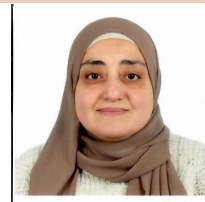


# Alshaimaa Abdelmoez

Academic Research Scientist



## CONTACT

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## PROFILE

- Experienced Medicinal Chemist with a strong background in drug discovery and development.
- Highly skilled Nanomedicine researcher with expertise in designing and synthesizing nano-scale drug delivery systems.
- Academic professional in Molecular Biology with a record of publications.
- Highly motivated and adaptable team player with excellent communication and problem-solving skills, keen to contribute to a dynamic work environment.
- Passionate about image processing and experienced in R and Python, seeking a position that allows for growth and development.

## SKILLS

### Molecular Biology/Biochemistry

DNA and RNA extraction, PCR, Gel electrophoresis, Protein extraction, Western blot, Cryosectioning, immunohistochemistry, FISH.

### Extracellular Vesicle (EV) Analysis

Isolation of EVs from cell cultures, cerebrospinal fluid (CSF), and plasma, EV characterization (DLS, EM), DNA, RNA, and protein extraction from EVs.

### Microscopy and Instrumentation

Fluorescence microscopy, Confocal microscopy, Laser microdissection microscopy, Nanosight analysis, Nanodrop spectrophotometry

### Bioinformatics and Data Analysis

Fiji image J analysis software, Affinity, LAS X, R, and R Studio for

## EXPERIENCE

### Postdoc/Molecular Biology\_Neurodegenerative Disease Researcher

Department of Neurology, Uniklinikum Ulm, Ulm, Germany

September/2019-June/2024

- Conducted research on molecular mechanisms contributing to Huntington Disease.
- Published several papers in reputable scientific journals on fiber typing, extracellular vesicles, and CAG length somatic instability in HD.
- Mentored bachelor and internship students at the experimental Neurology department.
- Collaborated with cross-functional teams and pharmaceutical start-up companies to analyze and interpret data related to biomarker discovery and gene therapy of Huntington's Disease.
- Presented research findings at national and international conferences in the field of CAG triplet diseases and neurodegenerative diseases.

data analysis, CodePen and Visual Studio for programming, Assessing AI tools using scientific literature

### Cell Culture and Protein Chemistry

Cell lines and Hybridoma cell culturing, Antibody isolation, and purification, Chemical derivatization of antibodies, Nanoparticle preparation and characterization, Protein chemistry and modification

### Medicinal Chemistry

Chemical synthesis and purification of organic compounds (chromatography), Organic compound characterization, and structure elucidation (IR, NMR, MS), Using Structure-activity Relationship (SAR) analysis, Biological data evaluation

## EDUCATION

### PhD (IGDT program)

2013-2017

Innsbruck Medicine University, Innsbruck, Austria

### Master (Pharm. Org.Chem.)

2000-2006

Department of Pharmaceutical Organic Chemistry, Faculty of Pharmacy, Assiut University, Assiut, Egypt

### Bachelor (Pharmaceutical Sciences)

1995-2000

Faculty of Pharmacy, Assiut University, Assiut, Egypt

### Secondary School

1992-1995

Sanaa, Yemen

## Lecturer/Medicinal Chemist Researcher

Faculty of Pharmacy, Assiut University, Assiut, Egypt

July/2017-August/2018

- Teaching the spectroscopy, analytical, and organic chemistry courses.
- developed and implemented medicinal chemistry experiments for drug discovery projects.
- Led a team of researchers in designing chemical compounds for biological testing.
- Published research findings in peer-reviewed scientific journals.
- Collaborated with interdisciplinary teams on drug development projects.
- Performed structure-activity relationship studies to optimize compound potency.
- Utilized computer-aided drug design software for molecular modeling and virtual screening.

## PhD (Image Guided Diagnosis and Therapy Program)

Innsbruck Medicine University, Innsbruck, Austria

April/2013-May/2017

- Thesis title: Design and Synthesis of albumin-based nanoparticles for diagnosis and targeting.
- Extra job at EXTRO-lab: worked and participated in some projects related to metastatic radioresistant cancer cell lines and exosome imaging.
- Research assistant at a university conducting experimental studies in nanomedicine.
- Published author of several peer-reviewed articles in scientific journals.
- Presented research findings at multiple academic conferences.
- Managed a laboratory and coordinated research projects with team members.
- Collaborated with colleagues from Austrian (FWF) and European research projects, such as the NanoEFECT project, on a preclinical and translational research study.

## Assistant Lecturer

Faculty of Pharmacy, Assiut University, Assiut, Egypt

May/2009-March/2013

- I taught undergraduate practical courses in Pharmaceutical Organic Chemistry at the Faculty of Pharmacy.

## LANGUAGES

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### Arabic

Mother Language

Innsbruck Medicine University, Innsbruck, Austria

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### English

Excellent

TOEFL iBT test

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### German

Excellent

B1 Telc test

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## AWARDS

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- Misr Elkheir Foundation (www . misrelkheir .org) reward for scientific articles (2010)
  - Funded PhD scholarship from the Egyptian Government. (2013-2017)
  - Top 10 graduates awards from start-up pharmaceutical companies (2000)
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## MEMBERSHIPS

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### European Huntington Disease Network

- Leading discussion groups and providing feedback on student assignments in an organic chemistry course.
  - Designing curriculum and assessments for undergraduate classes.
  - Conducting research projects in Education and presenting findings at conferences.
  - Providing academic advising and mentoring to first- and second-year university students.
  - Collaborating with faculty members on interdisciplinary research projects.
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### Research Assistant

Department of Histology & Embryology, Innsbruck Medicine University, Innsbruck, Austria

October/2007-December/2008

- Research Assistant at the Histology department assisting with experiments and data collection to prepare and characterize albumin-based nanoparticles as imaging probes.
  - Coauthor in peer-reviewed publications and presented research data at national and European conferences
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### Demonstrator

Faculty of Pharmacy, Assiut University, Assiut, Egypt

October/2000-July/2006

Title of the thesis: Synthesis and biological activity of certain new indole derivatives using some reactions of 2-acetylindole. In addition to my teaching activities in organic chemistry, I have acquired and applied various techniques for the synthesis, purification and characterization of organic compounds.