

## "Excellence Initiative – Research University" Program in Medical University of Gdańsk

Presentation for the International Scientific Council

Prof. Tomasz Bączek

Rector's Representative for the "Excellence Initiative – Research University" Program

Former Vice-Rector for Science of the Medical University of Gdańsk (in years 2012-2016 and 2016-2020)

### "Excellence Initiative – Research University" Program











Warsaw University of Technology









- ✓ New Law on Higher Education and Science (Law 2.0), was adopted on 07.2018
- "Excellence Initiative Research University" Program to suport universities striving to achieve the status of a research university.
- ✓ In 2019, 20 universities were allowed to participate in the competition; 10 universities were granted a status of Research University along with a subsidy increase by 10%.
- ✓ Medical University of Gdańsk is one of ten uviversities with the status of Research University.
- ✓ Program will be executed in the years 2020-2026.
- Universities included in the Program should be able to compete effectively with the best European and global academic centers.

## Committed to reach challenging goals





Medical University of Gdańsk vs. partner foreign universities within the Academic Subject "Clinical Medicine" (2019)

UNIVERSITY NAME	WORLD RANK	PUB	CNCI	IC	TOP	AWARD
Medical University of Gdańsk	301-400	15.9	77.4	65.8	14.1	0
University of Glasgow	51-75	29.5	86.6	76.6	31.6	0
Uppsala University	51-75	34.0	82.8	74.6	30.4	0
Utrecht University	51-75	43.9	75.0	72.9	33.5	0

Source: www.shanghairanking.com/Shanghairanking-Subject-Rankings/clinical-medicine.html

MUG's goal is to reach the rank of TOP 100 Universities in Clinical Medicine

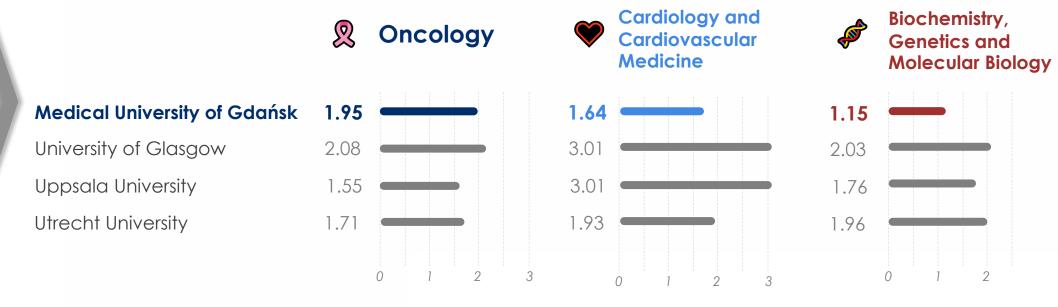


# Priority Research Areas International Perspective



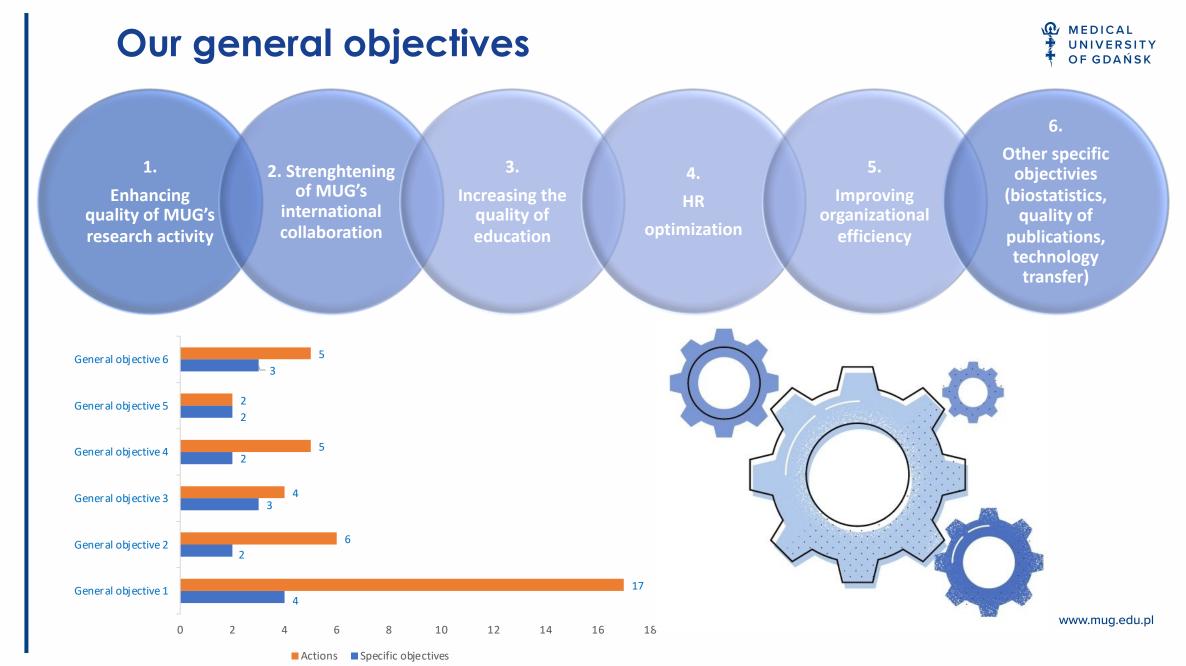
#### Medical University of Gdańsk vs. partner foreign universities – FWCI\* index (2018)





