Resolution No 91/IX/2021 of the Senate of the Jagiellonian University of 29 September 2021

concerning: the rules of enrolment to the Doctoral School of Exact and Natural Sciences at the Jagiellonian University in the academic year 2022/2023

Acting pursuant to Art. 200 para. 2 of the Law on Higher Education and Science of July 20, 2018 (i.e.: Journal of Laws 2021 item 478, as amended), hereinafter referred to as the Act, the following shall be determined:

Section I General Provisions

§ 1

- 1. This resolution specifies in particular:
 - 1) the rules of enrolment to the Doctoral School of Exact and Natural Sciences at the Jagiellonian University,
 - 2) detailed conditions and procedure of the enrolment.
- 2. In this resolution, the terms used shall be understood as follows:
 - 1) Rector Rector of the Jagiellonian University;
 - 2) School the Doctoral School of Exact and Natural Sciences at the Jagiellonian University,
 - 3) director- a person acting as the director of the school;
 - 4) programme a PhD study programme implemented at the school;
 - 5) committee enrolment committee;
 - 6) recruitment a competition procedure conducted for the purpose of enrolment at a school for a specific programme;
 - 7) dean dean of a faculty or director of an out-of-faculty unit in which the doctoral students are taught;
 - 8) faculty a faculty or an out-of-faculty unit in which doctoral students are taught.

§ 2

Enrolment for a given school program happens through a competition.

Section II

Rules for the organization of enrolment committees

§ 3

- 1. In order to enroll for the programme, the director appoints a committee consisting of the employees of the University. Committees are appointed in agreement with the deans of the faculties which employ committee members.
- 2. The director appoints the chairman, deputy chairman, secretary and other members of the committee.
- 3. At least half of the members of the committee are employees with an academic title or a habilitated doctor's degree, or are employed as university professors who have declared their affiliation to the discipline which is taught at the school.

- 4. Where justified, the committee may include employees of other universities or other entities with which the University has signed agreements or contracts.
- 5. Where justified, some cases resulting from the specificity of a given programme, the director may appoint more than one programme committee on the terms specified in para. 1-4.
- 6. The enrolment committee for a given programme in a given academic year is appointed no later than one week before the commencement of the first recruitment for a given academic year. The enrolment committee gets appointed for one year.
- 7. The remuneration for work in the committee shall be paid in the amount and on the terms specified in the Rector's ordinance.
- 8. If such circumstances occur which prevent a member of the committee from participating directly in its work, the director shall dismiss them and appoint a new member inaccordance with the principles set out in paragraphs 1-4.
- 9. A member of the committee shall inform the chairman of the committee of any circumstances that might affect his/her impartiality as well as other members of the committee when assessing the candidates. This applies in particular to situations in which there is an academic dependence (being a thesis supervisor, planned future supervisor or auxiliary supervisor), or the committee member is the Candidate's relative, or he/she was a reviewer of the project submitted by the Candidate.
- 10. In the aforementioned situation, the chairman of the committee decides to exclude from or retain a given member of the committee when assessing selected candidates. The exclusion of a committee member shall be recorded in the minutes of the committee meeting. If more than 40% of committee members are excluded, the provisions of para. 8 shall apply accordingly.
- 11. The director may, taking into account the needs arising from the detailed conditions and procedure of admission, appoint an examination team or teams by specifying the scope and manner of their actions. The chairman of the examination team is a member of the committee appointed by the director. The provisions of paragraphs 8-10 shall be applied accordingly.

§ 4

- 1. The Committee performs activities related to enrolment, in particular:
 - 1) conducts exams or interviews (subject § 3 para. 11),
 - 2) determines the results of qualification of people participating in the admission, in accordance with the terms and procedures of admisson as well as internal legal acts in force at the University,
 - 3) determines lists of persons qualified and not qualified for admission, however, the committee may draw up a reserve list from the list of unqualified candidates who in the enrolment procedure obtained a result above the minimum required for admission, but were placed in the ranking list past the established upper limit of admissions,
 - 4) decides on qualifying for acceptance or refusal of admission, including formulating justifications for such decisions,
 - 5) examines the writings and gives opinions on candidates' applications submitted in the enrolment procedure.
- 2. In justified cases, the committee may decide to conduct the examination by any means of remote communication.
- 3. The committee has the right to determine the minimum qualification result required for admission, but not later than at its first meeting during which it approves and signs the ranking list for a given programme. Once established, the minimum qualification result required for admission shall apply to all enrolment conducted for this program in a given academic year. For all candidates,

with lower score, admission is refused due to insufficient amount of obtained points.

