Moscow Institute of Physics and Technology (State University)

MIPT is a young university with 60 year long history

MIPT is very small university:

Number of students 3600
Number of postgraduates 600
is a top ranked Russian university considered by many to be on par with the best schools in the world including:

MIT, Stanford, Princeton, Harvard, Berkley, Caltech, etc

MIPT is sometimes referred to as "the Russian MIT"
MIPT Founding Fathers

Nobel Prize Winners

Petr Kapitsa

Lev Landau

In the end of 1945 the fathers of Soviet rocket science (Korolev), nuclear bomb (Kurchatov) and future Nobel Prize winners Kapitsa, Landau and Semenov lobbied the government to create a university of a principally new kind.

In a letter to Stalin in February 1946, Kapitsa argued for the need for such a school, which he tentatively called the *Moscow Institute of Physics and Technology*, to better maintain and develop the country's defense potential.

This project received the seal of approval from Joseph Stalin himself in 1946 and the MIPT was born.
Physteh System

Best Professors
Leading Russian Researchers from Best Research Institutes

Best Students
Efficient System of Attracting/Selecting Talented Students

Best Educational System
Deep and Active Knowledge to Solve Most Challenging Problems

Best Research Training
3d Year Students Start Research Work in Best Russian Research Laboratories
Best Professors

Nobel Prize Winners

P. Kapitsa
N. Semjonov
L. Landau
A. Prohorov
N. Basov
V. Ginzburg
A. Abrikosov
Education

**General courses and Practicum**
(Computers, Physics, Computer Science, Biology, etc.)

**Special courses and Practicum**

**Research Work** in the best
Research Institutions of
Russian Academy of Science,
Russian Space Agency,
Russian Atomic Commission
etc.

- B.Sc. - 4 years
- M.Sc. - 2 years
- Ph.D. - 3 years
Moscow Institute of Physics and Technology (MIPT)

MIPT was famous in Soviet Union, but was considerably less known abroad

MIPT was quite hidden during the Cold War era when leading scientists and engineers of the Soviet defense programmes studied there
Number of Undergraduates from Different Russian Universities obtained their PhD in the USA

(1997-2006 data from SED)
Faculty of General and Applied Physics

Former Graduates

Alexander Polyakov
Professor
Princeton University
USA

Mikhail Voloshin
Professor/Director
Theoretical Physics Institute,
USA

Nikita Nekrasov
Professeur permanent à l'IHÉS
France
Research Universities - new Russian Scientific Policy

2007- 2008 M. Trunin (Dean of the Faculty) and two former Faculty students V. Lebedev (Director of Landau Institute of Theoretical Physics) and myself initiated creation of an Institute for Advanced Study

We named it “Bionanocenter” of MIPT

In 2009 all-Russian competition for the status “Research University” MIPT was ranked number 1
What is “Bionanocenter”?

Biomembranes and Membrane Proteins

Nanomaterials

What is “Bionanocenter”? 

Applied Research 

Research 

Education 

International Cooperation
Motivation for Membrane and Membrane Protein Studies

- They represent one-third of the proteins encoded in the genome
- 70% of drugs have as a target membrane proteins
- They comprise about 1% of proteins of known structure
Vadim CHEREZOV (former graduate of MIPT) et al solved the structure of GPCR receptor [(2007) Science 318, 1258 – 1265]

This work is considered as a breakthrough in bioscience and is of high importance for medicine and is now one of the most cited papers in bioscience
Membranes: Ageing, Cancer and Neuroscience
There is special funding for France-MIT (USA) cooperation

Might Grenoble-MIPT cooperation would be of an interest for scientific community in Grenoble?

If yes

I would suggest to consider creation of a special funding for Grenoble -MIPT (Russia) cooperation