

To the Accreditation Council  
of the Eurasian Center for Accreditation  
and Quality Assurance in Higher Education and Healthcare  
June 5, 2023.

**REPORT  
OF THE EXTERNAL EXPERT COMMISSION  
ON THE RESULTS OF THE EVALUATION OF THE EDUCATIONAL  
PROGRAMME  
8D05101 "BIOLOGY" OF NJSC "ASTANA MEDICAL UNIVERSITY"  
FOR COMPLIANCE WITH THE ACCREDITATION STANDARDS  
OF PHD EDUCATIONAL PROGRAMMES IN HEALTHCARE**

**external expert evaluation period: May 16-18, 2023**

**Astana, 2023**

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## LIST OF SYMBOLS AND ABBREVIATIONS

<b>Abbreviation</b>	<b>Decryption</b>
NJSC "AMU", University	Non-profit joint stock company "Astana Medical University"
GOSO RK	State compulsory educational standard of the Republic of Kazakhstan
ECAQA	Eurasian Center for Accreditation and Quality Assurance in Higher Education and Healthcare;
QED	Catalog of elective disciplines;
MH RK	Ministry of Healthcare of the Republic of Kazakhstan;
MSHE RK	Ministry of Science and Higher Education;
STP	Scientific and technical programme;
NCSTI	National Center for Scientific and Technical Information;
EP	Educational programme;
TS	Teaching staff;
R	Regulation;
RSCI	Russian Science Citation Index;
RK	The Republic of Kazakhstan;
IWS	Independent work of the student;
ELS	Electronic library systems;
LEC	local ethical commission
CSS	commodity stocks and supplies
IRN	Individual registration number
IAEA	International Atomic Energy Agency
ISO	International Organization for Standardization
IEC	international electrotechnical commission
IFMSA	International Federation of Medical Students' Associations
ASME	American Society of Mechanical Engineers
MKSAT1315	gamma-beta spectrometer
DKSAT-1123	X-ray and gamma radiation dosimeters
GANK AR	portable universal gas analyzers
TL	testing laboratory
Alpharad AR	radiometer of the alpha-spectrometric complex
Agilent 7800	inductively coupled plasma mass spectrometer
Multiwave Pro 5000	microwave reactor
United Nations Academic Impact (UNAI)	United Nations Academic Impact Initiative (UNAI).

### 1. Composition of the External Expert Commission

In accordance with ECAQA Order No. 12 dated May 05, 2023, an External Expert Commission (hereinafter referred to as the EEC) was formed to conduct an external institutional evaluation of NJSC "Astana Medical University" of educational programme 8D05101 "BIOLOGY" in the period May 16-18, 2023, as follows:

No.	Status in the EEC	Full name	Academic degree / title, position, place of work / place of study, course, specialty
1	Chairperson	YERMUKHANOVA LYUDMILA SERGEYEVNA	Candidate of Medical Sciences, Head of the Department of public health and healthcare NJSC "West-Kazakhstan medical university named after Marat Ospanov"
2	Foreign expert	D.R. ALENKA BRAČEK LALIĆ	PhD in Human Resource Management and labor relations. Managing Director of the AUTHENTIC LEADERSHIP Institute (since 2021). Vice Dean for Research Institute AUTHENTIC LEADERSHIP (2017-2021); Associate Professor in Management (2022 - 2027) Ljubljana Business School; Director of International CEEMAN Quality Accreditation (IQA) (2015-2021), Republic of Slovenia
3	Foreign expert	KODIROVA SHAKHLO SALOMOVNA	PhD, Associate Professor, Head of the Department of Traditional Medicine and Occupational Diseases of Bukhara State medical institute, the Republic of Uzbekistan
4	National academic expert	ZHAKIPBEKOV KAIRAT SAPARKHANOVICH	PhD, Associate Professor, Head of the Department of Organization, Management and Economics of Pharmacy and Clinical Pharmacy NJSC "Kazakh National Medical University named after S.D.Asfendiyarov"
5	National academic expert	DANIYAROVA ANARA BAKHITKEREEVNA	Candidate of Medical Sciences, Director of the Higher School of Public Health Al-Farabi Kazakh National University
6	National academic expert	YERZHANOVA FARIDA NURMUKHAMBETOVNA	The highest medical category in public healthcare, Master in Healthcare; Head of the Department of Science and Vocational Education

			<p>Republican State enterprise on the Right of Economic Management "Hospital of the Medical Center for Administrative Affairs of the President of the Republic of Kazakhstan", Deputy Chairperson of the State Unitary Enterprise</p> <p>for additional education under Educational and Methodological Association of the Republican Educational and Methodological Council in the direction of training "Healthcare"</p>
7	National academic expert	AKHMETOVA ALMIRA KALIKAPASSOVNA	Candidate of Medical Sciences, Associate Professor, Head of Department of dermatovenereology and cosmetology of NJSC "Semey Medical University"
8	National academic expert	NURZHANYAT TATUKHANOVA ABLAIKHANOVA	Candidate of Biological Sciences, Associate Professor, Deputy Head of the Department of Biophysics, Biomedicine and Neuroscience for Educational and Methodological Work of Al-Farabi Kazakh National University
9	National academic expert	RAKHMANOV ELTAY UTEMURATOVICH	PhD, Deputy Director of the Master's Program in Sports Medicine and Rehabilitation, School of Medicine, Nazarbayev University, organizer of educational, practical and research work of master's students in sports medicine and rehabilitation.
10	Expert - representative of practical healthcare	ZHUKUBAYEVA ALMIRA ASETKYZY	<p>Master in Pedagogy and Psychology, the highest medical category in emergency care, therapy,</p> <p>the first medical category in public healthcare.</p> <p>Head of the Department of Education, LLP "National Scientific Cancer Center"</p>
11	Representative of doctoral students	ESENBKOVA NAIRA ADILKHOVNA	Doctoral student of the second year of study in the specialty "Biology" NJSC "Eurasian National University named after L.N. Gumilev"

ECAQA Observer – Umarova Makpal Aldibekovna, Head of Accreditation and Monitoring Department.

The EEC work was carried out in accordance with the Regulations on the EEC.

The EEC report contains an evaluation of the PhD educational programme in the specialty 8D05101 "BIOLOGY" for compliance with the Accreditation Standards of Educational Programmes for PhD specialties in Healthcare and conclusions (hereinafter referred to as the Accreditation Standards), recommendations of the EEC for further improving the approaches and conditions for the implementation of the above educational programme and recommendations for the ECAQA Accreditation Council.

## 2. General part of the final report

### 2.1 Presentation of the PhD educational programme in the specialty 8D05101 "BIOLOGY"

Organization name, legal form of ownership, BIN	NJSC "Astana Medical University" BIN 080940008218
Management body	Board of Directors
Full name of the first head	Chairman of the Board - Rector Nadyrov Kamalzhan Talgatovich
Date of establishment	October 26, 1964.
Location and contact details	Astana, st. Beibitshilik 49A tel.: 539522, 270177
State license for educational activities for doctoral studies (date, number)	KZ93LAA00014823 dated March 19, 2019
Registration in Unified Higher Education Management System (date)	April 17, 2020
Information about branches, subsidiaries (if any)	no
Year of the implementation of the accredited educational programme (EP)	2020
Duration of training	3 years
The total number of graduates since the beginning of the EP implementation	The first release is planned for 2023
The number of students on the EP since the beginning of the current academic year	8
Employment rate for the previous year	--no release
Full-time teachers / part-time teachers involved in the implementation of the EP, incl. % of degree	<b><i>Institute of Radiology and Radiation Protection</i></b> The total number of teachers is 10, including full-time - 6, part-time -4. Degree, % - 100% <b><i>at the Department of Microbiology and Virology named after Sh.I. Sarbassova:</i></b>

	The total number of teachers is 3, including full-time - 2, part-time - 1.  Degree, % - 100 Category, % - 66
Website Instagram Facebook with active pages	<a href="https://amu.edu.kz/">https://amu.edu.kz/</a> <a href="https://www.instagram.com/amu_mua_official">@amu_mua_official</a> <a href="https://m.facebook.com/MeduniverAstana">https://m.facebook.com/MeduniverAstana</a>

Currently, the university has a state license of the Committee for Control in Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan dated 19.03.2019, No. KZ93LAA00014823, for an unlimited period, for the right to carry out educational activities on programmes of higher and postgraduate professional education, according to which it has the right to issue documents on state education.

The educational programme of doctoral studies in the specialty 8D05101 "Biology" was first approved at a meeting of the Academic Council of the University on August 28, 2020. Currently, 8 people are undergoing training under this educational program (4 people - 1 course, 4 people - 3 course), the first graduation will take place in 2023.

The administrative and teaching staff meets all accreditation standards. The university has highly qualified teachers, of which 6 (55%) have a doctorate degree, 3 (27%) have a candidate degree, 2 (18%) have a PhD. Among the teaching staff there are scientists who are academicians of the Kazakh Academy of Pedagogical Sciences, full members of the New York Academy of Sciences (USA), vice-president of the Asian Association for Radiation Research, consul of the International Association for Radiation Research, IAEA experts, as well as members of the Association of Radiobiologists of Kazakhstan, members of the Asian Association of Radiobiologists and holders of the order "Kurmet", badges "Densaulyk saktau isine koskan ulesi ushin" and "Densaulyk saktau isinin uzdigi".