- 4. The committee deliberates and makes decisions by an absolute majority of votes in the presence of at least half of its members. In the event of an equal number of votes, the chairman's vote is decisive.
- 5. The committee documents the course of each part of the enrolment procedure by preparing appropriate minutes, which are signed by all committee members participating in the given procedure.
- 6. The committee meetings may be held by means of communication at a distance. In such case, documents, including minutes, may be accepted by members in electronic form. Relevant printouts, along with confirmation of acceptance of its contents, shall be included in the documentation of the enrolment procedure.
- 7. After determining the results of the qualifications of the persons participating in the enrolment, the chairman of the committee shall submit to the director the minutes of the enrolment procedure, signed by all members of the committee participating in the meeting, with a list of candidates recommended for admission, along with a reserve list and a list of persons not recommended for admission.
- 8. The minutes are archived by the school in the documentation of the admission procedure.
- 9. On the basis of the protocol referred to in para. 7, the headmaster approves the list of students admitted to the school and issues, on the basis of the Rector's authorization, decisions on refusing admission to the school
- 10. A decision on refusal of admission to school may be requested for a reconsideration. The request shall be submitted to the Rector within 14 days of the decision being delivered. The Candidate is advised to indicate the breach of recruitment conditions and procedure that he or she believes has occurred.

Section III Rules of Admission

§ 5

- 1. At least two weeks before the enrolment, the director shall determine in an announcement posted on the school's website:
 - 1) detailed rules of organization and schedule of the enrolment,
 - 2) limit of places related to the source from which the scholarship is paid, available within a given recruitment,
 - 3) list and method of submitting the required documents,
 - 4) where justified, a list of research topics.
- 2. The enrolment process considers candidates who have completed the required activities in a timely manner in accordance with the school's internal procedures.
- 3. Candidates' qualification results in a given recruitment are expressed by a number from 0 (zero) to 100 (hundred) with an accuracy of two decimal places, and are placed on the ranking list in a decreasing order.
- 4. The basis for determining the result of qualifications in the intake for a given programme are the detailed conditions and admission procedure specified in the appendix to this resolution.

- 5. The lists of candidates qualified for admission are determined on the basis of the number of places and the qualification results, as well as on the basis of the minimum qualification result required for admission, referred to in § 4 para. 3. The qualification procedure for the admission of candidates on the reserve list shall be automatically repeated and continued until the quota of candidates is met or the list of such candidates is exhausted.
- 6. The recruitment may be conducted electronically via the system of on-line enrolment of candidates (hereinafter referred to as the system). In such case:
 - 1) candidates are required to set up one individual account in the system and fill in the electronic forms in which they provide the required personal data and contact details;
 - 2) by creating an account in the system, candidates consent to the processing their personal data for the purpose of conducting the enrolment procedure and for the purposes of documenting the course of education at school. Without giving consent to the processing of personal data it is impossible to take part in the enrolment procedure. Withdrawal of consent to the processing of personal data in the course of the proceedings is equal to resignation from applying for admission and causes the proceedings to be discontinued;
 - information on the enrolment procedure is provided to candidates via the system or websites designated for this purpose, in particular the school website. Candidates are required to read the information provided via the system and websites on an ongoing basis, and are responsible for the consequences of failure to do so;
 - 4) the enrolment application, in a given intake, for a selected programme available in the catalog, takes place by filling in the corresponding electronic form in the system;
 - 5) in the recruitment, only those candidates who have fulfilled all the specified conditions within the set deadline, and in particular have provided the school with a complete set of required documents within the dates and in the manner specified by the school, are taken into account. If the documents are sent by post, the date of their receipt by the school shall decide if the deadline was met. Providing data or providing documents in the past as part of enrolment at the University or studying or learning at the University at present or in the past does not release the candidate from the obligation to provide the data or provide the documents required as part of the current enrolment application;
 - 6) qualification results and information about admission shall be published only in the system;
 - 7) information on qualification for admission and the place and date of registration to the list of doctoral students (hereinafter referred to as the registration) is provided to the candidates via the system. After receiving the notification of qualifying for admission in the system, candidates are required to register within the deadline indicated in the message, and any failure to register on time is equal to resignation and results in a decision to refuse admission. When justified, the headmaster may set a new individual registration date for a given candidate.
 - 8) the condition to register is that a person qualified for admission shall meet the conditions referred to in Art. 200 para. 1 of the Act, and a positive verification done by the employee registering the provided complete list of the required documents and confirmation of the compliance of the data contained therein with the data on the

application printed from the system. The registration shall be made in the presence of a person qualified for admission in the procedure of transferring the personal data from the system to the University Study Service System of the Jagiellonian University;

- 9) if data inconsistencies are found during the registration, the employee making the registration to the programme submits the documentation to the committee, which, depending on the type and scope of the revealed irregularities, may change the decision on qualification issued on the basis of false data, which in turn results in the refusal of the registration;
- 10) with the authorization of the director, the registration may be completed by mail. The basis for determining whether the registration deadline is met shall be the date of receipt of all required documents by the indicated unit.
- 7. If recruitment is conducted outside the system, it shall be conducted in accordance with the procedure specified by the director in an announcement posted on the school's website.
- 8. A person qualified for admission may only register in one doctoral school and shall submit a declaration that at the time of enrolment is not a doctoral student at any other doctoral school.
- 9. While attending a PhD study programme during which doctoral students are exposed to harmful, noxious or hazardous factors, the candidate shall, at the time of registration, be referred for a medical examination by an occupational medicine physician. The candidates are required to provide a medical certificate confirming the absence of contraindications to take up education, within the deadline and to the unit designated by the director.
- 10. In activities related to the registration procedure, a person qualified for admission may be represented by an attorney who, when performing these activities, shall provide a signed power of attorney and present his/her identity card or passport. When registering for the program, the attorney is obliged to present a copy of the ID card or passport of the person qualified for admission.
- 11. Upon joining the admission procedure, the candidates shall accept its terms.

