To the Accreditation Council
of the Eurasian Center for Accreditation
and Quality Assurance
in Education and Health Care
December 10, 2025

REPORT
OF THE EXTERNAL EXPERT COMMISSION ON THE RESULTS OF THE ASSESSMENT OF THE EDUCATIONAL PROGRAMME 7R01106 "MEDICAL GENETICS" OF THE CORPORATE FOUNDATION "UNIVERSITY MEDICAL CENTER" FOR COMPLIANCE WITH STANDARDS FOR PROGRAMME ACCREDITATION OF THE POSTGRADUATE EDUCATION (RESIDENCY) OF THE EURASIAN CENTER FOR ACCREDITATION AND QUALITY ASSURANCE IN EDUCATION AND HEALTH CARE

period of external expert assessment: November 17-19, 2025

Astana, 2025

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LIST OF DESIGNATIONS AND ABBREVIATIONS

Abbreviation	Designation
ESG	Standards and Guidelines for Quality Assurance in Higher Education in the European Higher Education Area
JCI	Joint Commission International
WFME	World Federation for Medical Education
EEC	External Expert Commission
EHEA	European Higher Education Area
ECAQA	Eurasian Center for Accreditation and Quality Assurance in Higher Education and Health Care
CF "UMC"	Corporate Foundation “University Medical Center”
MH RK	Ministry of Healthcare of the Republic of Kazakhstan
MSHE RK	Ministry of Science and Higher Education of the Republic of Kazakhstan
RLA	Regulatory and Legal Acts
EP	Educational Programme
TS	Teaching staff

1. Composition of the External Expert Commission

In accordance with ECAQA Order No.28 dated October 28, 2025, an External Expert Commission (hereinafter referred to as the EEC) was formed to conduct an external assessment of the residency educational programme in "Medical Genetics" from November 17–19, 2025, consisting of the following members:

No.	Status on the EEC	Full Name	Academic Degree/Title, Position, Place of Work/Study, Year, Specialty
1	Chairperson	Morenko Marina Alexeyevna	Doctor of Medical Sciences, Professor, Head of the Department of Childrens' Diseases No.1 at the NJSC "Astana Medical University", Chief Pediatric Allergist-Immunologist at the Astana Public Healthcare Administration
2	International Expert	Yenchev Yavor Petkov	Doctor of Medical Sciences, Professor of Neurosurgery, Head of the Department of Neurosurgery and ENT Diseases at the Varna Medical University, Head of the Neurosurgery Clinic at the "St. Marina" University Hospital of the Medical University of Varna (Varna, Bulgaria)
3	International Expert	Akhvlediani Leyla Teimurovna	Doctor of Medical Sciences, Professor, Deputy Head of Department, PhD in Biology (Immunology, Allergology), Ivane Javakhishvili Tbilisi State University (Tbilisi, Georgia)
4	Academic Expert	Madyarov Valentin Manarbekovich	Doctor of Medical Sciences, Head of the Department of Surgery with a Course in Anesthesiology and Resuscitation at NEI "Kazakh-Russian Medical University"
5	Academic Expert	Yessenkulova Saule Askerovna	Doctor of Medical Sciences, Professor of Postgraduate Education Center of the JSC "Kazakh Research Institute of Oncology and Radiology"
6	Academic Expert	Abeuova Bibigul Amangeldiyevna	Doctor of Medical Sciences, Professor of the Department of Family Medicine No.3 at NJSC "Astana Medical University"
7	Academic Expert	Tashenova Gulnara Talipovna	Doctor of Medical Sciences, Head of the Professor N.A. Barlybayeva Department of Childrens' Diseases of the NJSC "S.D. Asfendiyarov Kazakh National Medical University", Chief Freelance Pediatrician of the Ministry of Healthcare of the Republic of Kazakhstan
8	Academic Expert	Talkimbayeva Nailya Anuarovna	Doctor of Medical Sciences, Head of the Simulation Center at NJSC "S.D. Asfendiyarov Kazakh National Medical University"
9	Academic Expert	Izbassarova Akmaral Shaimerdenovna	Candidate of Medical Science, Associate Professor, Head of the Department of Physical Medicine and Rehabilitation, Sports

			Medicine at NJSC “S.D. Asfendiyarov Kazakh National Medical University”, neurologist of the highest category
10	Academic Expert	Ivanchenko Nellya Nikolayevna	Candidate of Medical Sciences, Head of the Department of Postgraduate and Continuing Education at JSC “Research Institute of Cardiology and Internal Diseases”
11	Academic Expert	Kabildina Nailya Amirbekovna	Candidate of Medical Sciences, Professor, Head of the Department of Oncology and Radiation Diagnostics at NJSC “Karaganda Medical University”, oncosurgeon
12	Academic Expert	Salimbayeva Damilya Nurgazyevna	Candidate of Medical Sciences, Associate Professor, Head of the Department of Strategic Development and Science at JSC “Scientific Center for Obstetrics, Gynecology and Perinatology”, geneticist
13	Academic Expert	Rustembekkyzy Zhansaya	Research Teacher, PhD of the Department of Obstetrics, Gynecology and Perinatology at NJSC “Karaganda Medical University”
14	Employer Expert	Tugelbayeva Kyzylgyl Alimovna	Head/Chief of the Educational Programmes Department of the Republican State Enterprise based on the Right of Economic Management “Scientific and Production Center for Transfusiology”
15	Doctoral Student Expert	Yktiyarov Ayaz Abdirakhymuly	Second-year doctoral student in “Medicine” at NJSC “Astana Medical University”
16	Postgraduate doctor Expert	Makhmutov Timur Nurzhanovich	First-year postgraduate doctor in “Urology and Andrology adult, pediatric" of JSC "National Research Oncology Center"

The EEC report includes a description of the results and conclusions of the external assessment of the educational programme in "Medical Genetics" for compliance with the Standards for Programme Accreditation of Postgraduate Education (Residency) (developed based on the 2023 WFME International Standards for Quality Improvement in Postgraduate Education Programmes) and conclusions (hereinafter referred to as the Accreditation Standards), the EEC recommendations for further improvement of the approaches and conditions for implementing the aforementioned educational programme and recommendations on accreditation to the ECAQA Accreditation Council on accreditation.

2. General part of the final report

2.1 Presentation of the residency educational programme in "Medical Genetics"

Organization name, legal form of ownership, BIN	Corporate Foundation "University Medical Center"
Governing body	Board of Trustees of the Autonomous Educational Organization "Nazarbayev University"
Full name of the first head	Chairperson of the Board of Directors: Yuryi Vladimirovich Pya
Date of establishment	September 20, 2015
Location and contact information	Republic of Kazakhstan, 010000 “Nura” district, Astana Turan Avenue, 32

	Tel.: +7 (7172) 69 24 50
State license for educational activities in residency (date, number)	According to Article 8 of the Law "On the Status of "Nazarbayev University", "Nazarbayev Intellectual Schools" and "Nazarbayev Foundation", Nazarbayev University, the Intellectual Schools and their organizations conduct educational activities without a license or state certification.
Information on branches and subsidiaries (if any)	CF "UMC" comprises three leading medical centers, including the Center for Motherhood and Childhood, the Diagnostic Center, the Heart Center and a branch in Shymkent.
Year of commencement of the accredited educational programme (EP)	Since 2017
Information on inclusion in the Register of the European Higher Education Area of the Ministry of Science and Higher Education of the Republic of Kazakhstan	Residency programmes have been implemented in accordance with the Rules for the Organization of Residency Educational Programmes at CF "UMC", approved by Resolution No.9 of the CF "UMC" Board of Directors dated June 3, 2024.
Duration of study	2 years
Total number of graduates since the beginning of the EP	13 people
Number of postgraduate doctors in the EP since the beginning of the current academic year	7 people
Full-time/part-time faculty involved in the EP	Total number of teachers: 3, including 3 full-time and 0 part-time. Academic degree holder rate: 33% Category: 100%
Website Instagram Facebook with active pages	Email: umc@umc.org.kz Official website: www.umc.org.kz

2.2 Information about previous accreditation

The initial accreditation of the residency educational programme in "Medical Genetics" was conducted in 2021, and the decision was published in the ECAQA Accreditation Center Registry at the following link https://www.ecaqa.org/index.php?option=com_content&view=article&id=1189

2.3 Brief description of the analysis results of the self-assessment report of the residency educational programme in "Medical Genetics" and conclusions on its completion

The self-assessment report of the residency educational programme in "Medical Genetics" (hereinafter referred to as the report) consists of 128 pages of the main text, 97 pages of annexes, and copies or electronic versions of 16 documents, located at the following links:

https://umc.org.kz/about-umc/
https://umc.org.kz/mission-and- vision/
https://umc.org.kz/wp-content/uploads/2024/07/ctrategicheskij-plan-umc- 2024-2028.pdf
https://drive.google.com/drive/folders/1H89yCt3NgcCymg6Lt-4ZtiTWyddRedz2
https://drive.google.com/drive/folders/1H89yCt3NgcCymg6Lt-4ZtiTWyddRedz2f
https://umc.org.kz/?residency=admission-to-residency
https://drive.google.com/drive/folders/1H89yCt3NgcCymg6Lt-4ZtiTWyddRedz2
https://umc.org.kz/wp-content/uploads/2024/07/pravila-org.po-prog.rezidentury_rus.pdf

https://drive.google.com/drive/folders/1H89yCt3NgcCymg6Lt-4ZtiTWyddRedz2
http://umc.org.kz/?science=post#science_results
http://umc.org.kz/?science=post#projects
http://umc.org.kz/?publications=post
https://umc.org.kz/?ethics-commission=post
https://umc.org.kz/?residency=post.
https://umc.org.kz/regulatory-documentation/
https://umc.org.kz/2021/07/03/korporativnyj-fond-umc-vnov-podtverdil-sootvetstvie-mezhdunarodnym-standartam-i-uspeshno-proshli-proczeduru-reakkreditaczii-jci/, 2) https://umc.org.kz/2024/09/25/kazahstan-voshel-v-top-22-umc-poluchil-mezhdunarodnuyu-akkreditacziyu-kak-akademicheskij-mediczinskij-czentr/

The report is characterized by complete responses to all 8 key accreditation standards and criteria, a structured approach that takes into account the recommendations of the Guidelines for conducting self-assessment of educational programmes provided to the educational organization by the accreditation center - ECAQA, and internal unity of information. A cover letter signed by Yuryi Vladimirovich Pya, Chairperson of the Board of Directors of the CF "UMC", confirming the accuracy of the quantitative information and data included in the self-assessment report, is attached to report.

The report includes a list of the 33 members of the internal self-assessment commission, indicating the responsibilities of each employee and information about the representative of the organization responsible for conducting the self-assessment of the educational programme:

- Chairperson of the Internal Self-Assessment Commission – Nurgul Kaliyevna Khamzina, Doctor of Medical Sciences, Professor, Deputy Chairperson of the Board of Directors of the CF "UMC";
- Alma Alibekovna Syzdykova, Director of the Education Department, MSc, MBA, representative of the CF "UMC", responsible for conducting the educational programme self-assessment to request and obtain the necessary information.

