

RESUME

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Citizenship: American

Higher Education

- Institution:** Rutgers, the State University of New Jersey,
Graduate School of Biomedical Sciences,
Newark, New Jersey, USA
2009-2013
Qualification: **PhD in Pharmacology and Physiology.**
- Institution:** Rutgers, the State University of New Jersey,
Graduate School of Biomedical Sciences,
Newark, New Jersey, USA
2007-2009
Qualification: **Master's degree in Pharmacology and Physiology.**
- Institution:** Lebanese American University, Byblos-Lebanon
2001-2002
Qualification: **Sixth Academic Year in Pharmacy/Pharm D program.**
- Institution:** Applied Science University, Amman, Jordan
1994-1999
Qualification: **Bachelor's degree in Pharmacy.**

Doctoral Courses Completed

1. Physiologic Principles A, B
2. Seminars in Physiology I and II
3. Experimental Physiology
4. Immunoglobulins in Host Defense
5. Core I and Core II in Systems Biology
6. Read Literature in Signaling
7. Therapeutics I,II,III and IV
8. Principles of Pharmacology I and II
9. Biostatistics I
10. Ethics in Science and Research

CERTIFICATION

I am accredited as an external reviewer in accordance with the standards set by the National Commission to Academic Accreditation and Assessment NCAAA

Work/Research Experience

Institution: Alfaisal University (AU), College of Medicine, Riyadh, Saudi Arabia

Position: Assistant Professor of Pharmacology

Period: February 2018- present

Duties: (1) Delivering high quality pharmacology lectures for MBBS program
(2) Director of graduate courses related to research
(3) Teaching graduate courses in the Master of Biomedical Sciences
(4) Senior tutor for problem-based learning (PBL) sessions in a variety of blocks (see list of courses taught below)
(3) Conducting high quality research in Pharmacology and Physiology

Institution: King Saud Bin Abdul-Aziz University for Health Sciences (KSAU-HS), College of Medicine, Riyadh, Saudi Arabia

Position: Assistant Professor of Pharmacology

Period: December 2014- January 2018

Duties: (1) Teaching a variety of courses in Biomedical Sciences including Pharmacology and Physiology
(2) Senior tutor for problem-based learning (PBL) sessions in a variety of blocks (see list of courses taught below)
(3) Conducting high quality research in Pharmacology and Physiology

Institution: Rutgers, the State University of New Jersey, Graduate School of Biomedical Sciences, Department of Pharmacology and Physiology

Position: Research Assistant – PhD Student

Period: 2007 - 2013

Duties: (1) Transfecting DNA into TSA cell line using Calcium Phosphate Transfection Protocols
(2) Whole cell and Single Channel Patch-Clamping
(3) Performing Site Directed Mutations to L-Type Calcium Channels

Institution: Merck – Amman, Jordan

Period: 2002 - 2004

Duties: Professional Sales Representative: promotion of Fosamax once weekly. In addition, sales analysis exercise and presentation to the target physicians.

Institution: Department of Marketing Planning, United Pharmaceutical Manufacturing Co. Ltd.

Period: September 1999 - February 2001

Duties: Assistant in the Marketing Planning Department

Courses Taught: College of Medicine (AU), College of Pharmacy (AU), College of Nursing (KSAU-HS)

Research Methodology

Cardiovascular Block

1. Physiology: Autonomic Nervous System
2. Pathophysiology of Hypertension

Musculoskeletal Block

3. Neuroadaptation and Dependence
4. Overview of Drugs in Arthritis: Understanding the role of prostaglandins and thromboxanes in pain, inflammation, fever and excessive blood clotting

Neuroscience Block

5. Neurotransmitters: Understanding the difference between the central neurotransmitters and neuromodulators – describing different receptor types for glutamate
6. Antipsychotics: Understanding the pathophysiology of Schizophrenia
7. Clinical Pharmacology of Old Age: Explaining the changes in elderly patients which will be reflected in drug pharmacokinetics and pharmacodynamics properties.

