







ABOUT THE NCN

The National Science Centre (Narodowe Centrum Nauki, NCN) is a government executive agency set up to fund basic research. Thanks to this institution, researchers themselves can now decide how a substantial portion of research funds is allocated from the state budget.

Basic research is original experimental or theoretical research work that strives to expand knowledge of the fundamentals of phenomena and observable facts. It is not intended to have any direct practical application or use.

THE STRUCTURE OF RESEARCH FUNDING IN POLAND

National budget for research 2013: PLN 6.5 bln (€ 1.6 bln)



MANAGEMENT

Andrzej Jajszczyk is the Director of the National Science Centre and a professor at the AGH University of Science and Technology in Kraków. Poland. He graduated from Poznań University of Technology. He was a visiting professor at the University of Adelaide in Australia, at Queen's University in Kingston, Ontario, Canada, and at Ecole Nationale Supérieure des Télécommunications de Bretagne, France. He is the author and co-author of seven books and more than 280 research papers, as well as 19 patents in the areas of telecommunications switching, high-speed networking, network management, and reliability. He has been a consultant to industry, telecommunications operators, and government agencies in Australia, Canada, France, Germany, India, Poland, and the USA. He serves on editorial boards of several iournals. He is a Fellow of the Institute of Electrical and Electronics Engineers (IEEE).

Michał Karoński is the Chair of the NCN Council as well as a professor and head of the Department of Discrete Mathematics in the Faculty of Mathematics and Computer Science at Adam Mickiewicz University in Poznań. He is the author of over 50 publications and has delivered over 30 plenary lectures and quest speaker talks at international conferences. During his academic career he has held several positions including a postdoctoral fellowship at the University of Florida and visiting professorships at Southern Methodist University, Purdue University and The Johns Hopkins University. Since 1992 he has been a visiting professor at Emory University in Atlanta. He has also conducted research in many academic centres abroad, including universities in Moscow, Lund, Bielefeld, Pittsburgh and Singapore, as well as at research centres in the USA. Denmark. South Korea, England and Sweden.

ORGANISATION CHART



The Director of the NCN is the executive responsible for financial management as well as correct and efficient completion of NCN tasks. The Director is also in charge of international cooperation and acts as a legal representative on behalf of the Centre. The NCN Council is a policy body consisting of 24 distinguished researchers selected from candidates proposed by Polish research institutions. The Council sets priority areas in basic research, decides on the type of programmes, specifies call regulations and selects members of the Expert Teams responsible for proposal evaluations.

DISCIPLINE COORDINATORS

NCN Discipline Coordinators are scientific officers responsible for launching calls for proposals for research projects and project evaluation process management. Their responsibilities also include evaluation of the impartiality of the peer review process. In particular cases, the Coordinator, following consultation with the opinions of the Expert Teams, may change the order of research proposals on the ranking list.

N

The NCN Office is a structure combining the efforts of a number of the NCN's departments and teams. On a day-to-day basis, the Office is responsible for processing calls for proposals and organising meetings for experts at the peer review evaluation stage. The Office also provides support to the applicants and answers their queries. Furthermore, its major responsibilities include administrative and financial management of grant agreements and fostering international cooperation.

NCN OFFICE

GRANTS

NCN SUBJECT AREAS

The National Science Centre funds research projects carried out by scientists, academics, national and international research teams, as well as doctoral scholarships and post-doctoral internships. One of the priorities of the Centre is to support and develop the scientific careers of pre-doctoral and doctoral researchers about to embark on a career in research (maximum 5 years since PhD award). The Centre allocates more than 20% of its budget towards grants for this group of researchers.

The NCN finances some research equipment, however large-scale research infrastructure is financed by the Ministry of Science and Higher Education. The funding programmes are open to a wide range of applicants and the proposals must be written in both Polish and English. Although parties signing contracts with the NCN are required to be Polish institutions, their research teams may include foreign researchers.

NCN SUBJECT AREAS

The NCN announces calls for proposals four times a year. Applications from the academic disciplines covered by 25 discipline panels may be submitted in response to calls for proposals. The NCN panels are grouped into three disciplinary domains.



