

The External Evaluation Report of a Doctoral Study Domain

I. Introduction¹

I was invited by the Romanian Quality Assurance Agency (ARACIS) as the international evaluator of the Iuliu Hațieganu University of Medicine and Pharmacy Cluj-Napoca (UMF Cluj Napoca).

The evaluation was held during the period of November 15-19, 2021. For the international evaluator, the evaluation took place entirely on line and no on site visit was possible due to the pandemic situation. The UMF Doctoral school of Pharmacy self-evaluation report (english edition) and its annexes (in Romanian) were accessible through the cloud platform of ARACIS.

The evaluation was conducted with a panel of three members, one Romanian expert from the University of Medicine and Pharmacy, "George Emil Palade" din Târgu Mureș), one international expert (me) and one external student from Universitatea Transilvania din Brașov.

The doctoral school was founded in 2005 after approval by the senate of UMF Cluj-Napoca. Doctoral studies are organized by the Doctoral School by three domains: Medicine, Dental Medicine and Pharmacy. The doctoral school manages the doctoral studies of PhD students with an ultimate goal which is to provide the optimal conditions for research. It has contacts with research laboratories hosting PhD students. The doctoral school is in charge of registration and renewed registration of the doctoral student in the institution, and is also in charge of the follow-up of the PhD student, in support of the thesis supervisor. By the end of 2020, the doctoral school comprise a number of 157 doctoral supervisors, 59 of which own the habilitation to supervise research. When the self assessment was drafted, th, "Iuliu Hațieganu" UMPH hosts 700 PhD students.

During the evaluated period, the doctoral school of Pharmacy has hosted 52 doctoral students supervised by 23 teaching staff with habilitation to supervise research. The research activities in which PhD students deal mainly with disciplines related to Pharmacy, including: analytical chemistry, pharmaceutical chemistry, formulation and vectorization, pharmacognosy, drug screening, pharmacology and biology. Doctoral students affiliated to the doctoral school of Pharmacy seem benefit from up to date equipment and infrastructures (this last judgement is based on the written report and students feedbacks, since I did not take place of the on-site visit).

II. Methods used

The internal self evaluation report (drafted in English) and associated annexes (18 annexes for the doctoral school of Pharmacy and 35 annexes for IOSUD) were downloaded from the ARACIS cloud using secured login and passwords. The report was drafted in compliance with ARACIS rules and comprises 70 pages. It should be noted that the annexes were written in Romanian. However, possibilities were

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



offered for having annexes translated to English on demand. The evaluation took place entirely online (at least for the international evaluator). Prior to the evaluation, a timetable was sent to the evaluation panel with a very precise programme of meetings with the council of the doctoral school, the university senate, directors of research centers, the quality assessment and assurance commission, the quality assurance department, the ethics commission; employers, graduates and PhD students. During all meetings, I was assisted by highly competent interpreters. The discussions were open, constructive and allowed to come up with useful conclusions.

The report is well presented and provides the key information. For better comprehension, the report is supported by high quality figures. For some cases, the consultation of the University website was necessary. As said before, due to the sanitary situation, the on-site visit of the external evaluator was cancelled.

III. Analysis of ARACIS's performance indicators

Domain A. INSTITUTIONAL CAPACITY

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.*

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 specific regulations and their application are provided in 14 annexes. The regulations specified in these annexes deal with: elections at the different levels, doctoral schools, managements of doctoral studies, admission rules, curricula, studies and procedures of recognition of PhD degrees.

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

Annexes 1-14 provide sufficient details about the regulations and how they are implemented. There is nothing special to mention at this level.

Recommendations:

The indicator is fulfilled

Performance Indicator A.1.1.2. *The doctoral school's 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 doctoral school regulations are given in Annex 2 IOSUD which describe the organisation of the doctoral contract, the doctoral supervisors and guidance commissions and how the doctoral studies are organized at the doctoral school. The doctoral school has implemented mechanisms for monitoring the



student activity within the doctoral school, laboratories and defense of the doctoral thesis, issuing a doctorate and award a diploma

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

The information provided in Annex 2 are sufficiently detailed and give clear and pertinent information for the students and the doctoral advisors.

Recommendations:

The indicator is fulfilled

Standard A.1.2. The IOSUD has 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 IT system for the management of doctoral studies is outlined in the Annex 16 IOSUD. It is a home-made system adapted to the needs of the doctoral school and easy to use by the administrative staff. The system allows the collection of raw data, storage of the collected data, sorting filtering and reporting. The access to the system is secured through a password.

