



جامعة العلوم والتقنية في الفجيرة  
University of Science and Technology of Fujairah

## CURRICULUM VITAE (July 2021)

### PERSONAL INFORMATION

Name:	Babiker Mohamed Ahmed El-Haj
Nationality:	Sudan
Job Title:	Associate Professor
Marital Status:	Married
College:	Pharmacy and Health Sciences
Department:	Pharmaceutical Sciences
Date of Birth:	01/01/1949
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### EDUCATIONAL BACKGROUND

#### 1. Doctorate

University:	London
Country:	United Kingdom
Date of Obtaining degree:	December 1982
Major:	Pharmacy
Minor:	Pharmaceutical Chemistry
Title:	<i>Acid-Base and Metal-Ion Equilibria in Tetracyclines</i>

#### 2. Master (M Pharm)

University:	Khartoum
Country:	Sudan
Date of Obtaining degree:	1976
Major:	Pharmacy
Minor:	Pharmaceutical Chemistry
Title:	<i>Synthesis and Biological Testing of Anticancer Alkylating Agents Derived from Hexesterol</i>

#### 3. Bachelor (B Pharm)

University:	Khartoum
Country:	Sudan
Date of Obtaining degree:	1971

### PROFESSIONAL EXPERIENCE

From (year)	To (year)	Position	Employer	Country
1982	1994	Assistant Professor	University of Khartoum	Sudan
1985	1987	Head Department of Pharmaceutical Chemistry	University of Khartoum	Sudan
1994	2010	Forensic Science Laboratory, Sharjah Police	Ministry of Interior	UAE
2010	2019	Assistant Professor/ Associate professor	Ajman University	UAE
2019	2021	Associate Professor	University of Science and Technology of Fujairah	UAE

### EDUCATIONAL EXPERIENCE

Academic Year	Course Title	Academic Year	Course Title
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2010-2021	Pharmaceutical Organic Chemistry I/II	2014-2016	Introduction to Complementary Medicine (Masters)
2010-2018	Pharmaceutical Analytical Chemistry I/II	2013-2018	Applications of Radiopharmaceuticals (Masters)
2010-2021	Medicinal and Pharmaceutical Chemistry I/II	2018-2019	Drug Abuse (Masters)
2016-2018	Instrumental Analysis I/II		Course syllabi and materials have been prepared for courses of “Drug Discovery and Development” and “Radiopharmacy” to be taught in the new study plan of COPHS.
2014-2021	General Chemistry / Dentistry		
2014-2021	Chemistry for Engineers		

## PUBLICATIONS

### 1. Books

Currently writing a book on “Medicinal and Pharmaceutical Applications of Chemical Equilibria”.

### 2. Book Chapters

I have given consent to a request for publishing one of my review articles in an eBook.

### 3. Journal Articles

2021	Khadija Rehman, Imdad Ali, H.E.J. Research Institute of Chemistry, Babiker M. El-Haj, Tasmina Kanwal. Synthesis of novel biocompatible resorcinarene based nanosized dendrimer-vesicles for enhanced anti-bacterial potential of quercetin. Published 5 July 2021, Chemistry.Journal of Molecular Liquids 341:116921. DOI:10.1016/j.molliq.2021.116921
2021	Muhammad Imran, Ghaleb Hussein, Nahid Awad, Vinod Paul, Babiker M El-Haj and Heyam Saad Ali . An Effective Anticancer Nano-approach for Melanoma and Breast Cancers Using Annona muricate Gold Nanoparticles. Acta Scientific Pharmaceutical Sciences. Published: August 18, 2021; Volume 5 Issue 9: 46-54. DOI: 10.31080/ASPS.2021.05.0782 Google Scholar PDF Full Text
2021	Babiker M El-Haj and Heyam Saad Ali. Bioavailability, Bioequivalenc,: Clinical effectiveness in Drug & Pharmacokinetics Development. Acta Scientific Pharmaceutical Sciences. <b>Accepted</b>
2021	Ghazi ME Hussein1, Babiker M El-Haj, Heyam Saad Ali. Characterization of Drug Delivery Particles in Pharmaceutical Disperse Systems. A Review. Sys Rev Pharm 2021; 12(7): 325-334 (published 4.06.2021)
2021	Ghazi ME Hussein, Babiker M El-Haj, Heyam Saad Ali. Concepts, Current Status, Approaches in Transdermal Drug Delivery System Technologies. Sys Rev Pharm 2021; 12(7): 411-418 (published 24.06.2021)
2021	Khadija Rehman, Imdad Ali, Babiker M.El-Haj, Muhammad Raza Shah, et al. Synthesis of novel biocompatible resorcinarene based nanosized dendrimer-vesicles for enhanced anti-bacterial potential of quercetin. <i>Journal of Molecular Liquids</i> Available online 5 July 2021, 11692