The self-assessment of the educational programme in "Medical Genetics" was conducted based on Order No.78-n/k of the Chairperson of the Board of Directors of the CF "UMC" dated February 25, 2025 "On Approving the Composition of the Working Group for Preparation for Specialized Accreditation of the Corporate Foundation "University Medical Center".

All standards include the CF "UMC" actual practices for training postgraduate doctors in "Medical Genetics", taking into account the start of student admission in 2017. These standards also include substantiated data, examples of the educational programme's objectives, national and international events, and methodological support, confirming compliance with accreditation standards. The self-assessment report is sufficiently comprehensive and up-to-date in terms of the number of postgraduate doctors, teachers and administration, information on selection and admission, learning outcomes, knowledge and skills assessment results, the university's physical facilities and clinical facilities, contractual obligations with partners (universities, associations and sites), financial information, and development and improvement plans.

The report was submitted to the ECAQA in its final form, with data adjusted according to the above recommendations. It is written in a competent manner; the wording for each standard is clear and understandable and described in accordance with the criteria of the standards.

3. Description of the external expert assessment

The external expert assessment of the educational programme in "Medical Genetics" was organized in accordance with the Guidelines for Conducting External Assessment of Educational Organizations and Educational Programmes of ECAQA. Dates of the visit to organization: November 17-19, 2025.

The schedule for the three-day visit is detailed in Annex 3 to this report.

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

- conversation with management and administrative staff – 10 people;
- interviews with postgraduate doctors – 2 people (in the specialty "Medical Genetics");
- study of the website https://umc.org.kz ;
- interviewing 3 employees, 3 teachers and supervisors;
- questionnaires for teachers and postgraduate doctors - 17 and 16, respectively (across all specialties);
- observation of postgraduate doctor training: attendance of 1 practical lesson (seminar) (Analysis of a clinical case of hereditary pathology, M.F. Bayanova, 2nd-year postgraduate doctors in the specialty "Medical Genetics", classroom, National Research Center for Motherhood and Childhood of CF “UMC”);
- review of resources in the context of meeting accreditation standards: 1 practice/clinical engagement site (National Research Center for Motherhood and Childhood) was visited, where learning is conducted under the residency educational programme in the specialty "Medical Genetics" with the participation of 3 full-time/part-time faculty members;
- Review of 19 educational and methodological documents both before the visit to organization and during the visit to division (the list of documents reviewed is in **Annex 2**).

The accredited organization's staff ensured the presence of all persons specified in the visit programme and in the lists of interview and conversation sites (Table 1).

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

No.	Position	Number
1	Administration and Directors of Clinical and Academic Departments	10
2	Postgraduate doctors in “Medical Genetics”	2
3	Teaching staff in “Medical Genetics”	3
4	Employers in “Medical Genetics”	3
5	Graduates in “Medical Genetics”	4

On the final day of the visit, a meeting of the EEC members was held to discuss the external assessment. A final discussion was held regarding the external assessment of the educational programme, review of documents, conversation, interview and questionnaires results. The EEC members began drafting the final EEC report. The external assessment results were summarized. The experts individually completed the "Quality Profile and Criteria for External Assessment of the Educational Programme in “Medical Genetics” for Compliance with the ECAQA Accreditation Standards. The EEC members made no comments. Recommendations for improving the educational programme were discussed, and Chairperson M.A. Morenko held a final open vote on the recommendations for the ECAQA Accreditation Council.

Comfortable conditions were created for the EEC, and access to all necessary information and material resources was provided. The commission notes the high level of corporate culture at CF “UMC” and the team's high level of openness in providing information to the EEC members.

In a survey of postgraduate doctors, 100% rated the work of the External Expert Commission on Accreditation as positive. The majority of respondents (100%) believe that educational institutions or educational programmes should be accredited.

According to 100% of teachers, the survey conducted by the ECAQA is useful for developing recommendations for improving key areas of activity of the educational institution being accredited.

At the end of the visit programme, the EEC chairperson presented recommendations based on the results of the external assessment as part of the specialized accreditation to the educational institution's management and staff.

4. Analysis of compliance with Accreditation Standards based on the results of the external sssessment of the residency educational programme in “Medical Genetics”

Standard 1: MISSION AND VALUES

1.1 Stating the mission

During the implementation of the programme's activities, namely, through conversations with the organization's first head, members of the advisory and consultative body - the Educational and Methodological Council of the CF “UMC” and interviews with postgraduate doctors and teachers, compliance with the criteria of *Standard 1* was established. All participants in the educational process are aware of the mission of the educational programme in “Medical Genetics” and participated in formulating proposals for its formulation. The mission has been communicated to potential postgraduate doctors through the website, social media and informational letters to medical organizations. The organization's strategic plan for 2024–2028 was reviewed, including priority areas such as biomedical research based on the four principles of modern medicine (4Ps) of predictive, precautionary, personification and participatory. This confirms compliance with the accreditation standard for the specialty of "Medical Genetics" and demonstrates the organization's goals, objectives and prospects. Interviews with postgraduate doctors revealed that before classes begin, teachers inform postgraduate doctors about the mission and work plans of the educational organization, and advise them on where to obtain necessary information about the educational programme, teachers and learning facilities.

During their visits to CF “UMC” divisions, experts noted the educational organization's strengths in relation to the accredited educational programme in the specialty of "Medical Genetics", including modern, high-tech equipment for molecular cytogenetic and molecular genetic research.

The CF “UMC” has divisions directly related to the educational programme in “Medical Genetics”, which can be considered best practice in education, specifically the principle of the "clinic-science-education" trinity. This conclusion is reached because postgraduate doctors have access to laboratory genetic research and bioinformatic analysis of the obtained genetic data. Two postgraduate doctors in the “Medical Genetics” won first place at an international conference for young scientists, and one postgraduate doctor published an article in a journal with a non-zero impact factor on a clinical case of “Pierrot” syndrome.

The results of the documentation review demonstrate that the mission of the organization and the mission of the educational programme in “Medical Genetics” and the educational process, are structured in accordance with the State Compulsory Educational Standard and current regulatory legal acts (RLA) in postgraduate education and healthcare.

Experts determined that postgraduate doctors have appropriate working conditions to support their own health, as the educational organization is provided with the Rules for the Organization of Educational Programmes of Residency of the CF “UMC” and the Postgraduate Doctor Handbook.

Basic postgraduate doctor competencies in the accredited specialty, such as standard karyotyping, as well as specialized competencies including the fundamentals of bioinformatics analysis, enable CF “UMC” to use innovative learning methods. This will allow postgraduate doctors to develop skills and competencies such as syndromic diagnosis of hereditary and congenital pathologies and the interpretation of genetic test results.

CF “UMC” encourages postgraduate doctors to participate in research in their chosen specialty through organizing and conducting scientific information exchange events such as conferences, seminars, symposia, forums and other formats aimed at exchanging experience and scientific and practical information, strengthening mutually beneficial relationships, implementing joint scientific and research projects and presenting papers in the journal club.

1.2 Participation in mission formulation

Experts determined that teaching staff participated in developing the goals and objectives (mission) of the educational programme in "Medical Genetics", which is confirmed by the document (Minutes of the Educational and Methodological Council of the CF "UMC" No.5, dated April 27, 2023, confirming the programme's approval). When updated regulatory legal acts and orders in education and healthcare are issued, the developers of the educational programme in "Medical Genetics" take into account updated data on genetic screening of pregnant women and developments in fetal medicine and make appropriate changes.

In a survey of 16 postgraduate doctors (on https://webanketa.com/), several of the 22 questions were devoted to the quality of the educational process and the educational programme. It was found that 100% of postgraduate doctors would recommend studying at this educational institution to their acquaintances, friends and relatives. 100% of respondents believe that educational programme heads and teachers are aware of students' learning needs. To the question, "Do you think this educational institution allows you to acquire the necessary knowledge and skills in your chosen specialty?", 100% of postgraduate doctors responded positively.

The 17 teachers surveyed (21 survey questions) also responded that they were 100% satisfied with the work and workplace organization at this educational institution. The experts determined that the organization has a healthy environment, as the head is readily accessible to both postgraduate doctors and employees and responds promptly to requests and questions. In the survey, 100% of teachers were satisfied with the organization's environment. According to 100% of respondents, teachers at the educational institution have the opportunity to develop as professionals in their specialty. A total of 17 people responded, with 17% having up to 5 years of teaching experience, 35% having up to 10 years and 47% having over 10 years of teaching experience.

EEC findings by criteria. **Comply with 6 standards: fully – 6, partially – 0, not compliant – 0.**

Standard 2: EDUCATIONAL PROGRAMME

2.1 Educational programme and certification

The experts found a correlation between the content and the required postgraduate doctor qualifications upon completion of the programme in "Medical Genetics". This correlation is reflected in integration with the Nazarbayev University system, which ensures academic continuity and access to international educational standards; practice-oriented approach: learning is conducted at the clinical facilities of high-tech medical institutions that are part of the CF "UMC"; access to modern equipment; focus on interprofessional interaction: learning includes developing communication skills with parents and specialists from other fields; participation in scientific activities: postgraduate doctors are involved in research, use international databases and contribute to publications; supervising programmes: experienced teachers support learning in a one-to-one format with subsequent feedback.

Upon completion of their learning, postgraduate doctors are admitted to an independent examination at the National Center for Independent Examination, where graduates take certification exams (https://qazexam.kz), which allows them to obtain a specialist certificate in the specialty of "Medical Genetics" and be admitted to clinical practice in the Republic of Kazakhstan.

In 2024, 100% of graduates of the residency programme in "Medical Genetics" passed the independent assessment. The number of those who failed the examination was zero across all years of learning.

Experts reviewed documents confirming the fulfillment of this accreditation standard criterion, which are available for 2020-2025 at https://drive.google.com/drive/folders/1g_ASIKjGyf5ZRg-dP44ZRh8fLrwbcfo1 .

2.2 Intended learning outcomes

The intended learning outcomes are defined and included in documents available at the link: https://drive.google.com/drive/folders/1H89yCt3NgcCymg6Lt-4ZtiTWyddRedz2, which were developed by the EMC. Stakeholders are informed about the intended learning outcomes of postgraduate doctors in the specialty "Medical Genetics" through roundtable discussions. Experts confirmed that the professional behavior and communication skills of postgraduate doctors are developed through the use of direct observation, a 360-degree tool and feedback from various sources and are reflected in the corresponding document - the Code of Business Ethics of the CF "UMC". Teachers and postgraduate doctors are informed of the Code of Ethics. The contents of the Code of Business Ethics of the CF "UMC" can be found at https://drive.google.com/drive/folders/1zd1ZDYM-FeWq-Kz5Pzig_dJW_fe2SZK2 . **(ESG II Part 1.2)**

The expected learning outcomes are established to meet the requirements of national professional standards for the specialty of "Medical Genetics".

The educational programme defines learning outcomes for the specialty of "Medical Genetics", which include knowledge, skills and professional behavior. Each skill can be assessed and measured, for example, using summative and formative assessment templates. Postgraduate doctors receive regular oral feedback and questionnaires after each lesson according to a set up schedule.