§ 6

- 1. If the detailed conditions and procedure of admission require an examination, a person with disabilities may apply to adapt the form of the examination to his/her needs resulting from the disability. For this purpose, no later than three days before the end of the relevant deadline for submitting enrolment applications for a given intake, the candidate shall submit a written application to the Disabled Persons Department. If the procedure is not followed, the application shall not be considered.
- 2. The method of adapting the form of the exam is determined individually in consultation with the appointed examination committee, based on an interview and the current provided documentation confirming the specifics of the disability.
- 3. The decision on how to adapt the form of the examination is made by the chairman of the committee in agreement with the head of the Department for Disabled People.

Section IV Specific rules

§ 7

1. The director is authorized to change, during the recruitment, the limits of places determined for a given recruitment in order to adjust them to the applicable provisions of

the law and the current needs of the enrolment procedure, including the need to change them in accordance with the obligations arising from the implementation of research projects and grants.

- 2. The provisions of this Resolution shall apply accordingly to PhD study programmes conducted at school on the basis of agreements concluded by the University with other entities, taking into account the provisions arising from these agreements.
- 3. The candidates for enrolments to the school which are financed by grant programs, the conditions of which require registration to the list of doctoral students, may be admitted to the school under a special procedure, in accordance with the procedure specified by the director, taking into account the provisions resulting from the regulations and agreements related to the grant program.

§ 8

In matters relating to recruitment, not regulated by this resolution, the director decides.

Section V Final provisions

§ 9

The resolution comes into force on the day of its adoption.

The rules of enrolment to the Doctoral School of Exact and Natural Sciences at the Jagiellonian University in the academic year 2022/2023:

A. PhD programme of study named *Astronomy* in the discipline of Astronomy, conducted in English

Formal requirements for entering the admission procedure

Candidates eligible for admission to the *Astronomy* programme of study at the Doctoral School of Exact and Natural Sciences are the holders of *Magister*, *Magister inżynier*, or equivalent professional title awarded in the field of exact sciences.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act, the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the curriculum.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the Director in consultation with the chair of the committee.

Qualification criteria

Candidates are placed on the ranking list in order determined by their final result, calculated on the basis of:

1. candidate's grade average from the undergraduate (first-cycle) program and from the graduate (second-cycle) program, excluding the last year of studies, calculated in accordance with the regulation in power at the university of graduation (or candidate's grade average from the first 4 years on long-cycle graduate program), calculated on the basis of the following formula (0–50 points):

W1 =
$$\left(\frac{S_1}{S_{1Max}}\right) \times 30 + \left(\frac{S_2}{S_{2Max}}\right) \times 20$$

where:

1 stands for the grade average described above, in points,

S1 stands for the grade average from undergraduate (first-cycle) programme,

SIMax stands for the maximum (best) grade on the scale in power at the university of graduation,

S2 stands for the grade average from graduate (long-cycle) programme, excluding thelast year of studies,

S2Max stands for the maximum (best) grade on the scale in power at the university of graduation,

For candidates who have graduated from long-cycle graduate programmes, grade average from the first four years of their studies, S, is used in the calculation based on the formula

above, using the following substitution of each S1 and S2 element: S1 = S2 = S.

For grading systems with descending grading scales, where S^* stand for the worst gradeand S^{**} stands for the best grade, the respective grade average S_i (i = 1, 2) is substituted by the difference S^{*-} S_i , and S_{Max} is substituted by the difference S^{*-} S^{**}.

2. interview result W_2 (0–50 points).

Admission procedure

The admission procedure is divided into two stages.

During the first stage, the committee awards points for the grade averages from the undergraduate (first-cycle) programme S_1 and from the graduate (second-cycle) programme S_2 , in accordance with the formula outlined in the point 2.1 above. To be allowed to take part in the second stage of the procedure, candidates need to have earned, for each grade average calculated by the formula above, a result of S_1/S_1Max and S_2/S_2Max of at least 0.60. If even one of the grade averages is lower, the candidate cannot take part in the interview, and they are awarded the ranking list result $W_2 = 0.00$.

During the second stage, the candidate takes part in an interview.

Before the interview begins, the committee may review the documents submitted by the candidate, in particular with their curriculum vitae, information about exam results from the course of their studies, and (if available) the copy or draft of the *Magister* thesis.

During the interview, a selected committee member asks questions about the course of studies, previous achievements, and about the subject and preliminary results of their *Magister* thesis, as well as about the academic work and research projects which the candidate would like to carry out while enrolled at the doctoral school. Committee members may ask supplementary questions, including questions related to the courses the candidate has taken during their university education.

Candidate's answers are assessed separately and secretly by all committee members, on a scale from 0 to 50 points. The final interview results W_2 is an arithmetic average of the grades awarded by all committee members.

The interview may be conducted in Polish or in English.

