

A vision of academic campus in Warsaw

Jacek Kuznicki
with Dominika Dubicka's help

**International Institute of Molecular
and Cell Biology**



European Research on the Move, Wroclaw, September 4-5, 2009

CONSORTIUM

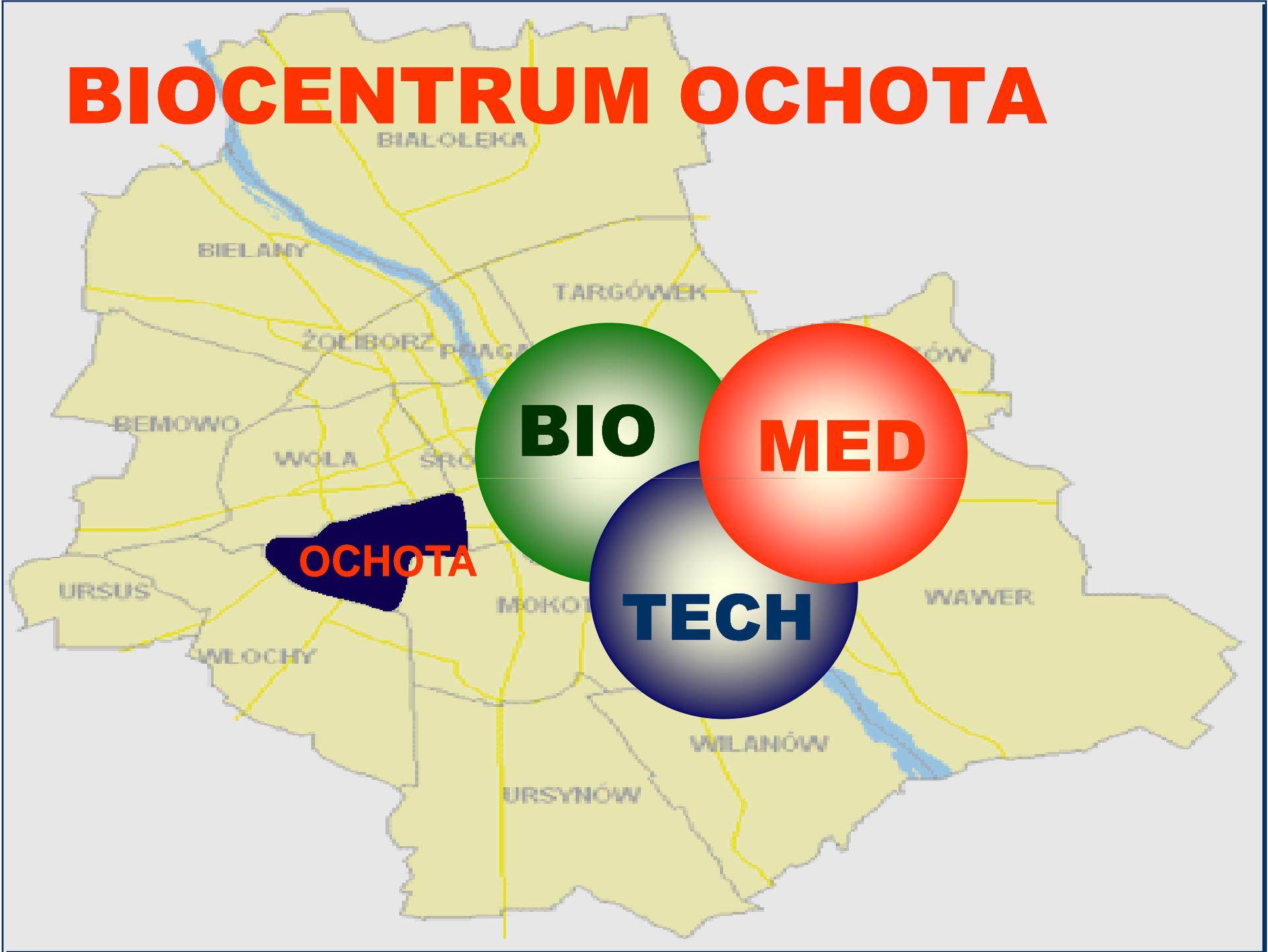
„ BIOCENTRUM OCHOTA”

