

Triplet



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GRANTS:

WELLCOME TRUST - ALICJA JÓZKOWICZ, PH.D, D.SC.

I received a five-year grant "International Senior Research Fellowship in Biomedical Science" in 2004. The work has begun in February 2005 and will continue till January 2010. A total amount of financing of 1 643 000 PLN allowed me to equip laboratory for production of virus vectors, to fund stipends for two PhD students and to provide necessary reagents. It is worth mentioning that bureaucratic requirements of the Foundation are minimal and getting further installments requires just one-page declaration without any stamps. Every two years grant holders meet in London and present progress in their work.



Alicja Józkwicz

The focus of my project is the role of heme oxygenase-1 (HO-1) promoter polymorphism in endothelial cells. Additionally, we want to generate first- and third-generation adenovirus vectors, enabling an effective administration of HO-1 gene in vivo. Clinical analysis show a significant influence of HO-1 polymorphism on the risk of cardiovascular diseases and cancer incidence in some patients. Studying the effects of this polymorphism at the cellular level and the development of vectors to induce strong HO-1 overexpression may be potentially useful to gene therapy of patients with less active form of promoter. However, most importantly, it helps to understand the actual significance of HO-1 in the circulatory system. Our study proceeds very well so far. We succeeded in finding answers to the main questions posed in the project and started the production not only of adenoviruses viruses, but also retroviruses and AAV. In the course of this project we have published over 30 papers. Next publications, and perhaps the most interesting, are in preparation.

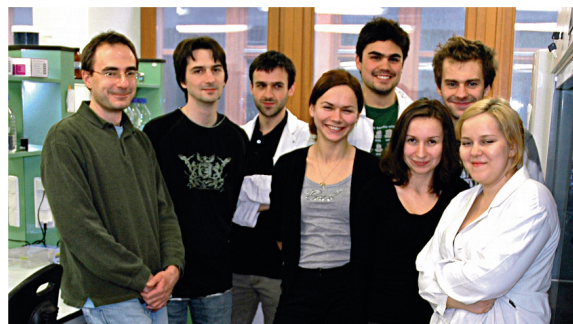
WELLCOME TRUST - ARTUR OSYCZKA, PH.D, D.SC.

Wellcome Trust is a British institution funding scientific research of crucial significance for biomedical sciences. It is an exceptional organization because not only does it fund native British science but also invests in young scientists from former eastern block countries - including Poland, especially those scientists coming back to their native countries after long-lasting stay abroad. I received a five year grant "International Senior Research Fellowship" for initiation and development of molecular bioenergetics research, for years

CONTENTS:

- Grants:
 - Wellcome Trust
 - COSI
 - FNP Homing
- Ph. D. Theses
- Conferences: More on Biotech 2008
- Prizes and Scholarships
- Visiting lecturers
- High noon meetings at BBB
- Publication in Science
- Awards for students
- Visits
- Winter School 2009
- That's a history! Ricochet of the history
- FBBB list of publications, fourth quarter of 2008

2006-2011 for a total of 3.5 million zlotys. Our goal is to clarify the mechanism of action of mitochondrial complex III and to describe the molecular basis of diseases based on its dysfunctions. In particular, we focus on the role of mitochondrial complex III in free radical generation. This research is conducted using bacterial system, where bc1 cytochrome is an equivalent of complex III. Using photosynthetic bacteria allows for relatively easy genetic manipulation and induction of electron transmission of the electron with a light pulse. Grant money provided laboratory with indispensable equipment, both for molecular genetics and advanced spectroscopy, and supports the team of young researchers, enthusiastically involved in this work. Our group includes dr M. Sarewicz, PhD students: A. Borek, E.Król, and M. Świerczek and master program students.



Artur Osyczka team

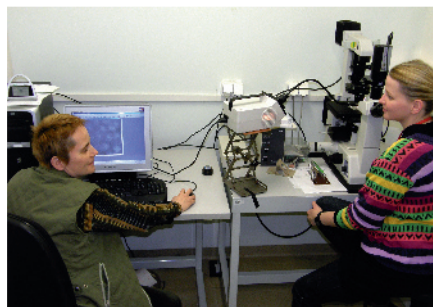
We are investigating several questions about structure and function of bc1 cytochrome. The main problems we focus on are: i) interaction between bc1 cytochrome and its physiological partner c2 cytochrome, ii) motion of the domain containing FeS center and its role in catalysis, iii) significance of dimeric structure of the complex, iv) conditions necessary for enhanced side effects and free radical generation, v) molecular basis of pathogenic and adaptive mutations influencing the function of the complex III.

