

# Curriculum Vitae

## 1. Personal Information:

Name: Mohamed Abd-Elhakeem

Date of birth: 22/03/1979

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## 2. Qualifications:

- i. 1995 - 1999: **B Sc. Chemistry – Geology**; Faculty of Science; Cairo University (major degree very good).
- ii. 2003 - 2006: **M Sc. Organic chemistry**; Faculty of Science; Cairo University.
- iii. 2008 - 2011: **Ph. D. Organic chemistry**; Faculty of Science; Ain Shams University.
- iv. 2017: **Associate professor of biochemistry** Faculty of Biotechnology; Misr University for Science and Technology.

## 3. Job history:

- i. 2001-2007: **Chemist**; Research and development center; Misr University for science and technology.
- ii. 2007 – 2011: **Teaching assistant**; College of biotechnology; Misr University for science and technology.
- iii. 2011- 2017: **Lecturer**; College of biotechnology; Misr University for science and technology.
- iv. 2018: present **Associate professor**; College of biotechnology; Misr University for science and technology.
- v. 2020:2021: **Manager of quality assurance unit**
- vi. 2021: **Vice-dean for education and students affairs**

## 4. Professional experiences:

I have professional experience with HPLC, GC, and IR spectrophotometers, from sample preparation to data analyses.

## 5. Activities and Achievements:

### 5.1. Teaching activities: (College of biotechnology, Misr University for science and technology)

#### A. Undergraduate level courses:

1. General chemistry
2. Organic chemistry
3. Experimental biochemistry
4. Biosafety
5. Research in biotechnology
6. Biotechnology seminar

#### B. Postgraduate level courses:

1. Nanobiotechnology

### 5.2. Research Activity:

A. Chemist; Environmental assessment of east Delta area project. Research and development center; Misr University for science and technology **2007**.

#### B. Publications:

1. **Synthesis and antimicrobial activity of some new 2,3-disubstituted quinazoline-4(3H)-ones derivatives.** Mohamed A. Abd-Elhakeem and Ahmed M. Elsayed. Journal of Chemical and Pharmaceutical Research, **2013**, 5(5), 275-279
2. **New Colorimetric Method for Lipases Activity Assay in Microbial Media,** Mohamed A. Abd-Elhakeem, Ahmed M. Elsayed and Taher A. Alkhulaqi. American Journal of Analytical Chemistry, **2013**, 4, 442-444.
3. **Activity and stability of immobilized *Candida rugosa* lipase on chitosan coated Fe<sub>3</sub>O<sub>4</sub> nanoparticles in aqueous and organic media.** Mohamed A. Abd-Elhakeem, Ahmed M. Elsayed and Taher A. Alkhulaqi. Journal of Advances in Chemistry, **2014**, 10 (3), 2478-2483.
4. **Simple, rapid, and efficient water purification by chitosan coated magnetite nanoparticles.** Mohamed A. Abd-Elhakeem, Taher A. Alkhulaqi and Faisal S. Basaad. International Journal of Nanoscience and Nanotechnology. **2014**, 5 (2), 117-121.
5. **Antimicrobial activity and cytotoxicity of silver nanoparticles formulated cream against *Staphylococcus aureus* dermal infection in albino rats.** Mohamed A. Abd-Elhakeem, Ingy Badawy, Mohamed A. Hamzawy, Amira

Raafat, Ahmed M. Elsayed, Matab Nadim, Ali Zaher, and Amna Shahin. *Journal of Nanopharmaceutics and Drug Delivery*. **2014**, 2(3), 235-239.