A mandatory component of postgraduate doctor training is their participation in providing medical care to the public. Postgraduate doctors undergo training at medical organizations such as the National Research Center for Motherhood and Childhood, where they master medical genetic counseling, cytogenetic, molecular-cytogenetic and molecular-genetic testing. Independent study of postgraduate doctor includes library visits and individual research projects.

Postgraduate doctors' professional behavior is ensured by adhering to professional ethics standards. Students are familiar with the CF "UMC" Code of Business Ethics, which was developed and approved on December 26, 2022. When surveying employers, experts asked how satisfied they were with postgraduate doctors' behavior. Overall, postgraduate doctors maintain ethical behavior toward teachers, fellow students and medical staff. An Ethics Council is in place, and any employee of the educational institution can contact it to resolve conflict situations. No such situations occurred between 2020 and 2025. During a meeting with experts, postgraduate doctors confirmed that teachers adhere to ethical standards towards them. When asked whether conflict resolution studies had been held for teachers in the past few years, the answer was yes.

When determining the intended learning outcomes, the CF "UMC" Education Department employees considered previous undergraduate and internship learning outcomes, as well as the goals and objectives of subsequent continuing professional development in the chosen specialty. CF "UMC" offers CPD activities (continuing professional development), including programmes in "Medical Genetics".

Experts have established clear continuity between the intended outcomes of postgraduate doctors' prior learning (prerequisites) and residency learning and subsequent continuing professional development programmes. The organization has developed 15 continuing education programmes (https://umc.org.kz/?additional_education=post). Postgraduate doctors are informed about these.

100% of teachers - respondents believe that students at this educational organization possess a high level of knowledge and practical skills after completing the learning programme.

Teachers respondents in the external assessment indicated that 100% were fully satisfied with the level of postgraduate doctors' prior training.

The qualification obtained upon completion of the educational programme in "Medical Genetics" corresponds to level 8 of the National Qualifications Framework (**ESG1.2)** and has a code by the corresponding specialty. Completion of residency learning is accompanied by the issuance of a Certificate of Residency Completion.

2.3 Educational programme organization and structure

The educational programme organization for "Medical Genetics" is based on the intended learning outcomes of postgraduate doctors and therefore includes the following: general and specialized skills, patient management, communication and collaboration, safety and quality, public healthcare, learning, development and research capacity.

Duration of study is 2 years. Systematic and transparent learning is guaranteed by the development of key cross-cutting competencies covering all areas of training and professionalism.

To implement the educational programme in "Medical Genetics", the organization's documents include teaching materials that define the programme's goal, integrate practical and theoretical components, and provide independent study. Compliance with the State Compulsory Educational Standard and standard requirements, including the regulatory legal acts of the Republic of Kazakhstan, has been established.

While attending a practical lesson (seminar) on the topic of "Clinical Case Analysis" lasting two hours, the experts received convincing evidence that the learning was being conducted according to plan. Before the lesson, postgraduate doctors completed quizzes, received feedback from the teacher, and had the opportunity to improve their skills in the specialty of "Medical Genetics", including syndromic diagnosis and interpretation of genetic test results. CF “UMC” ensures compliance with ethical aspects in the implementation of the educational programme in "Medical Genetics", as the experts reviewed the Code of Business Ethics (December 26, 2022), and during interviews, postgraduate doctors indicated that they were aware of the contents of this document.

An analysis of educational activities revealed that the scientific foundation and all scientific advances in the relevant disciplines have been taken into account, additions have been made to the teaching materials’ bibliography and syllabuses, and teachers are using them in their classes.

The supervising system, described in documents available at https://drive.google.com/drive/folders/1wn1uulN6PV0aobk4KI9mxNxFimwcxHYr was evaluated. There are 3 supervisors in the “Medical Genetics” specialty, whose tasks are to promote the development of professionalism in postgraduate doctors. This competency is developed throughout the learning period across all disciplines of the educational programme. This competency is assessed through direct observation, a 360-degree tool and feedback from various sources.

The procedure for informing postgraduate doctors of their rights and responsibilities is reflected in the "Handbook and Guide for Postgraduate Doctors - Physicians", the "Rules for the Organization of Educational Programmes of Residency of the CF “UMC” and the Agreement concluded within the residency training programme.

Teachers use postgraduate learning methods such as seminars, practical classes and independent work. A list of learning methods is described in the syllabuses. These methods enable postgraduate doctors to participate in providing medical care to patients. Teachers can provide postgraduate doctors with management of approximately 3 specialized patients per day and 12 - per month. For example, upon completion of their training, postgraduate doctors of the educational programme in “Medical Genetics” can perform procedures such as medical genetic counseling, karyotyping, molecular-cytogenetic and molecular-genetic studies.

Experts have determined that the educational organization fully implements the principles of academic honesty and anti-plagiarism. This is reflected in the document "Handbook and Guide for Postgraduate Doctors - Physicians". Academic honesty applies to stages of postgraduate doctor learning such as conducting scientific research. Anti-plagiarism measures apply when postgraduate doctors are preparing publications. Postgraduate doctors are trained to promptly collect informed consent from patients for all diagnostic and therapeutic procedures. Experts noted that a corresponding document signed by the patient is included in the medical records.

Thus, by the end of the two-year learning, postgraduate doctors will acquire the basic skills and competencies of a medical geneticist, allowing them to work in institutions such as medical-genetic counseling centers (**ESG 1.2).**

The experts found no violations of the principle of equality in postgraduate education and continuing professional development, as the educational institution complies with the Constitution of the Republic of Kazakhstan, the Law on the Languages of the Peoples of the Republic of Kazakhstan and other regulatory legal acts in the fields of education and healthcare.

The educational organization has a mechanism for regularly adapting teaching and learning methods to the requirements of modern science and education, as well as the current needs of practical healthcare. This mechanism includes discussions at educational and methodological council meetings (https://drive.google.com/drive/folders/1knr3udNn5ilDLqat2dd6uBbM-kpIERoD).

This demonstrates compliance with standard 2 regarding the adaptation of learning to the needs of postgraduate doctors.

2.4 Educational programme content

Documents are available containing requirements for the structure and content of educational programmes, including those in the specialty "Medical Genetics". Responsibility for the selection and implementation of innovations in the educational process rests with A.A. Syzdykova, Director of the Department of Education.

The curriculum and catalog of elective disciplines reflect the needs of the healthcare system, including preimplantation testing, prenatal diagnosis of monogenic pathologies, and other topics, as well as the specific research and scientific achievements of teachers. To successfully implement the educational programme in “Medical Genetics”, the organization has resources to organize assessments of postgraduate doctors’ practical skills. Experts have determined that the educational programme in “Medical Genetics” takes into account legal requirements, including those related to prenatal genetic screening.

Potential future roles of residency graduates, namely, medical experts and managers, are developed through disciplines (or topics) such as management of hereditary pathology diagnostics. Legal aspects of physician practice are discussed in the “Medical Genetics” course. The scientific component of postgraduate doctor training is developed through individual scientific topics and research, participation in the journal club and in conferences.

The CF “UMC” guarantees adjustments to the structure, content and duration of the educational programme in “Medical Genetics” in the event of any changes in various fields, including demographics and in response to the needs of the healthcare system. A discussion mechanism is in place at EMC meetings for this purpose.

Teachers provide postgraduate doctors with methodological and didactic materials, as well as additional literature to prepare for classes, with 100% satisfaction.

The CF “UMC” has a total capacity of 475 inpatient beds and 500 outpatient visits per shift. It comprises three innovative medical centers: The Diagnostic Center, the Center for Motherhood and Childhood, the Heart Center and a branch in Shymkent. Three CF “UMC” centers (the Diagnostic Center, the Center for Motherhood and Childhood and the Heart Center) have received international accreditation from Joint Commission International, which guarantees the safety of the services provided and confirms that medical services meet international standards. In 2024, CF “UMC” once again confirmed its compliance with international standards and successfully completed the JCI re-accreditation process as a single hospital.

And in response to the survey question "Is there sufficient time for practical learning (patient management, etc.)?", 100% of postgraduate doctors responded with complete agreement. Furthermore, 100% of postgraduate doctors stated that the teacher provides feedback after classes (listening to their opinions, conducting a mini-survey and an error analysis session). Meanwhile, in response to the question "Are postgraduate doctors’ representatives involved in the development of educational programmes?", the experts received the following answer: "Yes, they do". 100% of postgraduate doctors surveyed were completely satisfied with the class schedule.

The residency programme in “Medical Genetics” includes components on the fundamentals and methodology of scientific research, including clinical trials and clinical epidemiology (lasting 30

hours). Teachers use a critical evaluation methodology for scientific literature and medical research data, which is confirmed by the study of documents such as the “Postgraduate Doctor’s Handbook”. This form of learning is organized through a "Journal Club", which meets monthly.

Postgraduate doctors confirmed that evidence-based medicine is integrated into their learning. Specifically, by applying clinical protocols in patient management, postgraduate doctors become familiar with evidence-based literature.

A survey of postgraduate doctors revealed that the educational institution provides access to student participation in research, and 100% of postgraduate doctors were completely satisfied with this. Postgraduate doctors are expected to engage in research and 100% of respondents indicated that they are already engaged in research.

2.5 Learning methods and experience

The primary learning methods in the residency programme in “Medical Genetics” are practical classes, seminars and independent work. Supervising is carried out in accordance with the Regulations on the Educational Process in Residency. During conversation with postgraduate doctors, experts found that teachers most often organize seminars/clinical case studies. The clinical supervisor is responsible for mastering and developing professional competencies. Feedback is provided daily, and postgraduate doctors can ask the supervisor any question and also have access to medical records and the patient management information system through the supervisor’ account (under their control).

Virtual learning methods are used, including working with databases for bioinformatic analysis.

The principles of quality, academic honesty and anti-plagiarism **(ESG II Part 1.3)** are documented in the "Handbook and Guide for Postgraduate Doctors - Physicians" and the "Rules for the Organization of Educational Programmes of Residency of the CF “UMC”.

Postgraduate doctors are informed of their rights and responsibilities by familiarizing themselves with the "Postgraduate Doctor Handbook". This is the responsibility of Department Director A.A. Syzdykova.

Postgraduate doctors' ethical compliance is based on the CF “UMC” Code of Business Ethics.

Experts confirm that the educational organization provides postgraduate doctors with the necessary skills and abilities that can impact their personal development and be applied in their future careers **(ESG II Part 1.3).** This is confirmed by the results of studying documents such as the CF “UMC” Code of Business Ethics and the "Postgraduate Doctor Handbook". It is also confirmed by the results of attending classes, meetings with postgraduate doctors and surveys of postgraduate doctors.

Principles of equality, including gender, cultural and religious ones, are observed with respect to postgraduate doctors and teachers, as enshrined in the Code of Business Ethics of the CF “UMC”. A visit to the educational institution revealed no instances of non-compliance with these principles. The primary documents for the educational institution are the Constitution of the Republic of Kazakhstan and the Law of the Republic of Kazakhstan on Education, where Article 3, paragraph 3, establishes the principle of equal rights for all citizens to education, regardless of gender, age, social status and other factors.