Using modern EPR techniques we have demonstrated thus far a short life-time of c-cytochrome and bc1-cytochrome complexes. This points towards the general diffusional mechanism of interaction between two redox proteins (see our publication in JBC, 2008). Our research on free radical generation by bc1-cytochrome allowed to propose a new model of free radical production, in which essential role is played by conformational states connected with motion of iron-sulphur domain (paper in Biochemistry, 2008). However, the most interesting research is still ahead.

COSI „CHLOROPLAST SIGNALS”

The group of Prof. Halina Gabryś participates in the project Chloroplast Signals (COSI), which is financed from European Union funds within the framework of FP7, Marie Curie Initial Training Network (<http://www.univie.ac.at/cosi/>).

The scientific aim of the project is to characterize the regulation of chloroplast function in cells of higher plants, algae and diatoms. In particular, we will concentrate on two aspects of this regulation: environmentally-induced protein phosphorylation and calcium signaling. The research goal of our group



is to look for chloroplast signals that control their movement responses to light at the molecular level. The research on the role of light in chloroplasts movements started over a hundred years ago and the first monograph devoted to this topic was published in 1908. The move-

ments of chloroplasts aim toward the optimization of photosynthesis. Today, pigments absorbing light and motor systems responsible for transfer of plastids are well known. However, the exact mechanism linking a movement response of chloroplast with its photosynthetic metabolism remains unidentified. The current project gives us a chance to broaden our knowledge in this field.

The four-year project, with the total cost of 2 840 000 euro, began in July last year. A consortium established to realize the project includes ten partners: Universities of Vienna, Turku, Newcastle, Krakow, Munich, Paris and Geneva, Stazione Zoologica in Naples, Gregor-Mendel Institut in Vienna and Bayer BioScience in Gent. The main coordinator of the project is dr Markus Teige from Max F. Perutz Laboratories, Vienna Biocenter. The COSI network offers specialized trainings in various fields of molecular biology, biochemistry, physiology and plant biotechnology for twelve young scientists selected in an open competition. The main idea of the network is to integrate young scientists selected in an open competition. The main idea of the network is to

integrate young scientists around a common research program. This program has been divided into five research tasks and each task is carried out in several centers. The integrated, systematic COSI training program includes methodological and supplementary workshops accompanied with visits in partner laboratories, devoted to learning new techniques and to performing experiments.



An active participation of Bayer Bioscience, the plant biotechnology center working within framework of Bayer CropScience, as a partner of the network, creates a new level of cooperation between academia and industry in the plant biotechnology sector. A long-term goal of this cooperation is to improve the productivity of crop plants and their resistance to stress. The partners of the network work on different aspects of photosynthesis and on signaling pathways induced by changeable environment conditions. A combination of diverse experiences and ways of thinking can be regarded as the main value of the COSI project.

FNP HOMING

Dr Ewa K Zuba-Surma is a laureate of the last edition of Homing Programme of Foundation for Polish Science. Originally from Krakow, she graduated from Faculty of Biology and Earth Sciences of JU. Her M. Sc. and Ph. D. theses were written and defended at Department of Immunology under the supervision of prof. Juliusz Pryjma. Between 2005 and 2008 she worked at Stem Cell Institute at University of Louisville, KY USA, in prof. Mariusz Z. Ratajczak group. Dr Ewa Zuba-Surma focused her research interests around biology and characteristic of various types of stem cells (including VSELs stem cells) and their potential therapeutic use, especially to regeneration of damaged myocardium. She cooperates with cardiologists from USA and with 3rd Division of Cardiology at School of Medicine in Katowice. She is also a specialist in a field of modern methods of cellular imaging based on flow cytometry, including ImageStream technology.

Ewa Zuba-Surma currently joined the research group of Józef Dulak in the Medical Biotechnology Department at our Faculty. The FNP subsidy will allow her to continue research on mobilization of stem cells in ischemic heart disease patients at different stages of the disease. The project aims at studying potential cor-

PH.D. THESES

Agnieszka Jaźwa, *Bicistronic plasmid and AAV vectors delivering VEGF and FGF-4 genes for the stimulation of neovascularization processes*, advisor: prof. Józef Dulak, November 4th, 2008

Marcin Sarewicz, *Research on interaction of c-cytochrome with complex bc1 using electron paramagnetic resonance method*, advisor: prof. Wojciech Froncisz, November 14th, 2008

Katarzyna Bulek, *The essential role of SIGIRR in regulation of the TH2 immune response*, advisor: dr Magdalena Kosz-Vnenchak and dr Xiaoxia Li (Lerner Research Institute, The Cleveland Clinic Foundation, USA), December 16th, 2008

Krystyna Stalińska, *The role of glycosylated proteins in metabolism disorders of osteoblasts of the rat -in vivo studies*, advisor: dr Amalia Guzdek, January 13th, 2009

relations between the level of tissue ischemia and type of circulating stem cells. Another goal is to assess mobilization kinetics of those cells in different groups of patients. It will be the first comprehensive analysis of endogenous stem cells mobilized in various states of ischemic heart disease. The results of these studies, after correlation with patients clinical state, will potentially enable selecting the population of stem cells which could be used in the next stage for heart regeneration purposes.



