Mohamed Mostafa Mohamed Kamal

Hayah Town Compound, Sixth District, Building 6, App#404,
ElObour City, Al-Qalubia, Egypt.
Postal code:11828
Cell Phone: 01000196335
E-Mail: mohamed.kamal@bue.edu.eg
mohamed_kamal@pharma.asu.edu.eg
mmos78@hotmail.com

Personal Information

Date of Birth	9th November 1978
Place of Birth	Heliopolis, Cairo, Egypt
Marital state	married with 3 daughters
Interests	Reading and football (soccer)
Current position	**Professor of Biochemistry, Faculty of Pharmacy, The British University in Egypt.** **Leader of Drug Research and Development Group (DRD-G), Health Research Center of Excellence, The British University in Egypt** **Professor of Biochemistry, Faculty of Pharmacy, Ain Shams University (ASU)**

Personal Profile

Accomplished Professor of Biochemistry with over 15 years of experience in cell biology, biochemistry, molecular biology and translational medicine. Expertise in stem cell research, gene regulation, and therapeutic development for diabetes and cancer biology through innovative therapeutic strategies. Committed to advancing impactful research and fostering interdisciplinary collaboration in global academic environments.
Passionate educator committed to fostering scientific inquiry and advancing knowledge in biochemistry and cell biology through evidence-based, student-centred engaging teaching methods. I am looking forward to utilizing my expertise in area of cell biology and biochemistry in teaching, performing state-of-art research, serving community, and participating in the growth of whatever academic institute I will be working on.

Researcher Profile

H-index: 14 (Scopus), 16 (Google Scholar)
Number of published papers: 32
Number of Citations: 641 (Scopus), 802 (Google scholar) [as of 31/10/2024]
Scopus: https://www.scopus.com/authid/detail.uri?authorId=56978730400
Google Scholar:
https://scholar.google.com/citations?hl=en&user=1daGrI8AAAAJ&scilu=&scisig=AMD79ooAAAAAYfL_a2ObnGYVfkEVON_mflnHV0S3XZoh
Researchgate: https://www.researchgate.net/profile/Mohamed-Kamal-9/publications

Orchid: https://orcid.org/0000-0002-6004-2590
LinedIn: https://www.linkedin.com/in/mohamed-kamal-2a2ab35b/

Key Skills

- **Molecular Biology and Pathway Analysis**: Expertise in investigating molecular mechanisms of cancer and diabetes, focusing on transcriptional and genetic regulation.
- **Stem Cell Differentiation**: Pioneering methods for generating insulin-producing cells and exploring therapeutic applications of mesenchymal stem cells.
- **Cancer Research**: Proficient in studying cancer stem cells, non-coding RNAs, and oncogenic signalling pathways, with translational applications in targeted therapies and good user of next-generation sequencing (RNA-Seq) and computational biology tools in exploring new targets
- **Advanced Laboratory Techniques**: Skilled in CRISPR-Cas9, qRT-PCR, immunocytochemistry, and flow cytometry.
- **Research Leadership**: Proven ability to lead multidisciplinary teams, secure funding, and mentor graduate and undergraduate researchers.

Work Experience

October 2022 - Current	Professor of Biochemistry, Pharmacology and Biochemistry department, Faculty of Pharmacy, The British University in Egypt, Cairo, Egypt.
Nov 2017 – September 2022	Associate Professor of Biochemistry, Pharmacology and Biochemistry department, Faculty of Pharmacy, The British University in Egypt (BUE), Cairo, Egypt.
Nov 2019-Current	Leader of Drug Research and Development Group, Health Research Center of Excellence, The British University in Egypt
June 2017-Nov 2017	Associate Prof. of Biochemistry, Biochemistry department, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt
Nov 2011- June 2017	Biochemistry Lecturer, Biochemistry department, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt
Fall 2011-Spring 2016	Part time Instructor, Misr International University, Cairo, Egypt.
Oct 2014-July 2015	Fulbright Postdoctoral Fellow, Department of Genetics, M.D.Anderson Cancer Center, Houston, Texas, USA
May 2008-November 2010	Ph.D. student, Department of Genetics, M.D.Anderson Cancer Center, Houston, Texas, USA
Dec 2001- April 2008	Teaching assistant, Biochemistry department, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt

Education

2007-2011	Ph.D. of Pharmacy (Biochemistry) *Joint Supervision between M.D. Anderson Cancer Center, Houston, Texas, USA and* Faculty of Pharmacy,Ain Shams University, Cairo, Egypt
2002-2006	M.Sc. of Pharmacy (Biochemistry), Faculty of Pharmacy, Ain Shams University, Cairo, Egypt
1996-2001	B.Sc. of Pharmacy, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt

Research Activities

Research Summary

My research focuses on advancing cell biology and translational medicine, with particular emphasis on stem cell differentiation, diabetes pathogenesis, and cancer biology. Our work with mesenchymal stem cells (MSCs) has pioneered methods for generating insulin-producing cells as a potential therapy for diabetes, targeting key transcription factors such as FOXO-1. We are also investigating MSC-derived exosomes as therapeutic vectors, aiming to develop novel, non-invasive treatments for diabetes and neurodegenerative diseases. In cancer biology, I study molecular pathways in cancer, identifying targets like non-coding RNAs to inhibit tumorigenesis. I am dedicated to advancing molecular biology and cancer research through collaborative, interdisciplinary approaches, integrating computational biology and experimental methodologies, advancing patient-centred therapies and explore new therapeutic modalities.

