



1st Progress Review Conference of the Universities participating in the “Excellence Initiative – Research University” programme

PRE-EVENT QUESTIONNAIRE

Uniwersytet Medyczny w Białymstoku / Medical University of Białystok

- 1) Which of your university’s original objectives (when applying for a 10% increase in funding) have been chosen to retain having received a lower funding level? How is progress being reviewed?**

The decision on having received lower funding level could not stop us from striving for our original goals described in the application as they truly constitute the core strategy of our university. Under such circumstances our actions could only have been delayed or limited but not cancelled. Thus we focused on securing financing of these ambitious activities from other sources.

Majority of our most important original objectives related to raising the level of quality of scientific activity and education were referring to the continuation of our unique work on the creation of the Polish Base of High-Definition (HD) Medicine. We executed this by starting running numerous projects fulfilling the principles of HD Medicine that were frequently led by young investigators. This comprehensive and unique database (similar to those created by initiatives of Genomics England or Astra Zeneca) is a platform for activities of our Center for Artificial Intelligence in Medicine.

We further expanded existing e-learning and virtual reality opportunities and continued to expand our didactic database.

The progress of realization of our objectives is subject to on-going monitoring performed by the authorities of the university and the specially selected team of best scientific leaders (including international researchers) and heads of selected administration units.

- 2) Which measures have been added, deleted or modified following the recommendation of the reviewers? What changes to university strategy and policy have been made in the light of evaluation and the outcome of the funding competition?**

The positive assessment of our application by the reviewers reassured us that we are heading in the right direction and should invest all available resources in the development of our ambitious strategy of creating and establishing the principles of High-Definition Medicine in Poland.

However, we respectfully took into account all the reviewers' recommendations. We kept in mind the reviewers' opinion that Medical University of Białystok "would benefit from a strategic alliance, for example with a multidisciplinary university, but the Panel is aware of the geographical challenge". Thus, we have not only tightened our scientific collaborations in the field of artificial intelligence with Technical University of Białystok and University of Białystok but reached out towards establishing new collaborations with renown national universities from Warsaw, namely University of Warsaw, Warsaw University of Technology, and the Cardinal Stefan Wyszyński University. Moreover, in agreement with our strategic plans and despite pandemic time we further collaborated with our partners from e.g. Heidelberg, Greifswald, Beijing on new European projects.

Having known that one of our "trademarks" is high-quality biobanking and data collection we established in December 2019 a collaboration with another (in addition to on-going collaboration with world-leader in biobanking, Indivumed, Hamburg) entrepreneur from Finland (BC Platforms) specializing in providing a powerful data and technology platform for personalized medicine and drug development.

3) Did the university change/reduce the Priority Research Areas (POBs)? What is the scope of such change?

NO

4) What concrete measures has the university taken to encourage cutting edge research? What evidence can you provide of continuing promotion of research excellence at the highest levels of the university? Has this been achieved using alternative sources of funding, apart from the 2% subvention increase?

A few examples:

- In order to build the foundations for the development of High-Definition Medicine, we officially created and launched the activity of the Centre for Artificial Intelligence in Medicine at our university. The Centre brings together high-class bioinformaticians and biostatisticians working in our Centre for Bioinformatics and Data Analysis as well as outstanding scientists and medical doctors with relevant experience in translational medicine. Some of these actions were also achieved with some support from Ministry of Health.
- Despite COVID-19 we continued to expand our comprehensive database with the data coming from new groups of patients with civilization diseases (including cancer, cardiovascular and neurological diseases) or at risk of their occurrence.
- In reaction to COVID-19, we launched several innovative nationwide projects implementing the rules of High-Definition Medicine (e.g. close correlation of genomic data with detailed clinical phenotype) for precise identification of patients at highest risk for severe consequences of COVID-19

- We have created an additional internal opportunity for receiving additional funds for running innovative projects fulfilling the rules of High-Definition Medicine (e.g. using large-scale research including innovative techniques related to “omic” research, bioinformatics, population medicine, biobanking, artificial intelligence).

5) What progress has been made regarding establishment of a federation or merging with other institutions from the region, particularly in case of universities which received relevant recommendations?

See also response to point 2.

In addition to the Medical University of Białystok there are two other similar size universities in the region, namely Białystok University of Technology and University of Białystok. We have tightened our scientific collaborations with both of them, mostly in the field of artificial intelligence and microbiology. We recently formed a couple of scientific consortia in order to apply for joint research grants.

Moreover we reached out towards establishing new collaborations with renown national universities from Warsaw, namely University of Warsaw, Warsaw University of Technology, and the Cardinal Stefan Wyszyński University. Moreover, in agreement with our strategic plans and despite pandemic time we further collaborated with our partners from Heidelberg, Greifswald, Beijing on new European projects. Having known that one of our “trademarks” is high-quality biobanking and data collection we established a collaboration with another (in addition to on-going collaboration with Indivumed, Hamburg) entrepreneur from Finland (BC Platforms) specializing in providing a powerful data and technology platform for personalized medicine and drug development.

6) What steps is your university taking in order to increase the likelihood of enhanced levels of funding being secured in future rounds of the IDUB programme?

Some, but not all, examples of these steps:

- Investing all available financial and organizational resources into developing the principles of High-Definition Medicine in Poland (e.g. by continuous expansion of Polish Database of HD Medicine comprising detailed and unique data from thousands of Polish patients with civilization diseases)
- Further engaging the faculty and administration into active realization of the strategic goals of our IDUB plan
- Continuous motivating and mobilizing (among others by participating in special workshops) its key scientists to apply for large research grants so that the number of grants continues to grow (supporting UMB's top scientists who actually show significant achievements and some of them have a major impact on the development of their research fields)

- Creating realistic opportunities for young investigators to become leaders of innovative projects
- Further implementing the program dedicated to graduate students “Learning through active participation” – students are the active participants of innovative scientific projects related to areas that are covered by their curriculum
- Tightening collaborations with best national and international universities

7) **The worldwide impact of measures and limitations introduced as a consequence of the COVID-19 pandemic should be taken into account in the implementation planning, and institutions should be driven by the will to maintain strategic development as planned. The good use of digital means of communication has a crucial role to play. Thus, universities should see to it that they are up to this challenge. What actions have been taken by your university in order to reduce the negative impact of the pandemic on the implementation of the university development strategy?**

- Despite COVID-19 we continued to expand our comprehensive database with the data coming from new groups of patients with civilization diseases (including cancer, cardiovascular and neurological diseases) or at risk of their occurrence.
- In reaction to COVID-19, we launched several innovative nationwide projects implementing the rules of High-Definition Medicine (e.g. close correlation of genomic data with detailed clinical phenotype) for precise identification of patients at highest risk for severe consequences of COVID-19
- Moreover, in order to limit the negative impact of the pandemic on the realization of the University's development strategy, several other actions have been taken:

Two e-learning platforms were launched (EDUPORTAL, BLACKBOARD) and the tender was prepared for purchasing logistics necessary for introducing virtual reality into curriculum. Without any major delays, the expansion of the didactic base and purchase of didactic equipment was continued. We continued previously planned training for the management staff but switched to on-line mode.

Despite the difficulties related to the pandemic, we continued to motivate our employees to undertake new scientific activities. We continued to reward for obtaining funds for research projects from external sources. We have introduced changes to the system of motivation of academic teachers - Rector's Order No. 50/2020 of 01.06.2020 introducing Regulations on the principles, mode and eligibility criteria of granting the Rector's awards to academic teachers of the Medical University of Białystok for 2019 and 2020.