The main achievements of NJSC "AMU" in the implementation of the educational programme of doctoral studies in the specialty 8D05101 "Biology" are due to the high level of infrastructure of NJSC "AMU", which allows to provide high quality education and research. The infrastructure of NJSC "AMU" includes classrooms equipped with interactive equipment, a scientific library with reading rooms and an electronic library room, 4 laboratories, of which 1 is an accredited laboratory equipped with modern equipment for research work.  
[https://drive.google.com/drive/folders/1dwt4i2gHf32UM7k37L\\_LKMTHnuu9MUC0](https://drive.google.com/drive/folders/1dwt4i2gHf32UM7k37L_LKMTHnuu9MUC0)

NJSC "AMU" publishes the magazine "Astana Medicinal Journals". For the successful implementation of the EP in the specialty 8D05101 "Biology" there are connections with foreign and domestic leading research centers. Also, for the implementation of doctoral studies, the following bases are used: LLP "Myrzakhan", CDL "OLIMP" and LLP "National Center for Biotechnology". Leading scientists of the university are both participants in the educational process and executors of scientific programmes, which ensures the logical unity of science and education. The created infrastructure at the university is aimed at supporting staff and doctoral students in organizing and financing scientific research, assisting in the publication of scientific results in leading domestic and foreign publications, and facilitating the transfer of technologies to the healthcare and medical education sector. Integration of scientific developments into the educational activities of the university ensures the improvement of the quality of medical education, the competitiveness of graduates and university staff in the domestic and foreign labor markets. Research activities of NJSC "AMU" are carried out in accordance with the strategic plan for the development of scientific and medical research of the university, taking into account priority areas, annual plans for research work.

The key units responsible for the implementation of EP 8D05101 "Biology" are: the research school, the Institute of Radiobiology and Radiation Protection and the Department of Microbiology and Virology named after. Sh.I. Sarbassova, a center for the development of academic activities, a library, a center for the development of research activities, a center for international cooperation and

graduate departments.

The successful implementation of EP 8D05101 "Biology" is facilitated by international relations and scientific projects of NJSC "AMU":

1. IRN AR09261243 "Development of methods for leveling negative technogenic risk factors for the environment and public health of the Syrdarya uranium ore province" (2021-2023, customer Science Committee of the Ministry of Science and Higher Education of the Republic of Kazakhstan);

2. IRN AR14871503 "Estimation of the dose load and epidemiological study of the population living near mothballed uranium mines, and the development of measures to minimize negative technogenic factors" (2022-2024, customer Science Committee of the Ministry of Science and Higher Education of the Republic of Kazakhstan);

3. IRN AR15573662 "Radiation monitoring of the territory of oil producing enterprises" (2022-2024, customer JSC Fund of Science);

4. "Joint research aimed at studying the dynamics of the environment using very small amounts of radionuclides in the environment (atmosphere and hydrosphere)" (2022-2023 Customer University of Tsukuba);

5. "Creation of the first international pooled cohort of uranium reprocessors with high statistical power to describe temporal radiation-related risk modifiers" (2018-2023. International pooled analysis of uranium reprocessors (with the participation of scientists from the USA, Canada, UK, Germany, France, Russia);

6. National project "Creation of a national training center with a reference laboratory to support and improve radiation protection in the medical use of ionizing radiation" (2022-2023, Customer IAEA);

Doctoral students perform their work within the framework of the Institute's projects and are involved in the implementation of certain project tasks.

Training of competitive specialists capable of responding to existing and new challenges to public health, generation of new knowledge and innovations, promotion of scientific and technological development of national and global healthcare.

<https://amu.edu.kz/ru/about-university/>.

Mission of the Institute: achievement of competitiveness of scientific research and development in the field of radiobiology, radiation medicine, hygiene and radioecology, aimed at solving urgent problems of medical provision of radiation safety of the population and training of highly qualified scientific and pedagogical personnel that meet international quality standards (link to the website [www.amu.kz](http://www.amu.kz), section postgraduate, additional education and clinical activities).

The mission of the educational programme is to train scientific and pedagogical personnel of a new formation, who have deep theoretical knowledge in new areas of modern biology, who are ready to use modern experimental methods of working with biological objects, who have skills in working with modern instruments, equipment and apparatus and are able to solve professional problems.

The purpose of the self-assessment is to determine the readiness of NJSC "AMU" for specialized accreditation of the educational programme of doctoral studies in the specialty 8D05101 "Biology" and the compliance of the quality of the educational programme with the ECAQA accreditation standards.

Accreditation of the educational programme of doctoral studies in the specialty 8D05101 "Biology" is carried out in accordance with the Strategic Directions for the Development of NJSC "AMU" for 2022-2026.

## **2.2 Information about previous accreditation**

The doctoral educational programme in the specialty 8D05101 "Biology" is being accredited again, since the first accreditation was carried out in 2020 and registered in the register of the Bologna



Process and Academic Mobility Center of the Ministry of Science and Higher Education of the Republic of Kazakhstan (<https://enic-kazakhstan.edu.kz/ru/accreditation/akkreditovannye-programmy-doktorantury-1>). Accreditation of the educational programme of doctoral studies in the specialty 8D05101 "Biology" is carried out in accordance with the Strategic Directions for the Development of NJSC "AMU" for 2022-2026.

### **2.3 Conclusion on the results of the reviewing the self-assessment report of the educational programme in the specialty "8D05101 "Biology" for compliance with the Accreditation Standards for PhD Educational Programmes in Healthcare and conclusions**

The self-assessment report of the educational programme 8D05101 "Biology" (hereinafter referred to as the report) is presented on 51 pages of the main text, attachments on 35 pages, copies or electronic versions of 22 documents located at the link [https://docs.google.com/document/d/1BkVBGxp8TQf\\_YUEftPM7yiZVQX5Rvst1/edit](https://docs.google.com/document/d/1BkVBGxp8TQf_YUEftPM7yiZVQX5Rvst1/edit).

The report is characterized by the completeness of answers to all 8 main accreditation standards and criteria, structuredness taking into account the recommendations of the Guidelines for the self-assessment of the educational programme provided to the educational organization by the accreditation center - ECAQA, as well as the internal unity of information. The report is accompanied by a cover letter signed by Rector Nadyrov Kamalzhan Talgatovich, which confirms the accuracy of the quantitative information and data included in the self-assessment report.

The report contains a list of 14 members of the internal self-assessment commission indicating the responsibility of each employee, information about the representative of the organization responsible for conducting the self-assessment of the educational programme - the chairman of the internal commission - Koikov V.V., Vice-Rector for Research and Strategic Development. Deputy of internal commission - Zhunussova A.B. - head of the center for accreditation and rating.

Self-assessment of the educational programme 8D05101 "Biology", carried out based on the order of the head No. 11-Н/К dated 10.01.2023. "On the self-assessment of the educational programme 8D051 "Biological and related sciences" (Biology)".

The report was reviewed by accreditation experts: N.T. Ablaykhanova - Candidate of Biological Sciences, Associate Professor of KazNU named after al-Farabi and N.A. Yessenbekova - 2nd year doctoral student in the specialty "Biology" of the NJSC ENU named after L.N. Gumilyov. Reviews highlight strengths and areas for improvement, as well as recommendations for additions and changes. In the process of feedback from the representative of the educational organization, the experts received answers to the questions that arose, and the corresponding changes and additions were made to the self-assessment report on the recommendation of the reviewers.

All standards provide the actual practice of NJSC "Astana Medical University" in the preparation of doctoral students in the specialty "8D05101" Biology "taking into account the start of admission of students in 2020, reasoned data, examples of the implementation of the tasks of the educational programme, national and international events, methodological support, confirming compliance with the requirements of accreditation standards. The description in the self-assessment report is quite complete and updated in terms of the number of doctoral students, teachers, administration, information on selection and admission, training outcomes, the results of assessing knowledge and skills, the material and technical base of the university and clinical bases, contractual obligations with partners (universities, associations, bases), financial information, plans for development and improvement, etc.

The report is submitted to ECAQA in a finalized form, with data adjusted according to the above recommendations, written in competent language, the wording for each standard is clear and understandable and described in accordance with the criteria of the standards, the tables are referenced in the text and have continuous numbering.

The quality of the self-assessment report served as the basis for the transition to the next stage of the accreditation procedure - external evaluation. The experts plan to validate the report data, compare the data from the report with the information that will be obtained during a visit to the

educational organization, i.e. verification of quantitative and qualitative indicators.

### 3. Description of external expert evaluation

External expert work within the framework of the evaluation of the educational programme 8D05101 "Biology" was organized in accordance with the Guidelines for the external evaluation of educational organizations and educational programmes of ECAQA (approved by the order of the Director General of the NU "Eurasian Center for Accreditation and Quality Assurance in Higher Education and Healthcare" No. 5 dated February 17, 2017) and according to the programme approved on May 20, 2022 by the Director General of ECAQA Sarsenbayeva S. S. and agreed with the rector K.T. Nadyrov of NJSC "Astana Medical University" (hereinafter referred to as the University). Dates of the visit to the organization: May 16 -18, 2023

The external evaluation is aimed at validating the data of the self-assessment report and verifying the indicators indicating the degree of compliance with the criteria of the accreditation standards.

The sequence of the visit within 3 days is detailed in the Visit Programme (hereinafter referred to as the programme), which is located in the documentation of the accreditation center and in Attachment 3 to this report. The programme is proof of the implementation of all planned activities within the framework of an external expert evaluation.

To obtain objective information, the EEC members used the following methods and their results:

To obtain objective information, the EEC members used the following methods and their results:

- conversation with management and administrative staff - 46 people;
- interviews with doctoral students - 8 people
- studying the website <https://amu.edu.kz/>
- interviews with 16 teachers;
- questioning of teachers and doctoral students - 27 and 9, respectively;
- review of resources in the context of the implementation of accreditation standards: 6 bases of practice/clinical training were visited, including: "Alanda" clinic (Tauelsizdik ave. 33), Municipal state enterprise on the right of economic management City polyclinic 6 (Amanat st. 3), Research Institute of radiobiology and radiation protection (Beibitshilik st. 49 a), Accredited testing laboratory of radiochemistry and radiospectrometry (st. Beibitshilik 49 a), Laboratory of Epidemiology and Medical Dosimetry Registry (Beibitshilik st. 49 a), Radiation Safety and Hygiene Laboratory (Beibitshilik st. 49 a) where training is provided on 8D05101 "Biology (1) educational programme with the participation of 11 full-time teachers;
- study of educational and methodological documents in the amount of 45 units both before the visit to the organization and during the visit to the departments (the list of documents examined is in Attachment 2).

