



**International Institute of Molecular  
and Cell Biology in Warsaw**

**Project title:** RNA and Cell Biology Platform for Research and Innovation in Medicine

**Acronym:** RACE-PRIME

**Project value:** 36 293 600 PLN

**Funding:** 36 293 600 PLN

**Implementation period:** 1.05.2024-30.04.2029

**Project number:** FENG.02.01-IP.05-T003/23

**Programme:** International Research Agendas, funded by the European Funds for Smart Economy 2021-2027 programme (FENG)

**Objective:** The main objective of RACE-PRIME is to establish IIMCB as a world-class Center of Excellence in RNA and Cell Biology, focusing on translating cutting-edge research into clinical innovations. The Center will consist of two platforms dedicated to RNA and cell biology, both aimed at developing novel approaches for treating human diseases with insufficient or unavailable treatments. The Center for "RNA and Cell Biology Platform for Research and Innovation in Medicine (RACE-PRIME)" is an integral part of the Horizon Europe Teaming for Excellence project called "RNA and Cell Biology - from Fundamental Research to Therapies" (RACE) awarded to the IIMCB.



European Funds  
for Smart Economy



Republic  
of Poland

Co-funded by the  
European Union



Foundation for  
Polish Science



The International Institute of Molecular and Cell Biology in Warsaw started implementation of a project co-financed by the European Union under the Program Operational Infrastructure and Environment 2014-2020

Title: "Increasing the energy efficiency of the building of the International Institute of Molecular and Cell Biology in Warsaw"

Project number: POIS.01.03.01-00-0067 / 17-00

Project value: 3,626,200.00 PLN

Co-financing value: 3 011 157,70 PLN

The aim of the project is to improve the energy efficiency of the building owned by the International Institute of Molecular and Cell Biology in Warsaw



The mechanism for reporting potential improperness and financial abuses in the implementation of the project no. POIS.01.03.01-00-0067/17-00 "Increasing the energy efficiency of the building of the International Institute of Molecular and Cell Biology in Warsaw"

With respect to the signing of the agreement on co-financing of the project "Increasing the energy efficiency of the building of the International Institute of Molecular and Cell Biology in Warsaw" (Agreement no. POIS.01 .03.01-00-0067/17-00 dated July 5, 2019) within the framework of the Operational Programme Infrastructure and Environment 2014-2020, priority axis I "Reduction of the economy's emissivity" sub-measure 1.3.1 and with the obligation to publicise information on the functioning of the mechanism for reporting potential improperness and financial abuses in the implementation of the project (par. 4 points 18 and 19), the Directors of the International Institute of Molecular and Cell Biology in Warsaw inform that the abovementioned improperness and abuses can be notified by:

- e-mail address: [naduzycia.POIS@mr.gov.pl](mailto:naduzycia.POIS@mr.gov.pl)
- electronic notification system via dedicated website: [www.pois.gov.pl/nieprawidlowosci](http://www.pois.gov.pl/nieprawidlowosci)



On January 31, 2022, the commission inspected the thermomodernization works completed at the International Institute of Molecular and Cell Biology in Warsaw. The works were conducted at the Institute within the project entitled "Improving the energy efficiency of the building of the International Institute of Molecular and Cell Biology in Warsaw", co-financed by the European Union.

Within the framework of the project, thermomodernization works have been carried out including the following:

- Insulation of external walls
- Thermal insulation of roofs
- Replacement of window frames
- Replacement of oriel windows
- Replacement of central heating installation
- Modernization of mechanical ventilation installation
- Installation of a 14.5 kWp photovoltaic micro-installation
- Replacement of lights on energy-saving LEDs

Project number: POIS.01.03.01-00-0067/17-00

Value of the project: 3,626,200.00 PLN

Funding: 3 011 157,70 PLN



**Project number:** POIR.04.04.00-00-20E7/16

**Title:** Structural and biochemical studies of the mechanism of LINE-1 retrotransposition and hepadnaviral replication

**Project leader:** Marcin Nowotny, PhD, DSc Habil  
E: [mnowotny@iimcb.gov.pl](mailto:mnowotny@iimcb.gov.pl)

Co-PI – Elżbieta Nowak, PhD  
E: [enowak@iimcb.gov.pl](mailto:enowak@iimcb.gov.pl)