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

The implemented IT system offer advantages to be easy to use and respond to the required needs for the management of doctoral studies.

Recommendations:

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

The existence of antiplagiat system is evidenced in Annex 16 IOSUD. The anti-plagiarism program used is: Sistemantiplagiat.ro. The comparison of the text entered by the user cross check different databases: Internet, open access sources, internal database, external databases, other institutions that use the system, RefBooks, Resource created by the company that produced the program that contains 3,500,000. During the evaluation, students confirmed the existence of the system and they were concerned by its use at least once during the PhD thesis.

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

The implemented system and its application meet the criteria to verify the percentage of similarity.

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.

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

The grants earned by doctoral supervisors are listed in both the internal self evaluation report and in a specific annex in which they are presented the ongoing and ended research scholarships in the field of pharmacy during the period 2015-2020 (14 scholarships), projects with doctoral supervisors carried out during the period 2015-2020 (12 projects including two international partnerships, for a total amount of 11 191 000 lei), other national and international research projects carried out in the field of Pharmacy during the period 2015-2020 (34 projects). The themes linked to the grants are fully within the field of pharmacy.

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

All elements provided in the documents indicate excellent performance of the doctoral school of pharmacy for the period 2015-2020. This performance was greeted by the panel members during the evaluation.

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

The additional funding sources are indicated. During the evaluated period (2015-2020), 22 students (of 52) were funded by other sources for more than 6 months, which represents more than 42%.

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

The doctoral school performance is two fold higher than the minimum required.

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 professional training costs for doctoral students are detailed. Since the launch of the doctoral research projects competition, a number of 16 PhDs (in the field of pharmacy) have benefited from the coverage of professional training expenses financed by the government via doctoral research projects. for a total amount of around 10 000 €.

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

The professional training costs are far beyond the required amount. The performance regarding this criterion is excellent. PhD students and graduates were questioned by the panel members and unanimously were very satisfied about the possibilities offered to them in terms of training.

Recommendations:

The indicator is fulfilled

Criterion A.2. Research infrastructure

**general description of the criterion analysis.*

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.*

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

According to the self assessment documents, the UMF has a modern research infrastructure and scientific equipment to support the conduct of doctoral studies related to pharmacy domains. During the evaluated period, two major research centers affiliated to UMF were implemented, and they are: the Center for functional genomics, biomedicine/ translational medicine and MedFuture research center. The list of the all research centers is provided in two annexes. Most of the research platforms are mutualized between

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.



the faculties (Medicine and Pharmacy). The regulation regarding the access to the research centers are given in a separate Annex.

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

Based on the information gathered from the self assessment document, from the meetings with the directors of the research centers and students, it is obvious that doctoral students have the required (and modern) equipment to conduct their projects. No major issues were raised during the discussions. The doctoral supervisors share the same positive opinion about the research infrastructures.

Recommendations:

The indicator is fulfilled

Criterion A.3. Quality of Human Resources

**general description of the criterion analysis.*

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.*

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

The full list of teaching staff with abilitation to supervise doctoral research is provided. At the school of Pharmacy, there are 23 teaching staff who have the right to coordinate doctoral students. However, 6 of them are either retired or being to retire. Therefore, the number of active doctoral superisors is 17 and all of them meet the minimum standards required by CNATDCU. For the evaluated period, the number is constantly increasing.

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

The doctoral school of pharmacy perfectly fit within the minimum standards of the National Council for Attestation of University Degrees, Diplomas and Certificates (CNATDCU).

Recommendations:

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



Although, from Annex 1 FAR, it is not indicated if there are any doctoral advisors who are not full-time employed. This issue was raised during the meeting with the doctoral advisors and revealed that all active doctoral advisors are full-time employed for an indefinite period.

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

The doctoral school of Pharmacy meets the criteria according to which 50% of all doctoral advisors have a full-time employment contract for an indefinite period with the IOSUD.

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 teaching activities and teachers/research teachers of IOSUD are reported in a dedicated annex. The training program based on advanced university studies related to the first year of doctoral school and research training is taught by the teaching staff of pharmacy. Some teaching duties are ensured in collaboration with visiting professors and experts in the field. Beside the mandatory courses, the doctoral student can choose to take the optional courses from a list of courses (the list of optional courses is provided).