On the part of the staff of the accredited organization, the presence of all persons indicated in the visit programme and according to the lists of interview sites and conversations was ensured (Table 1).

**Table 1 - Information on the number and category of participants in meetings, interviews, conversations with the EEC members**

<b>№</b>	<b>Job title</b>	<b>Quantity</b>
1	Meeting with vice-rectors of NJSC "AMU"	4
2	Meeting with members of the academic council, committee of educational programmes by levels of education (bachelor's, master's, PhD)	71
3	Meeting with employees of departments responsible for the admission of students/listeners	3
4	Meeting with the head and employees of departments responsible for educational programmes	9

5	Meeting with employees of departments responsible for the employment of graduates	2
6	Meeting with HR staff	2
7	Interviews with students	51
8	Interviews with teachers	46
9	Interviews with employers of graduates	25
10	Interviews with graduates	26

In the process of visiting the departments of the University, accreditation experts noted the strengths of the educational organization in relation to the accredited educational programme, including:

The University has departments that are directly related to the educational programme "8D05101-Biology", which can be noted as the best practice in education, namely, the Institute of Radiobiology and Radiation Protection and the Department of Microbiology and Virology named after Sh. I. Sarbassova. This conclusion was made, because after interviews with the employees of these units and visiting them, their material and technical base was confirmed, including a certified laboratory that allows research work with collaboration with foreign co-executors.

On the last day of the visit to the organization, a meeting of the EEC members was held following the results of the external evaluation. A final discussion of the results of the external evaluation of the educational programme, the study of documents, the results of conversations, interviews, and questionnaires was held. EEC members have begun drafting the final report of the EEC. Generalizations of the results of the external evaluation are made. The experts individually filled out the "Quality Profile and Criteria for External Evaluation of the Educational Programme 8D05101 "Biology" for Compliance with the ECAQA Accreditation Standards". The comments of the EEC members were as follows: to provide internships for doctoral students to work with foreign supervisors and conduct research within the framework of the dissertation topic, to organize training for doctoral supervisors on scientific advising, to ensure coordination and interaction of doctoral students with the management of the organization (doctoral department) on the management and evaluation of the PhD programme.

Recommendations for improving the educational programme were discussed and the chairwoman of Ph.D., Associate Professor L.S. Yermukhanova held a final open vote on recommendations for the ECAQA Accreditation Council for the accreditation period of 5 years.

Comfortable conditions were created for the work of the EEC, access to all necessary information and material resources was organized. The Commission notes the high level of the corporate culture of the University, the high degree of openness of the team in providing information to the EEC members.

At the end of the programme of the visit, the chairperson of the EEC announced recommendations to the management and employees of the educational organization based on the results of an external evaluation as part of specialized accreditation.

#### **4. Analysis for compliance with accreditation standards based on the results of an external evaluation of the PhD educational programme in the specialty 8D05101 "Biology"**

##### **Standard 1: RESEARCH ENVIRONMENT**

##### **Evidence of Compliance:**

During the implementation of the programme activities, namely, based on the results of an conversation with the first head of the organization, members of the advisory and consultative body (Academic Council and QAC for magistracy and doctoral studies), in interviews with doctoral students and teachers, compliance with the criteria of **standard 1** was established. All participants in the educational process know the mission of the organization and the main goals of the educational programme, took part in the formation of proposals for formulating the mission, while the content of

strategic documents was brought to the attention of doctoral applicants through the website, social networks, information letters to medical and scientific organizations. The strategic plan of the organization for a period of 3 years was reviewed, including such areas as training in the EP "8D05101 - Biology", which confirms the implementation of the accreditation standard and demonstrates the goals, objectives and prospects of the organization.

During a visit to the supervising department, research school, Institute of Radiobiology and Radiation Protection (laboratory of radiation safety and hygiene, laboratory of radiation epidemiology and medical dosimetric registry, testing laboratory of radiochemistry and radiospectrometry, which is an accredited laboratory in accordance with the requirements of GOST ISO/IEC 17025-2019 and has an accreditation certificate No. KZ T.01.1431 dated October 9, 2020 [https://drive.google.com/drive/folders/1dwt4i2gHf32UM7k37L\\_LKMTHnuu9MUC0](https://drive.google.com/drive/folders/1dwt4i2gHf32UM7k37L_LKMTHnuu9MUC0)), which operates based on the following licenses: the Nuclear Energy Committee of the Ministry of Industry and Trade of the Republic of Kazakhstan for the lesson "Provision of services in the field of the use of nuclear energy" No. 20004992 dated 16.03.2020) as well as department of Microbiology and Virusology named after Sh.I. Sarbassova, a center for the development of academic activities, a library, a center for the development of research activities, a center for international cooperation and graduate departments, we conducted a survey of resources, their compliance with training programmes, accessibility for teachers and doctoral students, how modern this equipment is and meets the needs of students and practical healthcare/business/production. The experts obtained evidence of compliance with standard 1, as well as validation of the information in the self-assessment report. At the same time, non-compliance with the requirement by the Committee of the Ministry of Science and Higher Education of the Republic of Kazakhstan was found that domestic scientific supervisors, when appointed, must have, in addition to a scientific degree, an Hirsch index greater than one and articles included in the Scopus and Web science database. For example, the scientific adviser, MD, prof. Dusmagambetov M.U., doctoral student Mussabay K.N. and Ph.D., Bayduisenova A.U., doctoral student of the 1st year of study Kozhakhmetova G.K. After the remarks made, the supervisors were replaced.

**Conclusions of the EEC by the criteria.** Compliant with 6 standards: fully – 4/1, partially – 0/1, not compliant – 0.

**Standard 1: implemented**

**Recommendations for improvement identified during the external visit:**

1. To provide internships for doctoral students to work with foreign leaders and conduct research within the framework of the dissertation topic.

## **Standard 2: OUTCOMES**

### **Evidence of Compliance:**

From interviews with doctoral students, it was found that before the start of classes, teachers inform about the mission, work plans of the educational organization, they say where to get the necessary information about the educational programme, teachers, and training facilities. This indicates compliance with **standard 2** in terms of adapting training to the needs of doctoral students.

The documents of the organization contain work programmes, teaching materials, where the goal is defined, the integration of practical and theoretical components, independent work are taken into account. Compliance with the State Compulsory Educational Standard and standard requirements was established. Interviews with doctoral students showed that the training session is carried out in full, after analyzing the questionnaires of doctoral students, the experts received convincing data that the training is carried out according to the plan, before the start of the lesson, doctoral students answer tests, receive feedback from a teacher or scientific consultant, and have the opportunity to improve their skills in conducting their research on the topic of dissertation work. The organization ensures compliance with ethical aspects in the implementation of the educational programme, as the experts

have studied the codes of ethics ([PL-MU A-57-20 "REGULATION ON THE ETHICS COMMITTEE" \(approved by the decision of the Board No. 4 dated 02.02.2020\)](#))

[K-MUA-02-19 "Code of Ethics for Students of NJSC "AMU" \(approved by the decision of the Board No. 28 dated December 26, 2019\)](#)

[K-MUA-01-20 "Code of Academic Integrity" \(approved by the decision of the Board No. 29 dated 08.10.2020\).](#)

[PL-MU A-57-22 "On the local commission on bioethics \(approved by the decision of the Board No. 12 dated May 17, 2022\).](#) and during the interview, the doctoral students responded that they were informed about the content of this document.

The scientific component in the education of doctoral students was studied, while the following evidence was obtained, so during the doctoral studies, applicants are given a huge opportunity to participate in various formats of scientific events to present scientific results and exchange experiences in the field of biological and related sciences. For example, a 3-year doctoral student Mussabay K.N. published a review article jointly with domestic scientists and researchers from Armenia, Georgia and Italy on the topic "Digestive System and Severe Acute Respiratory Syndrome Coronavirus 2: New Era of Microbiome Study and Gastrointestinal Tract Manifestations during the Coronavirus Disease-19 Pandemic" in the peer-reviewed international journal Open Access Macedonian Journal of Medical Sciences in 2021 (CiteScore 2021 – 1.3, procentile – 49) <https://doi.org/10.3889/oamjms.2021.7470>

In addition, doctoral students studying in the educational programme 8D05101 "Biology" actively participate in scientific and practical conferences, congresses, both regional and international levels. In 2021, doctoral student of the Department of Microbiology and Virology named after Sh.I. Sarbassova Mussabay Karakoz participated in the international scientific and practical conference of young scientists and students, dedicated to the 30th anniversary of the Independence of the Republic of Kazakhstan, organized by NJSC "Astana Medical University" and took the honorable 3rd place (<https://amu.edu.kz/ru/infocenter/news/4911/?changeLang=true>). In addition, a student in this EP "Biology" has experience in implementing the results of dissertation research in practical healthcare (doctoral students Ganina A.M., Kuanyshkaliyeva A.K., Mussabay K.N., Pirmanova A.G.). As a result of a conversation with doctoral students, the experts saw that the organization contributes to the development of scientific, practical and pedagogical competencies of future PhD doctors, including in alternative organizations (Laboratory of human microbiome and longevity, Nazarbayev University, Astana, National Center for Biotechnology, Astana, Unitary Enterprise based on the right of economic management "City Center for Phthisiopulmonology", Astana, NJSC "Kazakh Agrotechnical University named after S. Seyfullin", Astana, National Scientific Medical Center, Astana, "ARLAN BIOTECH" LLP, Astana, University of Washington, Seattle, USA)

At the same time, doctoral students form and deepen their theoretical knowledge gained in the magistracy, develop communication skills, in particular, actively participate in scientific and practical conferences, congresses, both regional and international levels.