Final result calculation

The final admission procedure result W is expressed as a number on a scale from 0 to 100 points, calculated for all candidates in accordance with the following formula:

$$W = W_1 + W_2$$

where:

W1 stands for the computed grade average,

W2 stands for the interview result.

Candidates who are awarded the highest W results will be qualified for admission to the programme, provided that their result is not lower than 67.00 points, while admission depends on candidate's position on the ranking list and on the number of places available within the programme.

B. PhD programme of study named *Computer Science* in the discipline of Computer Science, conducted in English

Formal requirements for entering the admission procedure

Candidates eligible for admission to the *Computer Science* programme at the Doctoral School of Exact and Natural Sciences are the holders of *Magister*, *Magister inżynier*, or equivalent professionaltitle awarded in any field.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act, the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the curriculum.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the Director in consultation with the chair of the committee.

Qualification criteria

Candidates are assessed by the committee during the interview. The interview comprises two parts, assessed separately. In the first part of the interview, candidate is assessed on the results of their studies, their special achievements, and general knowledge (0-50 points). In the second part of the interview, candidate is assessed on their *Magister* thesis and planned research project (0-50 points).

Admission procedure

During the first part of the interview the committee assesses on the results of their studies and their achievements outlined in the curriculum vitae. This part also verifies and assesses candidate's knowledge in the scope not exceeding the undergraduate and graduate programmes in the field of Computer Science.

During the second part of the interview the committee assesses the *Magister* thesis, proposed research project, and candidate's readiness for undertaking research. This part also verifies candidate's knowledge and qualifications in the proposed area of research.

Final result calculation

The final admission procedure result W is expressed as a number on a scale from 0 to 100, calculated as follows:

$$W = A + B$$
,

where:

A stands for the result of assessment of the first part of the interview, on a scale from 0 to 50, and

B stands for the result of assessment of the second part of the interview, on a scale from 0 to 50.

C. PhD programme of study named *Mathematics* in the discipline of Mathematics, conducted in English

Formal requirements for entering the admission procedure

Candidates eligible for admission to the *Mathematics* programme at the Doctoral School of Exact and Natural Sciences are the holders of *Magister*, *Magister inżynier*, or equivalent professional titleawarded in any field.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act, the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the curriculum.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the Director in consultation with the chair of the committee.

Qualification criteria

Candidates are assessed by the committee during the interview. The interview comprises two parts, assessed separately. In the first part of the interview, candidate is assessed on the results of their studies, their special achievements, and general knowledge (0-50 points). In the second part of the interview, candidate is assessed on their *Magister* thesis and planned research project (0-50 points).

Admission procedure

During the first part of the interview the committee assesses on the results of their studies and their achievements outlined in the curriculum vitae. This part also verifies and assesses candidate's knowledge in the scope not exceeding the undergraduate and graduate programmes in the field of Mathematics.

During the second part of the interview the committee assesses the *Magister* thesis, proposed research project, and candidate's readiness for undertaking research. This part also verifies candidate's knowledge and qualifications in the proposed area of research.

Final result calculation

The final admission procedure result W is expressed as a number on a scale from 0 to 100, calculated as follows:

$$W = A + B,$$

where:

A stands for the result of assessment of the first part of the interview, on a scale from 0 to 50, and

B stands for the result of assessment of the second part of the interview, on a scale from 0 to 50.

D. PhD programme of study named *Biochemistry, Biophysics, Molecular Biology, and Biotechnology* in the discipline of Biological Sciences, conducted in Polish

Formal requirements for entering the admission procedure

Candidates eligible for admission to the *Biochemistry, Biophysics, Molecular Biology, and Biotechnology* programme at the Doctoral School of Exact and Natural Sciences are the holders of *Magister, Magister inżynier*, or equivalent professional title awarded in the field of natural and exact sciences.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act, the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the curriculum.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the Director in consultation with the chair of the committee.

Within the framework of the current PhD programme of study, it is possible to complete education in English, based on an individual programme of study, with the consent of the programme manager and the proposed academic supervisor. Both consents are required before submitting an application in the recruitment process.

Qualification criteria

The order of the candidates on the ranking list will be determined by their final numerical qualification score determined on the basis of the result of the interview evaluated on a scale of 0 - 100 points.

Admission procedure

The interview may be conducted remotely using information technology described in Appendix 1 to Ordinance No. 41 of the Rector of the Jagiellonian University. At the written request of the candidate the interview may be conducted in English.

The interview will concern:

- 1) research conducted for the purpose of the thesis.
- 2) the candidate's academic interests and research plans for future doctoral studies,
- 3) scientific issues in the field of biochemistry, biophysics, molecular biology or biotechnology connected with the subject of the planned doctoral thesis (2 general knowledge questions in this field).

The ability to solve scientific problems based on the analysis of the scientific text provided in advance will also be assessed.

Final result calculation

The final result of the qualification procedure is a number between 0 and 100.

E. PhD programme of study named *Biomedical Sciences* in the discipline of Biological Sciences, conducted in English

Formal requirements for entering the admission procedure

Candidates eligible for admission to the *Biomedical Sciences* programme at the Doctoral School of Exact and Natural Sciences are the holders of *Magister*, *Magister inżynier*, or equivalent professional title.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act, the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the curriculum.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the Director in consultation with the chair of the committee.