Research Interests

Stem cells: Mesenchymal stem cells, differentiation, Insulin producing cells

Diabetes: β-cell dysfunction, Single Nucleotide polymorphism (SNPs).

Cancer: Cancer stem cells, microRNAs, long noncoding RNAs, brain cancer, colorectal cancer and breast cancer.

Neurobiology: In vivo models of Alzheimer's disease and molecular pharmacology.

Scholarships/Fellowships

2007- 2011	Governmental Scholarship of Joint Supervision to study my Ph.D. in M.D. Anderson Cancer Center, University of Texas, Houston, Texas, USA
Oct 2014- July 2015	Fulbright postdoctoral scholar fellowship in M.D. Anderson Cancer Center, University of Texas, Houston, Texas, USA.

Honors and Awards

1) The British University in Egypt Early Research Career Award – 2022

2) Bioscience Scientists award for Pharmaceutical Sciences- 2023

3) BUE Scopus Author Awards for Years 2019 through 2023.

3) Excellence in International Publications Awards, Ain Shams University – for Cycles July 2020 through January 2023.

5) Awarded a **"Certificate of Honour"** from **Journal of Visualised Experiments (JoVE),** for being the **first JoVE author from Egypt.** For the following article:

Isolation of Rat Adipose Tissue Mesenchymal Stem Cells for Differentiation into Insulin Producing cells. Dina H. Kassem, Sarah A. Habib, Omar I. Badr and Mohamed M. Kamal (2022): Journal of visualized Experiments (JoVE). DOI: 10.3791/63348-v

Research projects and Funds

Duration	Grant	Role
Nov 2020 – Nov 2022	**Investigation of CRISPR-Cas9 mediated knock out of FOXO-1 in human mesenchymal stem cells as a potential novel source for diabetes cell therapy** Joint Academy of Scientifc Research and Technology (ASRT) and Bibliotheca Alexandrina (BA) Research grant – Cycle-1	**Principal Investigator**
Dec 2018 – May 2020	**Role of Fork-Head box proteinO1 (FOXO-1) in generation of Insulin Producing cells (IPCs) from Adipose tissue Mesenchymal stem cells (Ad-MSCs)** Young Investigator Research Grant (YIRG) funded by the British University in Egypt (BUE).	**Principal Investigator**
Sep 2019 – June 2020	**Isolation and Charactariztion of Wharton's jelly Mesenchymal stem cells Derived Exosomes** Nanotechnology Research Center (NTRC) Facilities Grant funded by the NTRC – The British University in Egypt (BUE)	**Principal Investigator**
May 2024 – May 2025	**"Exploring the therapeutic potential of Wharton's jelly mesenchymal stem cells derived exosomes for β-cell dysfunction; a hallmark of type 2 diabetes mellitus"** Ain Shams University Strategic Plan 2022-2023 funded Scientific Projects	**Co-Principal Investigator**
Jan 2022 – Jan 2024	**Study of Novel Exosomal Long Non-Coding RNA NAMPT-AntiSense and its Interrelation to NAMPT Protein as Potential Molecular Key Player(s) in Colorectal Cancer.** Ain Shams University Strategic Plan 2021-2022 funded Scientific Projects	**Member**
June 2016 - July 2017	**The Generation of Insulin Producing Cells from Wharton's Jelly Mesenchymal Stem Cells - The Impact of Genetic Manipulation of REST and MafA Transcription Factors** funded by Science and Technology Development Fund (STDF)	**Member**

August 2019- July 2022	International Conference Grant (ICG) – The British University in Egypt*	**Benfeciary**
Dec 2023-August 2025	International Conference Grant (ICG) – The British University in Egypt*	**Benfeciary**

**: A funding grant to attend International congference based on scientific acheivements*

Conferences (Last 5 years)