The educational programme "8D05101 - Biology" includes work experience internship in accordance with the principles of good research practice, research (experimental) work of a doctoral student, including the completion of a doctoral dissertation. For the implementation of the EP "8D05101 - Biology" the University has sufficient material and technical base. The structure, composition and quantity of technical resources of laboratories is determined by the obligatory provision of a high-quality educational process and all other processes and statutory activities of the University in accordance with the state compulsory standards of specialties, syllabuses, educational and methodological and research work plans and other documentation. In the educational process, educational laboratories, specialized audiences and classrooms, computer and multimedia classes equipped with technical teaching aids are used. Upon completion of the doctoral programme in the educational programme 8D05101 "Biology", obtaining advanced knowledge in the field of biology and related sciences, as well as using the capabilities of the laboratory of Nazarbayev University, the graduate has the opportunity to find a job as a university teacher, researcher at research institutes, research and production institutions and the head of a scientific group of research, industrial,

administrative, expert institutions, etc., since all the competencies of the educational programme allow the graduate to make a critical analysis, evaluation and decision of complex problems, the ability to transfer new technologies and synthesize new ideas. Research practice in the existing scientific base (accredited testing laboratory), mastering modern methods, participation in the implementation of the scientific programme provides the formation of research competence of graduates of the PhD educational programme, which will allow them to become highly qualified scientists/specialists capable of independently conducting scientific research. During the training of doctoral students, the teachers of the Institute conduct semi-annual and annual certification.

An analysis of educational activities showed that the scientific basis and all the achievements of science in advising disciplines were taken into account, additions were made to the bibliography of methodological materials, and scientific supervisors use them when working with doctoral students.

The training outcomes are an integral part of the educational programme 8D05101 "Biology". The competencies of the graduate and the training outcomes of the educational programme are completely devoted to general and professional competencies, which allows you to analyze the sufficiency and correctness of the disciplines to achieve these competencies and presents the content of these disciplines [https://drive.google.com/drive/folders/1TS0UEE63eKVsi90C\\_gLeVzcYgWHgaBW2](https://drive.google.com/drive/folders/1TS0UEE63eKVsi90C_gLeVzcYgWHgaBW2). Persons who have mastered the doctoral educational programme in full and defended a doctoral dissertation, with a positive decision of the Dissertation Council and the Committee for Quality Assurance in Education and Science of the Ministry of Science and Higher Education of the Republic of Kazakhstan, are awarded the degree of Doctor of Philosophy (PhD) in the educational programme 8D05101.

No shortcomings in the implementation of this section of the accreditation standard were found, both in the process of analyzing the self-assessment report of the educational programme, and when visiting the educational organization.

**Conclusions of the EEC by the criteria.** Compliant with 3 standards: fully -5, partially - 0, not compliant - 0.

**Standard 2: implemented**

**Recommendations for improvement identified during the external visit: no**

### **Standard 3: ADMISSION POLICY AND CRITERIA**

#### **Evidence of Compliance:**

The admission policy and the selection process for doctoral students of NJSC "AMU" are regulated in accordance with:

- Law of the Republic of Kazakhstan "On Education";
- Law of the Republic of Kazakhstan "On Science";
- Order of the Ministry of Education and Science of the Republic of Kazakhstan dated October 31, 2018 No. 600 "On Approval of the Standard Rules for Admission to Education in Educational Organizations Implementing Educational Programmes of Higher and Postgraduate Education";
- The current legislation of the Republic of Kazakhstan and local acts of the University.

NJSC "AMU" approved and implemented the rules for admission to doctoral studies, which spell out the requirements, the procedure for ensuring the process of transparent selection of doctoral students, which are posted on the university website in the section "Doctoral studies for applicants" <https://amu.edu.kz/upload/iblock/066/066616bd8914bf8a29e305b196f8907d.pdf>

Information on admission to doctoral studies in the "Biology" EP

- 1) In 2020, the number of accepted - 4
- 2) In 2023 (winter period) the number of accepted - 4

When selecting applicants for a doctoral programme, NJSC "AMU" has the opportunity to take into account the potential of applicants during the applicants' entrance examinations for doctoral studies.

According to the Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 31, 2018 No. 600: "On Approval of the Standard Rules for Admission to Education in Educational Organizations Implementing Educational Programmes of Higher and Postgraduate Education", upon admission to doctoral studies, applicants take an entrance exam to doctoral studies in a computer format, which consists of the following blocks:

- 1) a conversation with the applicant, conducted by the examination committee of the OHPE (organizations of higher and postgraduate education);
- 2) writing an essay;
- 3) a test to determine the readiness to study in doctoral studies (hereinafter referred to as TDR);
- 4) answers to examination questions on the profile of the group of the educational programme.
- 5) The final grade is a set of points obtained by summing up the results of assessing essays, TDR, answering exam questions on the profile of the group of the educational programme and conversation.

The scientific potential of the applicant is assessed during the conversation, which is conducted by the examination committee of NJSC "AMU", consisting of teaching staff implementing the EP "8D05101 - Biology", as well as essay topics, questions on the educational programme "Biology" two months before the start of the entrance exams are approved by the academic council of NJSC "AMU", the results of which are evaluated by the examination committee of NJSC "AMU", by assigning points in the information system of the national testing center. NJSC "AMU" is the main stakeholder in the training of specialists in the scientific and pedagogical profile. Recruitment of doctoral students for the "Biology" EP depends on the allocated state order for the upcoming academic year. The number of applicants is determined by the full-time employees of theoretical and clinical departments, their degrees, age and work experience. Educational resources satisfy the development of the doctoral programme, all disciplines of credits of the main and elective components are performed by teachers with academic degrees on the basis of the university. Educational resources are updated when normative and regulatory documents (state compulsory educational standards, Typical curriculum) are changed, when catalogs of elective disciplines are updated, as well as when innovative technologies are introduced into the educational process.

Doctoral students maintain a portfolio that allows you to have an idea of the levels of competencies achieved, in addition to official means of control, thus the doctoral student of the educational programme "8D05101- Biology" participated in conferences organized by Nazarbayev University, Astana Medical University, the Institute of Radiation Biology and Radiation Protection and has publications in international peer-reviewed journals and in scientific journals included in the list of publications recommended by the Committee for Quality Assurance in Science and Higher Education of the Ministry of Science and Higher Education of the Republic of Kazakhstan for the publication of the main results of scientific activities.

Prior to the start of work experience internship, doctoral students are instructed in radiation safety and protection when working with sources of ionizing radiation, they are given individual thermoluminescent dosimeters to assess the quarterly dose of exposure from man-made radiation sources. In the laboratory, under the guidance of a teacher, they will get acquainted with the principles of working with radioactive substances, a comprehensive work is being carried out to master the methodology for measuring radiation parameters. During the training of doctoral students, the teachers of the Institute conduct semi-annual and annual certification, which was reflected in the submitted documents.

*Conclusions of the EEC by the criteria* compliant with 6 standards: fully - 3/3.

*Standard 3: implemented*

*Recommendations for improvement identified during the external visit: no*

#### **Standard 4: PhD PROGRAMME**

##### **Evidence of Compliance:**

The documents of the organization contain work programmes, teaching materials, where the goal is defined, the integration of practical and theoretical components, independent work are taken into account. The PhD educational programme "8D05101 - Biology" is built based on the requirements of the State Compulsory Educational Standard of the Ministry of Science and Higher Education, order No. 2 dated July 2022. The doctoral student in the EP "8D05101 - Biology" is competent in the field of research methodology, scientific and scientific and pedagogical activities in educational institutions, in modern educational technologies, in the implementation of scientific projects and research in the professional field, in analytical and critical thinking skills, in ways to ensure constant updating of knowledge, expanding professional skills and abilities.

The Institute of Radiobiology and Radiation Protection of the NJSC "AMU" in the EP develops its own professional qualifications, which students receive throughout the entire educational process. Students receive information about the qualifications corresponding to the EP on the website, as well as at the department through an advisor and other information channels.

After admission, the doctoral student approves the topic of the dissertation within 2 months. When choosing a dissertation topic, a preliminary discussion of the proposed topic takes place at a meeting of the department at the place of dissertation work and the corresponding inter-departmental meeting with recommendations for approving the topic at the Academic Council of the University. At these stages, the scientific supervision of doctoral students is also discussed and approved, which is carried out by an advisory commission in the amount of at least 2 people appointed from among doctors and candidates of sciences, doctors of philosophy (PhD), actively working in this field of knowledge and having experience in scientific supervision, one of which is a leading scientist from a foreign university.

A doctoral student is trained based on an individual work plan, which is compiled under the guidance of a supervisor. An individual work plan for a doctoral student is drawn up for the entire period of study.

The number of doctoral students assigned to the supervisor should not exceed the norm approved by the internal regulatory document of the University [https://drive.google.com/drive/folders/1fPZWkPz4I5WBP1hUd6\\_1HaOReeZEfgcP](https://drive.google.com/drive/folders/1fPZWkPz4I5WBP1hUd6_1HaOReeZEfgcP)

The study load includes all the doctoral student's educational activities - lectures, seminars, group classes, practical and laboratory work, scientific internship, research work, writing and defending a doctoral dissertation, independent work, including under the guidance of a teacher.

The scientific training of students under the doctoral programme is purely individual and is based on the implementation of original scientific research. The choice of the topic of each research is carried out according to the scientific direction of the department and the research base.

In NJSC "AMU" ethical examination of research works is carried out in accordance with Article 180 of the Code of the Republic of Kazakhstan "On the health of the people and the healthcare system", according to which the ethical assessment of research materials is a prerequisite for conducting clinical trials of pharmacological and medicinal products, medical devices and medical equipment.

