



Dr. Majid Khamis Al Salmani

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Time at UoN: Since 2018

I am interested in investigating the mechanisms of ion transport across the plasma membranes of living cells. We focus on understanding the molecular defects that cause diseases such as cystic fibrosis. We employ electrophysiological, imaging and biochemical techniques to better understand the root cause of these conditions.

Academic Qualifications

Ph.D., University of Bristol, 2017

B.Sc. (Honours), The University of Glasgow, 2010

Teaching Activities

Human Physiology, BIOL300

Human Physiology Laboratory, BIOL300L

Undergraduate lab projects

Research Activities

- Research Interests

Ion channels

Channelopathies

Cystic Fibrosis

Cystic fibrosis transmembrane conductance regulator (CFTR)

Long QT syndrome

Human ether-a-go-go related gene (hERG) K⁺ channels

- Conference Attendance

New Roles for Ion Channels and Transporters in Health and Disease, UK (virtual),
02/09/2021

Electrophysiology & Imaging - a virtual Plymouth Workshop, Plymouth, UK (virtual),
01/09/2021

Physiology 2021 meeting, UK (Virtual), 12/07/2021

Young Physiologist meeting, Germany (Virtual), 01/06/2021

The First Biomedical Sciences Conference in Oman, Sultan Qaboos University, 26/02/2020

16th European Cystic Fibrosis Society Basic Science Conference, Dubrovnik (Croatia),
27/03/2019

EuroPhysiology2018, London (UK), 13/08/2018

- Publications

Article:

1. 2022 [Multiple mechanisms underlie reduced potassium conductance in the p.T1019PfsX38 variant of hERG](#), Al Salmani MK, Tavakoli R, Zaman W, Al Harrasi A. *Physiol Rep.* 2022 Jul;10(14):e15341. doi: 10.14814/phy2.15341. PMID: 35854468; PMCID: PMC9296870.
2. 2021 [Molecular epidemiology of COVID-19 in Oman: A molecular and surveillance study for the early transmission of COVID-19 in the country](#), Al-Mahruqi S, Al-Wahaibi A, Khan AL, Al-Jardani A, Asaf S, Alkindi H, Al-Kharusi S, Al-Rawahi AN, Al-Rawahi A, Al-Salmami M, Al-Shukri I, Al-Busaidi A, Al-Abri SS, Al-Harrasi A. *Int J Infect Dis.* 2021 Jan 13;104:139-149. doi: 10.1016/j.ijid.2020.12.049. Epub ahead of print. PMID: 33359061; PMCID: PMC7834852.
3. 2015 [The Cystic Fibrosis Symptom Progression Survey \(CF-SPS\) in Arabic: A Tool for Monitoring Patient's Symptoms](#), *Oman Medical Journal* 30, 17-25.

4. 2015 [A Specific Haplotype Framework Surrounds the Omani Cystic Fibrosis Transmembrane Conductance Regulator \(CFTR\) Mutation S549R](#), Jordan Journal of Biological Sciences 8, 37 - 43.

5. 2014 [Defining a mutational panel and predicting the prevalence of cystic fibrosis in Oman.](#), Sultan Qaboos Univ Med J. 14(3):e323-9.

Book Section:

1. 2020 [Molecular Physiology and Pharmacology of the Cystic Fibrosis Transmembrane Conductance Regulator](#), Al Salmani M.K., Sondo E., Balut C., Sheppard D.N., Singh A.K., Pedemonte N. (2020) Molecular Physiology and Pharmacology of the Cystic Fibrosis Transmembrane Conductance Regulator. In: Hamilton K.L., Devor D.C. (eds) Studies of Epithelial Transporters and Ion Channels. Physiology in Health and Disease. Springer, Cham. https://doi.org/10.1007/978-3-030-55454-5_16

2. 2014 [Chapter 1: Features of the CFTR Cl⁻ channel: relating structure to function](#), In ``Mutation-specific therapies in cystic fibrosis – Current status and prospects``; UNI-MED SCIENCE. Editor: Burkhard Tümmler

Community Services

06/09/2021: Members of Jury, Falling Walls Lab 2021

30/05/2021: Animal ethics committee

08/11/2018: Biological ethics committee

Membership in Professional Bodies

2021-Present: The Physiological Society