January 2019	**The Arab International Patient Counceling Compitition (AIPCC) conference-**held in The British University in Egypt (BUE), Cairo, Egypt *(talk presentation)*
March 2019	**The Scientific Day of the National Committee of Biochemistry and Molecular Biology-**held in Academy of Scientific Research and Technology (ASRT), Cairo, Egypt *(talk presentation)*
September 2019	**International Conference of Recent Trends in Biochemistry and Molecular Biology: Towards Vision 2030 –** held in The American university in Cairo (AUC), Cairo, Egypt *(talk and poster presentations)*
September 2019	**Innovative Technologies of Stem cells and Gene Editing in Different types of Therapautics seminar –** Center for Genetic Engineering – Al-Azhar University in collaboration with Merck - and organized by Noor Scientific and Trade
October 2019	**The Second Arab African International Cancer Congress- BUE Clinical Pharmacy Workshop-** held in Cairo, Egypt *(talk presentation)*
January 2020	**The 12th Breast-Gynecological and Immunooncology International Cancer Conference (BGICC) –** held in cairo, Egypt (attendance)
May 2021	**International Conference of International Society of Cell and Gene Therapy (ISCT2021) -Virtual New Orleans-** (3 Posters presentations) • The regenerative potential of mesenchymal stem cells for diabetes mellitus – severa weapons and one aim. **Mohamed M. Kamal*** and **Dina H. Kassem** • Nampt/visfatin: a new player to consider for the differentiation of mesenchymal stem cells into insulin producing cells. **Dina H Kassem*** and **Mohamed M Kamal.** • Exendin-4 enhances osteogenic differentiation of adipose tissue mesenchymal stem cells through RANK/ RANKL/OPG axis S. A. Habib*, **M. M. Kamal**, M. Senousy, S. El Maraghy
July 2021	**2nd Cell and Experimental Biology conference (CEB2021)-** Houston, Texas, USA from 12-14 July 2021- virtual (talk presentation)- supported by BUE International Conference Grant (ICG) 2019 **Talk title:** Mesenchymal stem cells in Diabetes mellitus treatment - Several weapons for one target

October 2022 **7th International Conference of Faculty of Pharmacy (Boys) Al-Azhar University, Egypt. Modern Aspects in Pharmaceutical Sciences.** 22-23rd October, El-Azhar Conference Center, Cairo, Egypt (talk and poster presentations)
Talk title: Stem cells: Where they come from and where are they heading?? (Talk presentation by Dr. Mohamed Kamal)
Poster title: The effectiveness of Adipose derived Mesenchymal Stem Cells in differentiation into Insulin-Producing Cells in vitro.
Omar I. Badr*, Shohda A El-Maraghy, Mohamed M.Kamal , and Heba R Ghaiad

March 2023 **1st Teaching and Learning Symposium- The British University in Egypt, Cairo, Egypt.**
Talk title "Reflection on an Interactive Learning Experience in Biochemistry"

September 2023 **18th International Conference of Biochemistry and Molecular Biology, The National Committee of Biochemistry and Molecular Biology,** 26-27 September, The American University in Cairo (AUC), Cairo, Egypt (Poster presentation)
Poster title: Adipose Mesenchymal Stem Cells in Skin Aging
Aya Anter, Ihab Magdy, Marvellous Chukueggu, Moamen Khorshid, Mohamed Darwish, Mohamed Farrag, Menna Elsayed, Youmna Amr, Yomna Amgad, Tasnim Mahmoud, Omar Badr, Mohamed Kamal (Poster presentation)-Journal: BIOCHEMISTRY AND CELL BIOLOGY Publisher: CANADIAN SCIENCE PUBLISHING

September 2023 **Arab African International Cancer Congress (AAICC),** 27-29-9-2023, Cairo, Egypt

November 2023 **3rd International Conference of Faculty of Pharmacy, Ain Shams University (3rd ICPASU)-"**Sustainability and Innovation in Pharmaceutical Research and Industry" November 19-20, 2023, Cairo, Egypt

January 2024 **16th Breast Gynecological Immunooncology International Conference, 18-19 January, Cairo, Egypt**
Talk title "The emerging roles of non coding RNA(ncRNA) in cancer initiation, treatment and progression."

May 2024 **The Annual Biochemistry Department Scientific Conference for the academic year 2023-2024 under the theme of:"Refuel Passion for Science: Bridging Gaps for a Bright Future" 9 and 11/5/2024**
Talk title "Break the Barriers and Forge Ahead: Around the Research in 20 Years"

October 2024 **1st BUE Pharmacy Summit, "A Global Dialogue on Sustainable Healthcare," at The British University in Egypt. 12-13th October, 2024.**

Associations/Societies

Member of the following:

1) International Society of Cell Therapy (ISCT)
2) International Society of Stem Cell Research (ISSCR)

3) Endocrine Society (ENDO)

4) The Egyptian Society of Clinical Chemistry (ESCC)

Reviewer of Scientific Journals

Member of review panel of the following:

Science and Technology Development Fund (STDF)

Review in the following journals: New England Journal of Medicine (IF: 72.406, NEJM), Cellular Biochemistry (IF: 3.085 , Wiley Online Library), Bioanalysis (IF: 2.673, Future Medicine), BMJ Open Diabetes Research and Care (IF: 5.067, BMJ Journals), Cell Biochemistry and Biophysics (IF: 1.455, Springer), Cellular Physiology and Biochemistry (IF: 1.303) , Journal of Gastrointestinal Cancer (IF 2.892), Frontiers in Immunology (IF 6.429), BMJ Open Diabetes Research and Care (IF 3.21), Biomed Research International (IF 3.411) , Frontiers In Molecular Neuroscience (IF 5.639), Frontiers Genetics, Heylion and Frontiers Bioengineering, Biochimica et Biophysica Acta (BBA) - Molecular Basis of Disease (IF 4.3)

Editorial Board of Scientific Journals

Review Editor "Stem Cell Research" in

Frontiers in Genetics

Frontiers in Cell and Developmental Biology.

