

The External Evaluation Report of the Doctoral Study Domain: Medicine

"Carol Davila" University of Medicine and
Pharmacy of Bucharest

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I. Introduction¹

The present report was performed as the result of the Doctoral study domain of Medicine external evaluation of the "Carol Davila" University of Medicine and Pharmacy of Bucharest in the period of 25-29 October 2021 based on terms of reference and methodology of ARACIS.

The total list of the Experts 'Panel in the Medicine Domain was, as follows:

1. Prof. Doina Azoicai, coordinator, Universitatea de Medicină și Farmacie „Grigore T. Popa”, Iasi;
2. Prof. Elena RAEVSCHI, international evaluator, Nicolae Testemitanu State University of Medicine and Pharmacy from the Republic of Moldova;
3. Paul-Sorin COTOI, PhD student, George Emil Palade University of Medicine, Pharmacy, Science and Technology of Târgu Mureș

The 'Carol Davila' University of Medicine and Pharmacy is a higher education institution certified as an Organizing Institution for University Doctoral Studies (IOSUD) with three doctoral fields, Medicine, Dentistry and Pharmacy. "Carol Davila" University of Medicine and Pharmacy has the institutional capacity to organize doctoral studies in terms of human resources and material base. Within the Doctoral School, 271 doctoral supervisors work (219 in the field of Medicine, 21 in the field of Dentistry and 31 in the field of Pharmacy). The PhD supervisors meet minimum standards for obtaining the qualification, have a relevant activity at international level and continue to be scientifically active, fulfilling at least 25% of the minimum CNATDCU score based on the activity of the last 5 years. "Carol Davila" University of Medicine and Pharmacy has a modern research infrastructure, suitable for conducting doctoral research and accessible to doctoral students. The research infrastructure is publicly presented on the ERRIS platform (<https://eeris.eu/erio-2000-000b-0233>). The quality assurance process is based on ISO 9001: 2015 / ISO 9001: 2015

II. Methods used

The evaluation activities were performed according the timetable of the institutional evaluation visit – IOSUD Doctoral study domain of Medicine at the 'Carol Davila' University of Medicine and Pharmacy of Bucharest for the period of 25-29 October 2021.

On the preparation period was analyzed The Internal Evaluation Report of Medicine of 'Carol Davila' University of Medicine and Pharmacy of Bucharest (24 pages) and its annexes (nº297).

Along with that were analyzed documents, data and information available on the IOSUD / Doctoral Schools website and was required additional clarification for performance indicators as follows:

A.1.1.1.e.; A.1.2.2; A.2.1.1.; B.1.2.1.; B.3.2.1.; C.2.2.3.; C.3.1.3.

¹ Each time when applicable the information shall be presented gender-wise.



To obtain objective information about the quality of educational programs and the entire infrastructure of the university, to clarify the content of self-assessment Internal Evaluation Report, meetings were held with:

- Representatives of the Institution
- Representatives of the CSUD and the Doctoral School
- Doctoral study medical field coordinator
- Academic staff members who are Doctoral advisors
- Members of Ethics Commission
- Commission for Quality Evaluation and Assurance
- Doctoral students
- Graduates of Doctoral program in Medicine
- Directors of the research centers/laboratories
- Doctoral schools' Council in Medicine doctoral study domain
- Employers of Doctoral graduates.

III. Analysis of ARACIS's performance indicators

Domain A. INSTITUTIONAL CAPACITY

- *general description of the domain analysis.*

The institutional capacity of the 'Carol Davila' University of Medicine and Pharmacy as IOSUD Doctoral study domain Medicine was found as a compliant field.

Criterion A.1. The administrative, managerial institutional structures and the financial resources

Standard A.1.1. The institution organizing doctoral studies (IOSUD) has implemented the effective functioning mechanisms provided for in the specific legislation on the organization of doctoral studies.

- *general description of the standard analysis.*

The 'Carol Davila' University of Medicine and Pharmacy as IOSUD Doctoral study domain Medicine provided all necessary evidences in order to confirm the implementation of the effective functioning mechanisms provided for in the specific legislation on the organization of doctoral studies.

Performance Indicator A.1.1.1. *The existence of specific regulations and their application at the level of the Doctoral School of the respective university doctoral study domain:*

The Doctoral School of 'Carol Davila' University of Medicine and Pharmacy elaborated according with the legal regulations in place, approved by the Senate of the University and posted on the web page of the Institution:

- (a) the internal regulations of the at the level of the IOSUD, respectively at the Doctoral School(s) (applied in the revised form of 2018);
- (b) the Methodology for conducting elections at the level of the Council of University Doctoral Studies (CSUD), respectively at Doctoral School(s) including elections by the students of their representatives in CSUD/Council of the Doctoral School (CSD) and the evidence of their conduct;
- (c) the Methodologies for organizing and conducting doctoral studies for the admission of doctoral students, for the completion of doctoral studies)

d) the existence of mechanisms for recognizing the status of a Doctoral advisor and the equivalence of the doctoral degree obtained abroad;

e) functional management structures CSUD/Council of the Doctoral School with evidence of the regularity of meetings;

f) the contract for doctoral studies;

g) internal procedures for the analysis and approval of proposals about doctoral study programs based on advanced academic studies.

The mentioned above specific regulations (a-g) are formulated in accordance with the National and International Regulations and are applied accordingly (Annexes A.1.1.1. a-g, required additionally Minutes of CSUD meetings)

Recommendations:

The indicator is fulfilled

Performance Indicator A.1.1.2. *The doctoral school' Regulation includes mandatory criteria, procedures and standards binding on the aspects specified in Article 17, paragraph (5) of the Government Decision No. 681/2011 on the approval of the Code of Doctoral Studies with subsequent amendments and additions.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

The Regulation for the organization and functioning of the Doctoral School Regulation establish the way in which the doctoral study programs are organized within the Doctoral School of 'Carol Davila' Univeristy of Medicine and Pharmacy, acording the IOSUD institutional Regulation.

- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

The institutional regulation and the regulation of the Doctoral School (Internal Report Annex A.1.1.1.a. *Institutional regulation*) include criteria, procedures and mandatory standards for the matters specified in art. 17 para. (5) of the Code of doctoral studies, approved by Government Decision no. 681/2011, with subsequent amendments and completions, as follows:

a) acceptance of new thesis supervisors and the manner whereby a thesis supervisor may excluded from the doctoral school;

b) mechanisms for deciding on the adequacy, make-up and contents of the advanced university studies programme;

c) procedures for replacing a doctoral student's thesis supervisor and conflict mediation procedures;

d) conditions for interrupting a doctoral programme;

e) means for preventing research fraud, including plagiarism;

f) providing access to research resources;

g) doctoral students' attendance requirements, based on a methodology developed by the Ministry of Education, Research, Youth and Sports.

Recommendations:

The indicator is fulfilled.

Standard A.1.2. *The IOSUD has the logistical resources necessary to carry out the doctoral studies' mission.*

- *general description of the standard analysis.*

The 'Carol Davila' University of Medicine and Pharmacy as IOSUD provided all necessary evidences in order to confirm the presence of the logistical resources necessary to carry out the doctoral studies' mission.

