



A SHARED VISION FOR RESEARCH

Dr Omar El Agnaf, College of Science and Engineering, Hamad bin Khalifa University, a member of Qatar Foundation (QF), is one of the world's top Alzheimer's and Parkinson's disease research scientists. He has just been given the role of lead researcher on the first project globally to be given access to spinal fluid samples obtained through a major clinical research project, with samples granted through the Michael J Fox Foundation. The research will be conducted within HBKU's College of Science and Engineering and Qatar Biomedical Research Institute (QBRI), a research entity under HBKU, and the results will be made available on an open source platform to help with future research into a cure. Speaking to The Foundation, Dr El Agnaf described the forthcoming project, his research interests, and how his joint appointment at the College of Science and Engineering and QBRI helps him to both apply and transfer knowledge.

Q What led you to join HBKU's College of Science and Engineering and, most recently, QBRI?

A Scientists are always looking for challenges; we are always looking for something new, something that will give us the opportunity to test our abilities and show our expertise. In the case of Qatar, I find Qatar National Vision 2030 to be clear and the vision that Her Highness Sheikha Moza bint Nasser, Chairperson, Qatar Foundation has for QF is fantastic, so when the opportunity to participate in that vision at HBKU was made possible, I was very interested. The beauty is that what is being built in Qatar within HBKU is something from scratch, which adheres to our own vision. Very recently I also joined QBRI, and I now hold a joint appointment at both entities within HBKU. QBRI's growth and ambition to grow local research-based capacity to tackle health challenges in Qatar has great leadership, and I strongly believe that I can make a vital contribution to QBRI's efforts. It is clear that collaboration is necessary to combine our teaching and research efforts, and it is great that there is such clear and positive synergy between the College of Science and Engineering and QBRI.

Q What are your research interests, and how do you incorporate them within your teaching?

A My main areas of research have always been within the field of neuroscience, focused mainly on neurodegenerative diseases such as Parkinson's disease. That type of research fits perfectly with the focus and aspirations of QBRI, specifically its Neurological Disorder Research Center. All our research fits perfectly with the Qatar National Research Strategy, and, of course, training the next generation is part of our vision.

Q Essentially your joint appointment requires you to be a teacher and researcher. How do you feel that both roles complement one another?

A The unique situation we have at HBKU, thanks to having national research institutes such as QBRI as part of the university, is that we can pursue our research while also directly transferring our knowledge to students. So, in addition to conducting research, I'm able to teach, train, and transfer knowledge. It's important that I can share the latest findings and articles with students, while also undertaking my own research.

Q Can you tell us the importance of global partnerships for QBRI and the College of Science and Engineering to achieve their goals?

A My vision is to discover and develop technologies from Qatar that will contribute on an international level to all patients. In that respect, we have achieved funding from global partners, who typically would not extend funding beyond the US and Europe unless they knew that a research institution was conducting research that was competitive, and unlike anything else being investigated right now. It's very important that we play a part in strong international collaborations because these days, to ensure comprehensive research you must have multiple collaborators trying to figure out the question from different angles. And, of course, it is important that such partnerships help to raise the worldwide visibility of QBRI and the College of Science and Engineering.

Q Can you describe the significance of your forthcoming Parkinson's disease clinical research project?

A The Michael J Fox Foundation is funding my new project, which is in an area of very competitive research. The foundation is dedicated to funding cutting edge research relating to Parkinson's disease, mainly focusing on translational research that leads to better diagnosis of the disease. They have been collecting biomedical samples for the past four years, with the intention of giving these samples to researchers on the basis that they can then discover biomarkers to indicate the state of the disease. We are the first research group that will have access to the samples, and I will lead the research. This is a huge research milestone for Qatar, HBKU, and for myself.

Q What do you hope will be the legacy that this project could leave?

A My hope is that developments such as the ones that will result from this new project will show my students what is possible and what they can achieve. There's no question that the research will help, but ensuring that QBRI and HBKU is recognized internationally will be the biggest success. It's so important to help highlight that researchers in Qatar are conducting very important work in fields that not only align priorities of the Qatar National Research Strategy, but also the world. For young people, especially those studying at the College of Science and Engineering, that's very important. They need to see success stories to know that Qatar can compete on a global scale, and understand the role that they can play in the future.