Foundation Block

7. Introduction to Pharmacology
8. Metabolism of Drugs
9. Non-medical Uses of Drugs
10. Pharmacokinetic
11. Pharmacodynamic
12. Antibiotics

Hematology Block

10. Medications in Pregnancy
11. Anticoagulant medication
12. Antiplatelet and thrombolytic medications

Gastrointestinal Block

13. Treatment of Peptic Ulcer
14. Anti emetic drugs

Musculoskeletal block

15. Rheumatoid Arthritis

Neurology block

16. Anesthetics

17. Antidepressants
18. Antipsychotics
19. Antiparkinsonian drugs
20. Anti Alzheimer drugs

Respiratory Block

21. Treatment of Asthma
22. Pneumonia

Urology and Renal Block

23. Nephrotoxicity
24. Diuretics

Faculty and Administrative Responsibilities

1. Certified external reviewer by NCAAA
2. Director of the Graduate Research courses at Alfaisal University
3. Teaching and Block Coordination:
 - a. Senior tutor for problem-based learning (PBL) sessions for all of the above listed blocks.
 - b. Co-coordinator in the Gastroenterology and Nutrition block /Endocrinology and Reproductive block
 - c. Gave numerous lectures in Pharmacology (all blocks) to medical students in professional year 3 and 4.
 - d. Directly involved in tutoring medical students in PBL for all blocks.

Research Contributions

Principal investigator or co-investigator on numerous research projects conducted by College of Medicine students and faculty in a variety of areas including, but not limited to, pharmacogenomics, aging, diabetic nephropathy.

Administrative Contributions

1. Chairman of the Proposal Review Committee
2. Member of the COM research Committee

Supervision of Graduate Students and Researchers

Ghaida Alkhatheeri- Alfaisal University, College of Medicine
Turki Alsagoor – Alfaisal University, College of Medicine
Maria Almanasef - Alfaisal University, College of Medicine
Alaaa Damer - Alfaisal University, College of Medicine
Lamia Alosaimi - Alfaisal University, College of Medicine
Fatimah Alseedi - Alfaisal University, College of Medicine
Rana Aldallan - Alfaisal University, College of Medicine
Maha Albegami - Alfaisal University, College of Medicine

Christina Pocsai – Biomedical Sciences, Pharmacology and Physiology, Rutgers University
William Smith - Biomedical Sciences, Pharmacology and Physiology, Rutgers University
Thomas Comollo - Biomedical Sciences, Pharmacology and Physiology, Rutgers University

Special skills

Consistent ability to foster collaborations by signing memorandum of understanding with prominent pharmaceutical and non-pharmaceutical companies. Moreover, my efforts include annual invitation of companies to engage with our students' projects and facilitating valuable interactions and evaluations. I play a pivotal role in connecting faculty with industry partners, fostering collaboration, and aiding in the development of innovative research ideas. Notable examples of such collaboration include, but not limited to, *Al hikmah pharmaceutical*, *Sudair Pharmaceutical*, *Novartis*, *Boehringer Ingelheim*, *BioMarin Pharmaceutical*, *Chronomics*.

Business Projects

Currently spearheading the process of establishing a Bioequivalence Center in Saudi Arabia

Lab Techniques:

1. **Calcium Phosphate Transfection**: a technique that introduces DNA into different cell lines through forming calcium phosphate precipitate along with the targeted DNA.
2. **Patch Clamping (whole cell and cell attached single channel)**: A technique that measures current passing through a whole cell containing voltage gated channels (whole cell patch clamping). Also, measuring the current that passes through a single voltage gated channel (cell attached single channel).
3. **Site-directed Mutation**: A technique that allows researchers to mutate a site in the protein of interest.
4. **Maxi and Mini Preparations**: Both techniques are used to produce DNA on a large scale (Maxi) and a small scale (Mini) preparation.
5. **Transformation**: A technique used to introduce plasmid DNA into treated E-Coli bacteria. In turn, the bacteria growth in its optimum media increases DNA production.