Performance Indicator A.1.2.1. *The existence and effectiveness of an appropriate IT system to keep track of doctoral students and their academic background.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The 'Carol Davila' University of Medicine and Pharmacy in order to keep track of doctoral students and their academic background is using an EXCEL database (protected by a password) and shared through the secure network of UMFC D Rectorship, only for people with management positions at the level of doctoral studies and for the staff of the secretariat. At the same time, the computer where the database is located is synchronously incrementally with the Cloud UMFC D server.

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

For the academic year 2021 - 2022, the steps for the acquisition of a program for managing the schooling of PhD students and a platform for enrolling students in doctoral studies are started.

Recommendations: *To accelerate the actions of digitalization of the activities within the Doctoral School by implementing a platform at institutional level in which to include the field of doctorate Medicine.*

The indicator is fulfilled.

Performance Indicator A.1.2.2. *The existence and use of an appropriate software program and evidence of its use to verify the percentage of similarity in all doctoral theses.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

After the entry into force of the Order of the Minister of National Education and Scientific Research no. 3482/2016 and the implementation of the procedure at IOSUD UMF "Carol Davila", all doctoral theses are verified with a similarity program in order to verify the originality using the program sistemantiplagiat.ro, (Annex A.1.2.2.-2/3 Internal Report).

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

All generated similarity reports are included in the doctoral file and are available in the REI platform. In the period 2016 - 2020, 685 verifications were performed for the doctoral theses in the field of Medicine (Annex A.1.2.2.-5. Internal report).

Recommendations:

The indicator is fulfilled.

Standard A.1.3. *The IOSUD makes sure that financial resources are used optimally, and the revenues obtained from doctoral studies are supplemented through additional funding besides governmental funding.*

**general description of the standard analysis.*

The 'Carol Davila' University of Medicine and Pharmacy provided all necessary evidences in order to confirm that financial resources are used optimally, and the revenues obtained from doctoral studies are supplemented through additional funding besides governmental funding.

Performance Indicator A.1.3.1. *Existence of at least one research or institutional / human resources development grant under implementation at the time of submission of the internal evaluation file, per doctoral study domain under evaluation, or existence of at least 2 research or institutional development / human resources grant for the doctoral study domain, obtained by doctoral thesis advisors operating in the evaluated domain within the past 5 years. The grants address relevant themes for the respective domain and, as a rule, are engaging doctoral students.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

In the period 2016-2021, the PhD supervisors in the field of Medicine led a number of 92 contracts, as follows: 53 research contracts (8 in progress), 20 international projects (5 in progress), 8 FDI contracts (two in progress) and 11 contracts with a private economic operator. At the University level, 14 other institutional development projects were conducted, of which 3 in progress) which involved or the results of which benefited the PhD students in the field of Medicine (Annex A.1.3.1. from Internal Report)

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The grants address topics relevant to the field of Medicine and, as a rule, are carried out with the involvement of PhD students or have as goal the institutional development that also benefits PhD students.

Recommendations:

The indicator is fulfilled.

Performance Indicator *A.1.3.2. *The percentage of doctoral students active at the time of the evaluation, who for at least six months receive additional funding sources besides government funding, through scholarships awarded by individual persons or by legal entities, or who are financially supported through research or institutional / human resources development grants is not less than 20%.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

PhD students, both those with funding from the state budget and those with a fee, also benefit from other sources of funding during doctoral studies, such as involvement in research projects or employment as assistant for undetermined period, full-time assistant, with salary equivalent to that of assistant professor..

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The proportion of doctoral students who benefit for at least six months from other funding is 34% vs. required 20% (Annex A.1.3.2.Students - Complementary budget funding from Internal Report)

Recommendations:

The indicator is fulfilled.

Performance Indicator *A.1.3.3.² *At least 10% of the total amount of doctoral grants obtained by the university through institutional contracts and of tuition fees collected from the doctoral students enrolled in the paid tuition system is used to reimburse professional training expenses of doctoral students (attending conferences, summer schools, training, programs abroad, publication of specialty papers or other specific forms of dissemination etc.).*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

The training of PhD students involves expenses for the payment of teachers for teaching the subjects within the advanced university study program (hourly payment), participation in conferences, training courses and summer schools, publication of articles, patent fees.

- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

Complementary to the amounts related to the doctoral grants obtained by the university through an institutional contract and tuition fees collected from PhD students, there were other sources of financing for the professional training of PhD students. (Annex A.1.3.3. Financing professional training from Internal report)

Recommendations:

The indicator is fulfilled.

Criterion A.2. Research infrastructure

Standard A.2.1. *The IOSUD has a modern research infrastructure to support the conduct of doctoral studies' specific activities.*

- *general description of the standard analysis.*

The UMF CD provided all necessary evidences in order to confirm a modern research infrastructure to support the conduct of doctoral studies' specific activities.

Performance Indicator A.2.1.1. *The venues and the material equipment available to the doctoral school enable the research activities in the evaluated domain to be carried out, in line with the assumed mission and objectives (computers, specific software, equipment, laboratory equipment, library, access to international databases etc.). The research infrastructure and the provision of research services are presented to the public through a specific platform. The research infrastructure described above, which was purchased and developed within the past 5 years will be presented distinctly.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

In the field of Medicine in the ERRIS platform are registered 21 research infrastructures, equipped with modern equipment (Organization directpublic link in ERRIS: <https://eeris.eu/ERIO-2000-000B-0233>) (Annex A.2.1.1.-2. List of laboratories and research centers from Internal Report). The

² The indicators marked with an asterisk (*) hold a special status, referring exclusively to the evaluation of doctoral studies domains, as per Article 12 from the annex No.1 of the Order of the minister of education No. 3651/12.04.2021 approving the Methodology for evaluating university doctoral studies and the system of criteria, standards and performance indicators used in the evaluation. In case they are not met, the Agency extends a period of maximum 3 years to IOSUD to correct the respective deficiencies.

Library of the Faculty of Medicine also offers learning resources in electronic format, in its own databases and international databases (Annex A.2.1.1.-1. List of databases from Internal Report).

The Research infrastructure developing within the past 5 years evidences was required additionally (Clarificari_UMFCD_CENTRALIZATOR ECHIP SI APARATURA 2016-2020).

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The research infrastructure development is in line with the assumed mission and objectives.

Recommendations:

The indicator is fulfilled.

Criterion A.3. Quality of Human Resources

Standard A.3.1. At the level of each domain there are sufficient qualified staff to ensure the conduct of doctoral study program.

- general description of the standard analysis.

The UMF CD Doctoral School for Medicine domain provided all necessary evidences in order to confirm the sufficiency of qualified staff to ensure a quality educational process.

Performance Indicator A.3.1.1. *Minimum three doctoral thesis advisors within that doctoral domain, and at least 50% of them (but no less than three) meet the minimum standards of the National Council for Attestation of University Degrees, Diplomas and Certificates (CNATDCU) in force at the time when the evaluation is carried out, which standards are required and mandatory for obtaining the enabling certification.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

Out of 219 doctoral advisors, 132 of them meet the minimum CNATDCU standards in force (Internal Report, Annex A.3.1.1. Doctoral supervisors - compliance with minimum standards, Supplementary Annex AS A.3.1.1. Certification sheets for supervisors compliance with minimum standards).

