

University of Sharjah
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SAMREIN AHMED

PERSONAL STATEMENT I do believe that quality of teaching the medical students should receive has to be at its utmost since they will be responsible of human lives. At the same time, I am interested basic research is a crucial platform for both transitional and clinical research; therefore, I am a passionate basic science researcher.

EDUCATION

PHD 2013 (DOCTOR OF PHILOSOPHY), BIOCHEMISTRY DEPARTMENT, UNIVERSITY OF LEICESTER, UNITED KINGDOM.
Field: Cancer Research, Thesis Title: "Characterization of the novel melanoma associated Shc adaptor RaLP/ShcD".

Cancer cell and Molecular biology M.Sc 2009 (Grade Distinction), Department of Biochemistry, University of Leicester, United Kingdom. Thesis title: "The role of RaLP/ShcD in melanoma cell migration"

Medicine and Surgery MBBS 2004, Faculty of Medicine, University of Khartoum, Sudan. Graduate Transcript: Prize in Surgery, Distinction in Microbiology and Physiology, Credit in Anatomy, Biochemistry, Pathology and Pharmacology, Very Good in Medicine & Psychiatry, Obstetrics & Gynecology and Pediatrics, Good in Community Medicine.

POSITIONS

- September 2014-current, Assistant professor of Biochemistry, University of Sharjah, Sharjah, UAE.
- September 2013 –May 2014, Research Associate, Department of Biochemistry, University of Cambridge, Cambridge, United Kingdom.
- July 2007-September 2007, Medicine Internship at Army Hospital, Khartoum, Sudan.
- March 2007-June 2007, Surgery Internship at Army Hospital, Khartoum, Sudan.
- January 2007-March 2007, Orthopedics Internship at Army Hospital, Khartoum, Sudan.
- November 2006-Janaury 2007, ENT Internship at Army Hospital, Khartoum, Sudan.

- July 2005-October 2005, Obstetrics &Gynecology Internship at Academy Hospital, Khartoum, Sudan.
 - April 2005-July 2005, Pediatrics Internship at Ribat Hospital, Khartoum, Sudan.
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TEACHING

September 2014-Present

Postgraduate teaching:

- ♣ Teaching and coordinating Biology and Genetics of cancer cell course for MSc students.
- ♣ Teaching and coordinating Cell communication and signaling course for MSc students.
- ♣ Coordination and participating in teaching a practical module for the MSc: Modern Technique in molecular Biology course.

Undergraduate teaching:

- ♣ Teaching Biochemistry for Medical students
- ♣ Tutoring Problem-based learning sessions for medical students and related PBL related assessment.
- ♣ Conducting and organizing Team-based learning sessions.
- ♣ Teaching Human Biology for Medical and dental Foundation students.

Teaching related duties:

- ♣ Course files preparation
- ♣ Unit reports preparation
- ♣ Creative course activities such Cell Signalling club activity, in which MSc students present posters about the signalling pathways and their role in normal and disease states. The attendees are the undergraduate students. This event is organized by Samrein BM Ahmed every year as part of the Cell communication and Signalling module. -The activity has mutual benefits for both postgraduate and undergraduate students.
- ♣ Making exam questions and align them with the unit outcomes
- ♣ Project supervision for Medical undergraduates and Master Students.
- ♣ Marking assignments
- ♣ Generating lab manuals for the modern techniques in molecular biology module.
- ♣ Reviewing exams and align the questions to the unit's outcomes and program outcomes.
- ♣ Examiner to MSc thesis title: "Tackling breast cancer resistance via the interference with NF- κ B signaling"
- ♣ Academic advising

Online teaching:

With the COVID pandemic the university shifted to online teaching.

- ♣ I was able to use Microsoft teams and Blackboard Ultra to deliver my lectures for conducting virtual sessions.
- ♣ Recorded lectures were uploaded for the students.
- ♣ Exam was conducted using Backboard and Lock down browser.