Ethical examination of research at the university is carried out by the Ethics Committee, which is an advisory body that protects the rights, safety and well-being of subjects and researchers, as well as the ethical and moral and legal assessment of scientific research materials, the objects of which are humans or animals. The ethics committee is guided in its activities by the ethical principles of the Declaration of Helsinki of the World Medical Association, reflected in the State Standard for Good Clinical Practice and regulatory legal acts.

Also, training in medical ethics is prescribed in the relevant disciplines in standard and working curricula. Thus, the discipline "Research Ethics" considers the issues of ethical and legal support for biomedical research with human participation, documents regulating the ethical standards for conducting biomedical research with human participation, considers the creation and operation of Ethics Committees, the concept of informed consent and insurance coverage of participants in biomedical research.



The completion of a doctoral dissertation requires a critical analysis of modern literary sources, a sufficiently deep knowledge of foreign languages, and a good command of access methods to modern electronic library databases. When approving a topic, supervisors take into account the doctoral student's ability to systematically understand the field of healthcare in the area of his/her qualification, possession of the skills and research methods used in this area, because these skills are essential for critical analysis, evaluation and synthesis of new ideas that are needed to create new healthcare technologies. When performing a scientific educational programme, doctoral students participate in international conferences, which creates an opportunity to discuss ongoing research and demonstrates the ability of doctoral students to communicate on topics in their field of competence with a wide scientific community.

Doctoral students formalize the results of their innovative activities through copyright certificates and patents, and also publish the results of their research in scientific, scientific-analytical and scientific-practical publications. The duration of doctoral studies is three years. The main criterion for the completion of the educational process in doctoral studies is the mastering by a doctoral student of at least 180 credits. A doctoral student who has mastered the full theoretical course of study of the educational programme of doctoral studies, but who has not defended a doctoral dissertation within the prescribed period, may be extended the period of study in doctoral studies on a paid basis.

Doctoral students of the educational programme 8D05101 "Biology" do not fulfill the clinical load, they are not loaded with additional work. The Ministry of Science and Higher Education of the Republic of Kazakhstan has prepared amendments to the Rules for the appointment, payment and size of state scholarships for students in educational organizations. So, doctoral students studying under the state educational order from September 1, 2022 are paid a state scholarship of 195,000 tenge instead of the previously established 172,500 tenge. Increasing the level of scholarship reduces the risk of finding additional sources of income. Also, from September 1, 2023, the scholarship for doctoral students will be increased by 15%.

At the University, the achievement of the goals of the training outcomes is carried out through the development and assessment of general and special competencies of students:

- knowledge and understanding in the field of study (teaching and assessment methods used: reference signs and signals, mind maps, E-learning - videos, video lectures, electronic textbooks, various multimedia content on the LMS of the University, blended learning models, etc.);
- practical skills (teaching and assessment methods used: project methodology, brainstorming and other interactive teaching methods);
- communication skills (teaching and assessment methods used: reflection, information and communication technologies, etc.);
- research skills (teaching and assessment methods used: analysis from the standpoint of evidence-based medicine, research management); general education (development of language competencies) - all technologies;
- economic and organizational-management (teaching and assessment methods used: analysis through brainstorming, E-learning, updating
- feedback on the techniques and methods used to evaluate and correct pedagogical methods;
- self-education, willingness to learn throughout life.

The result of the training was included in the Unified Higher Education Management System, the entire EP received the approval of an independent expert. Learning outcomes are documented in the educational programme.

1. Demonstrates a systematic understanding of the field of radiobiology in the field of own qualification, possesses the skills and research methods used in this field;
2. Uses specialized knowledge to critically analyze, evaluate and synthesize new complex ideas
3. Able to conduct independent research and work for a scientific result, shows a steady interest in the development of new ideas and projects leading to the emergence of new technologies
4. Participates orally or in writing in professional discussions, publishes research results in international academic publications

5. Generates ideas, predicts the results of innovation, contributes to the advancement in the academic and professional context of the technological, social or cultural development of a society based on knowledge

6. Demonstrates leadership qualities, innovativeness and independence in work and study activities in new contexts that require solving problems connected by many interrelated factors

7. Able to communicate on topics in their area of competence with equals in status, with the broad scientific community and society

8. Demonstrates self-reflection skills, commitment to lifelong learning, and experience for teaching at the undergraduate and postgraduate levels

The educational programme 8D05101 "Biology" makes it possible to train qualified researchers, since it provides for the formation of specialists in the field of radiobiology, radiation ecology, and radiation safety.

Upon completion of the doctoral programme in the educational programme 8D05101 "Biology", obtaining advanced knowledge in the field of biology and related sciences, as well as using the capabilities of the laboratory of Nazarbayev University, our graduate has the opportunity to find a job as a university teacher, researcher at research institutes, research and production institutions and the head of a scientific group of research, industrial, administrative, expert institutions, etc., since all the competencies of the educational programme allow the graduate to make critical analysis, evaluation and solving complex problems, the ability to transfer new technologies and synthesize new ideas.

The training outcomes are an integral part of the educational programme 8D05101 "Biology". Section 2. "Competencies of the graduate and learning outcomes" of the educational programme is completely devoted to general and professional competencies. The table of the educational programme contains a matrix that allows you to analyze the sufficiency and correctness of the compiled disciplines to achieve the specified competencies and presents the content of these disciplines [https://drive.google.com/drive/folders/1TS0UEE63eKVsi90C\\_gLeVzcYgWHgaBW2](https://drive.google.com/drive/folders/1TS0UEE63eKVsi90C_gLeVzcYgWHgaBW2)

Competencies, being an integral part of the educational programme, are approved at a meeting of the Institute of Radiobiology and Radiation Protection, and later on at the Academic Council of the university. The educational programme that ensures the implementation of the educational trajectories of students is being developed by the Institute of Radiation Biology. At the preparatory stage, the teaching staff and the director of the Institute study all the above regulatory documents to identify the basic requirements for the content of the module disciplines and competencies being formed, taking into account the Dublin descriptors, identify interdisciplinary correspondences for the formation of the module and competencies, study professional and/or industry standards, the labor market and the requirements of employers for future specialists.

The curriculum of the educational programme "8D05101-Biology" provides for the assimilation of compulsory and university components. A catalog of elective disciplines was presented in the disciplines of theoretical education, which reflected the goals, objectives and content of these courses. In order to validate the implementation of the data of the self-assessment report and obtain evidence about the quality of the programmes, interviews were conducted with doctoral students of the accredited specialty. The experts asked questions about satisfaction with training, enough time to collect material for a thesis, work with documentation, satisfaction with teaching methods and teachers' qualifications, social and moral support for doctoral students in need, participation in scientific work, availability of resources from international databases of professional literature. The skills of using these resources were assessed during a visit to an educational institution.

In general, doctoral students are satisfied with the training and scientific guidance, assessment methods, and purposefully entered this organization, as they believe that the educational organization has good resources, image and international relations, at the same time, doctoral students' wishes include an increase in the duration of foreign business trips.

Doctoral students showed their commitment to the educational organization, were active in answering questions from external experts, demonstrated their judgments on the organization of training and providing conditions for performing a dissertation research, submitting a dissertation for

defense, assessing their skills, advisory support, the opportunity to participate in educational organization events, financing, demonstrated English proficiency when answering questions from a foreign expert Dr. Alenka Bracek Lalic. The experts studied the documents of doctoral students (portfolio, assessment results, survey results, list of published articles).

Interviews with potential employers of university graduates were conducted online (offline or online) and included such questions as: knowledge of the mission of the university, participation in the development of the mission and proposals for the strategic plan, participation in the work of advisory bodies, satisfaction with the basic knowledge and skills of doctoral students, providing the supervising department located in the clinic and doctoral students with the necessary resources for scientific and practical training and the formation of critical and research thinking, problems of interaction with departments, 100% employment of graduates upon completion of doctoral studies, etc.

**Conclusions of the EEC by the criteria.** Compliant with 10 standards: fully - 8/2.

**Standard 4: implemented**

**Recommendations for improvement identified during the external visit: no**

## **Standard 5: SCIENTIFIC LEADERSHIP**

### **Evidence of Compliance:**

Approaches in the scientific leadership of doctoral students demonstrate the following: NJSC "Astana Medical University" has high requirements for the scientific supervisor. According to the established Time Standards for calculating the volume of academic work performed by the teaching staff for the 2022-2023 academic year, the University has established the following maximum number of master students and doctoral students assigned to 1 supervisor (no more than 2 doctoral students and 3 master students at the same time).

[https://drive.google.com/drive/folders/1fPZWkPz4I5WBP1hUd6\\_IHaOReeZEfgcP](https://drive.google.com/drive/folders/1fPZWkPz4I5WBP1hUd6_IHaOReeZEfgcP)

The requirements for a scientific supervisor and a foreign consultant are specified in the Regulations on doctoral studies. [https://drive.google.com/drive/folders/1fPZWkPz4I5WBP1hUd6\\_IHaOReeZEfgcP](https://drive.google.com/drive/folders/1fPZWkPz4I5WBP1hUd6_IHaOReeZEfgcP). [https://drive.google.com/drive/folders/1fPZWkPz4I5WBP1hUd6\\_IHaOReeZEfgcP](https://drive.google.com/drive/folders/1fPZWkPz4I5WBP1hUd6_IHaOReeZEfgcP) scientific supervisor must:

- own modern interactive teaching methods and technologies, use them in the educational process;

- be an employee of the University;

- have a doctorate or a candidate of science degree and at least 3 publications in the profile of the PhD doctoral programme, a doctor in the profile in international rating journals, including leading Russian journals, with a high impact factor over the past 10 years;

- have experience in scientific leadership of candidate or doctoral dissertations;

- have international scientific connections and the consent of a foreign consultant to carry out joint scientific leadership of PhD doctoral students, a doctor in the profile.