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

There is a proportion of 60% of doctoral thesis advisors in Medicine meeting the minimum standards of the National Council for Attestation of University Degrees, Diplomas and Certificates (CNATDCU) in force.

Recommendations: To strength the HR strategy for Research motivation activities in order to rise the proportion of doctoral thesis advisors meeting the minimum standards CNATDCU.

The indicator is fulfilled.

Performance Indicator *A.3.1.2. *At least 50% of all doctoral advisors have a full-time employment contract for an indefinite period with the IOSUD.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

Of the 219 doctoral supervisors, 175 are full-time. (Internal report Annex A .3.1.2 Share of full-time supervisors).

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

There is a proportion of 80% of professors who are doctoral advisors having a full-time employment contract for an indefinite period in the institution.

Recommendations:

The indicator is fulfilled.

Performance Indicator A.3.1.3. *The study subjects in the education program based on advanced higher education studies pertaining to the doctoral domain are taught by teaching staff or researchers who are doctoral thesis advisors / certified doctoral thesis advisors, professors / CS I or lecturer / CS II, with proved expertise in the field of the study subjects they teach, or other specialists in the field who meet the standards established by the institution in relation with the aforementioned teaching and research functions, as provided by the law.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The disciplines in the training program based on advanced university studies are taught by professors who have the quality of doctoral / habilitated advisor, university professor or associate professor.

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The totals of 100% from subjects in the doctoral education program based on advanced higher education studies in Medicine are taught by certified doctoral thesis advisors. All those responsible for the discipline are full-time teachers, 6 of the 10 teaching staff having the capacity of doctoral supervisor.

Recommendations:

The indicator is fulfilled.

Performance Indicator *A.3.1.4. *The percentage of doctoral thesis advisors who concomitantly coordinate more than 8 doctoral students, but no more than 12, who are themselves studying in doctoral programs³ does not exceed 20%.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

According the provided information in the doctoral field of Medicine: 37 doctoral supervisors coordinate at the sametime more than 8 PhD students, but not more than 12, during their doctoral studies (Internal report AnnexA.3.1.4. Share of supervisors with over 8 PhD students). A number of 5 doctoral supervisors exceeds 12 PhD students coordinated at the same time.

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The percentage of doctoral thesis advisors who concomitantly coordinate more than 8 doctoral students, but no more than 12, is 17%, which do not exceed 20% but there is a 2% of advisors coordinating more than 12 doctoral students. So, the indicator requirements is at the possible limits.

³ 3 years for the doctoral university studies with the duration stipulated at Article 159, paragraph (3), respectively 4 years for the doctoral university studies with the duration stipulated at Article 174, paragraph (3) of the Law of national education No.1/2011 with subsequent amendments and additions, with additional extension periods approved as per Article 39, paragraph (3) of the Code of doctoral studies approved by the GD No. 681/2011 with subsequent amendments and additions.

Recommendations:

1. The Doctoral School Council will aim to maintain the level of 8 guided doctoral students / supervisor by completing the doctorate in the case of those in extension.

2. Particular attention will be paid to the 5 doctoral supervisors who have more than 12 doctoral students to reduce their number or the Doctoral School Council, depending on each situation, will make a redistribution of them to doctoral supervisors with fewer enrolled doctoral students and to whom the topic obviously allows this transfer.

The indicator is partially fulfilled.

Standard A.3.2. The Doctoral advisors within the domain are carrying out a scientific activity visible at international level.

**general description of the standard analysis.*

The UMF CD provided all necessary evidences in order to confirm the visibility of scientific activity at the international level.

Performance Indicator A.3.2.1. *At least 50% of the doctoral thesis advisors in the evaluated domain have at least 5 Web of Science- or ERIH-indexed publications in magazines of impact, or other achievements of relevant significance for that domain, including international-level contributions that indicate progress in scientific research - development - innovation for the evaluated domain. The aforementioned doctoral thesis advisors enjoy international awareness within the past five years, consisting of: membership on scientific boards of international publications and conferences; membership on boards of international professional associations; guests in conferences or expert groups working abroad, or membership on doctoral defense commissions at universities abroad or co-leading with universities abroad. For Arts and Sports and Physical Education Sciences, doctoral thesis advisors shall prove their international visibility within the past five years by their membership on the boards of professional associations, membership in organizing committees of arts events and international competitions, membership on juries or umpire teams in artistic events or international competitions.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

In the Medicine domain undergoing evaluation, out of 2019 doctoral advisors, 202 of them have minimum 5 publications, significantly relevant to the field and indexed Web of Science.

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

There is 92% of doctoral advisors meet the indicator requirements (Annex A.3.2.1.-1 Doctoral supervisors: visibility, supplementary Annex AS A.3.2.1. Visibility sheets for supervisors from Internal report).

Recommendations:

The indicator is fulfilled.

Performance Indicator *A.3.2.2. *At least 50% of the doctoral thesis advisors in a specific doctoral study domain continue to be active in their scientific field, and acquire at least 25% of the score requested by the minimal CNATDCU standards in force at the time of the evaluation, which are required and mandatory for acquiring their enabling certificate, based on their scientific results within the past five years.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

In the domain of Medicine, 172 of doctoral advisors continue to be scientifically active, obtaining at least 25% of the minimum CNATDCU score of 47 points

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

There is a percentage of 79% of the doctoral advisors meeting the minimum CNATDCU standards in force. (Internal report Annex A.3.2.2. Doctoral supervisors: 5 years CNATDCU score, Supplementary Annex AS A.3.2.2 Minimum score sheets CNATDCU supervisors).

Recommendations:

The indicator is fulfilled.

Domain B. EDUCATIONAL EFFECTIVENESS

**general description of domain analysis.*

The educational effectiveness of the UMF CD Doctoral School for Medicine domain was found as a compliant field.

Criterion B.1. The number, quality and diversity of candidates enrolled for the admission contest

Standard B.1.1. The institution organizing doctoral studies has the capacity to attract candidates from outside the higher education institution or a number of candidates exceeding the number of seats available.

**general description of the standard analysis.*

The UMF CD Doctoral School for Medicine domain provided all necessary evidences in order to confirm the capacity to attract candidates from outside the higher education institution and having a number of candidates exceeding the number of seats available, as well.

Performance Indicator *B.1.1.1. *The ratio between the number of graduates of masters' programs of other higher education institutions, national or foreign, who have enrolled for the doctoral admission contest within the past five years and the number of seats funded by the state budget, put out through contest within the doctoral domain is at least 0.2 or the ratio between the number of candidates within the past five years and the number of seats funded by the state budget put out through contest within the doctoral studies domain is at least 1.2.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

In the doctoral field of Medicine, in the last 5 years, a number of 228 master's degree graduates from other institutions have been admitted to doctoral university studies (Internal Report Annex B.1.1.1. Graduates from other universities);

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

Related to the number of places financed from the state budget put up for competition within the field of Medicine (447 places), the ratio is 0.51.