RESEARCH INTERESTS Cell signaling in Cancer cells.
Cancer cell invasion and metastasis

GRANTS University of Sharjah targeted grant (200,000AED~£40,000) for the project titled: “Studying the impact of the ShcD observed cancer mutations in the tumour cell behaviuor”, 2018-2020.

Seed grant Aljalila foundation (270,000 AED~£59,000) for the project titled: “Studying the phosphorylation status of ShcD in melanoma upon oxidative stress: An evidence for new therapeutic target in melanoma”, 2017-2019.

- Boehringer Ingelheim grant-5th round for undergraduates, (15,000 AED~£3000) for project titled: “Investigating the role of TGF- β in the migration function of the melanoma associated adaptor protein, ShcD-overexpressing cells”, 2017-2018.
- University of Sharjah targeted grant (200,000AED~£40,000) for the project titled: “Investigating the impact of ShcD in melanoma migration and survival via ROS modulation”, 2016- 2018.
- Boehringer Ingelheim grant-3rd round for undergraduates, (15,000 AED~£3000) for project titled: “Investigating the phosphorylation status of melanoma associated Shc adaptor, ShcD, upon oxidative stress”, 2015-2016.
- Boehringer Ingelheim grant-2nd round for undergraduates, (15,000 AED~£3000) for project titled: “Investigating GHRHR expression level under hyperglycemia-like culture conditions in breast cancer cell lines”, 2014-2015.
- University of Sharjah seed grant (20,000AED~£4000) for project titled: Investigating the role of ShcD in cancer cell migration and invasion”, 2014-2015.

Publications

- **Ahmed SBM**, Amer S, Hussein A, D DK, Al Hasham N, M MA, Shawa N, Saleh D, K OA: Assessing the Knowledge of Environmental Risk Factors for Cancer among the UAE Population: A Pilot Study. *Int J Environ Res Public Health* 2020, 17(9).
- Alfarouk KO, **Ahmed SBM** and et al. The Pentose Phosphate Pathway Dynamics in Cancer and Its Dependency on Intracellular pH. *Metabolites* 2020, 10(7): 285.
- Alfarouk KO, **Ahmed SBM**, Ahmed A, Elliott RL, Ibrahim ME, Ali HS, Wales CC, Nourwali I, Aljarbou AN, Bashir AHH et al: The Interplay of Dysregulated pH and Electrolyte Imbalance in Cancer. *Cancers (Basel)* 2020, 12(4).
- El-Haj BM, **Ahmed SBM**: Metabolic-Hydroxy and Carboxy Functionalization of Alkyl Moieties in Drug Molecules: Prediction of Structure Influence and Pharmacologic Activity. *Molecules* 2020, 25(8).
- **Ahmed SBM**, Amer S, Emad M, Rahmani M, Prigent SA: Studying the ShcD and ERK interaction under acute oxidative stress conditions in melanoma cells. *Int J Biochem Cell Biol* 2019, 112:123-133.
- Cardone RA, Alfarouk KO, Elliott RL, Alqahtani SS, **Ahmed SBM**, Aljarbou AN, Greco MR, Cannone S, Reshkin SJ: The Role of Sodium Hydrogen Exchanger 1 in Dysregulation of Proton Dynamics and Reprogramming of Cancer Metabolism as a Sequela. *Int J Mol Sci* 2019, 20(15).
- Amer S, Alsayegh F, Mashaal Z, Mohamed S, Shawa N, Rajan K, **Ahmed SBM**: Role of TGFbeta in the motility of ShcD overexpressing 293 cells. *Mol Med Rep* 2019, 20(3):2667-2674.
- El-Haj BM, **Ahmed SBM**, Garawi MA, Ali HS: Linking Aromatic Hydroxy Metabolic Functionalization of Drug Molecules to Structure and Pharmacologic Activity. *Molecules* 2018, 23(9).
- Mabruka ZA, **Ahmed SBM**, Thomasa AC, Prigent SA (2018) The role of the ShcD and RET interaction in neuroblastoma survival and migration. *Biochem and Biophys Rep* 13: 99–108.
- Awad SHA, Ibrahim MEEAEAM, Khan GF, **Ahmed SBM** (2018) GHRH-R Expression Level under Hyperglycaemic Like Culture Conditions in Breast Cancer Cell Lines. *Biol Med (Aligarh)* 10: 428. doi:10.4172/0974-8369.1000428
- **Ahmed SBM**, Prigent SA (2017). Insights into the Shc Family of Adaptor Proteins. *J Mol Sig*: 12:2. DOI: <http://doi.org/10.5334/1750-2187-12-2>
- Ali S.H., **Ahmed SBM**., Khan A.G. (2016). Gold nanoparticles in in cancer therapy and diagnostics *ejpmr*: 3: 54-67
- **Ahmed, SBM.** and Prigent, SA. (2014). A nuclear export signal and oxidative stress regulate ShcD subcellular localisation: A potential role for ShcD in the nucleus. *Cell Signal*: 26, 32-40.