**was established
on January 1st, 2008
to combine scientific potential and
expertise of 6 institutes.**

**The aim is to realize large
multidisciplinary research projects
in biology, medicine and bioengineering.**



BIOCENTRUM OCHOTA



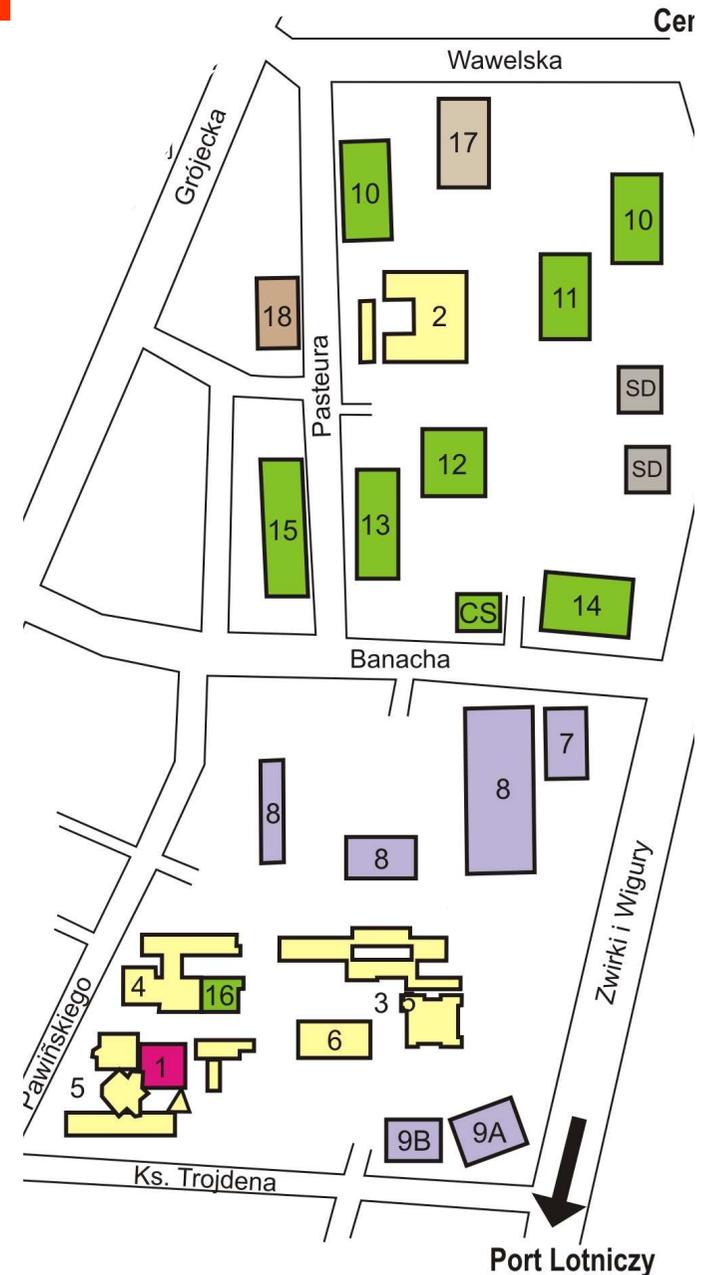
OCHOTA Campus

University of Warsaw

Warsaw Medical University

Biocentrum OCHOTA institutes:

2. Nencki PAN
4. IBB PAN
5. IBiB PAN
3. IMDiK PAN
6. IPPT PAN
1. IIMCB – affiliated with PAN



BIOCENTRUM INSTITUTES:

- **Biochemistry and Biophysics**
- **Biocybernetics and Biomed. Engineering**
- **Nencki Institute of Experimental Biology**
- **Medical Research Center**
- **Fundamental and Technological Research**
- **International I. of Molecular & Cell Biology**

SCIENTIFIC EXPERTISE

IBB - Molecular **B**iology, genetics, **bio**informatics

IBiB - **B**iomedical Engineering

Nencki - **B**iology of molecules, cell, organism

IMDiK - Medical **B**iology, clinical medicine

IPPT - **B**io mechanics, ultrasounds, informatics

IIMCB - **B**io medicine of proteins *in silico, vitro & vivo*

THE MAJOR FEATURES OF BIOCENTRUM INSTITUTES

- **Focus on biomedical research**
- **High quality of research (1st category of Ministry of Science & Higher Education)**
- **Significant funds from EC-Health theme**
- **PhD and other education programs**
- **Translational research, links with SMEs**

BIOCENTRUM STATISTICS

- Total number of workers **1352**
- PhD students **383**
- ISI publications, 2001- 2007 **2997**
- Foreign grants (mi EUR) **~ 30**

