

QATAR BIOBANK PAVES THE WAY FOR PRECISION TREATMENT OF PREVENTABLE DISEASES

Doha, Qatar, February 7, 2017: Through its ongoing collection of genome samples and information about the health and lifestyles of local populations, Qatar Biobank is creating a path towards personalised medicine that will promote better health for the people of Qatar.

The prevalence of diseases, such as diabetes, cancer and neurological disorders, in Qatar currently pose a serious threat to the national healthcare sector and overall health of the population. With a growth in the number of individuals being diagnosed with lifethreatening yet preventable diseases worldwide, biomedical scientists are now pursuing new advanced methods to tackle diseases and optimize treatment.

In recent years, personalized medicine – an emerging branch of medical science that focuses on an individualized approach to disease prevention and treatment – has begun to take shape. This new method of care increases both the quality and efficiency of care, leading to better outcomes at lower costs.

In Qatar, the launch of Qatar Biobank in 2012, by Her Highness Sheikha Moza bint Nasser, Chairperson of the Qatar Foundation for Education, Science and Community Development (QF), has significantly advanced personalized medicine in this country, making vital health research possible for researchers in Qatar, the region and worldwide.

Since its inception, Qatar Biobank has collected genome samples from 6,000 volunteers as part of its recently completed pilot phase, including more than 5,000 Qataris, whose donations have provided a comprehensive resource for geneticists, biomedical experts and other medical researchers.

Dr. Asma Al Thani, Board Vice Chairperson of Qatar Biobank, said: "The information collected at Qatar Biobank will give scientists unique insights into the causes of various diseases and enable healthcare professionals in Qatar and the region to develop better prevention methods and personalized treatments compatible with each individual's genomic coding. Equipped with biomedical information, it will be possible to develop better prevention, diagnosis and treatment of cardiovascular disease, obesity, cancer, diabetes and a wide range of other serious illnesses for future generations of Qataris."

The pilot phase of the landmark medical initiative revealed groundbreaking insights into the health of Qatar's local population. Data indicates high overweight and obesity levels,



and a 17 percent rate of diabetes in the adults who took part in the study. These alarming figures on preventable health issues underscore the crucial need for a departure from a one-size-fits-all approach to medical treatment, and the necessity of Qatar Biobank's work.

Further explorations into the samples at Qatar Biobank will enable researchers to better understand why some people in Qatar are more predisposed to a particular preventable disease than others. Once they have determined the contributing factors that lead to an individual being more susceptible to a specific disease, they can then develop tailored treatments based on that individual's unique medical history and genetic makeup.

Because the program's results improve with every sample received, the initiative enables the local population to help each other become healthier through their participation.

"Qatar Biobank does not solely aim to recruit members of the public to take part in biomedical research, it also wishes to partner with the public and help them become 'citizen scientists' who, through their personal contributions, play an active role in the process," says Dr. Nahla Afifi, Scientific and Education Manager and Acting Director of Qatar Biobank.

"Our recruitment approach at Qatar Biobank provides a model for public involvement in biomedical research and promotes Qatar's dedication to raising awareness and engaging the community in shaping better health for themselves and future generations."

Prior to Qatar Biobank's launch, the majority of medical treatments received were developed through the study of Western populations, with a lack of large-scale research based on local and regional populations. Hence, Qatar Biobank has ushered in a new era for personalized healthcare in Qatar.

Qatar Biobank has to date achieved remarkable milestones in the field of biomedical research, and continues to edge closer to creating a healthcare system that can decrease the number of citizens affected by preventable diseases, ensure a higher recovery rate, and reduce susceptibility.

In an effort to highlight the importance and status of precision medicine in Qatar, Qatar Biobank will host the second Qatar Biobanking Congress from March 14 - 15 at the Qatar National Convention Centre (QNCC). The conference will focus on precision medicine initiatives in Qatar and around the world as part of its mission to bring personalized healthcare to the country.



Under the overarching theme, 'The Impact of Biobanking on Precision Medicine Initiatives', the two-day conference will bring together an international group of experts on biobanking, genomics and personalized medicine, and focus on using precision medicine to improve clinical outcomes.

Image Caption

Image 1: Banner for Qatar Biobank Annual Congress, to be held on March 14 - 15.

Image 2: Qatar Biobank invites people from all walks of life to register and contribute to a

healthier Qatar.

Image 3: Participants of Qatar Biobank undergo a range of tests during their visits.

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About Qatar Biobank

Qatar Biobank, a member of Qatar Foundation for Education, Science and Community Development, is a population-based platform where biological samples are provided by participants. Through the collection of samples and information on the health and lifestyles of Qatari citizens and long-term residents, Qatar Biobank aims to make vital medical research possible for scientists in Qatar, the region and the world.

Launched in 2012 in collaboration with the Ministry of Public Health, Hamad Medical Corporation and supported by expert scientists from Imperial College London, Qatar Biobank completed the two-year operational pilot phase in 2014 marked by the official inauguration of the state-of-the-art facility by Her Highness Sheikha Moza bint Nasser, Chairperson of Qatar Foundation For Education Science and Community Development.

To learn more about Qatar Biobank and how to become a contributor, please visit: www.qatarbiobank.org.qa

Twitter: @QatarBiobank

For more information:

Please contact Abed Shirzai, +974 7021 8259, abeds@bljworldwide.com