Source: SciVal, Scopus, Elsevier

### And we believe it is within our reach



## What we already achieved





#### **Development of Supporting structures**

- Cardio-Vascular Centre (Non-invasive cardiology)
- Centre for Biostatistics and Bioinformatics
- Centre of Bioanalytics
- Centre for Excellence of Scientific Publications





- Centre for Excellence of Administration
- Laboratory of Genetics
- Laboratory of the Analysis of Single
   Cancer Cells



#### Program and calls

- Grant program "Young Creator of Science"
- Recruitment program "Young Creator of Science"
- Recruitment program "Experienced Creator of Science"
- "Proof Reading" Program
- "Open Access" Program
- "Graphic Design" Program



- Grant program "Experienced Creator of Science"
- Grant program "Innovation incubator"
- Grant program "Accelerator of innovation"



#### Priority Research Areas

- Oncology
- Cardiology and Cardiovascular Medicine
- Biochemistry, Genetics and Molecular Biology



www.mug.edu.pl



https://research-university.mug.edu.pl

## Priority Research Area – Oncology

#### **LEADER**

Prof. Jacek Jassem, M.D., Ph.D.

Head of the Department of Oncology & Radiotherapy President of the Polish Cancer League

#### **Main Research Areas:**

clinical oncology, specifically lung cancer and breast cancer, combined modality treatment, molecular oncology



#### **Research Teams:**

I. Precision Oncology

III. Early drug development and mechanisms of drug resistance

V. Cancer imaging

VII. Physical and clinical aspects of radiotherapy

IX. Cancer prevention and early detection

II. Tumour microenvironment, microbiome and immunooncology

IV. Artificial intelligence (AI) and big data

VI. Organ toxicity of cancer treatment

VIII. Optimization of cancer management

X. Integrated and palliative care, quality of life, survivorship



## Priority Research Area – Cardiology and Cardiovascular Medicine

#### **LEADER**

Prof. Krzysztof Narkiewicz, M.D., Ph.D.

Head of the Department of Hypertension & Diabetology President of the Scientific Council of the European Society of Hypertension (2009-2011)

#### **Main Research Areas:**

pathogenesis, prevention and treatment of cardiovascular disease



#### **Research Teams:**

I. Epidemiology and registries

III. Cardiovascular imaging and three-dimensional printing

V. Microcirculation and atherosclerosis

VII. Cardionephrology

IX. Neurovascular and stroke medicine

II. Cardiovascular regulation in health and disease

IV. Heart failure and transplantation

VI. Heart rhythm and sudden cardiac death

VIII. Sleep medicine

X. Clinical trials and innovation



## Priority Research Area – Biochemistry, Genetics and Molecular Biology

#### **LEADER**

Prof. Ryszard Smoleński, M.D., Ph.D Head of the Department of Biochemistry

#### **Main Research Areas:**

metabolism of nucleotides and cardiac energetics, studies of changes in these processes in pathology and the development of new therapies

#### **Research Teams**

- II. Nucleic Acids Sequencing in analysis of somatic and inherited mutations
- IV. Imaging of cell pattern and cellular processes
- VI. Biobank based basic studies on human pathology
- VIII. Flow cytometry for analysis of cellular pattern and function of the immune system
- X. Molecular and biochemical methods for study mechanisms of civilization diseases

- I. Studies on metabolism, therapy and toxicity with mass spectrometry, electron paramagnetic resonance and NMR analysis
- III. Gene expression pattern analysis
- V. In vivo studies on mechanism of disease and therapy
- VII. Metabolic dynamics and oxidative stress pattern analysis
- IX. Technological developments for bioanalysis and therapy including cell based, 3D and artificial engineered models



### International Scientific Council – expectations



- ✓ Verification of the realization of the intended objectives
- ✓ Analysis of the research activity of the Medical University of Gdańsk
- ✓ Auditing research actions and plans for the upcoming years
- ✓ Assessment of on-going research projects through the reference to the key global trends in science
- Optimization of research approaches and extension of its potential
- ✓ Advisory and consultation platform
- ✓ New international partnerships
- ✓ Knowledge share

**Prof. Giuseppe Mancia** 



Prof. Christoph Zielinski



Prof. Sir Magdi H. Yacoub





**Prof. Dame Anna Dominiczak** 





Prof. David R. Goodlett





**Prof. Reinhold Kreutz** 



## Thank you for your kind attention.