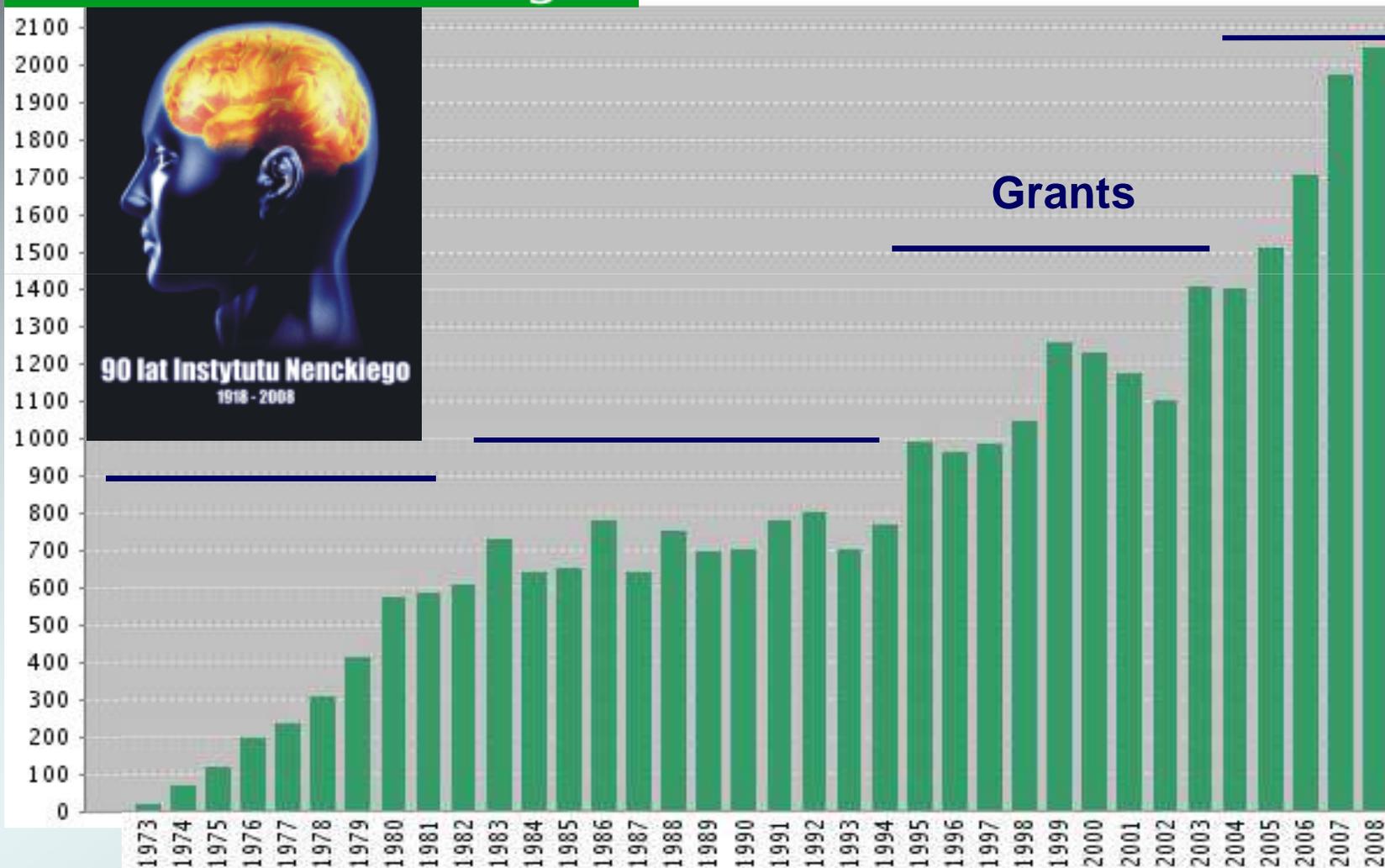
Institute	Ph.D. students	
Nencki	119	
IBB	99	
IMDiK	28	
IBiB	11	
IPPT	88	
IIMCB	38	
Biocentrum - total	383	

