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.
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 Biology, genetics, bioinformatics
IBiB - Biomedical Engineering
Nencki - Biology of molecules, cell, organism
IMDiK - Medical Biology, clinical medicine
IPPT - Biomechanics, ultrasounds, informatics
IIMCB - Biomedicine 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
<table>
<thead>
<tr>
<th>Institute</th>
<th>Ph.D. students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nencki</td>
<td>119</td>
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<tr>
<td>IBB</td>
<td>99</td>
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<tr>
<td>IMDiK</td>
<td>28</td>
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<td>IBiB</td>
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<td>IPPT</td>
<td>88</td>
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<tr>
<td>IIMCB</td>
<td>38</td>
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<tr>
<td>Biocentrum - total</td>
<td>383</td>
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</table>
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

Stem cells

Bifalin – pain treatment in patients with advanced tumour

Development of the regional system of telemedical network

Neuromuscular and neurodegenerative diseases
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

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

Echoson Company
Experimental IPPT Lab
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
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
WHAT ARE WE AIMING AT?

- Increased scientific potential
- More high impact papers
- More active participation in FP7s
- More opportunities for young leaders
- Reversal of intra-European brain drain
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

Equipment subvention

2007
2008
## EU Grants at IIMCB

<table>
<thead>
<tr>
<th>Project Name</th>
<th>EU Funds (EUR)</th>
<th>Duration</th>
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<tbody>
<tr>
<td>HEALTH- PROT-CSA</td>
<td>954 100</td>
<td>2009-12</td>
</tr>
<tr>
<td>NEURO.GSK3 – IP</td>
<td>280 840</td>
<td>2008-11</td>
</tr>
<tr>
<td>SBMPs – ITN</td>
<td>263 284</td>
<td>2008-12</td>
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<tr>
<td>7FP circa 1.5 mln EUR</td>
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<tr>
<td>MEMPROT - TOK</td>
<td>626 800</td>
<td>2006-10</td>
</tr>
<tr>
<td>ENDOTRACK - IP</td>
<td>428 400</td>
<td>2006-10</td>
</tr>
<tr>
<td>PROMEMORIA - IP</td>
<td>478 000</td>
<td>2005-09</td>
</tr>
<tr>
<td>APOPIS - IP</td>
<td>161 200</td>
<td>2004-06</td>
</tr>
<tr>
<td>PLASTOMICS-STREP</td>
<td>164 160</td>
<td>2004-07</td>
</tr>
<tr>
<td>EURASNET - NoE</td>
<td>120 000</td>
<td>2008-10</td>
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<tr>
<td>VOLVOX - SSA</td>
<td>38 534</td>
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<tr>
<td>DNA Enzymes Curie</td>
<td>254 452</td>
<td>2005-09</td>
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<tr>
<td>EUROGENTEST- NoE</td>
<td>30 000</td>
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<tr>
<td>6PR circa 2.3 mln EUR</td>
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<td>Centre of Excellence</td>
<td>350 000</td>
<td>2003-06</td>
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<tr>
<td>Cell Chip–coordination</td>
<td>231 703</td>
<td>2001-03</td>
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<tr>
<td>ANTISTAPH</td>
<td>238 382</td>
<td>2002-06</td>
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<tr>
<td>REFLAX</td>
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<tr>
<td>Chaperones</td>
<td>64 776</td>
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<td>CF-Network</td>
<td>9 600</td>
<td>2002-03</td>
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<tr>
<td>CEEBT</td>
<td>23 430</td>
<td>2004</td>
</tr>
<tr>
<td>5PR circa 1 mln EUR</td>
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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
<table>
<thead>
<tr>
<th>Year</th>
<th>Number of candidates</th>
<th>Winners employed at IIMCB</th>
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<tbody>
<tr>
<td>1998</td>
<td>6</td>
<td>Jarosław Dastych</td>
</tr>
<tr>
<td>1999</td>
<td>3</td>
<td>Maciej Żylicz</td>
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<tr>
<td>2000</td>
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<td>Michał Hetman</td>
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<tr>
<td>2000</td>
<td>7</td>
<td>Matthias Bochtler, Leszek Rychlewski</td>
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<tr>
<td>2002</td>
<td>9</td>
<td>Janusz M. Bujnicki, Sławomir Filipek</td>
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<tr>
<td>2002</td>
<td>9</td>
<td>–</td>
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<tr>
<td>2003</td>
<td>18</td>
<td>Marta Miączyńska</td>
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<tr>
<td>2004</td>
<td>26</td>
<td>–</td>
</tr>
<tr>
<td>2005</td>
<td>26</td>
<td>Jacek Jaworski</td>
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<tr>
<td>2005</td>
<td>17</td>
<td>Ewa Paluch</td>
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<tr>
<td>2006</td>
<td>25</td>
<td>Marcin Nowotny</td>
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<tr>
<td>2007</td>
<td>16</td>
<td>–</td>
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<td>2008</td>
<td>14</td>
<td>Agnieszka Chacińska</td>
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</table>
IIMCB PUBLICATIONS

- 2000: 7 publications

- 2001: 26 publications

- 2002: 24 publications

- 2003: 37 publications

- 2004: 37 publications

- 2005: 45 publications

- 2006: 46 publications

- 2007: 45 publications

- 2008: 58 publications
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.)
EC REGPOT grant in 7FP of about 970 000 Euro
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.slawinska@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)
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

12/01/2010
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 lobbing 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

12/01/2010
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!

12/01/2010