# FACULTY FULL NAME: Sarah Abdulaziz Almuhanna

POSITION: Assistant professor

#### Personal Data

Nationality | Saudi

Date of Birth | September, 27, 1983

Department | Clinical Laboratory Science Department

Official IAU Email | Salmuhanna@iau.edu.sa

Office Phone No. |

#### Language Proficiency

Language	Read	Write	Speak
Arabic	X	X	X
English	X	X	X
Others			

#### Academic Qualifications (Beginning with the most recent)

Date	Academic Degree	Place of Issue	Address
June 27/2020	Doctor of Philosophy(phD)	Western Michigan University	Kalamazoo, MI United State of America
December 13/2014	Master of Science (M.S.)	Western Michigan University	Kalamazoo, MI United State of America
October 10/2005	Bachelor of Science	King Faisal University	Dammam, Saudi Arabia

#### PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions)

PhD	MOLECULAR GENETIC ANALYSIS OF THE ROLE OF M-LINE PROTEINS IN THICK FILAMENT ASSEMBLY AND ATTACHMENT IN C. ELEGANS
Master	GENERATION AND USE OF MONOCLONAL ANTIBODIES TO IDENTIFY SUBPOPULATIONS OF POST-THAW STALLION SPERM

Fellowship	

## Professional Record: (Beginning with the most recent)

Job Rank	ob Rank Place and Address of Work		Date
Assistant professor	Department of Clinical Laboratory Science, College of Applied Medical Sciences	Imam Abdulrahman Bin Faisal University, Saudi Arabia (IAU)	2020-present
Lecturer	Department of Clinical Laboratory Science, College of Applied Medical Sciences	Imam Abdulrahman Bin Faisal University, Saudi Arabia (IAU)	2014-2020
Teaching Assistant	Department of Biological Science	Western Michigan University (WMU)	2017-2020
Teaching Assistant	Department of Medical Laboratory Technology, College of Applied Medical Sciences	King Faisal University Dammam, Saudi Arabia	2009-2011

## Administrative Positions Held: (Beginning with the most recent)

<b>Administrative Position</b>	Office	Date
Head of Academic supervision for college of Applied medical science	95	2022-2023

## Scientific Achievements

#### **Published Refereed Scientific Researches**

(In Chronological Order Beginning with the Most Recent)

#	Name of	Research Title	<b>Publisher and Date of</b>
	Investigator(s)		Publication
1	Almuhanna, S. A., Oishi, H. Z., Lee, K. M., & Hoppe, P. E	Sequences in the myosin A rod interact with UNC-89/obscurin and the zinc-finger protein UNC-98 during thick filament assembly and	Cytoskeleton,2024

		M-line formation in C. elegans striated muscle.	
2	Schiller NR, Almuhanna SA, Hoppe PE	UNC-82/NUAK kinase is required by myosin A, but not myosin B, to assemble and function in the thick filament arms of C. elegans striated muscle	Cytoskeleton (Hoboken). 2023 Nov 20.
3	Todd Barkman & Sarah Almuhanna	A Collaborative Classroom Investigation of the Evolution of SABATH Methyltransferase Substrate Preference Shifts over 120 My of Flowering Plant History	MBE-Oxford press 16 March 2022

## **Refereed Scientific Research Papers Accepted for Publication**

#	Name of Investigator(s)	Research Title	Journal	Acceptance Date

## Scientific Research Papers Presented to Refereed Specialized Scientific Conferences

#	Name of Investigator(s)	Research Title	Conference and Publication Date
1	Sarah Almuhanna and Hoppe	A candidate genes approach to identify kinases that activate the UNC-82 protein kinase in muscle	Midwest <i>C.elegans</i> meeting
2	Sarah Almuhanna, schiller and Hoppe	The AMPK-related kinase UNC-82 mediates interaction of myosin A with paramyosin in striated muscle	Midwest <i>C.elegans</i> meeting

## **Completed Research Projects**

#	Name of Investigator(s) (Supported by)	Research Title	Report Date
1	Amnah Saleh Al- Taweel and Sarah Almuhanna	UNC-82 protein kinase role in straight muscle.	2021
2	Batool Alawad and Sarah Almuhanna	CRISPR/Cas9 technology in molecular medicine	2022

3	Zainab muallam and	Diagnostic Efficacy of Fine Needle Aspiration	2023
	Sarah Almuhanna	Cytology and Core-needle Biopsy in Palpable	
		and Impalpable Focal Lesions	