World Journal of Clinical Oncology (IF 2.6), Baishideng Publishing Group Inc.

Mentorship and Supervision

Level	No of Trainees	Affiliated/Registered University
Ph.D.	6	Ain Shams University/The British University in Egypt (BUE) / Suez Canal University / Cairo University
M.Sc.	9	The British University in Egypt (BUE) / Cairo University /Ain Shams University
Pharmacy students Graduation projects*	6-9 Students / year 2017-2023	The British University in Egypt

**: Supervision of graduation projects, training students on scientific review writing, proposal writing, research experiements and techniques and participation in an international conferences in the American University in Cairo (AUC) with a posters presentation in 2019 and 2022.*

List of publications

Focused publications:

1) **MicroRNA-205-5p inhibits the growth and migration of breast cancer through targeting Wnt/β-catenin co-receptor LRP6 and interacting with lncRNAs**

Sameh H. Mohamed, Mohamed M. Kamal, Ahmed M. Reda, Noha M. Mesbah, Dina M. Abo-Elmatty & Asmaa R. Abdel-Hamed

Molecular and Cellular Biochemistry, October 2024. https://doi.org/10.1007/s11010-024-05136-4

2) **Revealing the role of serum exosomal novel long non-coding RNA NAMPT-AS as a promising diagnostic/prognostic biomarker in colorectal cancer patients.**

Nehal I. Rizk, Dina H. Kassem, Ahmed I. Abulsoud, Sherif AbdelHalim, Montaser B. Yasser, Mohamed M. Kamal, Nadia M. Hamdy
Life Sciences, 1:352:122850, Sep 2024

3) **Adipose-Derived Mesenchymal Stem Cells and Their Derived Epidermal Progenitor Cells Conditioned Media Ameliorate Skin Aging in Rats**

Omar I. Badr, Aya Anter, Ihab Magdy, Marvellous Chukueggu, Moamen Khorshid, Mohamed Darwish, Mohamed Farrag, Menna Elsayed, Youmna Amr, Yomna Amgad, Tasnim Mahmoud, and Mohamed M. Kamal
Tissue Engineering and Regenerative Medicine, June 2024
[#]*: Senior Graduation project Pharmacy students*

4) **The effect of diabetes mellitus on differentiation of mesenchymal stem cells into insulin-producing cells**

Omar I Badr, Mohamed M Kamal, Shohda A El-Maraghy, Heba R Ghaiad
***Biological Research*.** 2;57(1), May2024

5) **Silencing of forkhead box protein O-1 (FOXO-1) enhances insulin-producing cell generation from adipose mesenchymal stem cells for diabetes therapy.**

Mohamed M. Kamal, Reham A. Ammar, Dina H. Kassem.
Life Sciences. 3441; 122579, May 2024.

6) **Isolation of Rat Adipose Tissue Mesenchymal Stem Cells for Differentiation into Insulin-producing Cells**

Kassem, D.H., Habib, S.A., Badr, O.I. and Kamal, M.M.
Journal of visualized experiments: JoVE, 2022, (186)

7) **Exendin-4 enhances osteogenic differentiation of adipose tissue mesenchymal stem cells through the receptor activator of nuclear factor-kappa B and osteoprotegerin signaling pathway.**

Sarah A. Habib, Mohamed M. Kamal*, Shohda A. El-Maraghy, Mahmoud A. Senousy
Journal of Cellular Biochemistry, 123(5): 906-920, May 2022.
*Co-first author

8) **Exosomal-long non-coding RNAs journey in colorectal cancer: Evil and goodness faces of key players**

Rizk, N.I., Abulsoud, A.I., Kamal, M.M., Kassem, D.H., Hamdy, N.M.
Life Sciences, 292, 120325 March 2022 ***(epub ahead of print)***

9) **New emerging roles of the novel hepatokine SERPINB1 in type 2 diabetes mellitus: Crosstalk with β-cell dysfunction and dyslipidemia**

Kamal, M.M., Adel, A., Sayed, G.H., Ragab, S., Kassem, D.H.
Translational Research, 231, pp. 1–12. May 2021

10) **A Novel SERPINB1 Single-Nucleotide Polymorphism Associated With Glycemic Control and β-Cell Function in Egyptian Type 2 Diabetic Patients**

Dina H. Kassem, Aya Adel, Ghada H. Sayed and Mohamed M. Kamal *Front. Endocrinol.*, (https://doi.org/10.3389/fendo.2020.00450) July 2020.