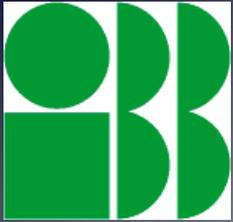
NENCKI INSTITUTE - paper's citations



ISI Web of KnowledgeSM

CoE UE





INSTITUTE OF BIOCHEMISTRY and BIOPHYSICS

Its Core Facilities

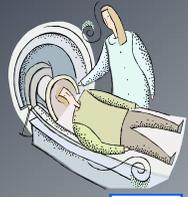
**Laboratory of Magnetic
Resonance**

Prof. dr hab. Andrzej Ejchart

**In 2008 more than 200 institutions from Poland and from
abroad used the services of these laboratories**

MEDICAL RESEARCH CENTER PAN

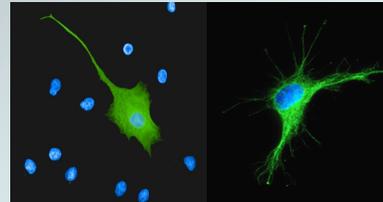
- „From molecule to patient”



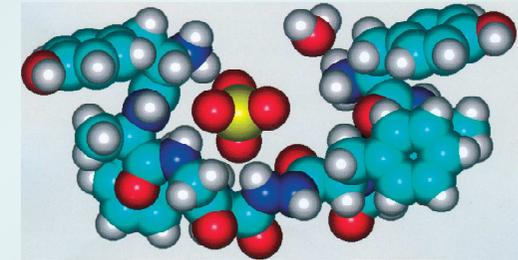
Hospitals:
Pruszkow,
Ostroleka,
Siedlce,
Grojec,
Plock

diagnosis

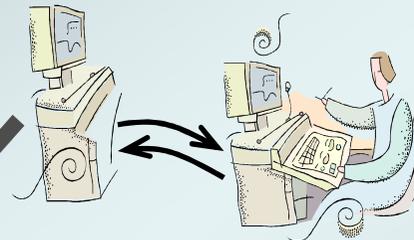
pictures



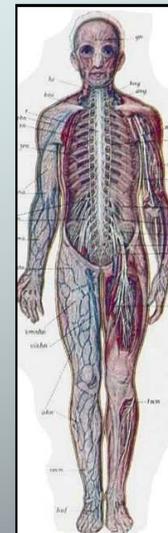
Stem cells



Bifalin – pain treatment
in patients
with advanced tumour



Development of the regional
system of telemedical network



Neuromuscular
and
neurodegenerative
diseases



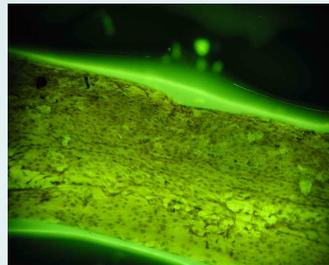
INSTITUTE OF BIOCYBERNETICS AND BIOMEDICAL ENGINEERING PAN

**Biomeasurement and data processing
for support of medical diagnostics**

**Support and replacement
of lost organism functions**

**Multichannel
system
to image
brain
oxygenation
under clinical
conditions**

Model of artificial blood vessel



**Over 20 projects in implementation
with medical establishments**





INSTITUTE OF FUNDAMENTAL AND TECHNOLOGICAL RESEARCH PAN

**Biomechanics, modern materials, ultrasounds,
IT methods – applied and basic research**



**Echoson Company
Experimental IPPT Lab**

**It produced: 3833 ultrasonographs
5543 ultrasonic scanning heads
1850 scanning heads with electronic deflection**

LAB LEADERS AT IIMCB ARE BEING SELECTED via INTERNATIONAL COMPETITIONS



HOW AND WHAT ARE WE DOING?

- For six months one of 6 directors is in charge
- We meet regularly, discuss, plan and ... act
- For example:
 - applying together for funds
 - organizing joint events, PhD programs

Konsorcjum Naukowe:



Instytut
Biochemii
i Biofizyki
PAN



Instytut
Biocybernetyki
i Inżynierii
Biomedycznej PAN



Instytut Biologii
Doświadczalnej
im. N. Nenckiego
PAN



Instytut Medycyny
Doświadczalnej i Klinicznej
im. M. Mossakowskiego
PAN



Instytut
Podstawowych
Problemów
Techniki PAN



Międzynarodowy
Instytut
Biologii Molekularnej
i Komórkowej

WHAT HAVE WE ACHIEVED?