Recommendations:

The indicator is fulfilled.

Standard B.1.2 Candidates admitted to doctoral studies demonstrate academic, research and professional performance.

**general description of the standard analysis.*

The UMPHST G.E. Palade Tg. Mureş IOSUD The Doctoral School of Medicine and Pharmacy (SDMF) for Medicine domain provided all necessary evidences in order to confirm the academic, research and professional performance of admitted candidates.

Performance Indicator *B.1.2.1. *Admission to doctoral study programs is based on selection criteria including: previous academic, research and professional performance, their interest for scientific or arts/sports research, publications in the domain and a proposal for a research subject. Interviewing the candidate is compulsory, as part of the admission procedure.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

In the last 5 academic years, the selection of candidates for doctoral studies has been differentiated, depending on the form of financing of the places where the candidates have registered (<https://umfcd.ro/educatie/doctorat/scoala-doctorala/arhiva-admitere-doctorat/>).

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

Admission to doctoral study programs is organized based on selection criteria including: previous academic, research and professional performance, their interest for scientific or arts/sports research, publications in the domain and a proposal for a research subject. Interviewing the candidate is compulsory, as part of the admission procedure.

Recommendations:

The indicator is fulfilled.

Performance Indicator B.1.2.2. *The expelling rate, including renouncement / dropping out of doctoral students 3, respectively 4, years after admission⁴ does not exceed 30%.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

In the doctoral field of Medicine, out of 1120 students enrolled in the academic years 2015 - 2016 to 2019 - 2020, 81 PhD (7%) students were expelled (Internal Report Annex B.1.2.1. Expelling rate_4 years),

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The rate of doctoral students expelled from studies does not exceed 30%.

Recommendations:

The indicator is fulfilled.

Criterion B.2. The content of doctoral programs

Standard B.2.1. The training program based on advanced university studies is appropriate to improve doctoral students' research skills and to strengthen ethical behavior in science.

⁴ 3 years for the doctoral university studies with the duration stipulated at Article 159, paragraph (3), respectively 4 years for the doctoral university studies with the duration stipulated at Article 174, paragraph (3) of the Law of national education No. 1/2011 with subsequent amendments and additions.

**general description of the standard analysis.*

The UMF CD Doctoral School for Medicine domain provided all necessary evidences in order to confirm the training program based on advanced university studies is appropriate to improve doctoral students' research skills and to strengthen ethical behavior in science.

Performance Indicator B.2.1.1. *The training program based on advanced academic studies includes at least 3 disciplines relevant to the scientific research training of doctoral students; at least one of these disciplines is intended to study in-depth the research methodology and/or the statistical data processing.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The training program based on advanced university studies includes disciplines relevant to the field of medicine, which contribute to the development of professional and transversal skills. The program includes a discipline for the in-depth study of research methodology and a discipline for statistical data processing. (Internal Report Annex A.3.1.3.-1. List of disciplines and discipline managers in the last 5 academic years, Annex B.2.1.3. Curriculum 2019 - 2020).

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The training program based on advanced academic is in accordance with the requirements of the performance indicator in question.

Recommendations:

The indicator is fulfilled.

Performance Indicator B.2.1.2. *At least one discipline is dedicated to Ethics and Intellectual Property in scientific research or there are well-defined topics on these subjects within a discipline taught in the doctoral program.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The training program based on advanced university studies includes 3 disciplines dedicated to ethics in scientific research and intellectual property, namely: Ethics and academic integrity, Legislation of scientific research, *Research ethics on laboratory animals* (optional).

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

There is completed performance indicator in question.

Recommendations:

The indicator is fulfilled.

Performance Indicator B.2.1.3. *The IOSUD has mechanisms to ensure that the academic training program based on advanced university studies addresses „the learning outcomes”, specifying the knowledge, skills, responsibility and autonomy that doctoral students should acquire after completing each discipline or through the research activities⁵.*

⁵ Or by what the graduate should know, understand and to be able to do, according to the provisions of the Methodology of 17 March 2017 regarding inscription and registration of higher education qualifications in the National Register of Qualifications in Higher Education (RNCIS) approved by the Order No.3475/2017 with subsequent amendments and additions.

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

All mandatory disciplines for the scientific training of doctoral students are provided according to their Curriculums and Analytical programs.

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The analytical programs of the disciplines include the competencies, skills and attitudes acquired by PhD students. The proficiency, abilities and aptitudes for scientific research is verified at the end of each curricular unit by a colloquium examination with admitted / rejected grade

Recommendations:

The indicator is fulfilled.

Performance Indicator B.2.1.4. All along the duration of the doctoral training, doctoral students in the domain receive counselling/guidance from functional guidance commissions, which is reflected in written guidance and feedback or regular meeting.

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

During the doctoral studies the doctoral student is guided by a supervising committee, consisting of 3 members.

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The doctoral supervisor and the members of the guidance commission continuously monitor and periodically evaluate the doctoral training program, when the 1st year research project is presented, when the research reports from 2nd and 3rd years are presented and the completion of the doctoral thesis.

Recommendations:

The indicator is fulfilled.

Performance Indicator B.2.1.5. For a doctoral study domain, the ratio between the number of doctoral students and the number of teaching staff/researchers providing doctoral guidance must not exceed 3:1.

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

For students enrolled in doctoral studies, during the 4 years of study or during the extension of studies up to 2 years, the ratio between the number of PhD students and the total number of teachers /researchers providing guidance is 2,5 (966/388) (Internal report Annex B.2.1.5. Report regarding PhD students_teachers).

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The ratio between the number of doctoral students and the number of professors / researchers who provide supervision is 2.5:1.

Recommendations:

The indicator is fulfilled.

Criterion B.3. The results of doctoral studies and procedures for their evaluation.

Standard B.3.1. Doctoral students capitalize on the research through presentations at scientific conferences, scientific publications, technological transfer, patents, products and service orders.

**general description of the standard analysis.*

The UMF CD Doctoral School for Medicine domain provided all necessary evidences in order to demonstrate that the doctoral students capitalize on the research through presentations at scientific conferences, scientific publications, technological transfer, patents, products and service orders.

Performance Indicator B.3.1.1. *For the evaluated domain, the evaluation commission will be provided with at least one paper or some other relevant contribution per doctoral student who has obtained a doctor's title within the past 5 years. From this list, the members of the evaluation commission shall randomly select 5 such papers / relevant contributions per doctoral study domain for review. At least 3 selected papers must contain significant original contributions in the respective domain.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

There was selected 5 papers randomly from total list of doctoral students' contribution.

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

All 5 selected articles were found as significant original contributions in the field of Medicine.

Recommendations:

The indicator is fulfilled.

Performance Indicator *B.3.1.2. *The ratio between the number of presentations of doctoral students who completed their doctoral studies within the evaluated period (past 5 years), including posters, exhibitions made at prestigious international events (organized in the country or abroad) and the number of doctoral students who have completed their doctoral studies within the evaluated period (past 5 years) is at least 1.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The number of presentations of doctoral students who completed their doctoral studies in the evaluated period and the number of doctoral students who completed their doctoral studies in the evaluated period is presentd in Annex B.3.1.2. Presentations of PhD students at international congresses, Annex B.3.2.1 Public support commissions last 5 years from Internal report.

