## Certificate of the applicant for the academic title of Associate Professor in the specialty 16.00.00-''Veterinary Medicine''

	10.00.00 – Vetermary Medicine		
1	Surname, first name, patronymic (if any)	Zhugunisov Kuandyk Dauletbayevich	
2	Academic degree (Candidate of Science, Doctor of Science, Doctor of Philosophy (PhD), Doctor of Philosophy (PhD) or academic degree of Doctor of Philosophy (PhD), Doctor of Philosophy (PhD), Doctor of Philosophy (PhD), date of award	Candidate of Biological Sciences, November 28, 2019 (Minutes No. 9k-1/18), diploma IKD No. 002527 PhD, May 28, 2020, diploma GHD No. 0000138	
3	Academic title, date of award	No	
4	Honorary title, date of award	No	
5	Position (date and number of the appointment order)	Head of the Laboratory "Collection of Microorganisms" RIBSP, Order No. 9 dated 05.01.2020	
6	Experience in scientific, scientific and pedagogical activities	A total <b>of 15</b> years, including 3.5 <b>years</b> as the head of the laboratory	
7	Number of scientific articles after dissertation defense	Total <u>38</u> , in publications recommended by the authorized body <u>9</u> , in scientific journals included in the databases of Clarivate Analytics (Web of Science Core Collection, Clarivate Analytics) 8, Scopus <u>8</u> , innovative patents 4	
8	Number of monographs, textbooks, manuals published by one person over the past 5 years	1 monograph	
9	Persons who have defended a dissertation under his supervision and have an academic degree (Candidate of Sciences, Doctor of Science, Doctor of Philosophy (PhD),	No	

	Doctor of Philosophy (PhD), Laureates, prize-winners of	
10	republican, international, foreign competitions, exhibitions, festivals, prizes, Olympiads trained under his leadership.	No
11	Champions or prize- winners of the World Universiades, Asian Championships and Asian Games, champion or medalist of Europe, the world and the Olympic Games trained under his leadership	No
12	More information	Citation Index (H-index): Web of Science citations H-index – 4, Citation report - 11 - Web of Science Core Collection Scopus citations H-index – 6, https://www.scopus.com/authid/detail.uri?authorld=56784395500 Zhugunisov Kuandyk Dauletbayevich was born on April 26, 1983 in the village of Kzylzhar, Aral district, Kyzylorda region. From 1989 to 2000, he studied at secondary school No. 81 in the village of Karakemir, in 2002 he entered the veterinary faculty of the Kazakh National Agrarian University and in 2007 graduated with a degree in veterinary medicine. Zhugunisov Kuandyk Dauletbayevich began his career after graduating from the university in September 2007 in the laboratory "Cell Biotechnology" of the Research Institute of Biological Safety Problems as a senior laboratory assistant. In November 2007, he was transferred to the Laboratory of Biotechnology of Virus Culture, and in January 2008 he was elected to the position of Junior Researcher. In 2011, he entered the full-time master's program of KazNAU in the specialty of veterinary medicine and graduated in 2013 with the academic degree of Master of Veterinary Sciences. After graduating from the master's program, from September 2013 to January 2014, he worked at KazNAU as an assistant at the

Department of Biological Safety. In February 2014, he was hired by the Research Institute for Biological Safety Problems as a researcher at the Laboratory of Microbial Cultivation Technologies.

In 2016, he entered the full-time postgraduate course at the Institute of Biotechnology of the National Academy of Sciences of the Kyrgyz Republic in Bishkek. The topic of the PhD dissertation is devoted to the improvement of the technology for the manufacture of means for the prevention of the vaccine against bluetongue. After graduating from postgraduate studies in 2019, he successfully defended his Ph.D. thesis with the degree of Candidate of Biological Sciences in the specialty 03.01.06-Biotechnology. Then he passed the nostrification procedures of the diploma in the Republic of Kazakhstan and by the decision of the Committee for Quality Assurance in Education and Science of the Republic of Kazakhstan, he was awarded the degree of Doctor of Philosophy (PhD) in the specialty 6D070100 - Biotechnology dated May 28, 2020 (order No. 203).