#### **Current Researches**

#	Research Title	Name of Investigator(s)

## Contribution to Scientific Conferences and Symposia

#	<b>Conference Title</b>	Place and Date of the Conference	<b>Extent of Contribution</b>
1	Midwest <i>C.elegans</i> meeting	University of Michigan 2019	Poster
2	Midwest <i>C.elegans</i> meeting	Eastern Michigan University 2018	Poster
3	Midwest <i>C.elegans</i> meeting	Van Andel Institute 2017	Poster
4	Midwest <i>C.elegans</i> meeting	Van Andel Institute 2016	Participant
5	Advances In Blood Transfusion	King Fahad Hospital of the University 1 <sup>st</sup> February 2006	Participant
6	Molecular Genetics In Medicine	King Fahad Hospital of the University 21st December 2005	Participant
7	The future of Medical Laboratory Technology :Expectations & Challenges	King Fahad Hospital of the University 27 & 28 April 2005	Participant
8	Trends In Microbiology	King Fahad Hospital of the University 24 & 25 March 2004	Participant
9	Medical Ethics Present and Expectations	King Fahad Hospital of the University 11 March 2003	Participant

## **Membership of Scientific and Professional Societies and Organizations**

- Academic Supervision Committee head
- Planning and Development Committee member
- Graduate study Committee member
- Curriculum Committee member

#### Teaching Activities

#### Undergraduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	Laboratory Practice and Instrumentation	CLS 201	Lectures/ labs
2	Molecular Biology	CLS 202	Lectures
3	Medical Genetics	CLS 210	Lectures
4	Clinical Chemistry-2	CLS 302	Lectures
5	Histotechnology and Cytotechnology	CLS 307	Lectures / Labs
6	Histopathology Rotation	CLS 404	Lectures / Labs
7	Clinical chemistry rotation	CLS 405	Lectures
8	Research project	CLS 407	Supervision

#### **Brief Description of Undergraduate Courses Taught: (Course Title – Code: Description)**

Histotechnology and Cytotechnology – CLS 307 This course covers basic concepts of cells and tissues in the body and different labs techniques used for this samples

Diagnostic Histotechnology and Cytology Rotation – CLS 404 This course covers advance Histopathology techniques and Cytology.

Molecular and Cellular Biology Laboratory - CLS 202 This course covers basic concepts of molecular and cellular biology by focusing on components of organisms from atoms to cells and the roles they play within the organism.

Medical Genetic-CLS 210 An introductory course in which the principles of genetics are explored at cellular and chromosomal level. Patterns of inheritance and probabilities, cancer etiology, prenatal diagnosis, gene therapy, genetic counseling and ethical issues are also explored.

A research project- CLS 407 is an academic, scientific, or professional undertaking to answer a research question. Research projects can take many forms, such as qualitative or quantitative, descriptive, longitudinal, experimental, or correlational.

#### **Postgraduate**

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	Pathology of Disease	CLS 702	Teaching

**Brief Description of Postgraduate Courses Taught: (Course Title – Code: Description)** 

The course in Pathology of diseases introduces the mechanisms of disease and to the morphology and clinical characteristics of a broad spectrum of disease entities.

#### **Course Coordination**

#	Course Title and Code	Coordinati on	Co- coordination	Undergr ad.	Postgrad .	From	To
1	Medical Genetics 225	20%		$\sqrt{}$		2021	2022

## **Guest/Invited Lectures for Undergraduate Students**

#	Activity/Course Title and Code	Subject	College and University or Program	Date

## **Student Academic Supervision and Mentoring**

#	Level	Number of Students	From	To
1	CLS students (all	80	2021	2022
	level)			
2	CLS students (all	100	2022	2023
	level)			

#### Supervision of Master and/or PhD Thesis

#	Degree Type	Title	Institution	Date

#### **Ongoing Research Supervision**

#	Degree Type	Title	Institution	Date

Administrative Responsibilities, Committee and Community Service (Beginning with the most recent)

## Administrative Responsibilities

#	From	To	Position	Organization

## **Committee Membership**

#	From	To	Position	Organization
1	2021	now	member	Curriculum committee
2	2021	now	head	Academic Supervision Committee
3	2022	now	member	Planning and Development Committee
4	2022	now	member	Graduate study Committee

#### **Scientific Consultations**

#	From	To	Institute	Full-time or Part-time

#### Volunteer Work

#	From	To	Type of Volunteer	Organization

#### Personal Key Competencies and Skills: (Computer, Information technology, technical, etc.)

- 1 Lab techniques s related to producing monoclonal antibodies and cell culture.
- 2 Lab techniques related to gene editing and development genetics such as CRISPR and PCR

...20...../...10.../2024