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

More than 60% of the total teaching activities related to the doctoral study are ensured by professors/researchers affiliated to IOSUD, in accordance with the legislation in force concerning the degree of load of the standard in educational and research activities.

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%.*

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.



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

According to the information provided in Annex 2 FAR, there is only one doctoral advisor who coordinate more than 8 PhD students (coordination of 9 PhDs).

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

The percentage of doctoral advisors who coordinate more than 8 theses is less than 6% (1 of 17).

Recommendations:

The indicator is 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.

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

For the evaluated period (5 years) and according to the bibliometry records reported in Annex 1FAR, among the 17 active doctoral supervisors, only one has less than 5 articles published in the web of science.

The doctoral advisors take part either as members of the editorial panel or as guest editors in 14 international indexed journals. Four doctoral advisors and particularly two of them are regularly invited to present their scientific work in international events including some prestigious congresses. Four members among the doctoral advisors are members of international societies.

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

The doctoral advisors carry out visible and strong research activity attested by the number of publications. The editorial activity and participation in international events is also a hallmark of the doctoral advisors panel. However, the participation is frequently the work of two to three persons.

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

Based on the information provided in Annex 1FAR, all doctoral supervisors are active in research and all acquire at least 25% of the score requested by the National Council for the Attestation of Diplomas, and University Certificates (CNATDCU).

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

The performance is excellent as all members comply with the minimum requested by the competent council.

Recommendations:

The indicator is fulfilled

Domain B. EDUCATIONAL EFFECTIVENESS

**general description of domain analysis.*

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.

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

For the total period evaluated, the ratio between the number of master's graduates from other higher education institutions in the country or abroad and the number of places financed from the state budget in competition is 0.22, and the ratio between the number of candidates over the last 5 years and the number of places financed from the state budget put in competition is 1.1.

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



The performance is very good. However, the number of candidates should be raised in order to make the selection more competitive. The performance is below the expected rate.

Recommendations:

Partially partially fulfilled

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

**general description of the standard analysis.*

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

The institutional regulation for management and provision of doctoral studies and methodology of admission for doctoral studies are provided in two separate annexes. Both annexes give details about admission and selection of candidates. The admission procedure is based on standard criteria (diploma, previous academic transcripts, research experience, diploma, motivation, accordance between the student background and the scientific field, interview...).

A candidate declared admitted may benefit from funding from the state budget for a single doctoral program, in compliance with the legal provisions in force.

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

The selection and admission of students follow logical and performant procedures according to the institutional regulations. The good selection criteria can be seen in the very low of dropout rate (mentioned in performance indicator B.1.2.2, below).

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

For the Pharmacy, the dropout rate from doctoral studies in the first 2 years from the start of studies, for students enrolled over the period 2015-2019 is 0%. The expulsion rate of doctoral students, including after dropping out of studies, 4 years after admission was on average 6.6% for the 5 academic years assessed.

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

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.



The expelling rate is low, indicating that the selection process is performant.

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.

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 content of the doctoral curricula and methods of assessment were provided. The educational activity and research training, includes courses and practical applications to guide students in research. The training program based on advanced university studies includes 10 disciplines relevant for the scientific research training of doctoral students. One of which is intended for the deepening of research methodology. Also, within the common core, there are 2 disciplines which address the ethics of scientific research, the standards of publication and the ethics of scientific publication.

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

The analytical program includes a course on research methodology and two courses dedicated to the ethics of scientific research - Notions of ethics of scientific research and intellectual property - Rules of publication and ethics of scientific publication.

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 information related to this performance is outlined in Annex 22. There are two courses dedicated to the ethics in scientific research. It includes notions of ethics in scientific research, intellectual property, rules of publication and ethics of scientific publication.

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

Courses dealing with ethics and intellectual property in scientific research are proposed by the doctoral school.

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.*

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

The doctoral study is carried out in such a way as to respect the training of professional and transversal skills according to the legislation in force. The professional skills are: ability to identify, formulate and solve research problems, advanced research methods and techniques, management of research project, documentation, development of scientific articles, linguistic skills at the academic level in languages of international circulation necessary for the documentation and development of scientific articles, scientific ethics.

The transversal skills comprise written and oral communication skills in international languages, use of information and communication technologies, human relations, leadership, legislation, management, entrepreneurship.

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

Both specific and transversal skills carried out fulfill the learning outcomes expected from a doctoral student.