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The ratio between the number of presentations of doctoral students who completed their doctoral studies in the evaluated period and the number of doctoral students who completed their doctoral studies in the evaluated period is 1.97

Recommendations:

The indicator is fulfilled.

Standard B.3.2. The Doctoral School engages a significant number of external scientific specialists in the commissions for public defense of doctoral theses in the analyzed domain.

**general description of the standard analysis.*

The UMF CD Doctoral School for Medicine domain provided all necessary evidences in order to proof the engagement of significant number of external scientific specialists in the commissions for public defense of doctoral theses in the activities of Doctoral School medical domain.

Performance Indicator *B.3.2.1. *The number of doctoral theses allocated to one specialist coming from a higher education institution, other than the evaluated IOSUD should not exceed two (2) in a year for the theses coordinated by the same doctoral thesis advisor.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

Of the 614 theses publicly presented in the period 2016 - 2020, there were 69 cases with more than two presentations per year for the same supervisor (51 times 3 presentations / year, 15 times 4 presentations / year and one case with 5, 6, respectively 7 theses / year). In 16 cases with more than 2 presentations per year, there were at most two (2) theses allocated to the same external referent / year, and in 53 cases more than two theses / year were allocated to the same external referent.

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

There are many reviewers having more than two doctoral theses allocated from the same doctoral advisor, in the same year.

Recommendations:

1. Due to the fact that there are some areas where it is difficult to have more national references, it is recommended that CSUD, in collaboration with doctoral supervisors, make a list of specialized references that meet the conditions and that come from such nationally and internationally

2. In the following years, the allocation per year more than 2 thesis with same supervisor to the same external referent will be avoided.

The indicator is partially fulfilled.

Performance Indicator *B.3.2.2. *The ratio between the doctoral theses allocated to one scientific specialist coming from a higher education institution, other than the institution where the defense on the doctoral thesis is organized, and the number of doctoral theses presented in the same doctoral study domain in the doctoral school should not exceed 0.3, considering the past five years. Only those doctoral study domains in which minimum ten doctoral theses have been presented within the past five years should be analyzed.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The evidence for the situation in question are presented in Annex B.3.2.1. Public support commissions for the last 5 years from Internal report.

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The ratio between the number of doctoral theses assigned to a certain reviewer from another higher education institution and the number of doctoral theses defended in medicine within the doctoral school varies between 0.04.

Recommendations:

The indicator is fulfilled.

Domain C. QUALITY MANAGEMENT

**general description of domain analysis.*

The quality management of the 'Carol Davila' University of Medicine and Pharmacy as was found as a compliant field.

Criterion C.1. Existence and periodic implementation of the internal quality assurance system

Standard C.1.1. There are an institutional framework and procedures in place and relevant internal quality assurance policies, applied for monitoring the internal quality assurance.

**general description of the standard analysis.*

Performance Indicator C.1.1.1. *The Doctoral school in the respective university study domain shall demonstrate the continuous development of the evaluation process and its internal quality assurance following a procedure developed and applied at the level of the IOSUD, the following assessed criteria being mandatory:*

- (a) the scientific work of Doctoral advisors;*
- (b) the infrastructure and logistics necessary to carry out the research activity;*
- (c) the procedures and subsequent rules based on which doctoral studies are organized;*
- (d) the scientific activity of doctoral students;*
- (e) the training program based on advanced academic studies of doctoral students;*
- (f) social and academic services (including for participation at different events, publishing papers etc.) and counselling made available to doctoral students.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

In order to cover the requirements of points (a-f) of Performance indicator C.1.1.1., the Carol Davila UMPH Doctoral School for Medicine domain has provided all necessary evidences in the Internal report. "Carol Davila" University of Medicine and Pharmacy of Bucharest is SR EN ISO 9001: 2015 / ISO 9001: 2015 certified for university higher education activities, including doctoral, and postgraduate, as well as for university scientific research activities

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The Doctoral School of Carol Davila UMPH for Medicine domain demonstrates the continuous development of the evaluation process and its internal quality assurance by applying approved Regulations, Procedures and Methodology accordingly to ISO 9001-2015.

Recommendations:

The indicator is fulfilled.

Performance Indicator *C.1.1.2. *Mechanisms are implemented during the stage of the doctoral study program to enable feedback from doctoral students allowing to identify their needs, as well as their overall level of satisfaction with the doctoral study program in order to ensure continuous improvement of the academic and administrative processes. Following the analysis of the results, there is evidence that an action plan was drafted and implemented.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The measurement of the satisfaction level of the PhD students towards the quality of the organization and development of the doctoral program is made on the basis of two evaluation mechanisms:

1. Evaluation of the teachers activity teaching the subjects in the curriculum (Internal Report Annex C.1.1.2.-1. Questionnaire for teachers evaluation);

2. Evaluation of the development of the doctoral program as a whole - by measuring the level of satisfaction with the training program by advanced university studies, the scientific research program, the administrative and logistical support provided by the doctoral school (Internal report Annex C.1.1.1.-2. Evaluation of the development of the doctoral training program).

- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

The feedback evaluation is assured accordingly to ISO 9001-2015.

Recommendations:

The indicator is fulfilled

Criterion C.2. Transparency of information and accessibility of learning resources

Standard C.2.1. Information of interest to doctoral students, future candidates and public interest information is available for electronic format consultation.

**general description of the standard analysis.*

IOSUD "Carol Davila" UMPH of Bucharest Doctoral School for Medicine domine provided all necessary evidences covering the requirements of interest information to doctoral students, future candidates and public interest information being available for electronic format consultation.

Performance Indicator C.2.1.1. *The IOSUD publishes on the website of the organizing institution, in compliance with the general regulations on data protection, information such as:*

- (a) the Doctoral School regulation;*
- (b) the admission regulation;*
- (c) the doctoral studies contract;*
- (d) the study completion regulation including the procedure for the public presentation of the thesis;*
- (e) the content of training program based on advanced academic studies;*
- (f) the academic and scientific profile, thematic areas/research themes of the Doctoral advisors within the domain, as well as their institutional contact data;*
- (g) the list of doctoral students within the domain with necessary information (year of registration; advisor);*
- (h) information on the standards for developing the doctoral thesis;*
- (i) links to the doctoral theses' summaries to be publicly presented and the date, time, place where they will be presented; this information will be communicated at least twenty days before the presentation.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

IOSUD "Carol Davila" UMPH of Bucharest is publishing on the website the documents specified in points (a-i).

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The documents published on the website of the IOSUD "Carol Davila" UMPH of Bucharest Doctoral School for Medicine domain are considered the proof for points (a-i).

Recommendations:

The indicator is fulfilled

Standard C.2.2. The IOSUD/The Doctoral School provides doctoral students with access to the resources needed for conducting doctoral studies.