- 6. Hepatotoxicity and nephrotoxicity of repeated oral administration of silver nanoparticles in rats.** Mohamed A. Abdelhakeem, Ingy Badawy, said El-Feky, Faten R. Abdel Ghaffar, Omar S. Abd-Elghaffar, Aya Adel, Faisal S. Basaad, Mariam Ali, Nourhan Magdy, and Roba Gomaa. *Nanomedicine and nanobiology*. **2015**, 2(1), 54-58.
- 7. Removing of heavy metals from water by chitosan nanoparticles.** Mohamed A. Abd-Elhakeem, Maha M. Ramadan and Faisal S. Basaad. *Journal of Advances in Chemistry*. **2015**, 11(7), 3765-3771.
- 8. Extracellular Enzymatic Activity of Tuber maculatum and Tuber aestivum Mycelia.** Matab Nadim, Shweta Deshaware, Neila Saidi, Mohamed A. Abd-Elhakeem, Heikki Ojamo, Salem Shamekh. *Advances in Microbiology*. **2015**, 5(5), 523-530.
- 9. Production of extracellular lipases by some fungal isolates.** A. M. Elsayed; Wedad, E. Eweda; T. S. El-Tayeb; A. Z. AbdelAzeiz and Mohamed A. Abd-Elhakeem. *Journal of Biological Chemistry and Environmental Sciences*. **2016**, 11(1), 331-340.
- 10. Efficacy of silver nanoparticles as antimicrobial agent against *Salmonella* infection and accompanied biochemical, immunological and histopathological changes in rats.** Mohamed A. Abd-Elhakeem, Ingy Badawy and Amira Raafat. *Egyptian Journal of Pure and Applied Science*. **2016**, 54(2), 13-19.
- 11. Effects of dietary chitosan nanoparticles on serum lipids concentration in high fat diet induced rats.** Mohamed A. Abd-Elhakeem, Nourhan Farag and Marina Maurice. *Egyptian Journal of Pure and Applied Science*. Acceptance: **2016**, 54(4), 17-21.
- 12. Chitosan nanoparticles as hepato-protective agent against alcohol and fatty diet stress in rats.** Mohamed A. Abd-Elhakeem, Mohamed S. Radwan, Aya H. Rady. Submitted to "journal of biochemistry international". **2017**, 4(1), 5-10
- 13. Antitumor Activity of Rosmarinic Acid Encapsulated in Chitosan Nanoparticles.** Yasmin Y.A. Darwish, Mohamed A. Abd-Elhakeem, Ahmed Ibrahim Abd El-Maksod, Hussein Sabit and Mokhtar El-Zawahri. *Academic Journal of Cancer Research*. **2018**, 11 (1): 01-08.
- 14. Doxorubicin loaded on chitosan-protamine nanoparticles triggers apoptosis via downregulating Bcl-2 in breast cancer cells.** Mohamed A. Abdel-Hakeem, Omnia M. Abdel-Haseb, Shaimaa E. Abdel-Ghany, Emre

Cevik, Hussein Sabit. Journal of drug delivery science and technology. **2020**, 55 101423.

- 15. Curcumin Loaded Chitosan-Protamine Nanoparticles Revealed Antitumor Activity Via Suppression of NF-kB, Proinflammatory Cytokines and Bcl-2 Gene Expression in the Breast Cancer Cells. Mohamed A. Abdel-Hakeem\***, Sara Mongy, Basant Hassan, Omnia I. Tantawi, Ingy Badawy. Journal of Pharmaceutical Sciences 110 (2021) 3298–3305

### **C. Supervision:**

- 1. Antitumor Activity of Rosmarinic Acid Encapsulated in Chitosan Nanoparticles** (master thesis- College of biotechnology; Misr University for science and technology).
- 2. Albumin nanoparticles bounded Resveratrol as an adjuvant with anticancer agents** (master thesis- College of biotechnology; Misr University for science and technology).
- 3. Antitumor activity of Carnosic acid encapsulated in polymeric nanoparticles.** (master thesis- College of biotechnology; Misr University for science and technology)
- 4. Acute and chronic toxic effects of Copper Nanoparticles on *Drosophila melanogaster*** (master thesis- College of biotechnology; Misr University for science and technology).
- 5. Biodegradation of Some Textile dyes Catalyzed by Zero-Valant Iron Nanoparticles** (master thesis- College of biotechnology; Misr University for science and technology).
- 6. Wound healing potential of chitosan hydrogel containing zinc oxide/silver nanoparticles.** (master thesis- College of biotechnology; Misr University for science and technology).
- 7. Gold nanosensor based method for detection of *Staphylococcus sp.*** (master thesis- College of biotechnology; Misr University for science and technology)
- 8. The evaluation of Nano-encapsulated olive leaves extract as antioxidant agent in rats** (master thesis- College of Agriculture; Banha University).
- 9. Formulation and evaluation of lamotrigine nasal spanlastic vesicles loaded on inserts for treatment of epilepsy.** (master thesis- College of biotechnology; Misr University for science and technology).

#### **D. Workshops and Conferences:**

1. **E-learning**, Faculty, and leadership development center, Cairo University (2014)
2. **International conference of nanotechnology and applications**: Egypt (2016).
3. **Program/Course Specifications and Assessment of ILOs: Faculties and Institutes of Higher Education**. National Authority for Quality Assurance and Accreditation in Education (NAQAAE). **2017**.
4. **Strategic planning**: MISR University for Science and Technology. 2018
5. **Self-Evaluation: Faculties and Institutes of Higher Education**. National Authority for Quality Assurance and Accreditation in Education (NAQAAE). **2019**.

#### **E. Books instituted for College of Biotechnology, MUST:**

- General Chemistry 101 (textbook and practical book).

#### **F. Achievements:**

1. One of the organizers of seven training courses, "Basics of chromatography analysis" from 2002 to 2008). Research and development center.
2. Member of "Education Quality Unit" 2008-2020
3. Member of "internal review committee."
4. **Coordinator of "students and education committee" 2009-2020**
5. **Organization of the first scientific conference of biotechnology College/ MISR University for science and technology. 2020**
6. **Participation as director of the quality unit in obtaining accreditation from *National Authority for Quality Assurance and Accreditation of Education.*"**

#### **6. Other activities:**

1. تأليف كتاب "الكيمياء و أسرار الحياة" . الناشر: العالمية للنشر و التوزيع . توزيع دار أخبار اليوم . 2016