Ewa Zuba-Surma

CONFERENCES:

CENTRAL EUROPEAN CONGRESS OF LIFE SCIENCE EUROBIOTECH 2008

The international scientific event "Central European Congress of Life Science EUROBIOTECH 2008" combined with fair took place in Krakow between 17 and 19 of October. Congress was co-organized by Jagiellonian University (Faculty of BBB, and Collegium Medium), Agricultural University of Krakow, Polish Federation of Biotechnology and Trade Fairs in Krakow. Congress Organizing Committee included: prof. Kazimierz Strzałka (chairperson, FBBB, JU), prof. Henryk Kołoczek (vice-chairperson, AU of Krakow) and prof. Tomasz Twardowski (PFB) as well as Ms Ewa Woch (Trade Fairs in Krakow). The Committee members were also: prof. S. Bielecki (Biotechnology Committee at Polish Academy of Sciences), Mr P. Błachno (Jagiellonian Centre of Innovation, JU), prof. M. Błażewicz (AGH University of Science and Technology), prof. A. Dembińska-Kieć (CM JU), prof. J. Dulak (FBBB, JU), prof. K. Konońowicz (CM JU), prof. P. Laidler (CM JU), dr K. Murzyn (Cluster Life Science, Krakow), prof. M. Pawlikowski (AGH University of Science and Technology), prof. P. Pisulewski (Agricultural University of Krakow), prof. R. Słomski (Institute of Human Genetics, PAN) and prof. Z. Smorąg (National Research Institute of Animal Production, Balice).

Congress was held under the honorable patronage of: Minister of Health, Voivodship Governor and Marshal of Malopolska, President of Krakow, Presidents of Jagiellonian and Agricultural University of Krakow, Polish Academy of Learning, Slovak Academy of Sciences, Biotechnology Committee PAS, Polish Patent Office, Consul-General of Slovak Republic, Consul-General of Czech Republic and British-Polish Chamber of Commerce. Moreover, the members of the Honorary Scientific Committee were 27 outstanding



Registration



Opening Ceremony of Congress



Life Sciences Open Space



Slovak Academy of Sciences

scientists from Poland, Lithuania, Czech, Ukraine, Germany, Russia, Slovakia and Belarus.

EUROBIOTECH 2008 Congress was a continuation of a very successful "First International Conference: Biotechnology in Agriculture EUROBIOTECH 2007", held in Krakow in April 2007. The subject of congress was this time dedicated to broader issues of life sciences with a special focus on red biotechnology. The Congress Program contained 7 themes:

- Medical Biotechnology
- Pharmaceutical Biotechnology
- Food for Life - Nutrigenomics
- Animal Biotechnology
- Biomaterials
- Intellectual Property Rights and Red Biotechnology
- Searching for Private Capital for Life Sciences Projects

Furthermore, an interesting discussion "Life Science Open Space" was held under the patronage of Cluster Life Sciences Krakow. It was conducted by the Canadians and Polish moderators. Its aim was an exchange of thoughts and opinions on some problems connected with biotechnology. The crucial issue discussed was the innovation in science and the problem of overcoming the barriers in transferring the scientific knowledge into practical applications. Likewise, both the "Intellectual Property Rights and Red Biotechnology" and "Searching for Private Capital for Life Sciences Project" panels were very popular, demonstrating an increasing interest in the matters of technology transfer between science and practice.

The Congress gathered 480 participants from 21 countries, mainly from Europe, but also from America, Asia and Australia. 140 plenary and session lectures were presented, as well as 190 posters. In the trade part there were 31 Polish and foreign companies. Their commercial offer was mainly focused on modern scientific apparatus, reagents and materials, as well as scientific literature. In the accompanying exhibition, apart from companies from the "biotech" sector, there were also patent and consulting companies as well as investment funds.

Congress was favorably evaluated by the participants. The invitation of 41 outstanding specialists in particular fields of biotechnology as the invited speakers guaranteed the high scientific level of panels.