MANUSCRIPTS IN PROGRESS

- The interaction between Nischarin and ShcD: A novel mechanism to control cell migration and affect patients' overall survival
- ShcD induces reactive oxygen species production: A method to promote cell migration

SUPERVISION

- MSc: Studying the effect of the ShcD observed cancer mutations in the migration and proliferation of melanoma and colorectal cancer cell lines 2019-2020
MSc: Nischarin and ShcD interaction: A novel mechanism to control cell migration. 2018-2019
- Undergraduate: The role of TGF- β in the motility of ShcD-overexpressing HEK 293 cells. 2017-2018
- MSc: The role of ShcD and Ret interaction in neuroblastoma survival and migration. 2016-2017
- Undergraduate: Investigating the phosphorylation status of melanoma associated Shc adaptor, ShcD, upon oxidative stress 2015-2016
- Undergraduate: Investigating GHRHR expression level under hyperglycemia-like culture conditions in breast cancer cell lines. 2014-2015

EXTRA ACTIVITIES

Founder of The Researchers' Club 2019-Present

To create a vibrant and encouraging environment for young researchers
University of Sharjah, College of Medicine

Alumni gathering event 2018-2019

Organised the 2nd alumni gathering event and wrote a report for the accreditation
Organised "We speak science event" 2017-2018
To foster the communication and collaboration between COM faculty and staff

Faculty Welcome Kit 2017-Present

Conception of the idea of generating A Faculty Welcome Kit and with coordinating with other colleagues, the kit was generated.

**MEMBERSHIP IN
INTERNATIONAL
ASSOCIATIONS**

Ambassador for European Association of Cancer Research.
Member in OWSD
Member in MEMBs