Responsibilities:

- assist the doctoral student in determining the topic and plan of the dissertation research;

- together with the doctoral student, develop an individual work plan for the doctoral candidate, effectively organize work on the implementation of the IWP by the doctoral candidate;

- together with the doctoral student, develop a programme of research practice, recommend the base for practice and scientific internships, systematically evaluate the performance of the research work of the doctoral candidate;

- to assist in the preparation and publication of research results in scientific journals, in the participation of doctoral students in international conferences in order to present research results;

- in due time, in accordance with internal regulatory legal acts and the Republic of Kazakhstan, together with the doctoral student, submit a work for public defense, attend the public defense of the

doctoral dissertation of the doctoral candidate;

- observe ethical norms and rules of interpersonal relations in official communication with colleagues and doctoral students

- be one of the leading scientists in the scientific field and be a full-time employee of the university.

- have an academic degree of Doctor or Candidate of Science, Doctor of Philosophy (PhD) and at least 5 publications in the field of doctoral studies in top international journals, including leading Russian journals, with a non-zero impact factor over the past 10 years. The first issue is planned for 2023 and therefore no documents on the appeal procedure were submitted.

During a visit to the organization and during an interview with employees of K.A. Raisov (Dean of the Research School), M.M. Bakhtin (Director of the IRRZ), M.U. Dusmagambetov (Head of the Department of Microbiology and Virology named after Sarbassova), the commission made sure that there is a documentation system that is transparent and accessible to all teachers/scientific supervisors and staff, and includes documents such as annual operational plans, annual reports, regulations of departments, contracts with teachers and educational and methodological documentation (work programme, working curricula, syllabuses, grade record books), evaluation tools (checklists, statements), evidences, certificates and verifications. A review of the website showed that its pages contain documents necessary for doctoral students <https://amu.edu.kz/ru/about-university/> and there is information on the organization of the educational process in doctoral studies, which is regularly updated. This information was obtained during an interview with K.A. Raisov (Dean of the Research School).

The first scientific consultant of the doctoral student, Musabay K.N. on the topic of her doctoral dissertation "Multimix studies of the relationship between the intestinal microbiota and the immune system in severe forms of viral infections" is Doctor of Medical Sciences, Professor Dusmagambetov Marat Uteuovich, who has many years of scientific and pedagogical experience in the field of microbiology and virology. Dusmagambetov M.U. is an author of more than 220 scientific publications. Published an article on "Digestive System and Severe Acute Respiratory Syndrome Coronavirus 2: New Era of Microbiome Study and Gastrointestinal Tract Manifestations during the Coronavirus Disease-19 Pandemic" in the peer-reviewed international journal Open Access Macedonian Journal of Medical Sciences in 2021 (CiteScore 2021 - 1.3, percentile - 49) (<https://doi.org/10.3889/oamjms.2021.7470>). For 2023, two articles are expected to appear in journals with high percentiles. Has 1 patent for invention. Author of 15 teaching aids. Every year he takes an active part in the work of various international and republican conferences with the publication of scientific materials and presentations.

The second scientific consultant is Doctor of Medical Sciences, Professor Kushugulova Almagul Rakhimberliyevna - Head of the Human Microbiome and Longevity Laboratory, Center for Life Science, PI "National Laboratory Astana", Nazarbayev University. Kushugulova A.R. is a well-known scientist in the field of study of the intestinal microbiome. She has a huge scientific and pedagogical experience. The scientific activity of the professor is reflected in more than 50 publications with more than 900 citations. H-index according to the Scopus database - 9.

Department of Microbiology and Virology named after Sh.I. Sarbassova, in addition to Nazarbayev University, has an integral relationship with local research centers, such as "the National Center for Biotechnology" LLP, the National Scientific Medical Center, Unitary Enterprise based on the right of Economic Management "City Center for Phthisiopulmonology", etc. In addition, research relations with foreign organizations are being strengthened, one of which is the University of Washington, Seattle, USA, the Department of Microbiology of the University of Washington represented by Professor Evgeni Sokurenko (<https://microbiology.washington.edu/people/faculty/evgeni-v-sokurenko>).

At the meeting of the Institute, the dissertation topics and scientific supervisors of doctoral students were discussed and approved.

Doctoral student Pirmanova A.G. the topic of the dissertation "Assessment of the impact of

technogenic factors on animals living in the uranium mining area using the in-situ leaching method” - scientific supervisor, Doctor of Biological Sciences, Professor Bakhtin M.M., scientific consultant, Doctor of Biological Sciences, Professor Altayeva N.Z., foreign consultant PhD Masahide Nishibori, Hiroshima University;

Doctoral student Kuanyshkaliyeva A.K. - "Assessment of the migration routes of radionuclides along the "water-soil-plant" chain in the uranium mining regions of South Kazakhstan" - scientific supervisor, Doctor of Biological Sciences, Professor Bakhtin M.M., scientific consultant, Doctor of Biological Sciences, Professor Imasheva B.S., foreign consultant PhD Masaharu Hoshi, Hiroshima University;

Doctoral student Ganina A.M. - "Development of preventive measures for radiation safety of the population living in the area of potential exposure to radiation emissions from nuclear power plants" scientific supervisor, Doctor of Biological Sciences, Professor Bakhtin M.M., PhD scientific consultant Kashkinbayev Y.T., foreign consultant PhD Olivier Laurent (France).

Professor Bakhtin M.M. is an author of more than 200 scientific articles, 20 of which are in peer-reviewed journals included in the Scopus and WoS database. Hirsch index - 4. Author of more than 5 methodological recommendations, and more than 6 copyright certificates for inventions. Every year he takes an active part in the work of various international and republican conferences with the publication of scientific materials and presentations. Professor M.M. Bakhtin is a member of the Asian Association of Radiobiologists and the Association of Radiobiologists of Kazakhstan.

The pool formation of scientific supervisors is carried out in accordance with the requirements. Supervisors and consultants comply with the requirements of the "Regulations on doctoral studies" of NJSC "AMU"

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[https://drive.google.com/drive/folders/1fPZWkPz4I5WBP1hUd6\\_IHaOReeZEfgcP](https://drive.google.com/drive/folders/1fPZWkPz4I5WBP1hUd6_IHaOReeZEfgcP).

An interview with 9 teachers, including 11 full-time teachers, showed that there are both successes and problems in the management of education, depending on the specific base (admission of doctoral students to equipment and office equipment, for collection of material for a dissertation, time for maintaining medical records, independent work. All scientific supervisors sign an acquaintance sheet with the document "Regulations on doctoral studies", which spells out the duties of supervisors. The policy for the implementation of the doctoral programme has no specific requirements and all the rules for the educational process are the same for all levels of education, are reflected in the Academic Policy of the University

<https://amu.edu.kz/upload/iblock/211/21105fcacd058206105e152b3873b613.pdf>

The university provides teaching staff with equal opportunities for continuous professional development in their careers, which are consistent with and contribute to the achievement of the mission and goals of the university. The teaching staff can take advantage of these opportunities and take the initiative to ensure their continued competence and growth as teachers, scientists and professionals.

The experts received answers about the teacher training programme. University teachers have the opportunity for continuous gradual improvement in a foreign language, where the providers of training courses were such organizations as "Best way Language center", "International business school Astana", "ENGLISH TOP. English Language Coursersby Professional Associates, "Inter Global" and "Caspian Training Group".

During the reporting period, the center for the transfer of educational and distance technologies for teaching staff organized the following seminars to improve the skills of conducting scientific research and writing articles in peer-reviewed journals with an impact factor:

- 1) Training "Data visualization using the Power BI service", 07-09.10.2020, in the amount of 18 hours, 10 teaching staff were trained (2020-2021 academic year);
- 2) Seminar "How to write and publish an article in a peer-reviewed journal?", in the amount of 54 hours, 07-11.12.2020, 250 teaching staff trained (2020-2021 academic year);

3) Seminar "Methodology of scientific research", in the amount of 54 hours, 05-09.04.2021, 17-21.05.2021, 190 teaching staff were trained (2020-2021 academic year);

4) Seminar "Preparation and review of scientific articles (including how to write and publish an article in a peer-reviewed journal?)", in the amount of 60 hours, 17-21.01.2022, 100 teaching staff trained (2021-2022 academic year).

5) Seminar "Medical Statistics", in the amount of 30 hours, 16-20.05.2022, with the invitation of Candidate of Medical Sciences, Associate Professor Marapov D.I., STATE BUDGETARY EDUCATIONAL INSTITUTION OF HIGHER PROFESSIONAL EDUCATION "Kazan State Medical University" of the Ministry of Healthcare of the Russian Federation.

The experts studied the materials on the admission of doctoral students and the selection of teachers and found compliance with standard 5.

In order to verify the data of standard 5, external experts received an opinion on the personnel policy and approaches to the development of the pedagogical competence of teachers and the leadership skills of scientific advisers of doctoral students, motivation to work with doctoral students, and the implementation of the scientific management system (4 people in total). The experts found that doctoral students enter the educational organization with a previously defined topic for dissertation research, and scientific supervisors regularly consult and stimulate the need for additional training and independent work with the literature.

When visiting an educational organization, it was found that there was a lack of training of scientific supervisors on the issue of scientific leadership.

**Conclusions of the EEC by the criteria.** Compliant with 11 standards: fully - 7/3, partially - 0/1, not compliant - 0.

**Стандарт 5: implemented**

**Recommendation for improvement identified during the external visit:**

1. To organize training for scientific supervisors of doctoral students on scientific leadership.

## **Standard 6: PhD DISSERTATION**

### **Evidence of Compliance:**

Studying at NJSC "Astana Medical University" has an internal regulatory document of the RI "Requirements for the content and design of a PhD doctoral dissertation" <https://drive.google.com/drive/folders/1C6DbRXaQGBfAiCq6YnUemfjB0lnzK0dY> <https://drive.google.com/drive/folders/1C6DbRXaQGBfAiCq6YnUemfjB0lnzK0dY> <https://drive.google.com/drive/folders/1C6DbRXaQGBfAiCq6YnUemfjB0lnzK0dY> showed that the organization has implemented a proper assessment policy, which allows for a comprehensive assessment of the academic achievements of doctoral students and to submit a dissertation to the Dissertation Council (DS). There is no dissertation council for the educational programme of doctoral studies in the specialty 8D05101 "Biology".