**general description of the standard analysis.*

The IOSUD "Carol Davila" UMPH of Bucharest the Doctoral School Medicine domaine provided all necessary evidences in order to demonstrate the presence of the access for doctoral students to the resources needed for conducting doctoral studies.

Performance Indicator C.2.2.1. *All doctoral students have free access to one platform providing academic databases relevant to the doctoral studies domain of their thesis.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

All PhD students have access to a platform with academic databases relevant to the field of Medicine. Databases subscribed by Anelis Plus or by individual subscription include: General publishing resources: Science Direct, Springer, Oxford, Wiley, Nature;. General resources of integrative type (but also of evaluation): Web of Science, Scopus; Resources specific to the field of Medicine: UpToDate (Internal report Annex A.2.1.1.-1. List of databases).

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

All doctoral students have free access to one platform providing academic databases relevant to the doctoral studies domain of their thesis.

Recommendations:

The indicator is fulfilled

Performance Indicator C.2.2.2. *Each doctoral student shall have access, upon request, to an electronic system for verifying the degree of similarity with other existing scientific or artistic works.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

Each doctoral student, subsequent to the approval of the doctoral advisor, has access to the electronic system of plagiarism checking: sistemeantiplagiat.ro approved and countersigned by the Ministry of Education and Research in 2016.

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

Each doctoral student have access, upon request, to the electronic system (sistemeantiplagiat.ro) for verifying the degree of similarity with other existing scientific or artistic works according the internal regulation of Doctoral School IOSUD "Carol Davila" UMPH of Bucharest.

Recommendations:

The indicator is fulfilled.

Performance Indicator C.2.2.3. *All doctoral students have access to scientific research laboratories or other facilities depending on the specific domain/domains within the Doctoral School, according to internal order procedures.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

All doctoral students of Medicine domaine have access to the research laboratories of the university is a right guaranteed by the doctoral studies contract (Art. 7 The rights of the PhD student, paragraph c: to use the laboratories, classrooms and seminars, reading rooms, libraries and other means made available by the University for professional training, as well as for cultural and sports activities. Some of the university's research centers mention in the activity profile express provisions regarding the involvement in the research activity of PhD students (Internal Report Annex A.2.1.1-2 List of laboratories and research centers).

- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

The access of doctoral students to scientific research laboratories or other facilities are provided according to the internal Regulation and mentioned in doctoral studies contract.

Recommendations:

The indicator is fulfilled.

Criterion C.3. Internationalization

Standard C.3.1. *There is a strategy in place and it is applied to enhance the internationalization of doctoral studies.*

**general description of the standard analysis*

The IOSUD "Carol Davila" University of Medicine and Pharmacy, the Doctoral School for Medicine domain provided all necessary evidences in order to proof the application of strategy to enhance the internationalization of doctoral studies.

Performance Indicator *C.3.1.1. *IOSUD, for every evaluated domain, has concluded mobility agreements with universities abroad, with research institutes, with companies working in the field of study, aimed at the mobility of doctoral students and academic staff (e.g., ERASMUS agreements for the doctoral studies). At least 35% of the doctoral students have completed a training course abroad or other mobility forms such as attending international scientific conferences. IOSUD drafts and applies policies and measures aiming at increasing the number of doctoral students participating at mobility periods abroad, up to at least 20%, which is the target at the level of the European Higher Education Area.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself*

Doctoral students from IOSUD "Carol Davila" UMPH of Bucharest has concluded 68 international agreements with other institutions (Internal Report Annex C.3.1.1. List of international agreements). Of these, 36 are interinstitutional cooperation agreements, 29 are ERASMUS type, and 3 agreements include both types of collaborations.

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

A percentage of 35% of doctoral students have completed a training course or another form of mobility abroad, such as participation in international scientific conferences.

Recommendations: It is recommended to increase the number of doctoral students participating at mobility periods abroad to ensure continuously the target at the level of the European Higher Education Area.

The indicator is fulfilled.

Performance Indicator C.3.1.2. *In the evaluated doctoral study domain, support is granted, including financial support, to the organization of doctoral studies in international co-tutelage or invitation of leading experts to deliver courses/lectures for doctoral students.*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

In the period 2016 - 2020, in the field of Medicine, two international co-supervision agreements were made and several international mobility agreements were signed, as well as cosupervision agreements with other institutions in Romania. PhD students attend lectures and presentations of international experts invited to conferences organized at the level of universities, faculties or scientific societies in the field.

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

IOSUD supports the organization of international jointly supervised doctorates and has mechanisms to improve continuously the research in international jointly supervised doctorates.

Recommendations:

The indicator is fulfilled.

Performance Indicator C.3.1.3. *The internationalization of activities carried out during the doctoral studies is supported by IOSUD through concrete measures (e.g., by participating in educational fairs to attract international doctoral students; by including international experts in guidance committees or doctoral committees etc.).*

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself

The internationalization of activities is supported by many approaches, as participation of prestigious universities in the Commissions for the supervision of Doctoral students, as well as in the Commissions for public defense of doctoral theses, procedure for the recognition of doctoral diplomas, respectively of the quality of doctoral advisor, which facilitates the integration of researchers from abroad in the Doctoral School, etc.

- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself

All mentioned in the Internal Report specific measures are implemented in order to assure the internationalization of activities carried out during the doctoral studies, however, the number of theses analyzed by international experts is very small, an aspect that is intended to be improved in the future.

Recommendations:

In order to increase the quality of doctoral students' training activities, it is recommended to establish a strategy to increase the number of co-supervised doctorates both with recognized researchers from Advanced Research Institutes in Romania and especially with professors from universities or research institutes abroad.

The indicator is fulfilled.

IV. SWOT Analysis

<p><u>Strengths:</u></p> <ol style="list-style-type: none"> 1. The existence of institutional capacity based on modern research infrastructure and quality of human resources; 2. The program based on advanced university studies; 3. The research infrastructure is well represented for the field of doctoral studies 4. Implementation of Quality management System Standard (ISO 9001:2015). 	<p><u>Weaknesses:</u></p> <ol style="list-style-type: none"> 1. The number of PhD students assigned to certain supervisors is higher than the one specified by the standard (over 8-12); 2. The number of mentors does not cover the need to allocate them to existing PhD students so that they can provide real support for them. 3. Lack of an appropriate IT system dedicated to the Doctoral School.
<p><u>Opportunities:</u></p> <ol style="list-style-type: none"> 1. Development of international visibility of Doctoral school activities; 2. Increasing the visibility of doctoral students' research activity by stimulating the presentation of intermediate or final results in specially dedicated events.; 3. Implementation of Open Sciences approaches; 4. The European Commission recognition: the 'HR Excellence in Research' Award. 	<p><u>Threats:</u></p> <ol style="list-style-type: none"> 1. Migration of young researchers due to country economic situation.