11) Therapeutic efficacy of umbilical cord-derived stem cells for diabetes mellitus: a meta-analysis study
Dina H. Kassem & Mohamed M. Kamal
Stem Cell Research & Therapy volume 11, Article number: 484 (2020), November 2020

12) Therapeutic Potential of Wharton's Jelly Mesenchymal Stem Cells for Diabetes: Achievements and Challenges
Kamal, M.M. and Kassem, D.H.
Frontiers in Cell and Developmental Biology, Volume 8, 29 January 2020, Article number 16

13) Wharton's Jelly MSCs: Potential Weapon to Sharpen for Our Battle against DM.
Kassem, D.H and Kamal, M.M
Trends in Endocrinology and Metabolism Volume 31, Issue 4, April 2020, Pages 271-273.

14) REST-DRD2 mechanism impacts glioblastoma stem cell–mediated tumorigenesis.
Anantha L Marisetty, Li Lu, Bethany L Veo, Bin Liu, Cristian Coarfa, Mohamed Mostafa Kamal, Dina Hamada Kassem, Khushboo Irshad, Yungang Lu, Joy Gumin, Verlene Henry, Adriana Paulucci-Holthauzen, Ganesh Rao, Veerabhadran Baladandayuthapani, Frederick F Lang, Gregory N Fuller, Sadhan Majumder
Neuro-Oncology, June 2019, 21(6), pp. 775-785.

15) Serum Vit-D and Its Upregulated Protein, Thioredoxin Interacting Protein, are Associated with β-Cell Dysfunction in Type 1 and Type 2 Diabetic Patients
Doaa F. Omar, Mohamed M. Kamal, Mohamed H. El-Hefnawy, Hala O. EL-Mesallamy (2018)
Canadian Journal of Diabetes, 42 (6): 588-594.

16) Mir-21–Sox2 Axis Delineates Glioblastoma Subtypes with Prognostic Impact.
Pratheesh Sathyan*, Pascal O.Zinn*, Anantha L.Marisetty*, Bin Liu*, Mohamed Mostafa Kamal*, Sanjay K. Singh, PierreBady, * Li Lu, Khalida M.Wani, Bethany L.Veo, Joy Gumin, Dina Hamada Kassem, Frederick Robinson, Connie Weng, Veerabhadran Baladandayuthapani, Dima Suki, Howard Colman, Krishna P. Bhat, Erik P.Sulman, Ken Aldape, Rivka R.Colen, Roel G.W.Verhaak, Zhimin Lu, Gregory N.Fuller, Suyun Huang, Frederick F.Lang, Raymond Sawaya, Monika Hegi, and Sadhan Majumder (2015)
The Journal of Neuroscience-11;35(45):15097-112.
**co-first author*

Other publications

17) Targeting the ubiquitin proteasome system in cancer stem cells
Atta, H., Kassem, D.H., Kamal, M.M., Hamdy, N.M.
Trends in Cell Biology, 2024 (epub ahead of print)

18) Studying the association between single nucleotide polymorphisms of metabolizing enzymes and the therapeutic serum levels of calcineurin inhibitors in Egyptian liver transplant patients
Nermeen N. Abuelsoud, Mohamed Bahaa, Sara A. Osman, Nouran Younis & Mohamed M. Kamal
Future Journal of Pharmaceutical Sciences volume 10, Article number: 153 (2024)

19) **Elafibranor modulates ileal macrophage polarization to restore intestinal integrity in NASH: Potential crosstalk between ileal IL-10/STAT3 and hepatic TLR4/NF-κB axes**
Andrew N.Hakeem, Mohamed M.Kamal, Rasha A.Tawfiq, Basma A.Abdelrahman, Olfat A.Hammam, Mohamed M.Elmazar, Aiman S.El-Khatib and Yasmeen M.Attiaa
Biomedicine & Pharmacotherapy, 157, 114050, January 2023.

20) **Neuroprotective effect of liraglutide in an experimental mouse model of multiple sclerosis: role of AMPK/SIRT1 signaling and NLRP3 inflammasome.**
Reham A. Ammar, Ahmed F. Mohamed, Mohamed M. Kamal, Marwa M. Safar & Noha F. Abdelkader
Inflammopharmacology, 30, 919–934, April 2022.

