
GENOMIC STUDIES AT CENTER FOR LIFE SCIENCES- PAVING THE WAY FOR PERSONALIZED MEDICINE IN KAZAKHSTAN

Ainur R. Akilzhanova

Laboratory of Genomic and Personalized Medicine, Center for Life Sciences, National Laboratory Astana, Nazarbayev University, Astana, Kazakhstan

**Corresponding author: akilzhanova@nu.edu.kz*

Over the last decades there has been vast interest in and focus on the implementation of personalized genomic medicine. In the age of genomic medicine we can now do the genetic testing that will permit precise diagnostics and more accurate personal tailoring of medications to obtain the best therapeutic results. The mission of the LGPM is to promote and apply genomic science to make new biomedical discoveries in Kazakhstan, using the most modern methods of genomic sequencing, bioinformatics and validation methods. It aims to create the basis for the development of genomic personalized medicine in Kazakhstan and a qualified team of scientists, laboratory infrastructure, technical capacity and a database of genomic knowledge. Study of genetic architecture of Kazakhstani population, creation of the Kazakhsani database of genomic variants will be one of the main results of the LGPM projects for the entire medical community in Kazakhstan and around the world. This will help to understand the genetic basis of diseases

and determine the best treatments, which will effectively contribute to the future development of personalized medicine and genomic sciences. Genomic studies in cardiology dedicated to unraveling genetic predisposition to cardiac arrhythmias, cardiomyopathy, sudden cardiac death, functional genomics will facilitate personalised medicine in Kazakhstan. Hence, in this presentation we focusing on studies in cardiology to demonstrate possibility of personalized genomic medicine in Kazakhstan as a model case study and a significant portion of clinical genomic studies need to be implemented in wide healthcare.

Lessons learned from the present analysis of personalized genomic medicine could usefully inform health care professionals in other fields of medicine.

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