Qualification criteria

Candidates will be assessed by the committee in two stages.

In the first stage, the candidate's academic performance and special achievements (internships, publications, participation in research, schools, conferences, scholarships and prizes) will be evaluated on the basis of the submitted CV and documents (0-30 points).

In a second stage, an interview in the English language will be conducted with the candidate (0-70 points).

Admission procedure

Candidates may apply for admission to the programme under research topics at one of the Institutions:

(1) the Malopolska Centre of Biotechnology (MCB) or (2) Jagiellonian Centre for ExperimentalTherapeutics (JCET) or (3) the Solaris National Synchrotron Radiation Centre (Solaris).

The qualification procedure consists of two stages.

<u>In the first stage</u>, the committee examines the documents sent by the candidate and assesses them by awarding a total of between 0 and 30 points. The Admission Committee draws up, separately for each institution, intermediate ranking lists of candidates applying for admission to the programme respectively for: (1) MCB, (2) JCET and (3) Solaris. From the intermediate ranking list of a particularinstitution a maximum of twice the number of candidates in relation to the number of research topicsavailable in a given year for (1) MCB, (2) JCET and (3) Solaris are admitted to the second stage, in accordance with the order on the intermediate ranking list of a certain institution on the basis of the scores obtained.

The cut-off thresholds for the intermediate ranking lists used to determine twice the number of candidates in relation to the number of research topics available in a given year for a given institutionare independent for (1) MCB, (2) JCET and (3) Solaris. There will be no transfer of candidates betweenintermediate ranking lists regardless of the scores obtained. Minimum score for admission to the second stage of recruitment is 20 points. Candidates who do not qualify for the second stage because they did not obtain the minimum points required in the first stage or who are below the cut-off thresholds, will be awarded 0 points for the second stage.

In the second stage there will be an interview consisting of:

1. a 5-minute presentation (Power Point) by the candidate of his/her thesis and/or other research work in which the candidate participated.

In this section, presentation skills, knowledge of English and preparation of the candidate for scientific research will be assessed (between 0 and 20 points may be awarded in total);

2. a 15-minute discussion conducted by the members of the committee and regarding the presentation and a scientific paper selected by the candidate from one to three articles provided 1,5 hours ahead of the interview, as well as the broadly defined research topics selected by the candidate at the time of the admission process and other scientific topics.

In this stage the candidate's general and specialist knowledge, ability to solve scientific/technical problems and work in a research group, ability to lead a group and the candidate's substantive preparation for research on the chosen research topic will be evaluated (between 0 and 50 points may be awarded in total).

Final result calculation

The Admission Committee shall draw up separate ranking lists of candidates applying for admission to the PhD programme in Biomedical Sciences at the Doctoral School of Sciences and Exact Sciences for: (1) the Malopolska Centre of Biotechnology (MCB), (2) the Jagiellonian Centre for Experimental Therapeutics (JCET) and (3) the Solaris National Synchrotron Radiation Centre.

The order of candidates on each ranking list shall be determined by their final qualification score, being a number between 0 and 100, defined as the sum of points obtained in the first and second stage of the admission procedure.

The cut-offs thresholds in the ranking lists in a given year for a given institution are independent for (1) MCB, (2) JCET and (3) Solaris. There shall be no provision for transfer of candidates between the ranking lists irrespective of the number of points obtained. The minimum score to qualify a candidate for the programme is 75 points. From the ranking list of a particular institution, the number of candidates corresponding to the number of research topics available in a given year for (1) MCB, (2) JCET and (3) Solaris respectively will be admitted to the programme.

F. PhD programme of study named *Chemistry* in the discipline of Chemical Sciences, conducted in Polish

Formal requirements for entering the admission procedure

Candidates eligible for admission to the *Chemistry* programme of study at the Doctoral School of Exact and Natural Sciences are the holders of *Magister*, *Magister inżynier*, or equivalent professionaltitle awarded in the field of exact and natural sciences.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act,the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the curriculum.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the Director in consultation with the chair of the committee.

Within the framework of the current PhD programme of study, it is possible to complete education in English, based on an individual programme of study, with the consent of the programme manager and the proposed academic supervisor. Both consents are required before submitting an application in the recruitment process.

Qualification criteria

Candidates are placed on the ranking list in order determined by their final numerical result, calculated on the basis of:

1. grade average computed into points by the following formula:

$$W_{\text{sr}} = \frac{Sr - m}{(3-M)} m^{3/2}$$

where:

 W_{Sr} stands for the grade average from the long-cycle graduate program, or for the appropriately computed arithmetic average of grade averages from undergraduate (first- cycle) and graduate (second-cycle) programs, computed into points,

Sr stands for candidate's grade average, computed in accordance with the regulations in power at the university of graduation,

M stands for the maximum (best) grade on the scale in power at the university of graduation,

m stands for the minimum (worst) grade on the scale in power at the university of graduation;

2. result of the interview, assessed on the scale from 2.00 to 5.00 points, increasing by 0.5 point.

Admission procedure

Admission procedure is divided into two stages.