- Participation in:
 - CePT - Centre of Preclinical Research Technol., 30 mi Euro
 - Biovision network „*Visualisation of biomedical effects*”
 - Application for funds for IT infrastructure, 26 mi PLN
- Organization of Technology Transfer Unit
- Cooperation in:
 - preparation of EC grant applications
 - of administrative and financial units
 - to consolidate on-line libraries

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WHAT ARE WE AIMING AT?

- Increased scientific potential
- More high impact papers
- More active participation in of FPs
- More opportunities for young leaders
- Reversal of intraeuropean brain drain

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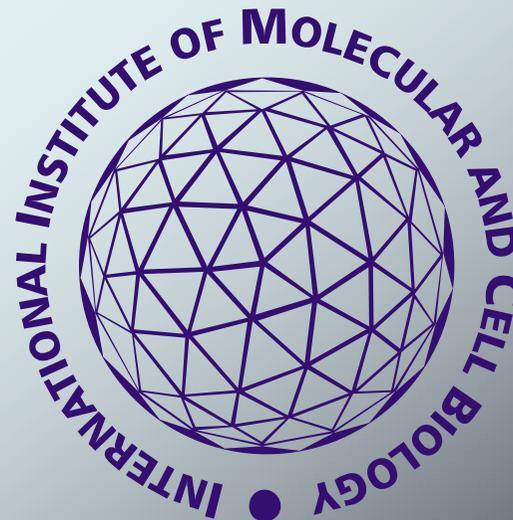


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INTERNATIONAL INSTITUTE OF MOLECULAR AND CELL BIOLOGY IN WARSAW - UNESCO/PAN



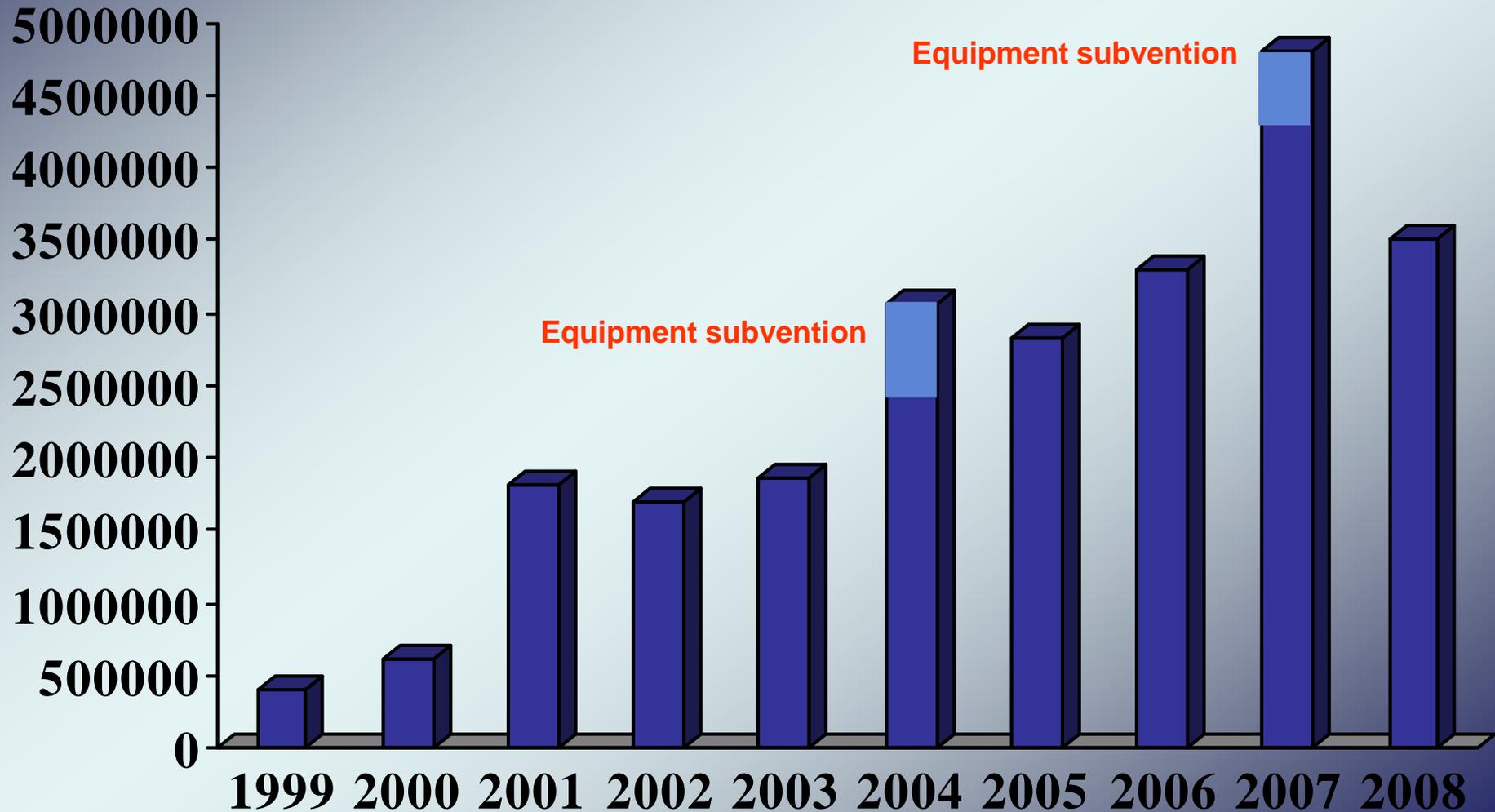
- Created by UNESCO agreement with RP
- and Parliamentary bill in 1997
- Started its activities in January 1999