V. Overview of judgments awarded and of the recommendations

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
1.	PI	<p>A.1.1.1. The existence of specific regulations and their application at the level of the Doctoral School of the respective university doctoral study domain:</p> <p>a) the internal regulations of the Doctoral School;</p> <p>b) the Methodology for conducting elections for the position of director of the Council of doctoral school (CSD), as well as elections by the students of their representative in CSD and the evidence of their conduct;</p> <p>c) the Methodologies for organizing and conducting doctoral studies (for the admission of doctoral students, for the completion of doctoral studies);</p> <p>d) the existence of mechanisms for recognizing the status of a Doctoral advisor and the equivalence of the doctoral degree obtained abroad;</p> <p>e) functional management structures (Council of the doctoral school), giving as well proof of the regularity of meetings;</p> <p>f) the contract for doctoral studies;</p> <p>g) internal procedures for the analysis and approval of proposals regarding the training for doctoral study programs based on advanced academic studies.</p>	<i>Fulfilled</i>	
2.	PI	<p>A.1.1.2. The doctoral school' Regulation includes mandatory criteria, procedures and standards binding on the aspects specified in Article 17, paragraph (5) of the Government Decision No. 681/2011 on the approval of the Code of Doctoral Studies with subsequent amendments and additions.</p>	<i>Fulfilled</i>	
3.	PI	<p>A.1.2.1. The existence and effectiveness of an appropriate IT system to keep track of doctoral students and their academic background.</p>	<i>Fulfilled</i>	To accelerate the actions of digitalization of the activities within the Doctoral School by implementing a platform at institutional level in which to include the field of doctorate Medicine.
4.	PI	<p>A.1.2.2. The existence and use of an appropriate software program and evidence of</p>	<i>Fulfilled</i>	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		its use to verify the percentage of similarity in all doctoral theses.		
5.	IP	A.1.3.1. Existence of at least one research or institutional / human resources development grant under implementation at the time of submission of the internal evaluation file, per doctoral study domain under evaluation, or existence of at least 2 research or institutional development / human resources grant for the doctoral study domain, obtained by doctoral thesis advisors operating in the evaluated domain within the past 5 years. The grants address relevant themes for the respective domain and, as a rule, are engaging doctoral students.	<i>Fulfilled</i>	
6.	PI *	A.1.3.2. The percentage of doctoral students active at the time of the evaluation, who for at least six months receive additional funding sources besides government funding, through scholarships awarded by individual persons or by legal entities, or who are financially supported through research or institutional / human resources development grants is not less than 20%.	<i>Fulfilled</i>	
7.	PI *	A.1.3.3. At least 10% of the total amount of doctoral grants obtained by the university through institutional contracts and of tuition fees collected from the doctoral students enrolled in the paid tuition system is used to reimburse professional training expenses of doctoral students (attending conferences, summer schools, training, programs abroad, publication of specialty papers or other specific forms of dissemination etc.).	<i>Fulfilled</i>	
8.	CPI	A.2.1.1. The venues and the material equipment available to the doctoral school enable the research activities in the evaluated domain to be carried out, in line with the assumed mission and objectives (computers, specific software, equipment, laboratory equipment, library, access to international databases etc.). The research infrastructure and the provision of research services are presented to the public through a specific platform. The research infrastructure	<i>Fulfilled</i>	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		described above, which was purchased and developed within the past 5 years will be presented distinctly		
9.	CPI	A.3.1.1. Minimum three doctoral thesis advisors within that doctoral domain, and at least 50% of them (but no less than three) meet the minimum standards of the National Council for Attestation of University Degrees, Diplomas and Certificates (CNATDCU) in force at the time when the evaluation is carried out, which standards are required and mandatory for obtaining the enabling certification.	<i>Fulfilled</i>	To strength the HR strategy for Research motivation activities in order to rise the proportion of doctoral thesis advisors meeting the minimum standards CNATDCU.
10.	PI *	A.3.1.2. At least 50% of all doctoral advisors have a full-time employment contract for an indefinite period with the IOSUD.	<i>Fulfilled</i>	
11.	PI	A.3.1.3. The study subjects in the education program based on advanced higher education studies pertaining to the doctoral domain are taught by teaching staff or researchers who are doctoral thesis advisors / certified doctoral thesis advisors, professors / CS I or lecturer / CS II, with proved expertise in the field of the study subjects they teach, or other specialists in the field who meet the standards established by the institution in relation with the aforementioned teaching and research functions, as provided by the law.	<i>Fulfilled</i>	
12.	PI *	A.3.1.4. The percentage of doctoral thesis advisors who concomitantly coordinate more than 8 doctoral students, but no more than 12, who are themselves studying in doctoral programs does not exceed 20%.	<i>Partially Fulfilled</i>	<p>1. The Doctoral School Council will aim to maintain the level of 8 guided doctoral students / supervisor by completing the doctorate in the case of those in extension</p> <p>2. Particular attention will be paid to the 5 doctoral supervisors who have more than 12 doctoral students to reduce their number or the Doctoral School Council, depending on each situation, will make a redistribution of them to doctoral supervisors with fewer enrolled doctoral students and to whom the topic obviously allows this transfer.</p>