**Project value:** 6 442 833,91 PLN

**Financing:** 6 442 833,91 PLN

**Duration:** 01.06.2017–28.08.2022

**About the project:**

The canonical flow of information in life is from DNA to RNA and from RNA to protein. There is, however, a fascinating example of a reversal of this flow – the conversion of single stranded RNA to double-stranded DNA, a process termed reverse transcription. It is used by certain viruses (i. e. HIV-1) to integrate their genetic material into the genome of the host cell and for subsequent replication. In addition to viruses, this process is used by mobile genetic elements called retrotransposons. They constitute nearly 40% of human genome and have a profound impact on its architecture. We are interested in determining the structure and mechanism of reverse transcriptase from non-LTR retrotransposon as well as the HBV reverse transcriptase, which is a very important but structurally unexplored target for anti-HB therapy. Project received additional funds for COVID-19 related tasks.

*This project is carried out within the TEAM programme of the Foundation for Polish Science co-financed by the European Union under the European Regional Development Fund.*



**Project number:** POIR.04.04.00-00-3D8D/16

**Title:** INFECTLESS New generation of antibacterial wound dressing

**Project leader:** Izabela Sabała, PhD

**Project value:** 3 463 780 PLN

**Financing:** 3 463 780 PLN

**Duration:** 01.12.2017–30.06.2021

**About the project:**

Wound infections are very common and can have serious local and systemic complications, especially if associated with other patient's condition, like diabetic foot, pressure ulcers or burns. Spreading of antibiotic resistance enhances the problem, especially in the case of staphylococci (MRSA). To address this issue we propose to develop a new generation of wound dressing functionalized with patented bacteriolytic enzyme and based on modern biomaterials, like hydrogels and nanofibers. This multidisciplinary project, carried out in collaboration with scientific and commercial partners, will give a great opportunity to introduce young researchers to various scientific areas and to train them in commercial aspects of project results implementation.

*This project is carried out within the TEAM TECH programme of the Foundation for Polish Science co-financed by the European Union under the European Regional Development Fund.*

**Project number:** POIR.04.04.00-00-3CF0/16

**Title:** Modeling of dynamic interactions between RNA and small molecules and its practical applications

**Project leader:** Janusz Bujnicki, PhD, Professor  
E: [janusz@iimcb.gov.pl](mailto:janusz@iimcb.gov.pl)  
  
Deputy Head – Filip Stefaniak, PhD  
E: [fstefaniak@iimcb.gov.pl](mailto:fstefaniak@iimcb.gov.pl)

**Project value:** 3 497 559,26 PLN

**Financing:** 3 497 559,26 PLN

**Duration:** 01.10.2017–29.06.2021

**About the project:**

Development of new computational methods for modeling RNA interactions with small molecule ligands, and its application to study and regulate the mechanism of action of viral and bacterial RNA molecules

*This project is carried out within the TEAM programme of the Foundation for Polish Science co-financed by the European Union under the European Regional Development Fund.*



European Union  
European Regional  
Development Fund



**Project number:** POIR.04.04.00-00-20CE/16

**Title:** Cellular consequences of endosomal dysfunction for proteostasis, metabolism and cancer biology

**Project leader:** Marta Międzyńska, PhD, Professor  
E: [miaczynska@iimcb.gov.pl](mailto:miaczynska@iimcb.gov.pl)

**Project value:** 3 497 520 PLN

**Financing:** 3 497 520 PLN

**Duration:** 01.06.2017–28.06.2021

**About the project:**

The project combines molecular cell biology and cancer biology. It aims to elucidate the consequences of endosomal dysfunction in mammalian cells and their contribution to tumorigenesis. The experimental work involves biochemical, microscopy and transcriptomic techniques to investigate metabolic processes, membrane transport and signal transduction in cultured cells. Moreover, in collaboration with scientists from the Maria Skłodowska-Curie Memorial Cancer Center and Institute of Oncology in Warsaw, we are also investigating the function of endosomes in cancer cells and the possibility of its pharmacological modulation.

*This project is carried out within the TEAM programme of the Foundation for Polish Science co-financed by the European Union under the European Regional Development Fund.*