HS - Arts, Humanities and Social Sciences

- HS1 Fundamental questions of human existence and the nature of reality
- HS2 Cultures and cultural creativity
- HS3 The study of the human past
- HS4 Individuals, institutions and markets
- HS5 Social norms and governance
- HS6 Human nature and human society

ST – Physical Sciences and Engineering

- ST1 Mathematics
- ST2 Fundamental constituents of matter
- ST3 Condensed matter physics
- ST4 Physical and Analytical Chemical sciences
- ST5 Materials and Synthesis
- ST6 Computer science and informatics
- ST7 Systems and telecommunications engineering
- ST8 Products and processes engineering
- ST9 Astronomy and space research
- ST10 Earth system science

NZ – Life Sciences

- NZ1 Molecular and Structural Biology and Biochemistry
- NZ2 Genetics, Genomics
- NZ3 Cellular and Developmental Biology
- NZ4 Biology of Tissues, Organs and Organisms
- NZ5 Human and Animal noninfectious diseases
- NZ6 Human and Animal immunology and infection
- NZ7 Public health
- NZ8 Evolutionary and environmental biology
- NZ9 Applied life sciences and biotechnology





OPUS

Intended for a wide range of applicants, irrespective of their research experience. The research proposal submitted under this funding scheme may include the purchase or construction of research equipment.

HARMONIA

Aimed at applicants wanting to carry out research in cooperation with foreign partners. This funding scheme offers the researchers the opportunity to develop scientific ideas in collaboration with international peers and gives them access to large-scale international research infrastructure.

MAESTRO

Designed for advanced researchers wanting to conduct pioneering research, including interdisciplinary research which is important for the development of science. Projects within this funding scheme should surpass the current state of knowledge, lead to the creation of new paradigms, or forge pathways to new frontiers in research.

SONATA BIS

Addressed to researchers with 2-12 years scientific experience since their PhD award. This funding scheme gives the scientists an incentive to establish a new research team and become independent research leaders.

SYMFONIA

Applicants in this funding opportunity should be advanced researchers wanting to carry out interdisciplinary or cross-domain research in collaboration with teams representing different areas of research. Projects submitted under this funding scheme are expected to surpass current frontiers of knowledge and gain new perspectives in science and humanities.



PRELUDIUM

Aimed at pre-doctoral researchers starting their career in research. This funding scheme seeks to inspire the scientists to develop innovative ideas and helps them gain research experience, thus becoming a prelude to their future career.

SONATA

Targeted at emerging researchers with up to 5 years scientific experience since their PhD award. This funding opportunity strives to encourage the researchers to create an innovative scientific or academic approach or equipment, thus helping them become independent researchers.





ETIUDA

This funding opportunity, addressed to PhD candidates, intends to provide the best young researchers with financial support and the optimal working conditions. The applicants in this scheme should plan a research stay abroad which will be funded solely by the NCN. The awardees will also receive a monthly salary and are obliged to obtain their PhD degree within 12 months of completing the scholarship.

FUGA

Targeted at researchers holding a doctoral degree. The programme intends to facilitate mobility of Polish researchers between different research institutions in Poland and encourage the exchange of scientific ideas. The grantees will be employed in an academic unit or other research institution on a full--time basis and will receive funding for their rese-





PROJECT EVALUATION

The eligibility of research projects submitted to the NCN is checked by the NCN Discipline Coordinators. Afterwards the projects are peer reviewed by both Polish and foreign referees. Scientific excellence is a prime selection criterion within the NCN evaluation system.

The NCN Expert Panel is a group of experts selected from distinguished researchers by the NCN Council and appointed by the Director of the NCN. The panel is responsible for evaluation of applications submitted in response to the call for proposals.



STATISTICS Success rate within the NCN Funding granted within discipline panels in 2012 the NCN panels in 2012 100% 36 mln EUR 120 mln EUR 50% 95 mln EUR 0 % 100 22 N \rightarrow % % % PHYSICAL SCIENCES AND ENGINEERING IFE SCIENCES ARTS, HUMANITIES AND SOCIAL SCIENCE

Funds allocated within NCN funding schemes in 2012



INTERNATIONAL COOPERATION

One of the main objectives of the National Science Centre is to foster international cooperation with leading institutions supporting research. The NCN's mission is to offer Polish scientists the freedom to conduct research in a broad international context and contribute to the multinational debate on basic research.

