**BUILDING CAPACITY FOR THE STUDY OF COGNITION AND RISK FACTORS IN KAZAKHSTAN**

The goal of this project was to develop research potential for studying cognitive impairment (CI) and associated risk factors in the Republic of Kazakhstan (KZ).

Methods: The project aim was to harmonize methods used in the US with those in KZ through a hybrid training approach for applying neuropsychological tests, assessing coronary artery calcification (CAA), evaluating arterial pulse wave velocity (APWP), and determining aggregate air pollution scores.

The KZ faces an increasing population and a higher proportion of elderly individuals, leading to a higher prevalence of cardiovascular diseases and air pollution. These factors are likely to contribute to the rise of cognitive impairment and dementia in the country. By building research capacity in this area, the project sought to assess the scale of the problem and establish the groundwork for preventive measures.

It is essential to establish a strong research base in Central Asia to objectively assess CI and associated risk factors through the use of epidemiological research tools. By collecting data on CI and related risk factors in the KZ using objective methods, the project aimed to contribute new knowledge to the field of cognitive impairment development and preventive measures. This research would also aid in the development of evidence-based medical diagnostics for state health development programs in the Republic of Kazakhstan.

Currently our team under supervision of Professor Davletov K.K. is working on the application of NIH R01 grant. We are planning and expecting to determine the normative indicators of cognitive functions using neuropsychological tests in the KZ, to increase scientific potential in conducting research in the field of brain function, air pollution assessment and pre-symptomatic diagnosis of CVD in the territory of the KZ, create technical capacity in the application of artificial intelligence in the diagnosis of brain dysfunctions, and attract investment, international research professionals and the pharmaceutical industry.