Achievement in Research (Theses)

Doctoral Thesis:

Title: **Contribution of Asparagine and Phenylalanine Residues in the Permeability Pathway to Selectivity and Gating of Voltage-dependent Calcium Channels.**

Supervisor: Dr. Roman Shirokov, Associate Professor, Department of Physiology and Pharmacology, Rutgers, the State University of New Jersey, USA

Master's Thesis:

Title: **The Role of Leak Currents in Hypokalemic Periodic Paralysis**

Supervisor: Dr. Roman Shirokov, Associate Professor, Department of Physiology and

Pharmacology, Rutgers, the State University of New Jersey, USA

Research Interests

Aging: our interest is exploring the role of mTOR inhibition in halting salivary gland from aging and is there a role of metformin and rapamycin in that?

Pharmacogenomics and precision medicine: I am interested in increasing the awareness of the importance of precision medicine through genetic screening prior to drug delivery and dose adjustment.

Epidemiology: the prognosis of having a **secondary cancer** (breast and thyroid) does it have a better prognosis having a secondary cancer???

Obstacles encountering pharmaceutical stakeholder to generate of **Real-World Evidence in Saudi Arabia**: we have a qualitative and quantitative study that identifies challenges faced by pharmaceutical stakeholders in generating real world evidence in Saudi Arabia.

Clinical: Anti-hypertensive drugs, e.g. ACE inhibitors used in the treatment of hypertension and the role of vitamin D in diabetic nephropathy.

Publications, Conference Contributions, Submitted Manuscripts and Technical Reports:

[Not in chronological order]

1. **Hatouf H. Sukkarieh**, Tala H. Hussein, Rami T. Bustami, Rimah A. Saleem, *et al.* The Role of Age and Gender in the Incidence of Adverse Effects Among Diabetic Patients Treatment with Glipizide, submitted to BMC Pharmacology and Toxicology
2. Rimah Saleem, Majed Ramada, **Hatouf H. Sukkarieh**, Yasmin Elshaer. *et.al.*, Laboratory Features and Pharmacological Management of Early and Late-onset Primary Sjogren's Syndrome submitted to Rheumatology International (RHEI)
3. Hijazi R, **Sukkarieh H**, Bustami R, Khan J, Aldhalaan R. Enhancing Patient Safety: A Cross-Sectional Study to Assess Medical Interns' Attitude and Knowledge About Medication Safety in Saudi Arabia. *Cureus*. 2023 Dec 14;15(12): e50505. doi: 10.7759/cureus.50505. PMID: 38111820; PMCID: PMC10726002.
4. **Sukkarieh HH**, Khokhar AA, Bustami RT, Karbani GA, Alturki FA, Alvi SN. A highlight on carbamazepine-induced adverse drug reactions in Saudi Arabia: a retrospective medical records-based study. *Naunyn Schmiedebergs Arch Pharmacol*. 2023 Nov;396(11):3177-3182. doi: 10.1007/s00210-023-02525-2. Epub 2023 May 18. PMID: 37199768; PMCID: PMC10567952.
5. Henk G. Schmidt, Mai Ajaji, **Hatouf H. Sukkarieh**, et al., Failure to Demonstrate Effect of Interruptions on Diagnostic Reasoning: Three Experiments, *BMC Medical Journal*, 2022,v.1.3, 35-29.
6. **Hatouf H. Sukkaarieh**, Turki Alsagoor, Gulsan Karbani, et al., Awareness and Attitudes of Oncology Specialists Toward Dihydropyridine Dehydrogenase (DPD) Testing in Saudi Arabia, *Journal of Scientific Report*, submitted 2022.
7. **Hatouf H. Sukkarieh**, Rami T. Bustami, Manasik N. Abdu, Ayesha A. Khokhar, Amir A. Salih, Hana K. Abdalla. The current practice of using angiotensin-converting enzyme inhibitors and angiotensin II receptor blockers in diabetic hypertensive and non-hypertensive patients Is there a room for vitamin D? *Saudi Medical Journal*, 2020, 41; 1083-1089.