During the first stage candidate's grade average is computed into points in accordance with the formula above. Candidates with the highest grade averages take part in the second part of the admission procedure. 40% more candidates than the number of places in a given year is invited to the second stage. The remaining candidates are placed on the ranking list in order determined by the number of points they have been granted in the first part.

During the second stage of the admission procedure the interview is conducted. The interview is conducted in Polish or/and in English.

During the first part of the interview, committee members ask questions about candidate's course of studies, previous achievements, and about the subject and preliminary results of their *Magister* thesis, as well as about the academic work and research projects which the candidate would like to carry out while enrolled at the doctoral school. The second part of the interview includes questions related to the study subject chosen by the candidate in consultation with their proposed supervisor from the following: physical chemistry, theoretical chemistry, or biochemistry.

Final result calculation

The final admission procedure result W is expressed as a number on a scale from 0 to 100, calculated for all candidates on the basis of the following formula: formula:

$$W = \frac{30W_{\delta r} + 70W_{RK}}{5}$$

where:

 W_{sr} stands for the grade average,

 W_{RK} stands for the result of the interview (if candidate fails the interview with the final grade of 2.0,

 $W_{RK} = 0.0$ in this calculation).

G. PhD programme of study named *Biophysics* in the discipline of Physical Sciences, conducted in Polish

Formal requirements for entering the admission procedure

Candidates eligible for admission to the *Biophysics* programme of study at the Doctoral School of Exact and Natural Sciences are the holders of *Magister*, *Magister inżynier*, or equivalent professional title awarded in the field of exact and natural sciences.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act, the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the curriculum.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the Director in consultation with the chair of the committee.

Within the framework of the current PhD programme of study, it is possible to complete education in English, based on an individual programme of study, with the consent of the programme manager and the proposed academic supervisor. Both consents are required before submitting an application in the recruitment process.

Qualification criteria

Candidates are placed on the ranking list in order determined by their final result, calculated on the basis of: grade averages from undergraduate (first-cycle) and graduate (second-cycle) programs, or of the grade average from long-cycle graduate program (0-50 points), candidate's other achievements (internships, publications, participation in research, schools, conferences, scholarships, and awards), assessed on the basis of the curriculum presented by the candidate (0-20 points), and interview result (0-30 points).

In special cases, not covered in the admission procedure and final result calculation procedure, the decision is made by the committee.

Admission procedure

The *S* studies assessment result expressed in points is calculated on the basis of the following formula:

$$S = [(Mb) \times 30 + (Mm) \times 20]$$

where:

Sb stands or the grade average from the undergraduate (first-cycle) program, calculated inaccordance with the regulations in power at the university of graduation,

Mb stands for the best possible grade,

Sm stands for the grade average from the first year of graduate (second-cycle) program, calculated in accordance with the regulations in power at the university of graduation

Mm stands for the maximum (best) grade on the grading scale in power at the university of graduation;

for long-cycle graduate programs, Sb = Sm shall be adopted as the grade average for the completed years of studies.

For grading scales different from the Polish grading scale, the committee decides on the mode of calculation of the *S* result.

Candidate's academic achievements are assessed based on the presented curriculum vitae and documents, on a scale from 0 to 20 points by each committee member, and the final result is computed as mean of these grades.

The interview assesses candidate's suitability for the doctoral school and covers the following areas of interest:

- 1) subject of candidate's *Magister* thesis and candidate's academic achievements (0-10points);
- 2) candidate's interests, and academic and research plans (0-10 points);
- 3) knowledge about the important problems and discoveries in physics, directly related to their previous research and to candidate's planned research (0-10 points).

Each interview point is assessed on the outlined scale, and the interview result is computed as an arithmetic average of grades awarded by each committee member present during the interview.

Candidates who do not take part in the interview receive 0 (zero) points.

Candidates who obtain less than 35 points for the grade averages of their studies are not admitted to an interview.

Final result calculation

The final admission procedure result W is expressed as a number on a scale from 0 to 100, calculated for all candidates as sum of points earned over the course of the admission procedure.

A ranking list of candidates is created on the basis of the points obtained in the qualification procedure. Admission will be decided by the position on the ranking list taking into account the limit of places.

Only candidates whose final admission procedure result stands at least at 67.00 points, and whose studies results grade stands at least at 35.00 points can be qualified for admission.

H. PhD programme of study named *Physics* in the discipline of Physical Sciences, conducted in English

Formal requirements for entering the admission procedure

Candidates eligible for admission to the *Physics* programme of study at the Doctoral School of Exact and Natural Sciences are the holders of *Magister*, *Magister inżynier*, or equivalent professional title awarded in the field of exact and natural sciences.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act, the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the curriculum.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the Director in consultation with the chair of the committee.

Qualification criteria

Candidates are placed on the ranking list in order determined by their final result, calculated on the basis of: grade averages from undergraduate (first-cycle) and graduate (second-cycle) programs, or of the grade average from long-cycle graduate program (0-50 points), candidate's other achievements (internships, publications, participation in research, schools, conferences, scholarships, and awards), assessed on the basis of the curriculum presented by the candidate (0-10 points), and interview result (0-40 points).