Teaching and learning methods are regularly adapted to changing conditions **(ESG II Part 1.5)** and the requirements of practical healthcare. For example, the management of the educational programme in the specialty "Medical Genetics" has included elective courses on "Preimplantation Screening" and "Prenatal Diagnosis of Monogenic Pathology" in the curriculum, which were developed based on the results of an analysis of the needs of the healthcare system. The selection of the clinical facility for postgraduate doctor training was also based on an analysis of training needs in the specialty "Medical Genetics".

Of the 16 postgraduate doctors surveyed, 100% responded that teachers frequently use active and interactive learning methods in their classes.

2.6 Educational programme and learning facilities

Postgraduate doctors in the accredited educational programme in “Medical Genetics” are trained at CF “UMC”. Postgraduate doctors have access to CF “UMC” laboratories, including a modern cytogenetic and molecular-genetic lab.

Currently, 7 first- and second-year postgraduate doctors are enrolled in the accredited programme in “Medical Genetics”, and they are fully provided with clinical learning (a sufficient number of patients in the specialty).

Experts ensured that postgraduate doctors have access to medical resources. During the survey, postgraduate doctors confirmed that they have access to all clinical and laboratory divisions at CF “UMC”.

The following employees and stakeholders participated in the planning, development, discussion and approval of the educational programme in “Medical Genetics” **(ESG II Part 1.2).** The residency programme in “Medical Genetics” was approved by Resolution No.9 of the CF “UMC” Board of Directors dated June 3, 2024.

The educational process governance reflected in the self-assessment report (**Standard 2**) and the general management approaches were confirmed during a visit to the CF “UMC” Education Department and discussions with the head and employees.

The training of postgraduate doctors in “Medical Genetics” is aimed at meeting the needs of practical healthcare. During conversation with the CF “UMC” management, experts received information about the educational process, and teachers confirmed that postgraduate doctors’ training is conducted directly in the clinical and laboratory units and divisions of the CF “UMC”. Postgraduate doctors in this specialty can manage patients with congenital and hereditary pathologies.

During a two-hour practical session (seminar) on "Clinical Case Analysis" and conversation with postgraduate doctors, experts observed that the organization promotes the development of postgraduate doctors’ practical competencies, including using simulation equipment. At the same time, postgraduate doctors deepen their theoretical knowledge and develop communication skills.

The assessment found that the learning does not cover all levels of the healthcare system (primary, secondary and tertiary), preventing the acquisition of practical skills such as prenatal and neonatal screening tests.

2.7 Opportunities for higher degrees and research

CF “UMC” offers the following research opportunities: an effective scientific and educational environment has been created, providing postgraduate doctors - physicians with the opportunity to participate in scientific research activities by attending conferences, writing publications independently or jointly with physicians, and participating in scientific projects at CF “UMC” or Nazarbayev University. In addition, postgraduate doctors - physicians independently conduct research work (hereinafter referred to as RW), report on their progress and present the results of their work upon completion of their learning. The EMC’s Resolution approved the "Requirements for the Content, Design and Defense of Research Work in the Residency Programme". Also, on February 22, 2018, the Resolution No.4 of the CF “UMC” Board of Directors approved the Regulation on Scientific and Innovative Activities, which sets forth the procedures for planning, organizing and implementing scientific and innovative activities at the CF “UMC”.

The accredited residency programme in “Medical Genetics” conducts research in various areas of medical and clinical genetics. Postgraduate doctors may be informally involved in scientific research.

From 2016 to 2019, CF “UMC” postgraduate doctors - physicians published 22 scientific papers in Kazakhstani and international journals, including a journal with a non-zero impact factor. 10 postgraduate doctors - physicians presented papers at international forums and conferences, and 34 postgraduate doctors - physicians participated in domestic and international conferences. Among the postgraduate doctors specializing in “Medical Genetics”, 2 postgraduate doctors won first place at an international conference for young scientists, and one postgraduate doctor published an article in a

journal with a non-zero impact factor on a clinical case of “Pierrot” syndrome. Postgraduate doctors interviewed confirmed that they are provided with access to research equipment and scientific events held at the learning facilities.

EEC findings by criteria. Comply with 28 standards, 23 - fully compliant, 5 - partially compliant, 0 - not compliant.

Standard	Standard implementation	Recommendations for improvement
2.2.3	Partially implemented	A checklist for assessing practical skills is missing. Develop and standardize checklists for assessing practical skills.
2.3.1	Partially implemented	Expand the catalog of elective disciplines and optimize the catalog creation process.
2.4.2	Partially implemented	Not all levels of medical and genetic care are covered, requiring a content review and inclusion in the educational programme. Additionally, involve clinical facilities for screening and practical skills development (prenatal and neonatal screening).
2.6.1	Partially implemented	Not all levels of medical and genetic care are covered; therefore, adapt the educational programme to the current needs of science and practice.
2.6.3	Partially implemented	More effectively use the healthcare system's capabilities.

Standard 3: **ASSESSMENT OF POSTGRADUATE DOCTORS**

3.1 Assessment policy and system

A review of the control and measurement equipment (20 tasks) revealed that the organization has implemented an appropriate assessment policy that allows for a comprehensive assessment of postgraduate doctors’ academic achievements. During interviews, postgraduate doctors described assessment methods, such as testing, and stated that they were satisfied with them. They also receive regular feedback from teachers. The assessment results appeal system is reflected in the Regulation on the Educational Process in Residency, and there have been no appeals since the educational organization's operation. The assessment covers not only knowledge and skills but also professional behavior and communication skills, as evidenced by the following: the postgraduate doctor’ individual portfolio. **(ESG II Part 1.3)**

Validation and reliability assessment of postgraduate doctors’ assessment methods (tasks, cases) are carried out through approval at a meeting of the Educational and Methodological Council.

For example, to verify the data for *Standard 3*, experts posed questions to A.A. Syzdykova, Head of the Department of Education, and reviewed the postgraduate doctor assessment documents and methods. A.A. Syzdykova, Head of the Department of Education, responded that additions and updates to the control and measurement equipment are planned for 2026.

During a visit to organization and an interview with A.A. Syzdykova, Head of the Department of Education, the commission confirmed that a documentation system is in place that is transparent and accessible to all teachers and employees. This system includes documents such as annual operational plans, annual reports, division regulations, agreements with teachers and postgraduate doctors, and educational and methodological documentation (work programmes, working curricula, syllabuses and journals), assessment tools (checklists, reports), certificates, verifications and credentials. A review of the website revealed that its pages contain the necessary documents for postgraduate doctors: curricula, schedules, syllabuses, a reference guide, an academic calendar, a catalog of elective disciplines and information such as postgraduate doctor and employer questionnaires, which are regularly updated.

During a visit to the CF "UMC", management was asked "Are external examiners involved to improve the fairness, quality and transparency of the assessment process?" The response was that no external examiners were involved in the 2025-2026 academic year.

During an interview with teacher M.F. Bayanova regarding assessment methods, the experts obtained convincing information that, according to the approved system, summative and formative assessment of postgraduate doctors' knowledge and skills is carried out. Postgraduate doctors also shared their opinions on the timeliness of testing, pre-exam counseling, the clarity of the entire assessment procedure and its fairness. For example, postgraduate doctors reported that pre-exam counseling is provided.

3 employer representatives interviewed also noted that graduates' training is consistent with current developments in medical practice and science, and that they possess satisfactory mastery of the necessary skills.

At the same time, there are difficulties in developing control and measurement equipment, including the development of test assignments.

3.2 Assessment in support of learning (formative assessment)

The assessment system regularly identifies postgraduate doctors' strengths and weaknesses, as it includes an assessment of their practical skills. Formative assessment is conducted once a day, typically after the conclusion of a seminar, using case problems. Teachers regularly provide feedback to postgraduate doctors following their assessments. In interviews, postgraduate doctors confirmed that they receive feedback after completing their learning.

The experts reviewed resources for assessing knowledge and practical skills, specifically case problems.

The experts determined that the selection of postgraduate doctor assessment methods is based on the specific skill being assessed, as the practical component of learning is central. For example, formative assessment methods such as case problems facilitate interprofessional learning. Established assessment methods ensure that postgraduate doctors have mastered all sections of the educational programme and acquired the necessary practical skills.

Postgraduate doctors stated that teachers provide them with information on the results of their assessments. **(ESG II Part 1.3)**

3.3 Assessment in support of decision-making (summative assessment)

Summative (final) assessment of postgraduate doctors includes midterm and final certification.

The criteria for admission to final certification are completion of the full course of study at the CF "UMC" residency in accordance with the requirements of the working curriculum and individual curriculum, as documented in the Rules for the Organization of Educational Programmes of Residency at the CF "UMC".

Admission to the independent examination of postgraduate doctors is based on completion of the full course of study. At CF "UMC", postgraduate doctors (including those in other specialties) pass the independent examination 100% of the time.

The reliability and validity of the quantitative data from postgraduate doctor assessment results is ensured by the Department of Education **(ESG II Part 1.3).**

3.4 Quality assurance of the assessment system

The Department of Education at CF "UMC" ensures the mechanisms that guarantee the quality of all assessment methods applied and the existing postgraduate doctor assessment system as a whole.

The results of formative and summative assessments are discussed at a meeting of the EMC, and conclusions are drawn regarding the methods and content of the assessment.

The Department of Education at the CF "UMC" reviews the formative and summative assessment methods each academic year. These reviews are documented in the CF "UMC" Meeting

Minutes. *A survey of employers in 2025 showed that graduates of the "Medical Genetics" programme demonstrate sufficient professional skills and competencies to provide medical genetic care to the population* **(ESG II Part 1.3)** The experts were familiar with the postgraduate doctor assessment results for 2019-2014, which include data on midterm and final certifications.

EEC findings by criteria Comply with 15 standards: 13 - fully compliant, 2 - partially compliant, 0 - not compliant.

Standard	Standard implementation	Recommendations for improvement
3.1.2	Partially implemented	Various assessment methods are partially present, but testing is not available. Provide for various types of assessment, such as testing.
3.4.1	Partially implemented	Assessment mechanisms are insufficiently defined. Optimize formative, midterm and midpoint assessments, including practical skills assessments using a variety of examiners.

Standard 4: POSTGRADUATE DOCTORS

4.1 Selection and progression policy

CF "UMC" has a postgraduate doctor admissions policy, which is reflected in the "CF "UMC" Residency Admission Rules" and available on the CF "UMC" website (https://umc.org.kz/?residency=admission-to-residency). Postgraduate doctor admissions approaches are based on national requirements and internal regulations, namely the "CF "UMC" Residency Admission Rules", "Rules for the Organization of the Educational process of Residency at CF "UMC" and the "UMC Strategic Plan for 2024-2028". The transparency of the selection process and equal access to residency programmes are supported by the provisions of the "CF "UMC" Residency Admission Rules".

The document takes into account the requirements for residency applicants regarding their previous undergraduate and internship achievements (e.g., copies of an international certificate confirming foreign language proficiency, a letter of recommendation, a list of research projects and a motivation letter) **(ESG II Part 1.4)**

CF "UMC" has created a barrier-free learning environment, including ramps, call buttons, elevators and toilets for disabled people.