21) **Testosterone undecanoate effects on behavior and cognitive functions in male swiss albino mice exposed to chronic social defeat**
Ibrahim, M.K., Tikamdas, R., Kamal, M., Nouh, R.A., Sayed, M.
Research Journal of Pharmacy and Technology, 13(12), pp. 6041–6049 February 2021

22) **Effects of Chronic Caffeine Administration on Behavioral and Molecular Adaptations to Sensory Contact Model Induced Stress in Adolescent Male Mice**
Michael Kamal Ibrahim, Mohamed Kamal, Rajiv Tikamdas, Roua Aref Nouh, Jiang Tian & Moustafa Sayed,
Behavior Genetics, volume 50, pages374–383, June 2020

23) **Mesenchymal Stem Cells and Their Extracellular Vesicles: A Potential Game Changer for the COVID-19 Crisis**
Dina H. Kassem and Mohamed M. Kamal,
Front. Cell Dev. Biol., 30 September 2020

24) **Coenzyme Q10 mitigates ionizing radiation-induced testicular damage in rats through inhibition of oxidative stress and mitochondria-mediated apoptotic cell death**
Said, R.S., Mohamed, H.A., Kamal, M.M.
Toxicol Appl Pharmacol. 2019 Nov 15;383:114780.

25) **REST overexpression in mice causes deficits in spontaneous locomotion**
Li Lu, Anantha Marisetty, Bin Liu, Mohamed Mostafa Kamal, Joy Gumin, Bethany Veo, YouQing Cai, Dina Hamada Kassem, Connie Weng, Mark E. Maynard, Kimberly N. Hood, Gregory N. Fuller, Zhizhong Z. Pan, Matthew D. Cykowski, Pramod K. Dash & Sadhan Majumder (2018)
Scientific Reports, Volume 8

26) **Obestatin can potentially differentiate Wharton's jelly mesenchymal stem cells into insulin-producing cells**
RK El-Asfar, MM Kamal, RS Abd EL-Razek, E EL-Demerdash and HO El-Mesallamy (2018)
Cell and Tissue Research, 372 (1): 91–98

27) **Association of serum Pancreatic derived factor (PANDER) with beta-cell dysfunction in type 2 diabetes mellitus**
Miral M. Shehata, Mohamed M. Kamal, Mohamed H. El-Hefnawy and Hala O. EL-Mesallamy (2017)
Journal of Diabetes and its Complications, 31(4):748-752

28) Exendin-4 enhances the differentiation of Wharton's jelly mesenchymal stem cells into insulin-producing cells through activation of various β-cell markers.

Kassem DH*, Kamal MM*, El-Kholy Ael-L, El-Mesallamy HO (2016)

StemCell Research and Therapy 11;7(1):108

**co-first author*

29) Association of expression levels of pluripotency/stem cell markers with the differentiation outcome of Wharton's jelly mesenchymal stem cells into insulin producing cells.

Kassem DH*, Kamal MM*, El-Kholy Ael-L, El-Mesallamy HO (2016)

Biochimie. 127:187-95.

**co-first author*

30) Resveratrol inhibits inflammatory signaling implicated in ionizing radiation-induced premature ovarianfailure through antagonistic crosstalk between silencing information regulator 1 (SIRT1) and poly(ADP-ribose) polymerase 1 (PARP-1).

Said RS, El-Demerdash E, Nada AS, Kamal MM.(2015)

Biochemical Pharmacology 1;103:140-50

***31)* A comparison of Wharton's jelly versus cord blood as a source of mesenchymal stem cells for diabetes cell therapy.** Rasha F. El-Demerdash, Lamiaa N. Hammad,

Mohamed M. Kamal and Hala O. El-Mesallamy (2015)

Regenerative Medicine,10(7):841-55. Epub 2015 Nov 6.

32) REST regulates oncogenic properties of glioblastoma stem cells.

Mohamed M. Kamal*, Pratheesh Sathyan*, Sanjay K. Singh, Pascal O. Zinn, Anantha L. Marisetty, Shoudan Liang, Joy Gumin, Hala Osman El-Mesallamy, Dima Suki, Howard Colman, Gregory Fuller, Fredrick Lang, and Sadhan Majumder (2012)

Stem Cells, 30:405-414

**co-first author*

Book Chapter

1) Sources and Strategies of Mesenchymal Stem Cells in Regenerative Medicine
Kamal M, Kassem D and Haider, K
Book Chapter in "Handbook of Stem Cell Therapy" – by Springer Singapore.

Teaching Activities

Teaching statement summary

I am a dedicated educator in biochemistry and cell biology, committed to fostering critical thinking and active learning through case-based approaches, flipped classrooms, and digital platforms. My teaching emphasizes real-world applications and interdisciplinary learning, preparing students for professional and research careers. As a mentor, I have guided numerous undergraduate and graduate students in research, many of whom have presented their work at international

conferences. I continually strive to enhance my teaching methods, ensuring a supportive, dynamic environment that inspires curiosity and lifelong learning.