With the arrival of K.D. Zhugunisov in the laboratory of "Technologies of Cultivation of Microorganisms", he was actively involved in the work on scientific research and was the responsible executor of the project "Monitoring, development of means and methods for the prevention of especially dangerous animal infections common in the regions of Central Asia and the Middle East" and the executor of the project "Development and implementation of the method of suspension cultivation and microcarriers of peste viruses of small ruminants and catarrhal sheep fevers."

From 2009 to September 2011, he was the responsible executor of the project "Development of highly effective means for the diagnosis and prevention of catarrhal fever in sheep" under the program "Development and use of genetic engineering and cell technologies in medicine, agriculture, environmental protection, food and processing industry" for 2009-2011, as well as the executor of the project "Development of parameters for the cultivation of influenza A/H5N1 virus" under the scientific and technological program "Development of a vaccine against influenza A/H5N1 for Health Care of the Republic of Kazakhstan" for 2008-2010.

From 2010 to 2011, he was the executor of the project "Study of immunobiological, pathogenic, cultural and physicochemical properties of the equine influenza pathogen" under the STP "Equine influenza: epizootological monitoring, development of specific prevention and diagnostics" for 2010-2012, as well as the executor of the project "Development of a technology for the production of a live bivalent culture vaccine against catarrhal fever in sheep" and the executor of the project "Development of manufacturing technology" Associated Vaccine against Peste des Petits Ruminants and Sheep Smallpox", which were carried out within the framework of the "Grant Financing for the Implementation of

Fundamental and Applied Scientific Research" for 2012-2014. From 2014 to 2015, he was the executor of the project "Development of comprehensive preventive measures against topical diseases of wild fauna", carried out within the framework of the Republican Scientific and Technical Program O.0649 "Monitoring and study of wild fauna in epidemically relevant regions for the carriage of dangerous pathogens and the development of comprehensive preventive measures to ensure the biological safety of the Republic of Kazakhstan" for 2013-2015.

From 2016 to 2018, he was the responsible executor of the international project "Prevalence of Brucella Species and Bluetongue Virus Serotypes among Livestock and Ruminants in the Southern Regions of Kazakhstan". The main goal of the research project is to determine the strains of bluetongue virus and Brucella species circulating in South Kazakhstan and the extent of their prevalence among farm ruminants.

Currently, K.D. Zhugunisov is the head of the following projects on the topic:

- "Bluetongue: main vectors, distribution area and genetic characteristics of the virus circulating in Kazakhstan and the introduction of specific means of prevention" for 2023-2025;
- "Development of technology for the production of an inactivated vaccine against camel pox" for 2021-2023;
- "Isolation and study of molecular, genetic and biological properties of the COVID-19 virus", within the framework of the STP on the topic: "Creation of a preventive vaccine against coronavirus COVID-19" for 2020-2022;
- "Development and implementation of means of specific prevention of especially dangerous infectious diseases to ensure the biological safety of the country" within the framework of the STP "Biological Safety of the Republic of Kazakhstan: Threat Assessment, Scientific and Technical Foundations for Their Prevention and Elimination" for 2021-2023:
- "Ensuring the safety and replenishment of the state strategic gene pool of microorganisms (cell culture bank and collection of microorganisms), its use in the development of tools for identifying and eliminating biological threats within the framework of the STP "Biological Safety of the Republic of Kazakhstan: Threat Assessment, Scientific and Technical Foundations for Their Prevention and Elimination" for 2021-2023.