In special cases, not covered in the admission procedure and final result calculation procedure, the decision is made by the committee.

Admission procedure

The *S* studies assessment result expressed in points is calculated on the basis of the following formula:

$$S = [(Mb) \times 30 + (Mm) \times 20]$$

where:

Sb stands for the grade average from the undergraduate (first-cycle) program, calculated in accordance with the regulations in power at the university of graduation,

Mb stands for the best possible grade,

Sm stands for the grade average from the first year of graduate (second-cycle) program, calculated in accordance with the regulations in power at the university of graduation,

Mm stands for the maximum (best) grade on the grading scale in power at the university of graduation;

for long-cycle graduate programs, Sb = Sm shall be adopted as the grade average for the completed years of studies.

For grading scales different from the Polish grading scale, the committee decides on the mode of calculation of the *S* result.

Candidate's academic achievements are assessed based on the presented curriculum vitae and documents, on a scale from 0 to 10 points by each committee member, and the final result is computed as mean of these grades.

The interview assesses candidate's suitability for the doctoral school and covers the following areasof interest:

- 1) subject of candidate's *Magister* thesis and candidate's academic achievements (0-10points);
- 2) candidate's interests, and academic and research plans (0-10 points);
- 3) knowledge about the important problems and discoveries in physics, directly related to their previous research and to candidate's planned research (0-10 points).

Each interview point is assessed on the outlined scale, and the interview result is computed as an arithmetic average of grades awarded by each committee member present during the interview, rounded to the second decimal place. On candidate's request, by the committees permission, the interview may be conducted by means of distant communication.

Candidates who do not take part in the interview receive 0 (zero) points.

Final result calculation

The final admission procedure result W is expressed as a number on a scale from 0 to 100, calculated for all candidates as sum of points earned over the course of the admission procedure. Only candidates whose final admission procedure result stands at least at 60.00 points, and whose studies results grade stands at least at 35.00 points can be qualified for admission.

I. PhD programme of study named *Earth and Environmental Sciences* in the discipline of Earth and Environmental Sciences, conducted in Polish

Formal requirements for entering the admission procedure

Candidates eligible for admission to the *Earth and Environmental Sciences* programme of study at the Doctoral School of Exact and Natural Sciences are the holders of *Magister*, *Magister inżynier*, or equivalent professional title awarded in the field of exact and natural sciences.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act, the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the curriculum.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the Director in consultation with the chair of the committee.

Within the framework of the current PhD programme of study, it is possible to complete education in English, based on an individual programme of study, with the consent of the programme manager and the proposed academic supervisor. Both consents are required before submitting an application in the recruitment process.

Qualification criteria

Candidates are placed on the ranking list in order determined by the interview result. The interview focuses on candidate's research interests, knowledge in the area of the proposed research, and their motivation for undertaking education at the Doctoral School.

To be admitted to the program, candidate has to obtain at least 51.00 points.

Admission procedure

As a result of the interview, the candidate is awarded points (from 0 to 100 points). The interview may be conducted by separate committees in the area of physical geography and in the field of geological sciences. A separate ranking list is prepared for each of these fields. Candidates who receive a minimum of 51.00 points as a result of an interview are placed on the lists.

Final result calculation

Candidates are placed on the ranking list in order determined by their interview result. Based on the ranking lists (separate for physical geography and geological sciences) and on the number of places available, list of candidates admitted to the program is established. Other candidates who were awarded 51.00 points or more are placed on waiting lists, separately for physical geography and geological sciences.

J. The PhD study programme named *Biology* in the discipline of Biological Sciences conducted in Polish

Formal requirements for entering the admission procedure

Persons holding the professional title of Master of Science, Master of Science Eng., or an equivalent degree in the field of exact and natural sciences may be admitted to the programme named *Biology* at the Doctoral School of Exact and Natural Sciences.

As an exception, taking into account the best quality of scientific achievements, a person referred to in art. 186 paragraph 2 of the Act, who does not have a master's degree, who is a graduate of the first-cycle studies or a student who has completed the third year of long-cycle studies, but who still has the status of a student in the field of study mentioned above or who has completed such a course, may apply for the programme.

In order to confirm the fulfillment of the condition referred to in Art. 186 paragraph 2 of the Act, the candidate is required to submit:

two opinions confirming the best quality of their research work and the high level of advancement of such work, issued by a research fellow holding at least the academic degree of habilitated doctor or being an employee of a foreign higher education institution or a research institution, who has significant achievements in academic issues related to the curriculum.

The director in consultation with the chairman of the committee shall resolve if the candidate fulfills the conditions referred to in Art. 186 para. 2 of the Act.

Qualification criteria

The order of candidates on the ranking list shall be determined by the numerical sum of points obtained as a result of the conducted qualification, determined on the basis of the following three stages:

- 1. Oral presentation of the research project done by the candidate, assessed on a scale of 0-30points;
- 2. An interview assessing the knowledge on the research topic of the presented project, assessed n a scale of 0-50 points;
- 3. English language exam, assessed on a scale of 0-20 points.