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

Doctoral students benefit from advice of guidance commissions. The guidance commission meets the student at least once or more upon request. During the meeting with graduates and students, the input of the guidance commissions were judged very positively.

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

Doctoral students receive adequate guidance from functional guidance commissions. The composition of the commission should include at least one member from outside the laboratory where the student is registered.

Recommendations:

The indicator is fulfilled

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.



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

Details given in Annex 3FAR demonstrate that the report of doctoral students / teaching staff and researchers is equal to 0.92:1.

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

Doctoral students benefit from a high supervising rate.

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.

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

According to the Annex 4FAR reporting the most relevant articles published by doctoral students, each student has at least one article in indexed journals. Some of the articles were published in prestigious journals, such as: Nature Reviews Endocrinology, Trends in Food Science & Technology, Analytical Chemistry, Journal of Chromatography A, Science reports, Molecular pharmacology, Molecules,....

Below are the three selected articles based on the impact factor of the journal and the first position of the doctoral student.

- **B. Ciui** et al. Finger-based printed sensors integrated on a glove for on-site screening of *Pseudomonas aeruginosa* virulence factors, *Analytical Chemistry*, 90 (12) (2018) 7761-7768.
- **Casian, Tibor** et al. Near Infra-Red spectroscopy for content uniformity of powder blends - Focus on calibration set development, orthogonality transfer and robustness testing, *TALANTA*, 2018, 188, 404-416.
- **Rusu ME** et al. Benefits of tree nut consumption on aging and age-related diseases: Mechanisms of actions. *Trends in Food Science & Technology*. 2019; 88(2):104-20. ISI Impact factor: 8.519 (*Food Science & Technology Q1*) DOI:10.1016/j.tifs.2019.03.006

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

The performance is excellent. Students publish in high impact factors within the field of pharmacy. Most of the time the student occupy the first/second position.

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 doctoral students who completed their doctoral studies between 2015 and 2020 participated in international scientific events with 71 oral or poster communications. The ratio is 1.69. Among the 71 oral or poster communication, 70 of them took place outside Romania. Some communications were given in prestigious conferences.

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

The performance is very good. Students mobility to international events is very active. However, it is not clear who presented the work. For more clarity, the name of the presenter could have been highlighted.

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.*

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

Number of external referees and theses disseminated per referee and per academic year over the period 2015-2020, for the field of Pharmacy are reported in one annex. During the evaluation period there are 17 international experts who invited as external referees. The maximum number of theses expertized by one external member is 2.

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

The performance is very good. High number of external evaluators are invited to take part of theses defense which is very positive for visibility.

Recommendations:

The indicator is 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

During the evaluated period, the doctoral school has invited 47 experts including 14 international experts to take part of the theses defense. Only one expert has exceeded the ratio of 0.3.

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

The performance is excellent. The presence of international scientists together with Romanian evaluators is welcomed.

Recommendations:

The indicator is fulfilled

Domain C. QUALITY MANAGEMENT

**general description of domain analysis.*

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.

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:*

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

The evaluation and internal monitoring of the doctoral school evolution is detailed. University carries out an evaluation of the research training activity. The evaluation aims to measuring the degree of satisfaction of doctoral students regarding the quality of courses offered by the school. Hence, at the end of the academic year, doctoral students are invited to participate in the evaluation of activities through an anonymously and on line questionnaire. In this sense, students are asked to answer a questionnaire composed of 10 indicators. It measures the aspects related to quality of the courses, contribution of research courses to the skills of doctoral students.

The survey results are nicely presented as histograms which facilitate the interpretation of the students feedbacks.

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

The doctoral school has implemented a valuable internal evaluation aiming to identify avenues for improving the doctoral school's course according to the training needs of doctoral students.



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 compulsory courses of the Doctoral School curriculum were appreciated by the doctoral students as qualitative. The aspects that were highlighted by students to be improved are related to: modification of the course schedule to ensure greater participation of doctoral students and propose more practical approach to the information provided in the courses with greater applicability to the conduct of doctoral research.

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

Students feedbacks were considered and a plan of action was implemented aiming to tackle those points raised by the students.

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.

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:

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

The transparency of information toward doctoral students, future candidates or information of public interest are provided (in Romanian) on the web site (<http://www.umfcluj.ro>).

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

The information related to all items a-i of the performance indicator C.2.1.1 are provided. The links are given and the reported information are accurate. However, the english version of the web site is less developed.