The success of the implementation of the above-mentioned programs and projects can be judged by the fact that with his direct participation vaccines against especially dangerous viral diseases of farm animals were developed (inactivated sorbed bivalent vaccine against bluetongue animals, inactivated vaccine against rabies, live oral rabies vaccine for wild carnivores, live associated vaccine against peste des petits ruminants and sheeppox). live heterogeneous vaccine against lumpy skin disease). He was also actively involved in the

production of vaccines against sheeppox, camel pox, lumpy skin disease of cattle, peste des petits ruminants and contagious ecthyma of sheep and goats to ensure state orders through the Ministry of Agriculture of the Republic of Kazakhstan. To date, more than 100 million doses of these vaccines have been produced and used to ensure the veterinary safety of our country.

Moreover, with the direct participation of K.D. Zhugunisov, for the first time, a domestic inactivated vaccine against coronavirus infection COVID-19, known under the trade name "QazVac", was developed and preclinically tested. Currently, this development has been introduced into production and more than 2.5 million doses of the vaccine have been sold, and has been successfully used in the epidemiological situation with coronavirus infection.

In 2020, K.D. Zhugunisov for the first time introduced a vaccine against camel pox into production. To date, more than 200 thousand doses of the vaccine have been produced to eradicate camel pox in the Mangystau, Kyzylorda and Turkestan regions.

In 2008, K.D. Zhugunisov took a training course at the I.I. Mechnikov St. Petersburg State Medical Academy and the Research Institute of Influenza of the Russian Academy of Medical Sciences under the program of the cycle of thematic improvement "Topical Issues of Virology". In February 2011 he participated in the 1st International Symposium on Biosafety (Baltimore, USA). In February 2012, he took educational courses on academic mobility (Brno, Czech Republic).

Zhugunisov K.D. co-authored 78 scientific papers, including 54 articles in republican journals, 12 abstracts of international conferences and 10 international peer-reviewed foreign journals. In addition, he is the author of 12 national patents, co-author of 3 sets of regulatory and technical documentation for preventive drugs approved by the Ministry of Agriculture of the Republic of Kazakhstan, as well as 1 monograph.

In order to improve his knowledge and experience, K.D. Zhugunisov participated in more than 10 trainings and has certificates.

At the moment, Zhugunisov K.D. is the scientific supervisor of one doctoral student in the specialty of biotechnology of Al-Farabi Kazakh National Research University.

Since 2019, he has been a member of the editorial board of the scientific and practical journal "Biosafety and Biotechnology" of the RIBSP.

After defending his dissertation, Zhugunisov K.D. from 2019 to the present has published 37 scientific papers, of which 32 scientific articles, 8 articles published in international peer-reviewed scientific journals, 9 articles in

publications recommended by the Committee for Quality Assurance in Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan, 4 patents, 1 monograph, 3 sets of regulatory and technical documentation for preventive drugs approved by the Ministry of Agriculture of the Republic of Kazakhstan.

Zhugunisov K.D. takes an active part in the public life of the institute and the country. Since 2021, he has been a member of the Council of Young Scientists at the Moscow Institute of Higher Education of the Republic of Kazakhstan. During this time, he has shown himself to be a competent, hardworking, responsible executor and a promising researcher. In 2015, he received a letter of thanks from the akim of the Kordai district of the Zhambyl region for his successful work in the field of science and for his active participation in public life. In honor of the 25th anniversary of the Independence of the Republic of Kazakhstan, he received a diploma from the General Director of RIBSP for achievements in scientific projects, active scientific publications in domestic and foreign rating journals. In 2017, he was awarded the Certificate of Merit of the Ministry of Education and Science of the Republic of Kazakhstan for the successes achieved in the spiritual and social development of independent Kazakhstan, as well as for his contribution to the development of education. In 2018, 2020 and 2021, he received a 1st place diploma in the competition "Active Scientific Activity" among RIBSP researchers. For fruitful work in the fields of education, healthcare, social protection, as well as in the fight against the coronavirus pandemic in 2020, K.D. Zhugunisov was awarded the medal "HALYK ALGYSY" by the Decree of the President of the Republic of Kazakhstan.

Acting Director General of RIBSP A.A. Kerimbayev