2021	Babiker. M. El-Haj; Farah Hamad Farah; Heyam Saad Ali. Captopril: An Overview of Discovery, Development, and Post-marketing: Surveillance as an Effective Anti-hypertensive Drug. <i>Acta Scientific Pharmaceutical Sciences</i> 2021, 5, 5-9
2021	Babiker M El-Haj. Metabolic-N-Dealkylation and N-Oxidation as Elucidators of the role of alkylamino moieties in Drug Molecules acting on Various Receptors". <i>Molecules</i> . 2021 Apr; 26(7): 1917. 2021 Mar 29. doi: 10.3390/molecules26071917
2020	Imdad Ali; Samiullah Burkib; Babiker M.El-Haj; Shafiullaha SaminaParveend; Hilal Şahin; Nadeeme Said; Nadeemf Muhammad; Raza Shaha. Synthesis and characterization of pyridine-based organic salts: their antibacterial, antibiofilm and wound healing activities. <i>Bioorganic Chemistry</i> . Available online 13 May 2020, 103937
2020	Imdad Ali; Babiker M. El-Haj; Heyam Saad Ali; Saira Yasmeen; Salim Saifullah; Muhammad Imran; Jan Nisar; Muhammad Raza Shah. Synthesis of self-assembling biocompatible sulfanilamide based nonionic surfactants for nano-vesicular drug loading: A microscopic and dynamic light scattering analysis". <i>Journal of Surfactants and Detergents</i> ; Impact factor 2018/2019: 1.855; SCImago
2020	Babiker M El-Haj; Samrein BM Ahmed. Metabolic-hydroxy and carboxy functionalization of alkyl moieties in drug molecules: Prediction of structure influence and pharmacologic activity. <i>Molecules</i> 2020, Apr 22;25 (8),. pii: E1937. doi: 10.3390/molecules2508193
	<b>Patent</b> Muhammad R Shah; Imdad Ali; Heyam Saad Ali; <b>Babiker M. El-Haj</b> ; Muhammad Imran. Synthesis of C resorcinarene based novel amphiphilic supramolecular macrocycle as nano-scale drug loading system. (10) Patent No.: US 10,751,285 B1 (45) Date of Patent : Aug. 25 , 2020, <a href="https://patents.google.com/patent/US10751285B1/en?q=US10%2c751%2c285B1">https://patents.google.com/patent/US10751285B1/en?q=US10%2c751%2c285B1</a>
2019	In vitro and in vivo Investigations of a Sudanese Honey in the Management of Dermatological Fungal Infections <i>Journal of Pharmaceutical Research International</i>
2019	A Review on Therapeutic Proteins: Stability Aspects and Clinical Implications. <i>International Research Journal of Pharmacy</i>
2018	Preliminary investigation of novel tetra-tailed macrocycle amphiphile based nano-vesicles for amphotericin B improved oral pharmacokinetics. <i>Artif. Cells. Nanomed. Biotechnol.</i>
2018	Linking Aromatic Hydroxy Metabolic Functionalization of Drug Molecules to Structure and Pharmacologic Activity. <i>Molecules</i>
2017	Role of polyols and surfactants in liquid protein formulations. <i>World Journal of Pharmacy and Pharmaceutical Sciences</i>
2017	Evaluation & formulation of paracetamol matrix sustained release tablets using natural polymers. Journal of Innovations in Pharmaceutical and Biological Sciences. <i>Journal of Innovations in Pharmaceutical and Biological Sciences (JIPBS)</i>
2016	Antioxidant assessment of promethazine HCl decomposition using RP-HPLC assay method
2016	Asthma Inhalation Devices. <i>International Journal Pharmacy and Pharmaceutical Research</i>
2016	Extemporaneous Furosemide Suspensions for Pediatrics Use Prepared from Commercially Available Tablets. <i>International Journal of Pharmacy and Pharmaceutical Research</i>
2016	Factors influencing rectal drug delivery using natural terpenes. <i>European Journal of Pharmaceutical and Medical Research</i>

