Live In Dubai? Prepare to be Sequenced

By Julianna LeMieux — February 28, 2018

The Dubai Health Authority (DHA) is taking the label "human genome project" to the next level by undertaking a project known as the Dubai 10X initiative. The ambitious project will sequence the DNA of all of the residents of Dubai - 3 million people - with the first phase focusing on UAE nationals.

In the first phase of the project, which is projected to take about 24 months and is set to start this summer, the DHA is planning to collect samples, analyze DNA, and record the results in a database.

The plans for the second and third phase are murky, but, are proposed to involve automated learning and artificial intelligence in addition to collaborations with interested pharmaceutical companies and academia to identify and design the drugs of the future.

The hope is that the information will result in identifying changes in the genes and proteins that can lead to genetic diseases, 220 of which are prevalent in the UAE. Other diseases that will be targeted are breast and prostate cancer (which top the list of cancers), diseases that cause intellectual disability as well as blindness.

It should be noted that only people with gene mutations that can cause disease will be informed through their family doctors.

The stated goals are lofty, mentioning that this precision medicine will prevent and eradicate chronic diseases and cancer, and reduce the financial burden for treating chronic diseases, in addition to slowing down the aging process.

To implement the ambitious project, DHA is mandating a number of its affiliate organizations to
work on it, for example the department of pathology and genetics, and the Dubai Cord Blood and Research Center (DCRC), among others. The DHA has also formed a committee of genetics experts to lend support.

In the press surrounding this project, there is a lot of language about putting Dubai a decade ahead of where the rest of the world is in research. Human genome sequences or not, that remains to be seen. Yes, this will be, by far, the most human genomic information available. The largest project at the moment, in Britain, rounds out at only 500,000 genomes. And, there is no doubt that the future is in personalized medicine. But, sequencing genomes has become incredibly quick, easy and cheap. Changing the face of medicine based on the information in those genomes is none of those things.

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