-dinitrobenzoic acid and sodium acetate as capping agents in an aqueous solution and their bioactivity, (2021) *Journal of Nano Research* **70: 67-79**.
- Synthesis and Molecular Docking Studies of Some Thiohydantoin Derivatives as Potential Anticancer and Antimicrobial Agents, (2021) *Advanced Journal of Chemistry-Section A* **4(5): 327-338**.
- The Role of Pulmonary Surfactant in COVID-19 Understanding, (2021) *International Research Journal of Pure & Applied Chemistry* **22(6): 15-30**.
- Recent Biological Applications and Chemical Synthesis of Thiohydantoins, (2021), *Journal of Chemical Reviews* **1(3): 196-218**.
- The Lysozyme Inhibitor Thionine Acetate Is Also an Inhibitor of the Soluble Lytic Transglycosylase Slt35 from *Escherichia coli*, (2021) *Molecules* **26(14): 4189**.

2016

- Utilization of 2-Ylidene-4-thiazolidinones in Synthesis of Heterocyclic Compounds. Part (II): Transformation of (4-Oxo-3-phenyl-1,3-thiazolidin-2-ylidene)malononitrile to 3-Aminothiophene Derivatives, (2016) *Asian Journal of Chemistry* **28(8):1823-1827**.

2011

- Utilization of 2-ylidene-4-thiazolidinones in the synthesis of heterocyclic compounds. Part I: Synthesis of pyrazoles, (2011) *Arabian Journal of Chemistry*, **4**, 307-311.

2009

- Antioxidant and antimicrobial activities of *Euphorbia calyptrate* (Euphorbiaceae) from southern of Libya, (2009) *J. Egypt. Acad. Soc. Environ. Develop.*, **10(2):129-137**.

2008

- Assessment of antioxidant activity and phenolic content of some marine algae from the Libyan coast, *Ain Shams Science Bulletin*, (2008), **Vol.46:77-78**.

2007

- Ketene *N, S*-acetals in Heterocyclic Synthesis. Part 1: Synthesis of *N*-Phenyl-2-ylidene and 2,5-diylidene-4-thiazolidinone derivatives, (2007) *Journal of Sulphur Chemistry*, **28: 6, 563-572**.