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
13.	CPI	A.3.2.1. At least 50% of the doctoral thesis advisors in the evaluated domain have at least 5 Web of Science- or ERIH-indexed publications in magazines of impact, or other achievements of relevant significance for that domain, including international-level contributions that indicate progress in scientific research - development - innovation for the evaluated domain. The aforementioned doctoral thesis advisors enjoy international awareness within the past five years, consisting of: membership on scientific boards of international publications and conferences; membership on boards of international professional associations; guests in conferences or expert groups working abroad, or membership on doctoral defense commissions at universities abroad or co-leading with universities abroad. For Arts and Sports and Physical Education Sciences, doctoral thesis advisors shall prove their international visibility within the past five years by their membership on the boards of professional associations, membership in organizing committees of arts events and international competitions, membership on juries or umpire teams in artistic events or international competitions.	<i>Fulfilled</i>	
14.	PI *	A.3.2.2. At least 50% of the doctoral thesis advisors in a specific doctoral study domain continue to be active in their scientific field, and acquire at least 25% of the score requested by the minimal CNATDCU standards in force at the time of the evaluation, which are required and mandatory for acquiring their enabling certificate, based on their scientific results within the past five years	<i>Fulfilled</i>	
15.	PI *	B.1.1.1. The ratio between the number of graduates of masters' programs of other higher education institutions, national or foreign, who have enrolled for the doctoral admission contest within the past five years and the number of seats funded by the state budget, put out through contest within the doctoral domain is at least 0.2 or the ratio	<i>Fulfilled</i>	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		between the number of candidates within the past five years and the number of seats funded by the state budget put out through contest within the doctoral studies domain is at least 1.2.		
16.	PI *	B.1.2.1. Admission to doctoral study programs is based on selection criteria including: previous academic, research and professional performance, their interest for scientific or arts/sports research, publications in the domain and a proposal for a research subject. Interviewing the candidate is compulsory, as part of the admission procedure.	<i>Fulfilled</i>	
17.	PI	B.1.2.2. The expelling rate, including renouncement / dropping out of doctoral students 3, respectively 4, years after admission does not exceed 30%.	<i>Fulfilled</i>	
18.	PI	B.2.1.1. The training program based on advanced academic studies includes at least 3 disciplines relevant to the scientific research training of doctoral students; at least one of these disciplines is intended to study in-depth the research methodology and/or the statistical data processing.	<i>Fulfilled</i>	
19.	PI	B.2.1.2. At least one discipline is dedicated to Ethics and Intellectual Property in scientific research or there are well-defined topics on these subjects within a discipline taught in the doctoral program.	<i>Fulfilled</i>	
20.	PI	B.2.1.3. The IOSUD has mechanisms to ensure that the academic training program based on advanced university studies addresses „the learning outcomes“, specifying the knowledge, skills, responsibility and autonomy that doctoral students should acquire after completing each discipline or through the research activities.	<i>Fulfilled</i>	
21.	PI	B.2.1.4. All along the duration of the doctoral training, doctoral students in the domain receive counselling/guidance from functional guidance commissions, which is reflected in written guidance and feedback or regular meeting.	<i>Fulfilled</i>	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
22.	CPI	B.2.1.5. For a doctoral study domain, the ratio between the number of doctoral students and the number of teaching staff/researchers providing doctoral guidance must not exceed 3:1.	<i>Fulfilled</i>	
23.	CPI	B.3.1.1. For the evaluated domain, the evaluation commission will be provided with at least one paper or some other relevant contribution per doctoral student who has obtained a doctor's title within the past 5 years. From this list, the members of the evaluation commission shall randomly select 5 such papers / relevant contributions per doctoral study domain for review. At least 3 selected papers must contain significant original contributions in the respective domain	<i>Fulfilled</i>	
24.	PI *	B.3.1.2. The ratio between the number of presentations of doctoral students who completed their doctoral studies within the evaluated period (past 5 years), including posters, exhibitions made at prestigious international events (organized in the country or abroad) and the number of doctoral students who have completed their doctoral studies within the evaluated period (past 5 years) is at least 1.	<i>Fulfilled</i>	
25.	PI *	B.3.2.1. The number of doctoral theses allocated to one specialist coming from a higher education institution, other than the evaluated IOSUD should not exceed two (2) in a year for the theses coordinated by the same doctoral thesis advisor.	<i>Partially Fulfilled</i>	<p>1. Due to the fact that there are some areas where it is difficult to have more national references, it is recommended that CSUD, in collaboration with doctoral supervisors, make a list of specialized references that meet the conditions and that come from such nationally and internationally</p> <p>2. In the following years, the allocation per year more than 2 thesis with same supervisor to the same external referent will be avoided.</p>
26.	PI *	B.3.2.2. The ratio between the doctoral theses allocated to one scientific specialist coming from a higher education institution, other than	<i>Fulfilled</i>	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		the institution where the defense on the doctoral thesis is organized, and the number of doctoral theses presented in the same doctoral study domain in the doctoral school should not exceed 0.3, considering the past five years. Only those doctoral study domains in which minimum ten doctoral theses have been presented within the past five years should be analyzed.		
27.	PI	<p>C.1.1.1. The Doctoral school in the respective university study domain shall demonstrate the continuous development of the evaluation process and its internal quality assurance following a procedure developed and applied at the level of the IOSUD, the following assessed criteria being mandatory:</p> <ul style="list-style-type: none"> a) the scientific work of Doctoral advisors; b) the infrastructure and logistics necessary to carry out the research activity; c) the procedures and subsequent rules based on which doctoral studies are organized; d) the scientific activity of doctoral students; e) the training program based on advanced academic studies of doctoral students; f) social and academic services (including for participation at different events, publishing papers etc.) and counselling made available to doctoral students. 	<i>Fulfilled</i>	
28.	PI *	<p>C.1.1.2. Mechanisms are implemented during the stage of the doctoral study program to enable feedback from doctoral students allowing to identify their needs, as well as their overall level of satisfaction with the doctoral study program in order to ensure continuous improvement of the academic and administrative processes. Following the analysis of the results, there is evidence that an action plan was drafted and implemented.</p>	<i>Fulfilled</i>	
29.	CPI	<p>C.2.1.1. The IOSUD publishes on the website of the organizing institution, in compliance with the general regulations on data protection, information such as:</p> <ul style="list-style-type: none"> a) the Doctoral School regulation; b) the admission regulation; c) the doctoral studies contract; d) the study completion regulation including 	<i>Fulfilled</i>	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		<p>the procedure for the public presentation of the thesis;</p> <p>e) the content of training program based on advanced academic studies;</p> <p>f) the academic and scientific profile, thematic areas/research themes of the Doctoral advisors within the domain, as well as their institutional contact data;</p> <p>g) the list of doctoral students within the domain with necessary information (year of registration; advisor);</p> <p>h) information on the standards for developing the doctoral thesis;</p> <p>i) links to the doctoral theses' summaries to be publicly presented and the date, time, place where they will be presented; this information will be communicated at least twenty days before the presentation.</p>		
30.	PI	C.2.2.1. All doctoral students have free access to one platform providing academic databases relevant to the doctoral studies domain of their thesis.	<i>Fulfilled</i>	
31.	PI	C.2.2.2. Each doctoral student shall have access, upon request, to an electronic system for verifying the degree of similarity with other existing scientific or artistic works.	<i>Fulfilled</i>	
32.	PI	C.2.2.3. All doctoral students have access to scientific research laboratories or other facilities depending on the specific domain/domains within the Doctoral School, according to internal order procedures.	<i>Fulfilled</i>	
33.	PI *	C.3.1.1. IOSUD, for every evaluated domain, has concluded mobility agreements with universities abroad, with research institutes, with companies working in the field of study, aimed at the mobility of doctoral students and academic staff (e.g., ERASMUS agreements for the doctoral studies). At least 35% of the doctoral students have completed a training course abroad or other mobility forms such as attending international scientific conferences. IOSUD drafts and applies policies and measures aiming at increasing the number of doctoral students participating at mobility periods abroad, up to at least 20%, which is	<i>Fulfilled</i>	It is recommended to increase the number of doctoral students participating at mobility periods abroad to ensure continuously the target at the level of the European Higher Education Area.

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		the target at the level of the European Higher Education Area.		
34.	PI	C.3.1.2. In the evaluated doctoral study domain, support is granted, including financial support, to the organization of doctoral studies in international co-tutelage or invitation of leading experts to deliver courses/lectures for doctoral students.	<i>Fulfilled</i>	
35.	PI	C.3.1.3. The internationalization of activities carried out during the doctoral studies is supported by IOSUD through concrete measures (e.g., by participating in educational fairs to attract international doctoral students; by including international experts in guidance committees or doctoral committees etc.).	<i>Fulfilled</i>	In order to increase the quality of doctoral students' training activities, it is recommended to establish a strategy to increase the number of co-supervised doctorates both with recognized researchers from Advanced Research Institutes in Romania and especially with professors from universities or research institutes abroad.

VI. Conclusions and general recommendations

As a result of the evaluation performed based on the performance indicators, it is found that the activity of the IOSUD Carol Davila University of Medicine and Pharmacy of Bucharest, the Doctoral School for Medicine domain is in accordance with the requirements of ARACIS and legislation in force, and can be recommended.

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