The appeals procedure for residency admission is outlined in Chapter 4 of the "CF "UMC" Residency Admission Rules". To date, there have been no appeals. **(ESG II Part 1.4)**

Student representatives are included in the process of developing the admissions and selection policy for postgraduate doctors. Feedback with postgraduate doctors is provided on this issue.

The admissions and selection policy and the number of postgraduate doctors is reviewed annually, under the responsibility of the CF "UMC" Education Department.

In 2025, 237 postgraduate doctors were accepted into all educational programmes, including the programme in "Medical Genetics". The total number of postgraduate doctors graduating during the residency admissions start dates across all specialties was 103, including those in the accredited educational programme in "Medical Genetics". The CF "UMC" analyzed the practical healthcare sector's need for medical geneticists and determined that the annual admission to the educational programme in "Medical Genetics" will be up to 5 people. This figure is consistent with resource capacity. The sources of information on the need for specialists in "Medical Genetics" are data from the Ministry of Healthcare of the Republic of Kazakhstan and the Salidat Kairbekova National Scientific Center for Healthcare Development.

Thus, the experts validated the self-assessment report data according to *standard 4.* Overall, all criteria were compliant. The experts reviewed the postgraduate doctor admissions documentation, including that available on the official CF "UMC" website.

4.2 Performance improvement and exit from the programme

Processes and opportunities for improving postgraduate doctors' academic performance and professional development, as well as the conditions under which a postgraduate doctor may be expelled from the programme, are documented in the "Rules for Organizing the Educational Process of Residency at CF "UMC", approved by Resolution No.9 of the CF "UMC" Board of Directors dated June 3, 2024.

Academic advising for postgraduate doctors is conducted based on the "Rules for Organizing the Educational Process of Residency at CF "UMC". The experts assessed the practice of academic advising, personal support for postgraduate doctors and the development of not only professional skills, through interviews with postgraduate doctors. *Confirming information was obtained during interviews with postgraduate doctors and graduates.*

Teachers prevent unexpected incidents involving postgraduate doctors that could potentially cause harm to patients. This is accomplished through familiarization with and compliance with the regulatory legal acts of the Republic of Kazakhstan. According to teachers, no such incidents were observed during the period 2020-2025. At the same time, the CF "UMC" Education Department developed a "Code of Business Ethics", which sets forth requirements for postgraduate doctors in all specialties, including "Medical Genetics". Each postgraduate doctor is familiar with and applies informed consent from patient for examination, treatment and medical procedures in their clinical work. Before classes begin, postgraduate doctors are instructed by their teacher on compliance with the rules of conduct in a medical organization and sign a document acknowledging their familiarization. Postgraduate doctors confirmed this during meetings with experts.

Social, financial and personal support for postgraduate doctors is provided in accordance with the "Rules for the Organization of the Educational Process of Residency at CF "UMC". Financial support for postgraduate doctors is provided through a scholarship allowance of 134,664 KZT. Postgraduate doctors receive psychological support through psychosocial support and access to a psycho-emotional relaxation room, where art therapy, music therapy and yoga classes are offered.

Residency graduates receive career planning support through academic, clinical and research supervising, and assistance in choosing a career path. The employment rate for graduates of all residency programmes was 100% in 2025. The UMC Strategic Plan for 2024–2028 includes measures to expand the career supervising and talent management system **(ESG II Part 1.4**).

4.3 International medical graduates

There were no international postgraduate doctors during the period under review.

4.4 Postgraduate doctor work and study

Postgraduate doctors are provided with a programme that defines goals, objectives, overall workload and work hours, their areas of responsibility and the intended learning outcomes. Postgraduate doctors are informed about their supervisors. Currently, 3 clinical supervisors at 2 clinical facilities are involved in postgraduate doctor training for the accredited programme. Postgraduate doctors are informed of the number and timing of formative assessments and final examinations. Information about the examinations is published on the organization's official website. The experts reviewed the information on the website in the "Residency" section.

The department's teachers inform postgraduate doctors about the conditions for their participation in providing medical care through supervisors, based on the Regulations on Educational Activities of the CF "UMC". The Department of Education ensures that the programme component involving postgraduate doctor participation in providing medical care does not dominate.

If a postgraduate doctor is forced to interrupt their studies (due to pregnancy, maternity leave, illness or military service), the educational institution provides for the following: academic leave.

4.5 Postgraduate doctor safety

The legal status of a postgraduate doctor with respect to the provision of medical care to patients is defined in the Residency Training Agreement. Postgraduate doctors provide medical care to patients under the control of a supervisor. While postgraduate doctors can perform karyotyping independently in their first year of study, they can perform cytogenetic studies in their final year.

Postgraduate doctors' physical safety during training is regulated by the Safety Procedures, which they sign before beginning training, as well as by clinic documents, including the Guidebook and the Rules for Organizing the Educational Process of the CF "UMC".

Postgraduate doctors' psychological safety is ensured through visits to the psychological relaxation room. Postgraduate doctors can access the psycho-emotional relaxation room, where art therapy, music therapy and yoga classes are offered, if they experience psychological stress. A psychologist is available for consultation.

4.6 Postgraduate doctor remuneration

Postgraduate doctors receive a monthly scholarship allowance of 134,664 KZT in accordance with the Rules for the Assignment and Payment of State scholarship allowances, approved by Decree No.116 of the Government of the Republic of Kazakhstan dated February 7, 2008 (as amended on October 10, 2022). The official document "Rules for Organizing the Educational Process at CF "UMC" which describes postgraduate doctor funding, is available at https://umc.org.kz/regulatory-documentation/ . Postgraduate doctors may work up to 0.5 of their full-time position outside of their studies, in accordance with the "Rules for Organizing the Educational Process at CF "UMC".

Currently, 237 physician – postgraduate doctors at CF "UMC" receive state scholarship allowance, including 23 physician – postgraduate doctors funded by the local executive body and 8 physician – postgraduate doctors funded by the Heart Center Foundation.

4.7 Postgraduate doctor health and welfare

Postgraduate doctors are provided with professional and personal support focused on physical health, personal welfare and psychological health, including "professional burnout" through the Psychosocial Support Department. During a meeting with experts, postgraduate doctors stated that they could obtain legal assistance by contacting a lawyer.

EEC findings by criteria. Comply with 19 standards: 19 - fully compliant, 0 - partially compliant, 0 - not compliant.

Standard 5: TEACHERS AND CLINICAL SUPERVISORS

5.1 Teachers and clinical supervisor establishment

There are 3 employees in the "Medical Genetics", including 3 full-time teachers and 0 part-time faculty members. There are 3 clinical supervisors. The Department of Education is responsible for teachers' recruitment.

The academic degree holder rate is 33%. Postgraduate doctors in "Medical Genetics" are trained by employees at the National Research Center for Motherhood and Childhood.

The experts reviewed the supervisors' job descriptions and the residency regulations.

The experts were familiarized with the HR policy (Rules for the Search, Selection, Hiring and Certification of Employees at the CF "UMC"), the Supervising Policy and the teacher-to-postgraduate doctor ratio is 1:3.

The principles of teachers' ethics and academic honesty are reflected in the Code of Business Ethics. During interviews with the teachers, they confirmed their awareness of this issue.

To verify the data in the self-assessment report for *Standard 5*, external experts obtained teachers' opinions on the HR policy, which included interviews with teachers and supervisors. The conversation allowed the experts to learn about approaches to recruiting clinical facility employees for

teaching (there are 3 such teachers in the specialty of “Medical Genetics”), the strategy and tactics for admitting postgraduate doctors and the information support for the educational programme. They also identified challenges in managing and developing human resources, as most part-time faculty members lack knowledge of teaching methods.

Technical and administrative staff are available to support the educational programme (**ESG II Part 1.5),** including methodologists.

A survey of teachers revealed that the majority (100%) were completely satisfied with the work and workplace organization at this educational institution. 100% completely agree that teachers have the opportunity to engage in research and publish their research results. 100% completely agree that they are satisfied with the HR service. 100% completely agree that they are satisfied with the salary.

5.2 Ethics and conduct of teachers and clinical supervisors

The HR policy defines the responsibilities and obligations of teachers in the high-quality education of postgraduate doctors. This is described in the "Rules for the Organization of Residency Educational Programmes".

The responsibilities and obligations of clinical supervisors are described in the Supervising Regulation.

The principles of ethics and academic honesty for teachers are described in the CF “UMC” Code of Business Ethics. The teachers surveyed confirmed that they are informed of the Bioethics Committee. The official publication of the documents is available on the organization's official website: https://umc.org.kz/?ethics-commission=post.

The monitoring system and process for improving the performance of teachers **(ESG II Part 1.5)** and clinical supervisors is regulated by the document "Rules for the Organization of Residency Educational Programmes". A teacher survey is conducted annually by the Department of Education.

5.3 Continuing professional development of teachers and clinical supervisory staff

During a meeting with the head of the Human Resources Management Department and during interviews with teachers, experts obtained opinions on approaches to developing faculty pedagogical competence, motivation to work with postgraduate doctors and supervising, which includes advanced training.

The experts determined that teachers and postgraduate doctors have sufficient time for teaching, supervising and learning. Teachers conduct weekly two-hour seminars. This time is allocated for clinical reviews, laboratory tests and interpretation of genetic test results.

Experts received feedback on the annual teachers’ advanced training programme, and 3 teachers participating in the educational programme in the specialty "Medical Genetics" were trained in 2020-2025. These activities are funded by the educational organization. Experts reviewed teachers’ certificates on topics such as "Educational Technologies in Residency. Postgraduate Doctor Assessment", "Educational Technologies in Residency. Trustworthy Professional Activity" and "Awarded by AMEE - An International Association for Medical Education".

Decision No.15 of the CF “UMC” Board of Directors dated June 2, 2021, approved the distribution procedure and methodology for calculating wages for employees of CF “UMC” engaged in educational, scientific and innovative activities. This procedure governs compensation for research activities and ongoing projects.

Experts found that teachers initiate research topics for postgraduate doctors, stimulating the need for additional training and independent work with literature, medical documentation, genetic databases on syndromology and genetic data.

The human resources policy **(ESG II Part 1.5)** and approaches to engaging clinical supervisors are reviewed annually in accordance with the changing needs in postgraduate medical education.

The educational organization offers opportunities for career growth and competency development for teacher - 100% of surveyed teachers responded. 60% attended advanced professional training programmes less than a year ago, and 40% attended them during the current year.

The organization implements social support programmes for teachers - 100% responded, "yes, such programmes exist".

EEC findings by criteria. Comply with 8 standards: fully – 8, partially – 0, not compliant – 0.

Standard 6: EDUCATIONAL RESOURCES

6.1 Physical facilities for learning and research

Postgraduate training is provided at the CF "UMC", including postgraduate doctors of the accredited educational programme in "Medical Genetics" at the National Research Center for Motherhood and Childhood. The center has 475 inpatient beds and 500 outpatient visits per shift. It comprises three innovative medical centers: The Diagnostic Center, the Center for Motherhood and Childhood, and the Heart Center.