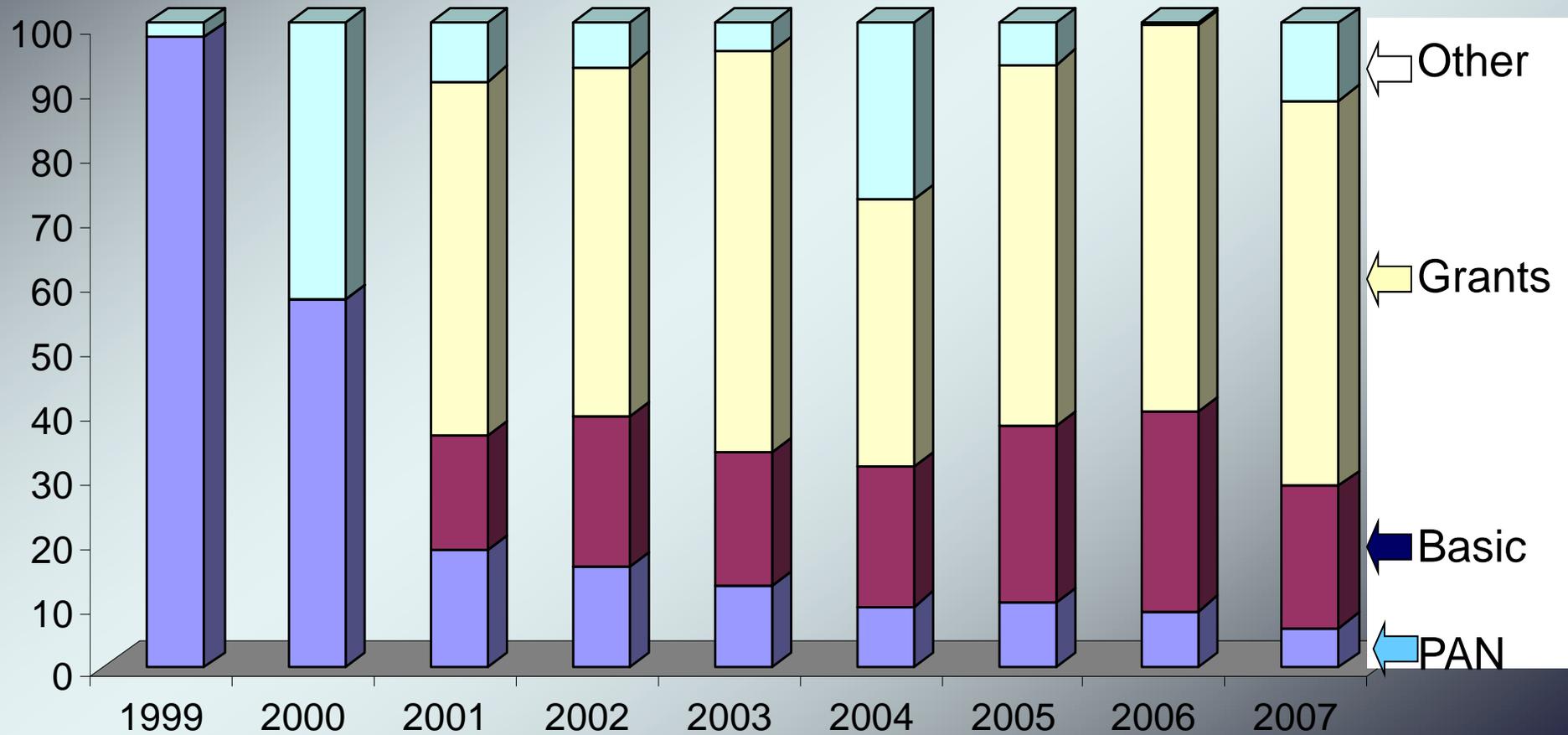
www.iimcb.gov.pl

ANNUAL BUDGETS OF IIMCB

Euro



SUCCESSSES of LAB LEADERS in FUNDING



EU Grants at IIMCB

HEALTH- PROT-CSA	954 100 EUR	2009-12
NEURO.GSK3 – IP	280 840 EUR	2008-11
SBMPs – ITN	263 284 EUR	2008-12

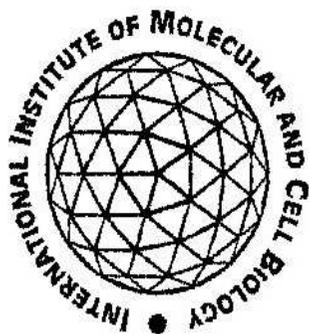
7FP circa 1.5 mln EUR

MEMPROT - TOK	626 800 EUR	2006-10
ENDOTRACK - IP	428 400 EUR	2006-10
PROMEMORIA - IP	478 000 EUR	2005-09
APOPIS - IP	161 200 EUR	2004-06
PLASTOMICS-STREP	164 160 EUR	2004-07
EURASNET - NoE	120 000 EUR	2008-10
VOLVOX - SSA	38 534 EUR	2005-08
DNA Enzymes Curie	254 452 EUR	2005-09
EUROGENTEST- NoE	30 000 EUR	2005-09

6PR circa 2.3 mln EUR

Centre of Excellence	350 000 EUR	2003-06
Cell Chip-coordination	231 703 EUR	2001-03
ANTISTAPH	238 382 EUR	2002-06
REFLAX	149 000 EUR	2001-03
Chaperones	64 776 EUR	2003-04
CF-Network	9 600 EUR	2002-03
CEEBT	23 430 EUR	2004

5PR circa 1 mln EUR



International Institute of Molecular and Cell Biology in Warsaw is a modern Polish research institute active in the field of molecular biomedicine, with focus on molecular biology of cancer, neurobiology/neurodegeneration, cell biology, crystallography/structural biology, protein biomodelling, bioinformatics/molecular evolution and enzyme engineering.

We are seeking a highly motivated scientist ready to start his/her independent career as a

GROUP LEADER

who would complement existing research groups and bridge their interest and activities.