Teaching Experience and History

Courses*	**Programme**	**Faculty/University**
Basic Biochemistry Clinical Biochemistry Molecular Biology	Undergraduates: BPharm, PharmD and PharmD-Clinical	Pharmacy/The British University in Egypt Pharmacy/ Ain Shams University
Molecular Biology	M.Sc. Biochemistry	Pharmacy/ Ain Shams University
Tissue Chemistry and Genetics	Ph.D. Biochemistry	Pharmacy/ Ain Shams University
Clinical Nutrition	B.Sc. Pharmacy students	Pharmacy/Misr International University
Principles of Nutrition	Undergraduates: Engineering, Mass communication and Business programs (University requirement)	Pharmacy/Misr International University
Principles of Nutrition	Senior PharmD Pharmacy students	Pharmacy/The British University in Egypt
Fundamentals of Biochemical Engineering Fundamentals of Biochemistry	B.Sc. Biochemical Engeneering	Faculty of Energy and Enviromental Engineering, Biochemical engineering Department.
Molecular Pharmacology	Postgraduate M.Sc. Pharmacology programme	Pharmacy/The British University in Egypt

**: Preparation of course specifications, course reports and exam paper evaluations for courses taught through the academic year.*

Teaching Startegies

\

Strategy	**Course taught**
Flipped Classroom	Molecular Biology Elective course
Case-study Based Learning	Clinical Biochemistry course
Interactive Learning McGraw Hill platform	Basic Biochemistry courses (Biochemistry-1 and Biochemistry-2)
Interactive Learning Cengage Owlv2 platform	Basic Biochemistry courses (Biochemistry-1 and Biochemistry-2)

Professional, University and Community activities

Leader of Drug Research and Development Group (DRD-G) – Health Research Center of Excellence– The British University in Egypt

As a Leader of Drug Research and Development Group (DRD-G) – Health Research Center of Excellence, previously a Director of Center for Drug Research and Development (CDRD) since November 2019, I have been doing the following tasks:

A) Setting the vision, mission and objectives of the Center and taking all actions and activities to accomplish them.

B) Setting the regulations of the use of the labs and the facilities of the Center to ensure smooth running and to preserve the facilities and the assets of the University.

C) Place the annual budget and the action plan of the Center to ensure continuing research activities and continuous improvement of the Centre activities.

D) Preparation and presentation of an annual report of the activities of the Center.

E) Organization of the scientific events, seminars and webinars in the Center to ensure continuous education and training of the teaching assistants (TAs) and the faculty staff members of the Center and the Faculty.

Professional Training (Last 5 years)

November 2017	**"Strategic Plan for H.E Insitutes"** worshop held be **National Authority for Quality Assurance and Accreditation of Education (NAQAAE) in BUE**
November 2017	**"Self Evaluation for H.E Faculties and Insitutes"** worshop held be **National Authority for Quality Assurance and Accreditation of Education (NAQAAE) in BUE**
March 2018	**"Protocols of External Evaluation Visit"** worshop held be **National Authority for Quality Assurance and Accreditation of Education (NAQAAE) in BUE**
September 2019	**"Modern knowledge cycle: Enhancing research using Elsevier research solutions"** workshop held by Elsevier, Faculty of Pharmacy, BUE
2nd April 2020	**"Elsevier core and research intelligence solutions on EKB"** workshop held by Elsevier, Faculty of Pharmacy, BUE
6th April 2020	**"Identifying a research topic"** workshop held by Elsevier, virtual
9th April 2020	**"Literature review & funding opportunities"** workshop held by Elsevier, virtual
Sep 2021-Dec 2021	**"Egypt University Virtual Risk Assessor Training"-** Training held by Ain Shams University, Sandia Laboratories and Department of States USA – virtual, Fall 2021
January 2022	**"Scholary Publishing in Indexed Journals"** – Training Center -Ain Shams University – 30-31/1/2022.

April 2022	**"Employing Important Apps in Microsoft 365 in Learning" -** Training Center -Ain Shams University – 19-20/4/2022.
May 2022	**"Nagotiation Skills"** Training Center -Ain Shams University – 10-11/5/2022.
May 2022	**"Critical Thinking"-** Training Center -Ain Shams University – 15-16/5/2022.
May 2022	**"Lagal affairs in Universities-** Training Center -Ain Shams University – 17-18/5/2022.
June 2022	**"Leadership" -** Training Center -Ain Shams University – 6-7/6/2022.
December 2024	**From Textbooks to Tech Bots: AI's Role in Revolutionizing Higher Education**, The British University in Egypt, 17/12/2024.

University/Faculty Committees membership

1) Director of Center for Drug Research and Development (CDRD) – Since Nov 2019 then Drug Research and Development Group Leader, Health Research Center of Excellence till current.

2) Head of Control of Degree Year 2 – Faculty of Pharmacy – The British University in Egypt – for AY 2018-2019, 2019-2020, 2020-2021 and 2021-2022

3) Member in the Purchases and Inventory Committee – Faculty of Pharmacy- The British University in Egypt (BUE).

4) Member in the Department Council – Pharmacology and Biochemistry Department- Faculty of Pharmacy – The British University in Egypt (BUE)

5) Member in the University Research and Postgraduate Studies Committee (URPGC) for Academic Year 2020-2021.