There are 3 classrooms, 2 conference rooms for seminars and journal clubs, a library (with a library collection of 1,760 items) and a 34-seat reading room. The library space per student is 2.4 m².

Before starting the relevant discipline of the educational programme, the postgraduate doctor receives a syllabus from the teacher and knows what skills he should acquire and develop during the course of study.

The CF "UMC provides postgraduate doctors with opportunities for practical and theoretical learning through access to the organization's resources.

Access to the latest professional literature and international sources is provided through the resources of the Nazarbayev University School of Medicine (PubMed, UpToDate, Clinical Key, etc.) and the Republican Scientific Medical Library.

Access to simulation equipment is provided at the Heart Center and the Nazarbayev University School of Medicine.

A safe learning environment in the functional/instrumental diagnostics laboratories/rooms **(ESG II Part 1.6)** is ensured by familiarizing postgraduate doctors with safety and health regulations before classes, as well as through supervisor management. Experts reviewed the Safety Regulations and the Incident Log. Postgraduate doctors interviewed confirmed their knowledge of these documents.

The CF "UMC" conducts research, including 37 research projects. First- and second-year postgraduate doctors majoring in "Medical Genetics" are involved in the research project (or parts thereof). They perform tasks such as conducting genetic research, interpreting the obtained data and performing statistical analysis. All information about the research project is included in the postgraduate doctor' portfolio, the structure of which is based on the Residency Regulations.

The educational programme for "Medical Genetics" includes topics, in which postgraduate doctors study medical research methods (the basics of bioinformatics analysis).

Postgraduate doctors conducting scientific and practical research are provided with access to instrumental and laboratory equipment.

For example, in the "Medical Genetics" specialty, research is planned on topics such as oncogenetics and hereditary muscular dystrophies. This information was obtained during an interview with teacher M.F. Bayanova.

The physical facilities, including the library collection, are updated annually. **(ESG II Part 1.6)**

Interviews with 3 teachers in the "Medical Genetics" specialty, including 3 full-time faculty members, revealed both successes and challenges in educational management, depending on the specific facility (lack of equipment for mastering certain practical skills, such as testing for neonatal and prenatal biochemical screenings), a sufficient number of specialized patients, time for medical record keeping and independent work).

6.2 Postgraduate medical education based on clinical learning

The experts assessed the postgraduate doctors' record keeping, including the medical genetic report and the presentation of cytogenetic test results.

A review of resources showed that they are aligned with the goals and objectives of educational activities. For example, visits were made to the clinical facilities - the National Research Center for Motherhood and Childhood, and the educational institution's employees ensure collegial and ethical relationships with medical personnel and the clinical facility's management to achieve the postgraduate doctors' intended outcomes. A sufficient number of specialized patients (e.g., patients with hereditary neuromuscular diseases, congenital malformations, chromosomal pathologies, and pregnant women at risk for chromosomal and congenital fetal abnormalities) are provided. Modern equipment is available and demonstrated to be accessible to students. Teachers provide high-quality education while adhering to ethical and deontological standards.

During a visit to clinical facilities (the National Research Center for Motherhood and Childhood), experts assessed resources, their compliance with learning programmes, accessibility for teachers and postgraduate doctors, and the extent to which the equipment is modern and meets the needs of students and practical healthcare.

To validate the self-assessment report and obtain evidence of programme quality, interviews with postgraduate doctors were conducted. The experts asked questions about satisfaction with learning, sufficient time for patient management, work with medical documentation, satisfaction with teaching methods and teacher qualifications, social and moral support for postgraduate doctors in need, participation in "Journal Clubs", and access to international professional literature databases. Overall, postgraduate doctors are satisfied with the learning and assessment methods, and specifically entered this institution because they believe it has good resources, a strong reputation and international connections. At the same time, postgraduate doctors would like more independence in patient management and participation in international events (internships, participation in conferences, master classes, etc.).

There is a simulation center at the Nazarbayev University School of Medicine. Postgraduate doctors of the educational programme in the "Medical Genetics" can practice general clinical practical skills. Providing emergency care to patients with cardiopulmonary resuscitation and anaphylactic shock is also included in the curriculum. Thus, postgraduate doctor learning in the simulation center is an integrated part of clinical learning.

Postgraduate doctors demonstrated their commitment to the educational organization, were active in answering questions from external experts and provided their opinions on the organization of learning, assessment of their skills, advisory support, opportunities to participate in research and funding. They demonstrated a broad range of knowledge. Experts reviewed postgraduate doctors' documents (portfolios, postgraduate doctor assessment results - checklists, and postgraduate doctor survey results).

Postgraduate doctors can conduct health education activities for patients and training activities for interns.

In the questionnaire, postgraduate doctors indicated that they have free access to patients at clinical facilities and all the necessary conditions for improving their practical skills - 100% of teachers strongly agreed.

Regular upgrades to clinical facilities and equipment and other educational resources are conducted in accordance with changing postgraduate doctor training needs. The planned and current number of postgraduate doctors is taken into account to ensure a 3:1 ratio of postgraduate doctors to teachers. The Department of Education determines the profile of clinical supervisors, and their compliance with the residency programme's goals and objectives, educational level and proficiency in teaching methods is assessed.

The Department of Education staff conducts annual monitoring of the quality of educational programmes, and the results are included in the report.

Sociological surveys, including issues of educational quality, could become one of the mechanisms for assessing education.

This assessment involves analyzing specialist needs and postgraduate doctor training methods, and the results allow conclusions to be drawn about the quality of innovative changes in postgraduate education.

Mechanisms for motivating and developing staff and teachers' interest in conducting research in postgraduate education are included in the CF "UMC" Strategic Development Plan for 2024-2028.

6.3 Training postgraduate doctors at alternative clinical facilities

The academic policy for postgraduate doctor training includes the option of training at institutions if existing clinical facilities do not cover all the topics of the educational programme. Postgraduate doctors in the specialty "Medical Genetics" are trained at the National Research Center for Motherhood and Childhood. Postgraduate doctors study subjects of the educational programme in "Medical Genetics" such as "Genomic Medicine" in the inpatient departments of the CF "UMC". Scientific publications are prepared under the supervision of a teacher and do not require additional training facilities. However, postgraduate doctors can participate in academic mobility both domestically and internationally. In 2022, a five-year memorandum of cooperation was signed with the Ospedale Pediatrico Bambino Gesù Children's Hospital (Italy). This agreement provides for the joint development and implementation of projects focused on educational and clinical training in pediatrics and subspecialties, molecular genetics (clinical diagnostics and research), personalized medicine, rare diseases and clinical research, as well as the provision of care in complex cases. That same year, a two-year memorandum of cooperation was signed with Samsung Medical Center (Korea). The purpose of this memorandum is to maintain a close, collaborative treatment system between UMC and SMC through a mutual patient referral system, the exchange of up-to-date medical information and the promotion of the international medical community through the creation of a system of mutual cooperation.

At CF "UMC", international internships for postgraduate doctors - physicians are organized on a competitive basis through the 'UMC Extended Observership Program (UMC EOP)". The programme's terms and conditions are regulated by the Rules for the Selection and Assignment of Postgraduate Doctors - Physicians, approved by Resolution No.12 of the Educational and Methodological Council dated May 16, 2025.

A document on the transfer and academic recognition of learning outcomes between educational organizations is in place. **(ESG II Part 1.2)**

The educational organization's teachers actively participate in national and international events. Collaboration with partner universities abroad and neighboring countries on advanced training for teaching staff is successfully developing. Teaching staff undergo advanced training courses, taking into account the need and relevance of topics both within and outside the country. Training and retraining of teaching staff is conducted in pedagogical and clinical areas.

Under budget programme 024 "Targeted Contribution to AEO "Nazarbayev University", 43 specialists from the Foundation were trained abroad in 2021, 26 - in 2022, and 54 specialists from the Foundation and the National Research Cardiac Surgery Center - in 2023. During the first half of 2025, 8 specialists completed training abroad. During the first half of 2025, 53 specialists from Foundation were trained through educational master classes in various clinical areas. During the same period, 34 specialists were trained through supervising programmes.

6.4 Information sources, resources and use

The experts assessed postgraduate doctors' and teachers' access to essential web resources, including access to the Directum corporate portal, Microsoft Outlook, the Mentor and Coursera learning platforms, and access to electronic media (the internet). Postgraduate doctors confirmed that they could use web resources, including when preparing for classes.

The experts visited the library, which provides postgraduate doctors and employees with access to the library's collection, including Thomson Reuters (Web of Science), Springer Link, OXFORD JOURNALS Medline and Scopus databases. An electronic library with full access to full-text

databases of international publications such as SCIENCE DIRECT and SCOPUS (Elsevier), Web of Knowledge (THOMSON REUTERS), SPRINGER (SpringerLink), as well as OVID CENTRAL, PUBMED, MEDLINE, EMBASE, BMJ Updates, ClinicalKey (Elsevier) and the COCHRANE LIBRARY is available through personal registration. Postgraduate doctors are informed of this.

Thus, the educational organization provides postgraduate doctors, teachers and clinical supervisors with access to information and the use of innovative and information and communication technologies. **(ESG II Part 1.8**)

CF "UMC" has entered into international agreements for access to international databases:

1) Access to the electronic full-text resource of one of the world's leading interactive databases of journals, book series, books, reference materials and interactive archive collections "SpringerLink, Nature Publishing Group" is now available. Archive depth – 1997;

2) Access to scientific electronic full-text resources of the "Clarivate Analytics (WoS)" database is now available, including 23,000 scientific journals, 23,000,000 patents, and 110,000 scientific conference proceedings over the past 100 years;

3) An agreement with Elsevier provides full access to SciVerseScienceDirect's full-text resources, including 2,500 journals, 11,000 online books, SciVerseScienceDirect, SciVerseScopus, Reaxys, Emabse, EngineeringVillage, as well as innovative systems for analysis, evaluation and decision-making in scientific research of SciVal, and others.

4) EBSCO: Medline Complete and DynaMed Plus. The database contains authoritative medical information on medicine, nursing, dentistry, veterinary medicine, healthcare systems, preclinical sciences and much more;

5) Wiley Online Library;

6) BMJ: BMJ Journals, Best Practice, BMJ eLearning - includes 22 leading specialized medical journals in clinical, evidence-based and public health medicine.

Every year, the library subscribes to various newspapers and magazines and receives periodicals. **(ESG II Part 1.6).**

EEC findings by criteria. Comply with 15 standards, 14 - fully compliant, 1 - partially compliant, 0 - not compliant.

Standard	Standard implementation	Recommendations for improvement
6.2.2	Partially implemented	Provide additional clinical facilities

Standard 7: QUALITY ASSURANCE AND IMPROVEMENT OF POSTGRADUATE TRAINING

7.1 Quality assurance system

A quality assurance system based on the principles of ISO 9001:2015 and JCI has been implemented, supported by regular internal and external audits. **(ESG II Part 1.1)**

The experts evaluated the programme for monitoring the processes and results of the educational programme in "Medical Genetics", which includes an educational programme review stage, programme discussions at a meeting of the Educational and Medical Council, and the collection of feedback on various elements of the residency programme through a survey.