Admission procedure

Separate ranking lists of candidates applying for admission to the *Biology* PhD study programme shall be created, respectively for: (1) Institute of Zoology and Biomedical Research, (2) Institute of Botany and (3) Institute of Environmental Sciences.

A research project thematically related to the planned doctoral thesis shall include: topic, short introduction, research objectives, methodology, expected results. The project consists of a maximum of 3-4 A4 pages.

The candidate shall give a 5-minute oral presentation about the submitted research project, followedby an interview about the field of knowledge covering the research spectrum of the candidate's project.

Both the presentation of the project and the interview shall be conducted in Polish.

The English language exam shall be conducted by the examination team. The candidate shall beassessed according to four categories:

- 1. Vocabulary + pronunciation;
- 2. Grammar;
- 3. Fluency;
- 4. Interaction.

In each one of these categories, the candidate may receive from 0 to 5 points.

Final result calculation

The final result of the qualification procedure shall be the sum of the points from the three stagesmentioned above and is a number between 0 and 100.

K. The PhD study programme named *PhD Programme in Biology* in the discipline of Biological Sciences conducted in English

Formal requirements for entering the admission procedure

Persons holding the professional title of Master of Science, Master of Science, or an equivalent degree in the field of exact and natural sciences may be admitted to the programme named *PhD Programme in Biology* at the Doctoral School of Exact and Natural Sciences.

As an exception, taking into account the best quality of scientific achievements, a person referred toin art. 186 paragraph 2 of the Act, who does not have a master's degree, who is a graduate of the first-cycle studies or a student who has completed the third year of long-cycle studies, but who still has the status of a student in the field of study mentioned above or who has completed such a course, may apply for the programme.

In order to confirm the fulfillment of the condition referred to in Art. 186 paragraph 2 of the Act, the candidate is required to submit:

two opinions confirming the best quality of their research work and the high level of advancement of such work, issued by a research fellow holding at least the academic degree of habilitated doctor or being an employee of a foreign higher education institution or a research institution, who has significant achievements in academic issues related to the curriculum.

The director in consultation with the chairman of the committee shall resolve if the candidate fulfills the conditions referred to in Art. 186 para. 2 of the Act.

Qualification criteria

The order of the candidates on the ranking list shall be determined by their final numerical result of the qualification based on the result of the interview (0-100 points).

Admission procedure

During registration in the system, the candidates for the doctoral school programme shall present upto two research topics of interest to them, which assigns them priority. Research topics shall be postedon the doctoral school website at least two weeks before the start of enrolment.

The interview shall be conducted in English and assessed on a scale from 0 to 100.

During the interview, candidates shall give a short oral presentation of research plans for their doctoral thesis, together with the reasons for the selection of the topics. Then they shall answer enrolment committee questions on the topic of the doctoral thesis and related issues. In the next part of the interview, they shall be given a summary of the publication to read and will have to discuss it. The knowledge of the planned research scope and the ability to use English shall be primarly assessed.

The candidate's qualification result for the entire qualification procedure shall be the number of points obtained during the interview.

Candidates carry out research topics according to the priorities declared at the registration stage in the system, in accordance with the following principle:

1. the candidate at the first place on the ranking list carries out the topic which he/she assigned as the first priority;

2. the candidate at the second place on the ranking list carries out the topic which he/she assigned as the first priority, unless the topic has already been selected by the candidate higher on the list; then he/she chooses the topic which he/she gave the second priority, etc.

Final result calculation

The final result of the enrolment procedure W shall be a number from 0 to 100 determined for all candidates as the number of points obtained during the interview.

L. PhD programme of study named *Technical Computer Science* in the discipline of Technical Computer Science and Telecommunications conducted in English

Formal requirements for entering the admission procedure

Candidates eligible for admission to the *Technical Computer Science* programme at the Doctoral School of Exact and Natural Sciences are the holders of *Magister*, *Magister inżynier*, or equivalent professional title awarded in any field.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act, the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the curriculum.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the Director in consultation with the chair of the committee.

Qualification criteria

Candidates are assessed by the committee during the interview. The interview comprises two parts, assessed separately. In the first part of the interview, candidate is assessed on the results of their studies, their special achievements, and general knowledge (0-50 points). In the second part of the interview, candidate is assessed on their *Magister* thesis and planned research project (0-50 points).

Admission procedure

During the first part of the interview the committee assesses on the results of their studies and their achievements outlined in the curriculum vitae. This part also verifies and assesses candidate's knowledge in the scope not exceeding the undergraduate and graduate programmes in the field of Computer Science.

During the second part of the interview the committee assesses the *Magister* thesis, proposed research project, and candidate's readiness for undertaking research. This part also verifies candidate's knowledge and qualifications in the proposed area of research.

Final result calculation

The final admission procedure result W is expressed as a number on a scale from 0 to 100, calculated as follows:

$$W = A + B,$$

where:

A stands for the result of assessment of the first part of the interview, on a scale from 0 to 50, and *B* stands for the result of assessment of the second part of the interview, on a scale from 0 to 50.

Qualification for admission

The candidates who are qualified for admission have received the top scores, i.e. the qualification scoreat the level not lower than 67.00 points; whereas, the admission depends on the position in the ranking list, taking into account the number of vacancies.