CONFERENCES

- ♣ NCRI cancer conference, 2019, Glasgow, UK: poster presentation: “Nischarin and ShcD interaction: A novel mechanism to control cell migration and affect patients’ overall survival”
- ♣ Emirati German conference: Oral presentation: Title: “The role of ShcD and RET interaction in neuroblastoma migration and survival”. November 2018
- ♣ Making it personal: Precision medicine, Italy: November 2018The 5th Emirati German Congress in Medicine, November 2017.
- ♣ MEMBS 4th congress, Abu Dhabi, UAE-November 2017: Oral presentation by Samrein Ahmed entitled: The role of ShcD and RET in the migration and survival of neuroblastoma.
- ♣ UOS-Boehringer Ingelheim Partnership Workshop 2017, UOS, UAE-November 2017: Oral presentation winning prize for second best oral presentation presented by Sara Amer. Supervisor: Samrein Ahmed
- ♣ 3rd Current Trends in biotechnology-2017, Dubai-UAE: -The role of melanoma associated adaptor, ShcD in acute sever oxidative stress in melanoma cells. -The role of ShcD and Ret interaction in Neuroblastoma survival and migration poster: Awarded first position. Making it Personal: Cancer Precision Medicine, Amsterdam, Netherlands: 13 - 16 March 2017. Poster presentation: The association of ShcD and ERK in acute oxidative stress in B16 melanoma cells.
- ♣ 24th Biennial EACR Congress, 9-12th July 2016, Manchester, UK.
- ♣ OWSD 5th General Assembly and International Conference on Women in Science and Technology for the Developing World, 16-19 May 2016, Kuwait: Oral presentation titled “the two lives of the melanoma associated adaptor”
- ♣ 6th Pan Arab Human Genetics Conference (PAHGC), Dubai, UAE.
- ♣ NCRI cancer conference, 2015, Liverpool, UK: poster presentation “The interplay between the nuclear translocation and phosphorylation of the melanoma associated adaptor, ShcD, upon oxidative stress”
- ♣ World congress on Cancer and prevention methods, 2015, Dubai.: Poster presentation “Interplay between the hyperglycemia and cancer”
- ♣ The 8th Dubai International Conference for Medical Sciences, 2014: poster presentation December 2012,
- ♣ Poster Presentation at Genes and Cancer Meeting, Warwick University, Warwick, United Kingdom. Poster title: “The human melanoma associated protein RaLP promotes cell survival”.

- ♣ September 2012, the Twelfth International Conference on Progress in Vaccination against Cancer, the European Association for Cancer Research (EACR), Nottingham, United Kingdom.
- ♣ December 2011, Poster Presentation at Genes and Cancer Meeting, Warwick University, Warwick, United Kingdom. Title of the poster: “A novel way for melanoma cells to migrate”.
- ♣ May 2011, Talk, Cafe scientifique at University of Leicester, United Kingdom, Talk title: “The two lives of RaLP”
- ♣ December 2010, Genes and Cancer Meeting, Warwick University, Warwick, United Kingdom.

UNIVERSITY ADMINISTRATIVE SERVICES

- ♣ Moderator in the first University technical exchange meeting: 2019-2020.
- ♣ Oral presentation evaluator at the student-based research day, College of Medicine, UOS: 2018-2019.
- ♣ Poster presentation evaluator at the 3rd future pharmacist day, College of Pharmacy, UOS: 2018-2019.
- ♣ Member in the University of Sharjah research ethics committee, UOS: 2016-Present.
- ♣ Member in the Grievances committee, UOS, 2018-2019.
- ♣ Member in curriculum committee, College of Medicine, University of Sharjah, 2018- Present.
- ♣ Member in the research committee, College of Medicine, University of Sharjah:2015-Present.
- ♣ Research seminar day, COM-UOS; talk titled: How to write a grant proposal: 2016-2017
- ♣ Poster presentation evaluator: Research forum 10th and 11th UOS: 2016-2017, 2017-2018, and 13th research forum of the University of Sharjah.
- ♣ Participation in Organization of the student research week, UOS, UAE, 2016
- ♣ Participation in scientific writing workshop: 2016-2017.
- ♣ Coordination the participation of medical student in Environmental public speech competition by EEG, 2nd runner place: 2015-2016.

TECHNICAL EXPERIENCE

DNA preps, PCR and semi-quantitative RT-PCR, Cloning using Gateway Technology, Cloning using the conventional method, Luciferase Reporter assays, Western blotting, Co-immunoprecipitation: Protein-G Sepharose, GFP-trap, Mammalian cell culture, Immunocytochemistry/Fluorescence microscope, DNA and siRNA transfections, Wound healing assay and transwell assay, Agarose gel for DNA electrophoresis, Subcellular fractionation, Site directed mutagenesis, Antibody Production: Protein purification, testing the anti-sera and purifying the anti-sera, Preparing samples for Mass spectrometry, Yeast two hybrid screen, MTT assay and PI staining for the cells.

REFERENCES

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