A survey of postgraduate doctors is conducted once a year, and the results of the survey are compiled by the Department of Education, which also conducts a survey of employers. The questionnaire consists of 13 key questions identifying the postgraduate doctor - physician's attitude toward the residency programme across three parameters: key assessment criteria, effectiveness assessment and satisfaction assessment. The following was revealed based on the 2025 survey: According to the results of the postgraduate doctors' survey, the overall perception of the programme is rated positive; however, the average scores are significantly lower than those assessed by teachers, reflecting a more critical view of the students. The highest ratings were received for understanding the goals and objectives of the programme (8.42), sufficient responsibility in patient management (8.13),

and support from the Department of Education (7.69). At the same time, key areas for improvement were identified: the effectiveness of educational activities - the journal club (6.95) and lectures (6.84) - as well as forms of knowledge assessment, including summative and formative assessment (6.27 each) and the skills log (6.38), received relatively low ratings. Furthermore, low scores for access to a simulation room (6.24) and physician engagement in learning (6.95) indicate the need to develop practice-oriented learning and increase interaction with clinical supervisors. Overall satisfaction with the programme was 7.11, indicating potential for systemic improvement of the educational environment.

As part of the 360 survey, teachers were surveyed to evaluate residency programmes. The survey consisted of 15 questions divided into three levels, rated on a ten-point scale: (1) General assessment criteria; (2) Level of effectiveness and informativeness of new educational activities; (3) Provision of postgraduate doctors with various learning resources.

Based on the 2023 results: The teachers' survey results show an overall high rating for the organization and content of residency educational programmes. Respondents rated postgraduate doctors' provision of necessary patient profiles (average 9.60), access to current literature (9.90) and the effectiveness of practical skills (9.40) and journal clubs (9.13) as the highest. A clear understanding of rotation goals and responsibilities also received a high score (9.30). However, areas for improvement were identified: relatively low scores were noted for postgraduate doctor independence in working with patients (6.70), access to computer programs (7.90), and especially access to the simulation room (6.40). Furthermore, there was variability in ratings for teachers' time and motivation for learning (8.20) and postgraduate doctors' engagement (8.50), indicating the need for additional work to maintain engagement on both sides. **(ESG II Part 1.9)**

Programme evaluation takes into account the goals and objectives of learning, as well as the intended learning outcomes (through postgraduate doctor assessment and independent examination). The implementation of the educational programme is assessed through feedback from postgraduate doctors and teachers, as well as graduate achievements.

CF "UMC" engages key stakeholders in the programme to monitor and evaluate the educational programme.

1. Until 2018, the Republican Center for Knowledge and Skills Assessment conducted independent assessments of postgraduate doctors' knowledge. Since 2018, this procedure has been transferred to the National Center for Independent Examination.

2. Employers (medical institutions of the Republic's regional healthcare administrations) - create an effective system to facilitate graduate employment and adaptation to the labor market. Postgraduate doctors - physicians are sent on work experience internship, after which feedback on their internship results is collected.

3. CF "UMC" - provides educational services to postgraduate doctors of third-party organizations in specialized disciplines.

4. CF "UMC" - holds an annual open day for applicants wishing to enroll in CF "UMC" residency programmes.

5. Representatives of public physician associations (physicians' associations) organize scientific and practical conferences on current issues in medical education and the specialty.

One of the key conditions for improving the quality of educational processes is its adjustment based on feedback from stakeholders. The CF "UMC" systematically collects, analyzes and provides feedback to teaching staff and students through tools such as teacher and student surveys, which include questions about the quality of the educational process and any improper implementation. The data obtained is discussed at EMC meetings, and decisions are made on further corrective actions.

An online interview with 3 employers specializing in "Medical Genetics" covered topics such as knowledge of the university's mission, participation in developing the mission and strategic plan proposals, participation in advisory bodies, satisfaction with postgraduate doctors' basic knowledge and skills, participation in postgraduate doctor training through supervising, providing the department and postgraduate doctors with the necessary resources for practical training and medical

judgment development, challenges in interactions with departments and universities in general, and 100% employment of residency graduates.

Employers appreciated such qualities of graduates as possession of professional skills and competencies at a fairly high professional level.

At CF "UMC" the process of updating and restructuring postgraduate medical education programmes is based on prospective analysis, current indicators, internal monitoring, educational performance and the consolidated experience of teachers and supervisors. Additionally, data from current international literature and educational practices is taken into account, allowing for the adaptation of residency programme policies and content to the changing conditions of the healthcare system.

Based on an analysis of midterm assessment results, student surveys, clinical facility reports and internal audits, the Educational and Methodological Council (EMC) initiates adjustments to programme structures, knowledge assessment approaches and educational process organization. Changes are documented in educational and methodological materials approved by the EMC. The latest version of the requirements is set forth in EMC Instruction No.2 dated February 19, 2025.

Decisions on improving the learning environment are made based on reported data on the state of clinical facilities, the availability of simulation equipment and digital resources, including the UpToDate, CME and PubMed platforms. Identified limitations are documented in the analytical sections of strategic and working documents. Resource reallocation and funding for changes are carried out based on the submissions of relevant divisions and approved by the Foundation Board of Directors.

The process of reviewing residency policies and practices is supported by a link between the assessment of the current state, the organization's sustainable development goals and international quality benchmarks in postgraduate education. **(ESG II Part 1.10).**

Teachers participate in international and national educational events, with subsequent corrective actions being implemented in residency programmes.

7.2 Patient safety

A quality assurance system has been implemented, which includes postgraduate doctor error analysis and patient safety assurance, and is reflected in the "Residency Regulations". Postgraduate doctor error analysis is the responsibility of the Education Department.

At CF "UMC", the patient safety assurance system during postgraduate doctor training is regulated by internal documents and is aimed at preventing, identifying and resolving situations related to clinical errors. Residency programme management (CADs, EMC and the Education Department) monitors postgraduate doctors' clinical activities based on their privilege list, which is reviewed at least annually. The basis for review may be identified incidents, errors or patient or employee complaints recorded within the internal monitoring system.

Before beginning clinical work, postgraduate doctors undergo mandatory introductory training on patient safety, safety codes, emergency procedures and familiarization with the Infection Control Programme and the internal Quality Programme. The training is documented and signed by the postgraduate doctor and instructor, after which the materials are placed in the postgraduate doctor's personal file.

Postgraduate doctors are not allowed to independently perform high-risk procedures without the presence of a supervisor, especially after night calls. Responsibility for patient safety and any clinical errors rests not only with postgraduate doctors but also with clinical supervisors. They are required to directly supervise, sign postgraduate doctors' entries in medical records, monitor treatment and diagnostic procedures, adherence to privilege lists and participate in consultations and case reviews.

The joint liability of teachers and clinical supervisors for postgraduate doctors' errors is enshrined in the CF "UMC" Residency Educational Programmes Regulations. The document specifies that each supervisor oversees clinical procedures, discusses the treatment plan and is responsible for patient safety throughout the educational process.

EEC findings by criteria. Comply with 10 standards, 10 - fully compliant, 0 - partially compliant, 0 - not compliant.

Standard 8: GOVERNANCE AND ADMINISTRATION

8.1 Governance

The experts reviewed the governance structure of postgraduate medical education, which includes the Department of Education. This structure was approved by Resolution No.11 of the Board of Directors of the CF "UMC" dated August 1, 2023. The Department of Education is also responsible for supervising, selecting clinical training facilities and concluding contracts with them.

The experts reviewed the strategic development plan for 2024-2028, which defines areas for transforming the management system, digitalizing processes and improving the sustainability of the educational environment.

Having reviewed the annual reports of the Department of Education, the experts concluded that work is being carried out in several areas, including development of teachers, research and clinical work.

The Department of Education, with whose employees the experts met, is responsible for reputational risks and the image of the educational organization.

Residency training is conducted in accordance with the requirements of such regulatory rules regarding postgraduate doctor admission as the Rules for the Organization of Residency Educational Programmes of the CF "UMC", approved by Resolution No.9 of the CF "UMC" Board of Directors dated June 3, 2024; the Rules for Admission to Residency of the Corporate Foundation "University Medical Center", approved by Resolution No.6 of the CF "UMC" Board of Directors dated April 8, 2024.

The assessment of postgraduate doctors - physicians and their achievement of the intended learning outcomes in the residency programme is carried out through final state certification in accordance with the Rules for the Organization of Residency Educational Programmes at the CF "UMC", approved by the Resolution No.9 of the CF "UMC" Board pf Directors dated June 3, 2024. The experts reviewed the postgraduate doctors' training completion documents, including the final state certification results.

The educational programme in the specialty "Medical Genetics" is supported by relevant educational and methodological documents and teachers.

Completion of postgraduate doctor training is documented by the issuance of a residency completion certificate, which is recognized by the national authorized healthcare authority. Thus, the educational organization complies with the recommendations of national authorized bodies, including the Ministry of Science and Higher Education of the Republic of Kazakhstan and the Ministry of Healthcare of the Republic of Kazakhstan. Thus, in accordance with the classifier of residency specialties (*On approval of the nomenclature of specialties and specializations in the field of healthcare, the nomenclature and qualification characteristics of healthcare worker positions. Order of the* Minister of Healthcare of the Republic of Kazakhstan dated December 21, 2020 No.KR DSM-305/2020).

8.2 Shared governance

The responsibilities and obligations of management and employees in postgraduate medical education are defined and assigned to the Department of Education and are enshrined in the document "Residency Regulations".

The Chairperson of the Board of Directors of the CF "UMC" is appointed and dismissed by the Board of Trustees and is personally responsible for the financial and economic activities, the safety of the property of the CF "UMC" and the anti-corruption organization; establishes the competencies of the Deputy Chairpersons of the Board of Directors and other senior staff of the CF "UMC", and independently resolves all matters related to the activities of the CF "UMC" in accordance with its

authority, as defined by the legislation of the Republic of Kazakhstan and the Charter of the CF "UMC".

Residency matters are overseen by the Deputy Chairperson of the Board of Directors of the CF "UMC". The Department of Education is responsible for organizing residency programmes. The Department reports to the Deputy Chairperson of the Board of Directors.

The Department of Education is managed by Director Alma Alibekovna Syzdykova, appointed to the position by order of the Head of the CF "UMC" following an open competition.

The Department of Education is responsible for the direct organization and support of the educational process for postgraduate doctors - physicians, overseeing the educational and methodological support of educational programmes, and implementing a competency-based medical education model.

The educational process at CF "UMC" is regulated by the working curriculum for each specialty, the academic calendar, the schedule of classes and the individual curriculum for postgraduate doctor - physician. The organization of education in the divisions is assessed through systematic monitoring by the Department of Education.

To effectively govern the educational process and ensure the successful implementation of medical education, CF "UMC" has an Educational and Methodological Council, approved by Order No.10 of the Deputy Chairperson of the Board of Directors of the CF "UMC" dated June 21, 2024. The EMC is the primary advisory body on matters of educational, methodological and organizational support for the educational process at the CF "UMC".

In response to the survey question, "Do the organization's heads consider your opinions regarding educational processes, research and clinical work?", 100% of teachers responded that they do so systematically.