8. **Hatouf H Sukkarieh**, Rami T Bustami, Hadeel Al-Khaneen, Abdulkarim Saeed, The impact of body mass index and number of antihypertensive medications on clinical management of hypertension in primary health care. *Saudi Journal for Health Sciences*, 2020,9; 35-41.
9. **Sukkarieh HH**, Bustami RT, Ibrahim NO, Al-khaneen H. The Impact of Height on Clinical Management of Hypertension in Primary Care. *Int J Cardiovasc Res* 2018, 7:2. DOI: 10.4172/2324-8602.1000361.
10. Ibrahim NO, **Sukkarieh HH**, Bustami RT, Alshammari EA, Alasmari LY, Al-Kadri HM. Current umbilical cord clamping practices and attitudes of obstetricians and midwives toward delayed cord clamping in Saudi Arabia. *Ann Saudi Med.* 2017 May-Jun;37(3):216-224. doi: 10.5144/0256-4947.2017.216.
11. **Sukkarieh, HH**, Isaev D, Shirakov, R. Highly conserved As in S6 Transmembrane Segments of Calcium Channels Are Critical for their Selectivity and Gating. *Rutgers, the State University of New Jersey; Graduate School of Biomedical Sciences Annual Conference.* November 2011.
12. **Sukkarieh, HH**, Shirakov, R. The Novel Contribution of S6 in the Fourth Domain of CAV1.2 (*cardiovascular isoform of calcium channel*) Channel Selectivity. Biophysical Society 57th Annual Meeting, Philadelphia, Pennsylvania, February 2 - 6, 2013.
13. **Sukkarieh, HH**. Ionic Basis of Hypokalemic Periodic Paralysis Linked to Mutations in Calcium Channels. *Rutgers, the State University of New Jersey; Graduate School of Biomedical Sciences.* Technical Report, 2009.

Grants:

1. Research and Development Innovation Authority (RDIA) - 10,000,000 SAR, submitted November 2023
2. Hevolution – 500,000 SAR, submitted February 2024.
3. Internal Research Grant (IRG), AU - 50,000 SAR; granted 2023.
4. Internal Research Grant (IRG), AU - 10,000; SAR; granted 2020.
5. Internal Research Grant (IRG), AU - 100,000 SAR; granted 2019.

Most Recent International Conferences and Workshops Attended

1. Annual KSU oncology Center Conference/ King Saud University/ Feb. 2024.
2. International conference on Genomic Medicine, KFSH, Nov. 2023.
3. 1st International Conference on Genomic Medicine, _Nov_2022
4. Certification for external reviewer from NCAAA, April 2021
5. External reviewer (AROQA) (online), Aug 2020
6. NCAAA five days (online) Oct, 2020
7. NCAAA: writing KPI (NCAAA) Sept, 2018
8. Institutional Accreditation Forum Oct, 2018
9. Workshop Forum of International Health Organizations reviewer of quality assurance in education Academic quality practitioner Sept. 2018

10. Program Accreditation
11. NCAAA learning outcome workshop on How to fill course report and course specification, Oct 2018
12. Workshop on qualitative studies May 2017
13. 3rd International Conference on Biopharmaceutics and Biologic Drugs, Aug 31-Sep 01, 2017, Philadelphia, USA.
14. Obesity Treatment and Prevention 8th Annual Meeting, Philadelphia, Pennsylvania, USA, June 22 - 24, 2016.
15. Workshop on How to write MCQs May 2016
16. International Society for Autonomic Neuroscience (ISAN) Annual Meeting, Stresa, Italy, September 26 - 29, 2015.
17. Biophysical Society 57th Annual Meeting, Philadelphia, Pennsylvania, USA, February 2 - 6, 2013.

Honors

1. PhD degree in Physiology and Pharmacology with grade **Excellent**.
2. Master's degree in Physiology and Pharmacology with grade **Very good**.
3. Bachelor's degree in Pharmacy with grade **Very good**.

Computer Skills

- Mastery of PCs (DOS, Windows)
- Microsoft Office: Microsoft Word, Microsoft Excel, Microsoft Power Point, Microsoft Outlook.
- Sigma Plot

Language Proficiency

Arabic: *Fluent*: speaking, reading and writing

English: *Fluent*: speaking, reading and writing

French: *Very good*: speaking, reading and writing

References: In addition to the references listed below, several other references are available upon request

- **Roman Shirokov, PhD, Associate Professor of Physiology and Pharmacology, Graduate School of Biomedical Sciences, Rutgers, the State University of New Jersey, Newark, New Jersey, USA**
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