We offer work in a scientifically stimulating environment of a large biomedical campus, start-up funds, furnished laboratory and office space in a modern building, full support from administration, possibility of selecting PhD students from leading Polish universities, access to all Institute's equipment, and a salary for the Group Leader and his/her two PhD students for five years initially.

Interested scientists should submit:

- CV
- list of publications
- proposal of research plans (up to three pages)
- e-mail addresses of three recommending persons

Apply on-line by March 22, 2008 at competition@iimcb.gov.pl

Details on the competition and on the Institute can be viewed on website www.iimcb.gov.pl

W122118R

HISTORY OF LAB LEADER COMPETITIONS

Year	Number of candidates	Winners employed at IIMCB
1998	6	Jarosław Dastych
1999	3	Maciej Żyłicz
2000	6	Michał Hetman
2000	7	Matthias Bochtler, Leszek Rychlewski
2002	9	Janusz M. Bujnicki, Sławomir Filipek
2002	9	–
2003	18	Marta Młaczyńska
2004	26	–
2005	26	Jacek Jaworski
2005	17	Ewa Paluch
2006	25	Marcin Nowotny
2007	16	–
2008	14	Agnieszka Chacńska

IIMCB PUBLICATIONS



36 J Biol Chem, 19 Nucl Acids Res, 13 Proteins, 8 Bioinformatics,
7 Protein Sci, 7 Biochemistry, 6 FEBS Lett, 5 EMBO J, 4 PNAS,
2 FASEB J, 2 Gene, 1 Nature, 1 Nature Cell Biol, 1 PLoS Biol, 1 Neuron

INTERNATIONAL INSTITUTE OF MOLECULAR AND CELL BIOLOGY IN WARSAW - UNESCO/PAN



Since January 1999:

- **Center of Excellence in 5th FP**
- **> 300 ISI publications and 2 patents**
- **> than 50% of funds are not from Poland**
 - **7 grants 5th FP = 1.06 mi Euro**
 - **8 grants 6th FP = 2.18 mi Euro**
 - **3 grants 7th FP = 1.5 mi Euro**
- **> 110 staff (50% < 30 y.o. 25% 30-40 y.o.)**

We are looking for you



**EC REGPOT grant in 7FP
of about 970 000 Euro**

as a POSTDOCTORAL RESEARCHER



Nencki Institute of Experimental Biology of the Polish Academy of Sciences in Warsaw

is inviting applications in an open competition for the position of a

GROUP LEADER

Highly motivated scientists, who completed at least two-years of post-doctoral training, have outstanding scientific achievements, and are ready to start their independent careers are encouraged to apply. We offer a job in the largest research institute of the Polish Academy of Sciences. The Nencki Institute is active in the fields of neurophysiology, molecular and cellular neurobiology, biochemistry, protein chemistry, cell biology, neuropsychology, bioinformatics and neuroinformatics. Scientific interests of the candidates should remain within research fields of the Nencki Institute. The initial contract in this position is for 5 years, with a possible extension after positive evaluation of the candidate's achievements. We offer furnished laboratory space, adjusted to the individual needs of the successful candidate, as well as access to the Institute's shared equipment. The selected person will be able to hire three persons. Qualified persons interested in applying for the position should submit the following documents:

- CV and list of publications
- short proposal of research plans (no more than 3 pages)
- reprints of three selected experimental papers
- three letters of recommendation

by July 20, 2008 at the Institute's address (3 Pasteur St., 02-093 Warsaw, Poland) or via e-mail (dyrekcja@nencki.gov.pl), with a subject header "Group leader 2008".

Further details are available at the Institute website at www.nencki.gov.pl. Additional information regarding this announcement can be obtained from:

u.slawska@nencki.gov.pl

The selection process will be supervised by the Recruitment Committee established by the Director of the Nencki Institute. Results of the competition will be announced in October 2008.

WHAT WILL OCHOTA BIOCENTRUM OFFER IN THE FUTURE?

- New jobs and career opportunities in science and supporting activities
- Excellent conditions for multidisciplinary research
- Development of local medical and biotechnological companies (SMEs)

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B - means only some
“improvements” are for better

EU programs offer opportunities for collaboration and increase research budgets; most importantly it is in most cases a good mix of two policies cohesion and competitiveness.

However, some developments seem to attenuate such balance and are based on competition, where the major criterium is the excellence

Good, better, best - use of EC Framework Programmes



Jacek Kuznicki and Magda Powierza
International Institute of Molecular and
Cell Biology, Warsaw, POLAND

Summary of part B

- **OMS and NMS „brains” go West**
- **Most funds go to OMS, mainly to few of them:**
 - Some consortia are hermetic
 - Excellence is the major criterium (IP, IDEA)
 - Fewer and weaker SMEs in SLDRs, including NMS
 - Equal rights not equal to equal chances
- **General problems:**
 - too long procedures
 - too much lobbying before calls
 - too much reporting
 - more trust needed between EC and scientists

Conclusions of **part B** - problems with FPs which:

- **Disturb balance between cohesion and competitiveness policies of EU**
- **Support collaboration selectively**
- **Eliminate groups with high potential**
- **Freeze scientific imbalance in EU**
- **Disintegrate rather than integrate**
- **Drain scientists from SLDR, incl. NMS**

C - means ways to achieve the best outCome

- More REGPOT-like calls (former CoEs) targeted to SLDR
- Funds to add SLDR partners to existing consortia
- More smaller IPs and different evaluation criteria:
 - clear collaboration in the proposals, not only excellence
 - towards decrease of scientific and geographic imbalance; extra points?
 - own contribution from national funds smaller than 25%
- Support for good basic research without SMEs
- Less bureaucratic, more scientific reporting (meetings, joint publications)
- Reverse mobility of researchers – go to SLDR, i.e. East & South!
 - ERC grants to work only in NMS and other SLDR
 - sequential (5+2 years) MCA mobility grants for independent scientists
 - funds for new labs in NMS and other SLDR

The vision, ...
the dream, ...

**If we are serious about ERA
let's stop talking about it,
but do it, and do it
with long-term vision!**

**New Marshall-like plan is needed for
science in NMS and other SLDRs!**