6) Member in the British University in Egypt (BUE) Senate for AY20-21 and AY21-22.

Organization of Scientific events

1) Organizing several seminars or webinars since 2019 till current such as:

A) Faculty of Pharmacy Passion for Science Lectures series (FPPS Lectures series) - Semester-1 2019-2020

B) CDRD seminars in 2019/2020

C) CDRD seminar series 2020/2021

D) CDRD workshops with The British University in Egypt, School of Continuing Education (BUE-SCE) in 2022, 2023 and 2024.

E) Organization of Nutrition Training Course (7-9/2024) and Drug Research and Development (R&D) training Course (7-8/2024) in collaboration with the Medix for Training and The British University in Egypt, School of Continuing Education (BUE-SCE)

2) Delivering Scientific workshops

In July, 2022, I delivered a workshop under the title of "Basic Gene Expression Analysis by qRT-PCR from Gene to Ct" in the computer lab in Faculty of Pharmacy, BUE. With almost 25

participants from different faculties and Universities, these participants learned about basic technique of qRT-PCR through intensive 4-days training.

Quality Assurance/Academic accreditation Activities

1) Participated in the Academic Accreditation by the National Authority for Quality Assurance and Accreditation (الهيئة القومية لضمان جودة التعليم والأعتماد), Egypt for 2 Pharmacy undergraduate Programs

1) The B.Sc. Pharmacy Program, Ain Shams University in 2017 (Re-Accreditation)

2) BPharm Program of the Faculty of Pharmacy, The British University in Egypt (First time Accreditation) in 2022.

Roles:

1) Preparation of courses specifications, courses reports and exam paper evaluations for Biochemistry related course taught through the academic year in both programs.

2) Member of Standard-3 "The Quality Management and Development" in The Quality Assurance Unit – Faculty of Pharmacy.

Main Duties:

a) Document and oversee the Quality procedures in the faculty.

b) Increase quality assurance awareness in the faculty

c) Prepare the required documents for accreditation by National Authority for Quality Assurance and Accreditation of Education "NAQAAE" which Faculty of Pharmacy have had in 2021.

2) Other Accreditation Activities

1) Attending 3 workshops on Higher Education Institutes Accreditation, organized by the National Authority for Quality Assurance and Accreditation of Education (NAQAAE) in The British University in Egypt (BUE) as follows:

November 2017	"Strategic Plan for H.E Insitutes" worshop held be National Authority for Quality Assurance and Accreditation of Education (NAQAAE) in BUE
November 2017	"Self Evaluation for H.E Faculties and Insitutes" worshop held be National Authority for Quality Assurance and Accreditation of Education (NAQAAE) in BUE
March 2018	"Protocols of External Evaluation Visit" worshop held be National Authority for Quality Assurance and Accreditation of Education (NAQAAE) in BUE

2) External Evaluator of Biochemistry courses revising the module specs and reports for Biochemistry courses in Biochemistry Department, Faculty of Pharmacy, Ain Shams University.

Students' activities

Participation in several students' activities such as:

1) Reviewer in Drug Design Credit hour Program Graduation projects 2018-2019

2) Organization of "Career Pathways" workshop with Merck for undergraduate students.

3) Supervision of Graduation projects and participation in an international conference in the American University in Cairo (AUC) with a poster.

4) Organization of Summer training for Environmental Engineering students in Summer 2021.

References

Prof. Dr. / Mohamed Mohey Elmazar

Dean of Faculty of Pharmacy, The British University in Egypt (BUE)

Professor of Pharmacology and Toxicology

Address: El Sherouk City, Suez Desert Road, Cairo, Egypt, 11837

Building K, Room 222

Phone: (0020) 01006609953 Email: **mohey.elmazar@bue.edu.eg**

Prof. Dr. / Sadhan Majumder

Professor and Deputy Chair, Department of Genetics, The University of Texas MD Anderson Cancer Center, Houston, TX, USA

Address:1515 Holcombe Blvd. Houston, TX 77030 The University of Texas MD Anderson Cancer Center, Department of Genetics Unit 1010. Room Number: S13.8316A
Phone: 001 **(713) 834-6347** Email: **smajumder@mdanderson.org**

Dr. Mohammed Abdelsaid, RPH, PhD

Associate Professor of Pharmacology

Biomedical Sciences Department

Mercer University School of Medicine

1250 E 66th Street | Savannah, GA 31404

Office phone:(001) 912-721-8231 Fax :(001)912-721-8268

Email: abdelsaid_ma@mercer.edu

medicine.mercer.edu

Dr. Dina H. Kassem

Associate Professor and Acting Head of Biochemistry Department,

Faculty of Pharmacy, Ain Shams University, Cairo, Egypt

African Union Organization St. Abbassia, Cairo, Egypt (ARE)

Email: dina_kassem@pharma.asu.edu.eg

Phone: 00201224901010