Seminar Notice
The Na+/H+ Exchanger and Its Activators: Therapeutic Strategies For Cardiac Remodeling
Tuesday June 18
HLTH 2254
2:00 pm

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Abstract: The Na+/H+ Exchanger Isoform 1 (NHE1), the only NHE isoform in the myocardium, plays a major role in regulating intracellular pH, cell volume and survival and cell differentiation. We and others have demonstrated that enhanced NHE1 activity contributes to the development of cardiac remodeling. Although NHE1 inhibition serves as an effective strategy to attenuate cardiac remodeling, a clinical trial revealed increased incidence of mortality and cerebrovascular side effects with direct NHE1 inhibition. Furthermore, the role of NHE1 activators is being investigated by our group to identify alternatives for inhibiting NHE1 activity and reversing NHE1-induced remodeling.

Bio: Dr. Mraiche received her BSc. in Pharmacology with distinction at the University of Alberta (Edmonton, Alberta, Canada). After completing her BSc in 2004, Dr. Mraiche pursued a PhD in Medical Sciences at the University of Alberta. She graduated in 2010, receiving numerous national and provincial scholarships including the Canadian Institute of Health Research Frederick Banting and Charles Best Doctoral Scholarship, Heart and Stroke Foundation Doctoral Scholarship and the Alberta Heritage Foundation for Medical Research Doctoral Scholarship.

Dr. Mraiche's academic career started in 2011 as an Assistant Professor at the College of Pharmacy (CPH), Qatar University, one of the few pharmacy programs outside of Canada to have full CCAPP accreditation. In 2014, she was appointed as the Chair of the Pharmaceutical Sciences Section and held this position until 2018. Currently, Dr. Mraiche is an Associate Professor and the Chair of the Strategic Planning Committee at the College of Pharmacy (CPH), Qatar University.

Dr. Mraiche has been involved in the design and delivery of many pharmaceutical sciences courses/modules at both the undergraduate and graduate level; with a focus on pathophysiology, pharmacology, molecular biotechnology and research skills and methodology. Dr. Mraiche has founded a pharmacology research laboratory, where she investigates the role of transporters including the Na^+/H^+ exchanger isoform 1 and Sodium Glucose Co-transporters, the Mitogen Activated Protein Kinase pathway (specifically p90 ribosomal S6 kinase) and the extracellular matrix in cardiac remodeling. Dr. Mraiche has a strong passion for teaching and identifying the effectiveness of the use of active learning tools in the classroom setting and the use of effective assessment tools to enhance scientific writing skills.

Dr. Mraiche has published over 25 peer-reviewed papers in international peer reviewed journals. She has also presented and published at international and national scientific conferences. Dr. Mraiche has received various national and international competitive grants as lead principal investigator including the National Priorities Research Program (NPRP) grants from Qatar National Research Foundation

and the First Contact Initiative grant from the European Society of Cardiology. In 2013, Dr. Fatima Mraiche was recognized amongst ten other Arab women for her scientific contributions by L'Oreal - UNESCO and received the L'Oreal -UNESCO Pan Arab Regional Fellowship.