



Wydział Psychologii  
Uniwersytetu Warszawskiego



NEuro - BioImaging Poland  
**The First Integrative Meeting**  
**The Nencki Institute of**  
**Experimental Biology PAS**

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& Agnieszka Pluta

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# Long tradition

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## of the Faculty of Psychology

- Nearly 70 years of neuropsychological (the Brain – Behaviour) research and education initiated by:

Prof. Jerzy Konorski

Prof. Alexander Luria

Prof. Mariusz Maruszewski



# Current research using neuroimaging techniques

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- **Emotion and motivation** (M. Jarymowicz)
- **Communication functions of the Right Hemisphere** (E. Łojek, K. Jodzio & K. Bryan)
- **Arytmetic skills** (M. Sobańska)
  - the project is implemented in collaboration with the Department of Cognitive Psychology at the University of Finance and Management in Warsaw
- **Neural basis of empathy and theory of mind** (A. Pluta, E. Bruneau, R. Saxe)
  - the project was conducted at Martinos Centre at MIT under the supervision of prof. Rebecca Saxe)

# Current research using neuroimaging techniques

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- **Concealed information detection with the use of EEG** (H. Szuster-Kowalewicz, J. Wojciechowski)
- **Brain functions mapping before neurosurgery treatment**
  - the project is realized by Paweł Soluch in WUM
- **Neural conditioning of empathy**
  - the project is planned in the collaboration with Faculty of Biomedical Physics led by Piotr Durka, Ph.D.)
- **Cognitive and behavioral profiles of developmental dyslexia**
  - the head of the project is Katarzyna Jednoróg, PhD from Nencki Institute of Experimental Biology, Department of Neurophysiology, Laboratory of Psychophysiology

# Research collaboration

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- **Faculty of Biomedical Physics UW**
- **Nencki Institute of Experimental Biology,  
Department of Neurophysiology**
- **Department of Cognitive Psychology at the  
University of Finance and Management in Warsaw**
- **International Center of Hearing and Speech,  
Kajetany, Poland**
- **Institute of Psychiatry and Neurology**
- **Medical University of Gdańsk**

# Workshops and internship

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- SPM 8 (Statistical Parametric Mapping) Workshop at Martinos Centre, Boston, MA. (1 person);
- SPM 8 for advanced users Edinburgh (1 person);
- 2010 UCLA Neuroimaging Summer Program (1 person);
- Functional and structural neuroimaging of the brain. Department of Neurophysiology The Nencki Institute of Experimental Biology, April, 2008, Warsaw (6 persons);
- Research assistantship on University of Delaware under the supervision of Mike Khulman and Robert Simons (1 person);
- 3 months EEG training led by Institute of Psychiatry and Neurology (9 students from Neuropsychological Student Science Group).

# Competencies

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- MRI & EEG acquisition
- fMRI & EEG design
- Preprocessing fMRI & EEG data
- fMRI & EEG data analysis - single subject
- fMRI data group analysis
- Dynamic Causal Modelling (DCM) analysis
- Independent Component Analysis (ICA)
- Ability to design experiments with the use of Presentation 14.0 software
- Ability to apply Brain Vision Analyser software for pre-processing EEG data

# Research equipment

8 Lista rankingowa wniosków wraz z rekomendowanymi kwotami dotacji przedstawia się następująco:

lp	numer wniosku w 2011 r.	nazwa jednostki	tytuł wniosku	opinia Komisji Rady Nauki		
				zespół roboczy Komisji Rady Nauki	ranking wniosków w układzie zespołów roboczych Komisji Rady Nauki	kwota rekomendowana
1	IA-597/2011	Uniwersytet Warszawski Wydział Psychologii	Wyposażenie laboratorium badawczego - Neuroscience.	ZR1	1	542 000
2	IA-1348/2011	Akademia Muzyczna w Krakowie Wydział Instrumentalny	Pracownia Organowa.	ZR1	2	528 500
3	IA-174/2011	Instytut Archeologii i Etnologii PAN	Aparatura laboratoriów, ekspedycji terenowych oraz stanowisk edytorskich, dokumentacyjnych i badawczych IAiE PAN.	ZR1	3	604 170



# THANK YOU FOR YOUR ATTENTION!



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