At NJSC "Astana Medical University", work is underway to assess the degree of borrowing of PhD material by doctoral students when performing doctoral dissertations, this work is carried out in order to improve the quality of organization and efficiency of the educational process, control the degree of independence of PhD doctoral dissertations and their compliance with intellectual property rights of citizens and legal entities, which guarantees the independence and originality of the research.

Also, dissertations of doctoral students before defense are subject to technical verification in accordance with interstate standards GOST 7.32-2001. Research report. Structure and design rules and GOST 7.1-2003. Bibliographic record. Bibliographic description. General requirements and rules for compiling and checking for borrowings under the anti-plagiarism program at the National Center for State Scientific and Technical Expertise.

The dissertation defense at NJSC "AMU" takes place in stages:

1. Pre-defense at the department;

2. Pre-defense at the scientific council on the profile;

3. Defense of the thesis at the Dissertation Council.

Doctoral dissertations are defended at a meeting of the dissertation council.

The defense of a doctoral dissertation is carried out in the presence of:

- positive feedback from the scientific supervisor and consultant;

- publications in accordance with the requirements presented in the Order of the Minister of Education and Science of the Republic of Kazakhstan dated March 31, 2011 No. 127.

- decisions of the graduate department on recommendations for defense (extract from the minutes of the meeting of the department), decisions of the MCC on passing the approbation defense of dissertation research at the meeting;

- two reviews of two official reviewers, whose qualifications (scientific or academic degree) correspond to the profile of the work being defended, which gives a comprehensive description of the dissertation and a reasoned conclusion indicating the grade (“excellent”, “good”, “satisfactory”, “unsatisfactory”) and the possibility of awarding the highest academic degree of Doctor of Philosophy or by profile in the relevant specialty. The scientific supervisor and consultants write separate reviews of the doctoral dissertation.

If a scientific supervisor, consultant and/or expert committee gives a negative conclusion “not allowed for defense” or “not recommended for defense”, the doctoral student does not defend doctoral dissertation.

There were no graduates and defenses in the EP of the doctoral programme "8D05101-Biology" until 2023.

***Conclusions of the EEC by the criteria.*** Compliant with 9 standards: fully - 6/3.

***Standard 6: implemented***

***Recommendations for improvement identified during the external visit: no***

## **Standard 7: EVALUATION**

### **Evidence of Compliance:**

To evaluate the programmes of the doctoral studies EP “8D05101-Biology”, specialists are involved who represented by the heads and deputy heads of the IRRZ, the Laboratory of Human Microbioma and Longevity, the Center for Life, PI “National Laboratory Astana”, Nazarbayev University, Scientific Centers, “National Center for Biotechnology” LLP, National Scientific Medical Center, Unitary Enterprise based on the right of economic management “City center of phthisiopulmonology ” and other medical organizations that are part of the QAC.

Programme effectiveness is monitored to ensure proper training and to identify relevant areas for improvement.

When analyzing the doctoral educational programme "8D05101-Biology", it was found that monitoring and evaluation of the EP is carried out at all levels, a multi-level approach is used, including departments, specialized CEP, DAD, Academic Council.

When conducting a survey of teachers, to the question: I personally participated in the development of an educational programme in the discipline I teach - "yes, actively" - answered 85.09% of the teaching staff, "I only compose electives" - 7.4%

Training in the educational programmes of doctoral studies ends with the writing of a dissertation work and public defense at the dissertation council. The requirements for writing a dissertation for submission to reviewers and final consideration by the dissertation council are published in the working instructions "Requirements for the content and design of a PhD doctoral dissertation" RI-MUA-48-20 [https://drive.google.com/drive/folders/1MXmf\\_YWFMS-WeQ2ANvvTPCc6fZGnpKmR](https://drive.google.com/drive/folders/1MXmf_YWFMS-WeQ2ANvvTPCc6fZGnpKmR)

The oral defense procedure is described in the internal regulatory document "On PhD doctoral studies at NJSC "Astana Medical University" PL-MUA-120-20", paragraph 6.17.3.

After defending in accordance with the Order of the Minister of Education and Science of the Republic of Kazakhstan dated May 19, 2011 No. 203 “On approval of the Rules for the state registration

of dissertations defended for the degree of Doctor of Philosophy (PhD), Doctor in profile”, the Dissertation Council, within seven calendar days after defending a dissertation for the degree of Doctor of Philosophy (PhD), Doctor in profile, sends the following documents to National Center for Scientific and Technical Information JSC for state registration: a cover letter on the letterhead of the organization under which the council functions, signed by the chairperson or academic secretary of the dissertation council; two copies of the Dissertation Registration Card in the state and Russian languages.

Interviews with 25 employers (Astana, North Kazakhstan and Pavlodar regions) were conducted off-line and on-line and included such questions as: knowledge of the mission of the educational organization, participation in the development of the mission and proposals for the strategic plan, participation in the work of advisory bodies, satisfaction with the basic knowledge and skills of students, participation in training students through mentoring, providing the department (division) and students with the necessary resources for practical training and the formation of clinical thinking, about the problems of interaction between teachers in particular, and with the organization as a whole, etc.

**Conclusions of the EEC byo the criteria.** Compliant with 7 standards: fully -6/1.

**Standard 7: implemented**

**Recommendations for improvement identified during the external visit: no**

## **Standard 8: ORGANIZATIONAL STRUCTURE**

### **Evidence of Compliance:**

NJSC "AMU" is a modern, rapidly developing University, which includes 1 institute, 8 schools, 64 departments. The university has a developed material and technical base, multimedia equipment, free Wi-Fi zones in buildings and in the dormitory, methodological complexes, methodological support for distance education, modern educational programmes, educational websites, electronic teaching aids, virtual excursions, a modern library with electronic lending and electronic full-text resources, multifunctional computer classes, personal websites of teachers, etc.

Since August 2022, a separate structural unit has been allocated in the structure of the university - the Admissions Committee for organizing career guidance, selection and enrollment at all levels, including for the doctoral programme "Biology". For the effective management of the academic and scientific component of the EP of doctoral studies "Biology", a research school has been created. Career growth and employment of graduates are entrusted to the Center for Practice, Career and Employment. The teaching staff involved in the EP has sufficient experience in academic and scientific work. Thus, the university management provides qualified human resources for the proper implementation of educational programmes. In addition to human resources, attention is paid to information and library, material and technical resources. More information in the relevant standards.

NJSC "Astana Medical University" has an official website [www.amu.kz](http://www.amu.kz) in three languages, the site serves as the hallmark of the University, and is also a tool for prompt and objective informing the public about the activities of the University. The site contains widely available information for employers, the medical community as a whole, potential applicants for admission to doctoral studies, as well as corporate documents in the "Employees" section, accessible by login and password.

The responsibilities of management and administration are reflected in job descriptions. The issues of quality control and regular revision of the training programme in order to improve quality are prescribed in the internal standard of the university SU-MUA-15-22 "Educational programmes: development, evaluation and updating" [https://drive.google.com/drive/folders/1peXqjYz0\\_v8MB\\_g7yANmPbvVH68-z8FK](https://drive.google.com/drive/folders/1peXqjYz0_v8MB_g7yANmPbvVH68-z8FK)

For all questions of admission to educational doctoral programmes, applicants can refer to the section Postgraduate education-doctoral studies-applicants <https://amu.edu.kz/ru/poslevuzovskoe-obrazovanie/doktorantura/doktorantura-dlya-postupayushchikh/>, where there are both external regulatory documents and internal rules. To help applicants, a diagram of the process of admission to doctoral studies has been developed. In a separate tab "Educational Programmes" the EPs themselves



are placed with a full description of the goals, training outcomes, terms of study, assessment methods, etc. <https://amu.edu.kz/upload/iblock/4a5/4a52c51ccf93423d2c0ed2f5661da651.pdf>

In the work instruction RI-MUA-48-20 “Requirements for the content and design of the PHD doctoral dissertation”, paragraph 1.12 Scientific Supervisor (scientific consultant) of the doctoral dissertation describes the duties of the supervisor. [https://drive.google.com/drive/folders/1peXqjYz0\\_v8MB\\_g7yANmPbvVH68-z8FK](https://drive.google.com/drive/folders/1peXqjYz0_v8MB_g7yANmPbvVH68-z8FK)

For the effective use of information, communication technologies and library resources, there are Rules for the use of information resources, which are currently being revised. The revision of the doctoral EP "Biology" is carried out based on the changes in the SCES, feedback from stakeholders, changes in other regulations.

The evaluation of the quality of the programme is carried out based on an analysis of quantitative and qualitative indicators by the publication of doctoral students, implementation in practical healthcare and the percentage of employment of graduates.

Members of the public and professional organizations provide ongoing feedback in the form of questionnaires and interviews. Participation in various events of NJSC "AMU", in the final assessment of graduates (dissertation defense), work as part-time workers in departments, ensuring their direct participation in the implementation and evaluation of the educational programme, organization of joint scientific-practical and methodological conferences with the teaching staff of the university with the analysis of educational and scientific processes.

According to the University Standard for the development and revision of educational programmes, the EP "8D05101 - Biology" has been developed and is subject to approval at a meeting of the Committee for Master's and Doctoral Educational Programmes, the Academic Council and the Scientific Council of the University.