2016	Biosimilar Recombinant Protein Therapeutics. <i>European Journal of Biomedical and Pharmaceutical sciences</i>
2016	Prevention of Cap-Locking of Syrup Product by Treating the Manufacturing Process with Citric Acid Monohydrate. <i>International Journal of Pharmaceutical Chemistry</i>
2015	GC-MS tentative detection and characterization of hydroxytramadol as a metabolite of tramadol in man. <i>Int Res J Pharm</i>
2014	Formulation and evaluation of herbal cream from Ziziphus leaves extract. <i>Int Res J Pharm</i>
2013	Stability of codeine: Characterization of oxidation products of codeine in aqueous solution
2011	Oripavine as a new marker of opiate product use. <i>Forensic Toxicology (Japan)</i>
2011	Target urinary analytes for the GC-MS Detection of Procyclidine and Benzhexol in Drug Abuse Case. <i>J. Anal. Toxicol</i>
	GC-MS designation and prediction of metabolic dealkylation and hydroxylation reaction in xenobiotics exemplified by Tramadol. <i>Journal of Analytical Toxicology</i>
	Cross-reactivity of Nefopam and its metabolites with Benzodiazepine immunoassay. <i>Journal of Analytical Toxicology</i>
	False negative results for Bromazepam use observed by the EMIT II Plus benzodiazepine assay. <i>Forensic Toxicology (Japan)</i>
	GC-MS detection and characterization of two laudanosine metabolites in urine as probable markers of Atracurium administration. <i>Forensic Toxicology (Japan)</i>
	GC-MS detection and characterization of Thebaine as a urinary marker of opium use. <i>Forensic Toxicology (Japan)</i>
	GC-MS detection and characterization of two noscapine metabolites in human urine and their potential as markers of opium and illicit heroin use. <i>Forensic Toxicology (Japan)</i>
	New anticestodal drugs: efficacy, toxicity and structure activity relationship of some derivatives of the open lactam form of praziquantel. <i>Journal of Science and Technology</i>
	Antischistosomal efficacy study on praziquantel, its alkaline hydrolysis and sun decomposed products. <i>Saudi Pharmaceutical Journal</i>
	The GC-MS detection and characterization of neopine resulting from opium use and codeine metabolism and its potential as an opiate-product-use marker. <i>Journal of Analytical and Bioanalytical Chemistry</i>
	Anticestodal activity of some derivatives of the open lactam form of praziquantel in chickens. <i>Journal of Science and Technology</i>
	Mannitolhexaacetate as an unusual ingredient in some brown drug seizures. <i>Forensic Science International</i>

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The GC-MS detection and characterization of reticuline as a marker of opium use. *Forensic Science International*

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Photo-thermal stability of Praziquantel. *Saudi Pharmaceutical Journal*

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A comparative study on the antischistosomal activity of praziquantel and three derivatives of its hydrolysis product against *S. mansoni*. *Saudi Pharmaceutical Journal*

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Antischistosomal effects of praziquantel, its alkaline hydrolysis and sun-decomposed products on experimentally *S. mansoni* infected albino mice. (A) Efficacy assessment based on clinicopathological findings. *J Egypt Soc Parasitol*

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Synthesis of some derivatives of the open-lactam form praziquantel and their in vitro/in vivo cyclization. *Saudi Pharmaceutical Journal*

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The use of cyclohexanone as a "derivatizing" reagent for the GC-MS analysis of amphetamines and ephedrines in seizures and the urine. *Forensic Science International*

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Investigation into some aspects of the EMIT d.a.u. assay, TLC and GC/MS urinalysis of bromazepam. *J. Analytical Toxicology*

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A GC/MS method for the analysis of toluene and ethylbenzene in volatile substance abuse. *J. Analytical Toxicology*

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Effect of traditional Sudanese processing of kiswa bread and hulu-mur drink on their thiamine, riboflavin and mineral contents. *Food Chemistry*

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GC/MS analysis of commonly used nonsteroidal anti-inflammatory drugs (NSAIDs) in pharmaceutical dosage forms and in urine. *Forensic Science International*

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Synthesis and pharmacological evaluation of two new aryloxypropanolamines as antiarrhythmic agents. *Journal of the Saudi Heart Association*

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Effects of tetracycline on the 2-hour urinary and salivary excretion of metronidazole. *International Journal of Pharmaceutics*

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Chemical characterization of Tamarind bitter principle. *Fitoterapia*

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Fluorescence investigation of isochlortetracycline: Ground-state and excited-state acid-base equilibria. *Analytica Chimica Acta*

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The acidity and solubility constants of tetracyclines. *Analytica Chimica Acta*

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A new colorimetric method for the determination of bendrofluazide (a diuretic) in pharmaceutical preparations. *International Journal of Pharmaceutics*

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### **Current Research Activities**

**Currently writing a review article entitled "Role of Metabolism in Drug activation and Drug Development"**

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**A project under the title “Development of NSIADS-Hydroxytyrosol Mutual Ester Prodrugs” has been accepted for USTF internal grant. Work on the project has been suspended due to Covid-19 pandemic. Work on the project will be resumed soon after the situation has improved**