A financial report is submitted annually, which is approved and demonstrates, among other things, the distribution of educational resources according to needs and the coverage of all types of expenses for the implementation and development of the residency programme.

Today, experts are confident that the CF "UMC" is financially and organizationally sustainable.

To specifically improve the educational process, sociological research is conducted, including the 360-Survey, and literature on postgraduate medical education is reviewed. This analysis has led to a review of approaches to teaching in the residency programme.

8.3 Postgraduate doctor and staff representation

The main governing body at CF "UMC" is the Educational and Methodological Council, which includes teachers, postgraduate doctors, representatives of clinical divisions and representatives of the Nazarbayev University School of Medicine. The Council meets at least six times a year, making decisions on curricula, certifications and updates, which are formalized in minutes and orders.

Working groups for programme updates, syllabus development and evaluation forms include teachers, clinical supervisors and postgraduate doctors' representatives. Their participation is documented in the internal documentation system: proposals are discussed at the Educational and Medical Council (EMC) and approved by management orders. Postgraduate doctors participate in developing call rosters, coordinating research topics and scheduling educational events (e.g., journal club), which are reflected in regulations and instructions.

8.4 Administration

There is an appropriate administrative and teaching staff, including management: 228 in total. To effectively govern the educational process, Department of Education employees underwent advanced training in 2020-2025 on modern educational technologies.

CF "UMC" implements a formalized process for regularly assessing the adequacy of administrative staff and budgetary support for residency programmes, regulated by the internal quality management system (QMS) policy, which complies with the principles of ESG II Part 1.9. The assessment is conducted annually as part of the Department of Education's internal audit. Personnel

and resource needs for IT support, corporate communications and feedback systems are assessed separately.

The administration and governance of the educational process as a whole and the educational programme for the residency in "Medical Genetics" are assessed through the residency teachers' salary fund, provision of students with educational resources (textbooks and scientific literature, internet access and access to international information literature databases, information and communication technologies), programme enhancement through invited international teachers and internships with opportunities for postgraduate doctors - physicians to participate in international and national conferences and seminars. **(ESG II Part 1.9)**

EEC findings by criteria. Comply with 8 standards, 7 - fully compliant, 1 - partially compliant, 0 - not compliant.

Standard	Standard implementation	Recommendations for improvement
8.4.1	Partially implemented	Expand the staff of methodologists, teachers and clinical supervisors in the educational and methodological department.

CONCLUSION: The external assessment of the educational programme in "Medical Genetics" revealed that 100 of the 109 accreditation standards demonstrated full compliance. 9 standards demonstrated partial compliance. No non-compliance with standards was identified.

The EEC concluded that, despite achievements in postgraduate doctor training, including the expected learning outcomes for the accredited educational programme in "Medical Genetics", there are a number of issues that CF "UMC" must address within the first or second quarter of 2026.

5. Recommendations for improvement of the educational programme in "Medical Genetics":

Standard	Standard implementation	Recommendations for improvement
2.2.3	Partially implemented	A checklist for assessing practical skills is missing. Develop and standardize checklists for assessing practical skills.
2.3.1	Partially implemented	Expand the catalog of elective disciplines and optimize the catalog creation process.
2.4.2	Partially implemented	Not all levels of medical genetic care are covered, requiring a review of the content and inclusion in the educational programme. Involve additional clinical facilities for screening and practical skills development (prenatal and neonatal screening).
2.6.1	Partially implemented	Not all levels of medical genetic care are represented; therefore, adapt the educational programme to the current needs of science and practice.
2.6.3	Partially implemented	Make more efficient use of healthcare system resources.
3.1.2	Partially implemented	Various assessment methods are partially present, but testing is lacking. Provide for various types of assessment, such as testing.
3.4.1	Partially implemented	Assessment mechanisms are insufficiently defined. Optimize formative, midterm and midpoint assessments, including practical skills assessments using various examiners.
6.2.2	Partially implemented	Provide for additional clinical facilities.

8.4.1	Partially implemented	Expand the staff of methodologists, teachers and clinical supervisors in the educational and methodological department.

6. Recommendation to the ECAQA Accreditation Council

The EEC members unanimously recommended that the Accreditation Council accredit the educational programme **7R01106 "Medical Fenetics" of the Corporate Foundation "University Medical Center"** for a period of 5 years.

EEC Chairperson	MARINA ALEXEYEVNA MORENKO
International expert	YAVOR PETKOV YENCHEV
International expert	LEILA TEIMUROVNA AKHVLEDIANI
Academic expert	VALENTIN MANARBEKOVICH MADYAROV
Academic expert	SAULE ASKEROVNA YESSENKULOVA
Academic expert	BIBIGUL AMANGELDIYEVNA ABEUOVA
Academic expert	GULNARA TALIPOVNA TASHENOVA
Academic expert	NAILYA ANUAROVNA TALKIMBAYEVA
Academic expert	AKMARAL SHAIMERDENOVNA IZBASSAROVA
Academic expert	NELLYA NIKOLAYEVNA IVANCHENKO
Academic expert	NAILYA AMIRBEKOVNA KABILDINA
Academic expert	DAMILYA NURGAZIYEVNA SALIMBAYEVA
Academic expert	ZHANSAYA RUSTEMBEKKYZY
Expert employer	KYZYLGUL ALIMOVNA TUGELBAYEVA
Expert doctoral student	AYAZ ABDIRAKHYMULY YKTIYAROV
Expert postgraduate doctor	TIMUR NURZHANOVICH MAKHMUTOV

6. Рекомендация Аккредитационному совету ЕЦА

Члены ВЭК пришли к единогласному мнению рекомендовать Аккредитационному совету аккредитовать образовательную программу **7R01106 «Медицинская генетика» Корпоративного фонда «University Medical Center»** на период 5 лет.

Председатель ВЭК	МОРЕНКО МАРИНА АЛЕКСЕЕВНА	
Международный эксперт	ЕНЧЕВ ЯВОР ПЕТКОВ	
Международный эксперт	АХВЛЕДИАНИ ЛЕЙЛА ТЕЙМУРОВНА	
Академический эксперт	МАЛЬЯРОВ ВАЛЕНТИН МАНАРБЕКОВИЧ	
Академический эксперт	ЕСЕНКУЛОВА САУЛЕ АСКЕРОВНА	
Академический эксперт	АБЕУОВА БИБИГУЛЬ АМАНГЕЛЬДИЕВНА	
Академический эксперт	ТАШЕНОВА ГУЛЬНАРА ТАЛИПОВНА	
Академический эксперт	ТАЛКИМБАЕВА НАЙЛЯ АПУАРОВНА	
Академический эксперт	ИЗБАСАРОВА АКМАРАЛ ШАЙМЕРДЕНОВНА	
Академический эксперт	ИВАНЧЕНКО НЕЛЛЯ НИКОЛАЕВНА	
Академический эксперт	КАБИЛДИНА НАЙЛЯ АМИРБЕКОВНА	
Академический эксперт	САЛИМБАЕВА ДАМИЛЯ НУРГАЗИЕВНА	
Академический эксперт	РУСТЕМБЕККЫЗЫ ЖАНСАЯ	
Эксперт-работодатель	ТУГЕЛЬБАЕВА КЫЗЫЛГУЛЬ АЛИМОВНА	
Эксперт- докторант	ЫҚТИЯРОВ АЯЗ ӘБДІРАХЫМҰЛЫ	
Эксперт- резидент	МАХМУТОВ ТИМУР НУРЖАНОВИЧ	

Приложение 1.

Профиль качества и критерии внешней оценки образовательной программы (обобщение)

Standard	Критерии оценки	Количество стандартов	Оценка		
			Полностью соответствует	Частично соответствует	Не соответствует
1.	МИССИЯ И ЦЕННОСТИ	6	6	0	0
2.	ОБРАЗОВАТЕЛЬНАЯ ПРОГРАММА	28	23	5	0
3.	ОЦЕНКА РЕЗИДЕНТОВ	15	13	2	0
4.	РЕЗИДЕНТЫ	19	19	0	0
5.	ПРЕПОДАВАТЕЛИ И КЛИНИЧЕСКИЕ НАСТАВНИКИ	8	8	0	0
6.	ОБРАЗОВАТЕЛЬНЫЕ РЕСУРСЫ	15	14	1	0
7.	ОБЕСПЕЧЕНИЕ И УЛУЧШЕНИЯ КАЧЕСТВА ПОСЛЕДИПЛОМНОЙ ПОДГОТОВКИ	10	10	0	0
8.	УПРАВЛЕНИЕ И АДМИНИСТРИРОВАНИЕ	8	7	1	0
	Всего:	109	100 (91,7%	9 (8,3%)	0
			109		

Приложение 2

Список документов, изученных членами ВЭК в рамках проведения внешней оценки образовательной программы резидентуры

№	Наименования документов/дата утверждения	Количество
1.	Стратегия развития КФ «UMC» на 2024–2028 годы	1
2.	Положение о Департаменте образования», утвержденное решением Правления КФ «UMC» от 01 августа 2023 года, Протокол №11	1
3.	Положение об учебно-методическом совете, утвержденный приказом заместителя председателя Правления №10 от 21.06.2024 г.	1
4.	Положение о научной и инновационной деятельности, утвержденное решением Правления КФ «UMC» от 22 февраля 2018 года № 4	1
5.	Кодекс деловой этики КФ «UMC»	1
6.	Правила приема в резидентуру КФ «UMC», утвержденные решением Правления КФ «UMC» от 08.04.2024 г №6	1
7.	Правила организации образовательного процесса в резидентуре КФ «UMC», утвержденные решением Правления КФ «UMC» от 03.06.2024 №9	1
8.	Правила поиска, отбора, найма и аттестации работников в КФ «UMC» утверждено решением Правления КФ от 29.11.2021 №14	1
9.	Правилами отбора и направления врачей-резидентов на командирование, утвержденными решением Учебно-методического совета от 16 мая 2025 года № 12	1
10.	Положение о наставничестве	1
11.	Образовательная программа по специальности «Медицинская генетика», одобрена Учебно- методическим советом КФ «UMC», протокол заседания УМС №3 от «27» апреля 2023 года	1
12.	Силлабусы по специальности «Медицинская генетика»	1
13.	Каталог элективных дисциплин (КЭД) и индивидуальный учебный план (ИУПл)	1
14.	Справочник-путеводитель для резидентов	1
15.	Протокол Учебно-методического совета КФ «UMC» №5 от 27 апреля 2023 года, подтверждающий одобрение программы	1
16.	Перечень охранных документов, полученных сотрудниками КФ «UMC», размещен на сайте КФ «UMC»: http://umc.org.kz/?science=post#science_results	1
17.	Перечень научных проектов КФ «UMC» размещен на сайте КФ «UMC»: http://umc.org.kz/?science=post#projects.	1
18.	Перечень публикаций сотрудников КФ «UMC» за 2016–2023 годы размещен на сайте: http://umc.org.kz/?publications=post	1
19.	Сертификаты повышения квалификации ППС «Образовательные технологии в резидентуре. Доверительная профессиональная деятельность», «Awarded by AMEE – An International Association for medical Education».	3