Since 2012 the NCN has been involved in international networking activities which inspire researchers to carry out research in the following disciplines:

- Astroparticle Physics ASPERA-2 (AStroparticle ERAnet) and ApPEC (Astroparticle Physics European Coordination)
- Humanities HERA (Humanities in European Research Area)
- Social Sciences NORFACE (New Opportunities for Research Funding Agency Cooperation in Europe)
- Infectious Diseases INFECT-ERA

- Neurodegenerative Disease Research Joint
 Programme Neurodegenerative Disease
 Research
- Cultural Heritage Joint Programming Initiative on Cultural Heritage

HARMONIA – PROJECTS CARRIED OUT IN COOPERATION WITH FOREIGN PARTNERS

Researchers who would like to carry out research in cooperation with foreign partners may also submit applications within HARMONIA funding scheme. A proposal outlining research tasks to be performed by Polish partners must be submitted to the NCN by the Polish host institution. Tasks performed by foreign partners participating in the project must be financed by organisations (agencies or foundations) funding basic research in their country of residence or from other sources.





NATIONAL SCIENCE CENTRE AWARD 2013

The National Science Centre Award is a prize conferred on young investigators for outstanding basic research carried out in Polish organisations. The award was founded by the NCN Council in February 2013. It is given to researchers in three categories, corresponding to three critical areas of study: Arts, Humanities and Social Sciences; Physical Sciences and Engineering; Life Sciences. Laureates are chosen by a jury consisting of the Director and the NCN Council, as well as representatives of the co-founders of the award. On 9th May 2013 the award was granted for the first time.



ARTS, HUMANITIES AND SOCIAL SCIENCES

dr ANNA MATYSIAK Warsaw School of Economics

The award in Arts, Humanities and Social Sciences was granted to Anna Matysiak based on her research into transformations of the modern family model from a comparative perspective. In her studies Anna Matysiak explores the processes of formation, development and dissolution of families as well as the factors determining those processes. She combines demography, labour economics and social politics, using a wide range of advanced methods of quantitative analysis. Her work is unique as it is the only comparative study of the relationship between the number of women active in the labour market and fertility rates where countries of East-Central Europe have been presented symmetrically alongside countries with developed market economies.



LIFE SCIENCES

dr hab. ANDRZEJ STANISŁAW DZIEMBOWSKI Institute of Biochemistry and Biophysics, the Polish Academy of Sciences; University of Warsaw

The award for remarkable achievements in the field of Life Sciences has been given to Andrzej Dziembowski, an eminent young molecular biologist whose notable achievement is having discovered the function of the human USB1 gene. Until recently the role of the gene in cells had remained entirely enigmatic despite its mutation incidence in such rare diseases as poikiloderma with neutropenia, Rothmund-Thomson syndrome or dyskeratosis congenita.

Dziembowski and his collaborators found out that the protein encoded by the USB1 gene is the enzyme responsible for the process of gene expression. In their research the team used a number of advanced experimental techniques, including yeast cell screening, biochemical tests of pre-mRNA splicing in vitro, or analyses employing RNA interference in human cell cultures. These studies will bring us closer to understanding the cause and nature of the disease poikiloderma with neutropenia.



PHYSICAL SCIENCES AND ENGINEERING

dr hab. PIOTR GARSTECKI

Institute of Physical Chemistry, the Polish Academy of Sciences

Piotr Garstecki, representing the area of Physical Sciences and Engineering, obtained an award for his innovation in research on the dynamics of complex fluids and their potential use in microbiology and biochemistry. His research interests include microfluidics and dynamic self-organisation in complex fluids. Piotr Garstecki was the first to explain the process of formation of droplets in microscale. His research team also works on the problem of transport of droplets through mazes of microfluidic channels and explores the use of microfluidic self capsules. Piotr Garstecki's new discoveries will have a huge impact on research areas such as microbiology, biochemistry and material science.



PERFORMING FOR POLISH RESEARCH

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