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.

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

The access to academic databases is provided by the national consortium Anelis Plus. Access to academic databases via the Anelis Plus program is free within University network. From outside of the university, the free access is possible using the e-information platform after creating a user account using the academic e-mail address. The Anelis Plus program provides the academic and research corps of University access to different academic databases: ScienceDirect; SpringerLink; PROQUEST Academic Research Library; Oxford Journals; Cambridge Journals; Nature; SCOPUS, and other many databases.

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

The UMF Cluj-Napoca offers access to major databases needed for the doctoral students within the field of pharmacy studies.

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

The anti-plagiarism program used at the "Iuliu Hațieganu" University of Medicine and Pharmacy is the Sistemantiplagiat.ro. Doctoral students and graduates are aware of it and they are users.

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

The access to software dedicated to plagiarism is used and applied by doctoral students as well as researchers and teachers.

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

Students have full access to research facilities within the UMF. The procedures of access to research centers and laboratories is well documented. According to the doctoral students and graduates who were questioned, all agree to say that the access is not hampered by administrative hurdles.



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

The internal procedures as shown on the internal evaluation report (annex 31 IOSUD) are sufficiently detailed and coherent.

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.

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

At the time by which the evaluation report was submitted the, The Pharmacy school accounts 35 Erasmus mobility agreements with universities from 10 different countries (9 EU countries and 1 with USA). Regarding the participation of doctoral students in international conferences, 21 students benefited from training grants abroad or participated in international scientific events, which represents a percentage of 37.5%. During the meeting with students, a very positive opinion was noticed regarding the mobility.

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

The faculty is very active in developing partnership within exchange programs. Students participate actively in international scientific events.

Recommendations:

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

For the evaluated period (2015-2020), there were 3 co-directed theses and 4 went through co-tutelage supervision theses. Six EU universities were involved in the organization.

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

The school is proactive in developing Sandwich PhD programs.



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

During the evaluated period, 22 international references took part of the doctoral thesis committees.

Four of which were coordinators of the co-tutelage theses.

The University has participated in two educational fairs took place in Berlin (2017) and Kazakhstan (2018).

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

Concrete measures were taken by the UMF. We assume that without the COVID-19 pandemic, the performance could have been better.

Recommendations:

The indicator is fulfilled

IV. SWOT Analysis

<p><u>Strengths:</u></p> <ul style="list-style-type: none"> - Strong research activities supported by high impact publications. - Very active in obtaining research grants - Very active in internationalization - Benefit from high standard research facilities (Medfuture center) 	<p><u>Weaknesses:</u></p> <ul style="list-style-type: none"> - Weak attractiveness of international students - The intellectual property is not developed
<p><u>Opportunities:</u></p> <ul style="list-style-type: none"> - Promote the research activities to attract students from other institutions and abroad - Creation of scientific collaboration with pharmacy schools in Romania and abroad. 	<p><u>Threats:</u></p> <ul style="list-style-type: none"> - Uncertainties regarding the budgets, grants,...

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>	Fulfilled	Give the information as much as possible in english in particular for : the methodologies for organizing and conducting doctoral studies. This is important for non romanian students.
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>	Fulfilled	No recomandation regarding this perofrmance
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>	Fulfilled	The home made system should be updated on regular bases
4.	PI	<p>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.</p>	Fulfilled	No recomandation. The used software is organized by the institution and is giving satisfaction.

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
5.	IP	<p>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.</p>	Fulfilled	<p>Maintin the dynamic by seeking more financial opportunities</p>
6.	PI *	<p>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%.</p>	Fulfilled	<p>No recommandation</p>
7.	PI *	<p>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.).</p>	Fulfilled	<p>No particular recommandation, the performance of the last evaluated period is very high.</p>
8.	CPI	<p>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</p>	Fulfilled	<p>Given the richness of equipments, it will be interesting to set up a database of all equipments with information, like: where each equipment can be found, the person of contact and what type of experiments can be done with it,...</p>

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		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.	Fulfilled	No recommendation
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.	Fulfilled	No recommendation
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.	Fulfilled	No recommendation
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%.	Fulfilled	The maximum of eight students should be respected.
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	Fulfilled	More doctoral advisors should contribute to this activity. The shown activity is the work of a few people.