In August 2022, there was a change in the structure of the university, a research school was opened, which is designed to solve organizational and methodological issues of magistracy and doctoral studies. The dean of the school is in constant relationship with the students on the organization of the educational process, the selection and approval of scientific supervisors, monitoring the implementation of the individual work plan of doctoral students. Doctoral students are involved in collegiate bodies for official participation in the design, management and evaluation of the programme. NJSC "AMU" has defined student-centeredness, competence and professionalism, innovation and creativity, civil and social responsibility, academic honesty and academic achievements, transparency and openness, leadership and initiative as its values.

In accordance with the accepted values, the Charter of the University, the Code of Corporate Culture, the management of the university ensures the observance of the rights of students to be accepted into the collegiate bodies of the university, the right to express judgments and appeals to management, the right to choose the topic of dissertation research and copyright protection, the right to encouragement and motivation, as well as the right to combine learning with work. To fulfill the obligations of doctoral students, the management of the university creates conditions for the qualitative development of the educational programme: the provision of material and technical resources, professional teachers and scientific supervisors. If a doctoral student is ready to defend a doctoral dissertation and complies with the availability of publications (in accordance with the Order of the Ministry of Education and Science of the Republic of Kazakhstan “Rules for awarding degrees”), during the end-of-course assessment period, an approbation of the doctoral student’s dissertation work is carried out at the inter-departmental meeting of the University. With a positive conclusion of the inter-departmental meeting, the doctoral student submits a dissertation to the Dissertation Council in the specialty. In case of a negative decision of the Dissertation Council, the doctoral student has the right to appeal within 2 (two) months from the date of the decision to the university where the dissertation was defended. In accordance with the Academic Policy of the University P-MUA-17-20, an Appeal section is provided, according to which students of any level, including doctoral students, have the right to file an application regarding disagreement with the results of exams or based on the results of reviewing and defending a dissertation.

[https://drive.google.com/drive/folders/1peXqjYz0\\_v8MB\\_g7yANmPbvVH68-z8FK](https://drive.google.com/drive/folders/1peXqjYz0_v8MB_g7yANmPbvVH68-z8FK).

In NJSC "AMU" the progress of the doctoral students work is monitored by the dean of the RS, scientific supervisor, head of the department where the dissertation research is being carried out. The Vice-Rector for Research and Strategic Development keeps under constant control the fulfillment of the obligations of doctoral students to fulfill the individual work plan.

When visiting an educational organization, it was found that the interaction of doctoral students with the doctoral department on the design, management and evaluation of PhD programmes is of a formal nature.

**Conclusions of the EEC by the criteria.** Compliant with 9 standards: fully - 7/1, partially - 1/0, not compliant - 0

**Standard 8: implemented**

**Recommendations for improvement identified during the external visit:**

1) To ensure coordination and interaction of doctoral students with the management of the organization (doctoral department) on the management and evaluation of the PhD programme

## **5. Recommendations for improving the educational programme of PhD 8D05101-Biology according to the following standards it's required to:**

1. Provide internships for doctoral students to work with foreign leaders and conduct research within the framework of the dissertation topic. **(Standard 1.4.)**

2. Organize training for scientific supervisors of doctoral students in scientific supervision **(Standard 5.11.)**

3. Ensure coordination and interaction of doctoral students with the management of the organization (doctoral department) on the management and evaluation of the PhD programme **(Standard 8.5.)**

## 6. Recommendation to the ECAQA Accreditation Council

The EEC members determined the compliance of the PhD educational programme in the specialty "8D05101 - Biology" with the Accreditation Standards and came to a unanimous opinion to recommend to the ECAQA Accreditation Council to accredit this programme for a period of **5 years**.

№ p/p	Status in the EEC	Full name
1	Chairperson	Yermukhanova Lyudmila Sergeyevna
2	Foreign expert	Dr. Alenka Braček Lalić
3	Foreign expert	Kodirova Shahlo Salomovna
3	Academic Expert	Zhakypbekov Kairat Saparkhanovich
4	Academic Expert	Daniyarova Anara Bakhitkereyevna
5	Academic Expert	Yerzhanova Farida Nurmukhambetovna
6	Academic Expert	Akhmetova Almira Kalikapassovna
7	Academic Expert	Ablaykhanova Nurzhanyat Tatukhanovna
8	Academic Expert	Rakhmanov Yeltay Utemuratovich
9	Employers' representative	Zhukubayeva Almira Asetkyzy
10	Representative of doctoral students	Yessenbekova Naira Adilkhanovna

  
  
  
  
  
  
  
  
  
  


**Quality profile and criteria for external evaluation of the educational programme  
(generalization)**

Standard	Criteria for evaluation	Number of standards	BS/IS*	Evaluation		
				Fully compliant	Partially compliant	Not compliant
1.	RESEARCH ENVIRONMENT	6	4/2	4/1	0/1	0
2.	OUTCOMES	5	5/0	5/0	0	0
3.	POLICY AND CRITERIA FOR ADMISSION	6	3/3	3/3	0	0
4.	PhD PROGRAM	10	8/2	8/2	0	0
5.	SCIENTIFIC LEADERSHIP	11	7/4	7/3	0/1	0
6.	PhD DISSERTATION	9	6/3	6/3	0	0
7.	EVALUATION	7	6/1	6/1	0	0
8.	STRUCTURE OF THE ORGANIZATION	9	8/1	7/1	1/0	0
	<b>Total:</b>	<b>63</b>		<b>60</b>	<b>3</b>	
				<b>63</b>		

**List of documents reviewed by EEC members as part of an external evaluation of the educational programme**

<b>№</b>	<b>Document names</b>	<b>Quantity</b>
1.	K-MUA-02-19 Code of Ethics for students of NJSC "AMU"	1
2.	Extract from the minutes of the meeting of the Academic Council No. 1	1
3.	Development strategy of NJSC "AMU" for 2022-2026	1
4.	Survey analysis for 2020	2
5.	Survey analysis for 2021	1
6.	Survey analysis for 2022	1
7.	Petitions for 2021	1
8.	Petitions for 2022	
9.	SU-MUA-22-19 Organization of the educational process on credit technology of training	1
10.	SU-MUA-14-22 Introduction of new educational technologies	1
11.	SU-MUA-35-12 Stakeholder analysis	1
12.	Handbook-guide for students of advanced training cycles and certification courses in the framework of additional and non-formal education of NJSC "AMU"	1
13.	RI-MUA-68-21 Working instructions for the development of an educational and methodological complex of disciplines of the NJSC AMU	1
14.	RECOMMENDATIONS FOR THE ORGANIZATION AND IMPLEMENTATION OF EDUCATIONAL PROGRAMMES OF ADDITIONAL EDUCATION IN THE FIELD OF HEALTHCARE	1
15.	Policy of JSC "Astana Medical University" in the field of scientific activity	1
16.	<b>The work plan of the center of additional education for 2023</b>	1
17.	KC-MUA-05-22 Development of effective technologies and teaching methods in NJSC AMU	1
18.	Personnel policy of NJSC "AMU"	1
19.	DI-MUA-3.2/03-22 Job description of the leading methodologist of the center of additional education	1
20.	Annual Plan of Advanced Training Cycles and Certification Courses for Healthcare Professionals for 2023	1
21.	The act of introducing the results of a new educational technology	1
22.	Extract from the minutes of the meeting of the Academic Council No. 1	1
23.	Order on approval of the composition of the commission for quality assurance of educational programmes for residency and additional education	1
24.	Methodical materials	1
25.	Journal of attendance and progress of students.	3
26.	Extract from the minutes of the meeting of the Committee for Quality Assurance of Educational Programmes of Residency and Additional Education No. 7	1

27.	Extract from the minutes of the meeting of the Committee for Quality Assurance of Educational Programmes of Residency and Additional Education No. 2	1
28.	Extract from the minutes of the meeting of the Committee for Quality Assurance of Educational Programmes of Residency and Additional Education No. 2 dated 06.10.2021	1
29.	Extract from the minutes of the meeting of the Committee for Quality Assurance of Educational Programmes of Residency and Additional Education No. 1	1
30.	Extract from the minutes of the meeting of the Committee for Quality Assurance of Educational Programmes of Residency and Additional Education No. 1 dated 08.09.2021	1
31.	Questionnaires and survey analysis	7
32.	P-MUA-17-20 Academic Policy	1
33.	Questionnaire form	1
34.	Order on approval of the composition of the commission for quality assurance of educational programmes for residency and additional education	1
35.	Agreement on the provision of services for a fee No. 19-D-184	1
36.	Agreement on the provision of services for a fee No. 19-D-187	1
37.	Agreement on the provision of services for a fee No. 19-D-192	1
38.	Form of act of completed works 2023	1
39.	RI-MUA-68-21 Working instructions for the development of an educational and methodological complex in NJSC AMU	1
40.	PL-MUA-76-20 Regulations on remuneration, bonuses and social security of employees of NJSC AMU	1
41.	PSP-MUA-3.2-22 Regulations on the center of additional education	1
42.	PL-MUA-03-20 Regulations on paid services of NJSC AMU	1
43.	PL-MUA-142-22 Regulations on awards	1
44.	Work plan of teaching staff	1
45.	On amendments to the Regulation on paid services	1
46.	Articles on additional education	9
47.	The composition of the section on additional and non-formal education of Educational and Methodological Association of the Republican Educational and Methodological Council in the direction of training - Healthcare for the 2022-2023 academic year	1
48.	Advanced training programme of NJSC AMU	1
49.	EP Improving special medical care for children	1
50.	Agreement on joint activities No. 522-D-211	1
51.	Agreement on joint activities No. 522-D-79	1
52.	Clinical bases	1
53.	Integrated programme of the seminar on SARS	1
54.	Agreement on joint activities No. 0240	1
55.	Agreement on joint activities No. 522-D-175	1
56.	Agreement on joint activities No. 177-18	1
57.	Agreement on the activities of clinical bases	1
58.	Memorandums	1
59.	Feedback from employers	1
60.	SU-MUA-81-21 Internal quality assurance system of NJSC AMU	1

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