**DUPHAT poster: Chiral-Switch Drugs: Great Expectations but Not As Great Success**

**DUPHAT poster: Of all the known NSAIDS, why aspirin has a unique mechanism of Action?**

**DUPHAT poster “Failure of Pharmacotherapy: Causes, repercussions, and possible solutions” is being written for**

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#### **4. Conferences**

2021 Attending 21 IVPN-AR Online Webinars. Certificates of attendance will be made available as required.

2020 Attending and Supervising a student poster: DUPHAT 2020

Attendance of workshops and seminars: E-archiving, Moodle, avoiding research rejection and new teaching methodologies (Held at USTF)

2019 Attendance of seminar “Biotechnology in Healthcare”, 20/11/2019. COPHS/USTF

2019 Attending “Pharmacy and Medicine Conference”, Ajman University

2017 Attending “Pharmacy and Medicine Conference”, Ajman University

Attending a One-day seminar on "Quality Control in Clinical Laboratories", Gulf Medical University, May 2014

2012 Oral Presentation "Markers of Opiate Abuse". The 1st Technosphere 2012 conference, the 14th Annual SACPAW Congress and The 2nd International conference of AUST College of Pharmacy and Health Sciences 7-9 Feb 2012.

Attendance of seminar on “New advances in atomic absorption spectroscopy”, March, Dubai

1st Regional Conference of Biopharmaceuticals and Biosimilars: Regulatory Updates, 17th – 18th January 2012, Grand Hayatt, Dubai, UAE

Attendance. International Conference on Stem Cells", Faculty of Pharmacy, Ajman University of Science and Technology, Ajman, UAE, 2 – 4 Dec

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#### **Professional-related articles**

Forty articles based on real cases of chemistry, forensic chemistry and forensic toxicology have been written in story-telling style and published (in Arabic) in the Police Magazine of Sharjah Police, Sharjah, UAE, in the period 2000-2010. The aim of the articles was to enhance the awareness of the police force (and the public) of the role of science in criminal investigation and the dangers of narcotic drugs abuse and poisonous substances mishandling.

#### **Public Lectures**

Giving lectures on drugs of abuse and poisonous substances to members of Sharjah Police force and to university and school students visiting the Sharjah Police Forensic Science laboratory

### **PROFESSIONAL AND ACADEMIC ACTIVITIES**

#### **1. Professional Training**

Attendance of seminar on "New advances in atomic absorption spectroscopy", Dubai, 2004

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## 2. Workshops

Quality Control in Clinical Laboratories", Gulf Medical University, 2006

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## 3. Master Degree Supervision

Supervision of Master's dissertation in Forensic Toxicology. Dissertation subject: Immunoassay, TLC and GC-MS detection of benzodiazepines in urine, 2004; Place of study: University of Strathclyde, UK

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## 4. Doctorate Degree Supervision

- Co-supervision of PhD (2004-2008). Field of study: Opiate-use markers in urine; Place of study: University of Loughborough, UK

## MEMBERSHIP OF PERIODICALS AND SCIENTIFIC JOURNALS

I have been invited to join a number of journal editorial boards. However, I declined because of time constraints.

## AWARDS

Ph.D. study scholarship awarded by the University of Khartoum for being the top of my class

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Four research fellowships to the Department of Pharmaceutical Chemistry, University of Bradford, UK, sponsored by the British Council (in my capacity as link coordinator and researcher, in the period 1985 to 1992 including a sabbatical leave)

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A four-month research fellowship to the Department of Pharmaceutical Chemistry, University of Rene Descartes, Paris, France, sponsored by the French Government (1990-1991)

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University of Khartoum Prize for scoring the highest grade in final B. Pharm. Part III, Faculty of Pharmacy examinations

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University of Khartoum Prize in Pharmacology

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University of Khartoum Prize in Pharmaceutical Chemistry

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## Patents

1. A patent has been granted by the Government of the Republic of the Sudan for the work carried out in the preparation and biological testing of some potential anthelmintic agents derived from praziquantel. I was the originator of the work, which lead to two PhD degree awards in medicinal chemistry at the Faculty of Pharmacy, University of Khartoum, Sudan.

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2. Muhammad R Shah; Imdad Ali; Heyam Saad Ali; **Babiker M. El-Haj**; Muhammad Imran. Synthesis of C resorcinarene based novel amphiphilic supramolecular macrocycle as nano-scale drug loading system. (10) Patent No.: US 10,751,285 B1 (45) Date of Patent : Aug. 25 , 2020, <https://patents.google.com/patent/US10751285B1/en?q=US10%2c751%2c285B1>

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