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		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.		
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	Fulfilled	No particular recommendation. The doctoral advisors are already very active.
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 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.	Partially fulfilled	Enhance the competitiveness of the selection by increasing the number of candidates of graduates masters. The selection should be opened more to candidates coming from other national universities and abroad.
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.	Fulfilled	No recommendation. The selection criteria is coherent.

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		Interviewing the candidate is compulsory, as part of the admission procedure.		
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%.	Fulfilled	No recommendation. The performance is excellent
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.	Fulfilled	No recommendation. The doctoral comply with the recommendation
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.	Fulfilled	No recommendation
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.	Fulfilled	Introduce mechanisms to address creative thinking activities where students work on solving problems within the pharmacy domain.
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.	Fulfilled	The composition of the guidance commission should include at least one member from outside the hosting laboratory.
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.	Fulfilled	Maintain the excellent supervision rate.
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	Fulfilled	<ul style="list-style-type: none"> - Consider possibilities to focus on high impact journals - Doctoral advisors must consider possibilities to regularly cite their

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		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		articles published in the national journal Farmacia, in order to increase its impact.
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.	Fulfilled	Whenever possible, doctoral advisors must consider possibilities to let students present their work. In the self assessment report is not always clear who presents!
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.	Fulfilled	We strongly recommend the invitation of diversant external evaluators. This would contribute to better visibility of the research activity and could open opprtunities for establishing collaborations.
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 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.	Fulfilled	The same recommendacion as in B.3.2.1
27.	PI	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;	Fulfilled	Whenever possible consider the participation of students in the continous development process

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		<p>c) the procedures and subsequent rules based on which doctoral studies are organized;</p> <p>d) the scientific activity of doctoral students;</p> <p>e) the training program based on advanced academic studies of doctoral students;</p> <p>f) social and academic services (including for participation at different events, publishing papers etc.) and counselling made available to doctoral students.</p>		
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>	Fulfilled	<p>No recommendation. The implemented mechanisms are efficient.</p>
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> <p>a) the Doctoral School regulation;</p> <p>b) the admission regulation;</p> <p>c) the doctoral studies contract;</p> <p>d) the study completion regulation including 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>	Fulfilled	<p>More efforts must be done to make the english version of the web site more informative and have it at the same level as the Romanian version.</p>

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
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.	Fulfilled	No recommendation. The doctoral school take full advantage of the possibilities offered by the University.
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.	Fulfilled	No recommendation
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.	Fulfilled	No recommendation. No participation in the on site visit!
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 the target at the level of the European Higher Education Area.	Fulfilled	The doctoral school is asked to keep the excellent performance. Renewal of existing agreements and establishing new ones are encouraged.
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.	Fulfilled	The high number of the existing signed agreements should be used to enhance the international co-tutelage/co-direction theses
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.).	Fulfilled	Consider the possibilities of including AUF and CIDPHARMEF organizations as places to promote the internationalization of activities.



VI. Conclusions and general recommendations

Conclusions:

This evaluation was instructive regarding teaching and research activities. The program of the doctoral school is well documented. It provides the rationale in relation to the doctoral school. The program goals and objectives are given. The changes to the program's objectives and activities are considered based on a coherent evaluation process. The research being developed allows doctoral students and ultimately doctoral advisors to publish in respected journals in the area of pharmaceutical sciences. Based on the self-assessment report and on-line discussions, the doctoral school seems to benefit from the state of the art scientific facilities and infrastructures. The discussions with doctoral advisors, administrative staff, students, graduates, we did not notice any disfunctions but a team spirit. It is important to mention that the doctoral school has addressed a series of strategies and procedures to enhance the performance (found at the end of the report). We entirely share these points.

Recommendations:

- We agree with the measures envisaged by the doctoral school to continuously improve the quality of doctoral programs (found at the end of the self-assessment report).
- Although, the internationalization activities are excellent, it concerns mainly outgoing activities. This activity should make more focus on incoming exchange.
- Implement mechanisms to attract international researchers
- Enhance the budget reserved for publications costs to promote scientific production.
- Increase the number of doctoral advisors especially in the context where a number of actual advisors are already have emeritus status or are approaching the retirement.
- The web site should be used more as a "showcase" to communicate about key scientific results, key events, ...
- Encourage doctoral students to create doctoral associations and implement financial support for helping them to organize scientific events (by and for doctoral students). More financial supports can be obtained from the private sector.

Grenoble, November 28, 2021
Prof. AHCÈNE BOUMENDJEL