The Organizing Committee, encouraged by the success of EUROBIOTECH 2007 and EUROBIOTECH 2008, made plans about the next congress - Eurobiotech 2010. It will also take place in Krakow and will be dedicated to white biotechnology. You are already cordially invited to participate in this international scientific event.

Prof. Kazimierz Strzałka

PRIZES AND SCHOLARSHIPS

THE ADAM KRZYŻANOWSKI FOUND

The aim of the Adam Krzyżanowski Found is to support the most capable PhD students of our University. The best eight PhD students were selected in an open competition. The scholarship obtained, among others, Janusz M. Dąbrowski. He conducts research on new class of bacteriochlorines and their use in photodynamic therapy for cancers. Due to



Janusz Dąbrowski

interdisciplinary character of his work, chemical research is performed in Coordination and Bioinorganic Physicochemistry Group, Faculty of Chemistry, directed by prof. Grażyna Stochel, while biological research is done in Laboratory of Radiobiology and Radiospectroscopy of Cancers, FBBB, under supervision of dr Krystyna Urbańska.

RECTOR'S AWARDS

At the beginning of the academic year 2008/2009 several colleagues from Faculty of Biochemistry, Biophysics and Biotechnology were granted Awards of the Rector for their accomplishments the previous year. Individual awards for scientific achievements were received by: prof. K. Strzałka, dr J. Cichy and dr P. Mak. Team award for scientific achievements was given to Medical Biotechnology Department group: prof. J. Dulak, dr A. Józkowicz, dr A. Łoboda, dr A. Jaźwa, M. Kozakowska, H. Waś, S. Gołda. Awards for teaching were granted to dr K. Murzyn, for the team of Department of Physical Biochemistry: dr P. Bonarek, dr A. Górecki, dr S. Kędracka-Krok, dr M. Tworzydło and dr A. Polit and for dr M. Michalik and dr T. Panz. An individual award obtained Ms Lidia Ciastoń, MSc. Two team awards were granted: for Ms. Cz. Mądry and H. Kołodziejaska, and for Ms J. Gołda and Ms M. Calikowska.

Visiting lecturers

dr hab. **Małgorzata Lekka**, Institute of Nuclear Physics, Krakow - „Microscopy of atomic forces in biological research”, December 12th, 2008



prof. **Janet Carey**, Department of Molecular Biology, Princeton University, USA - “Structure and function of the novel flavoprotein WrbA”, January 5th 2009

Guests of Physiology and Plant's Biochemistry Dept (phot. Ewa Woch)

dr **Oksana Kosyk** (phot.), National Taras Shevchenko University of Kyiv, Department of Plant Physiology and Ecology, Kyiv, Ukraine, 31.07.-17.08.2008



dr **Ludmila Kabashnikova** (phot.), Institute of Biophysics and Cell Engineering NASB, Minsk, Belarus, 31.08.-6. 09.2008

dr **Elena Gunter** (phot.), Institute of Physiology of RAS, Syktyvkar, Russia, 20.10.2008

prof. **M N V Prasad** (phot.), University of Hyderabad Department of Plant Sciences School of Life Sciences, India, 13-22.10.2008



prof. **Peter Gruss** (prezydent Max-Planck-Gesellschaft, phot.), Max Planck Institute for Biophysical Chemistry, Göttingen, Germany, 3.11.2008

dr **Peter Ilik**, Lab of Biophysics, Faculty of Science, Palacky University, Olomouc, Czech, 25.11.-10.12.2008

dr **Tadeusz Wróblewski**, The Genome Center, University of California, Davis, USA, 17-8.12.2008



prof. **Frederick Khachik**, Department of Chemistry & Biochemistry, University of Maryland, USA, 7-8.01.2009

High noon meetings at BBB

During the fall of 2008 our Department organized, similarly as in previous years, High Noon Meetings at Biotechnologists. On six consecutive Saturdays between October 25th and December 6th our lecture hall was filled by high school students. Each meeting consisted of two short lectures presenting in a popular way new and intriguing topics from molecular biology and biotechnology. This year cycle contained: “Perspectives in using stem cells. The application of cultured skin cells in treating injuries” (dr J. Drukała), “Stem cells-future, present and past” (dr M. Majka), “Angiogenesis - the matter of life and death” (dr A. Józkwicz), “Migrated cancerous cells- the matter of life and death II” (dr Z. Madeja), “Fluorescence proteins - a new tool in neurobiology” (prof. M. Dziedzicka-Wasylewska), “Molecular machines” (dr J. Dobrucki), “Viruses: microworld-evolution” (dr K. Pyrc), “Structure of proteins using X-ray crystallography” (dr G. Dubin), “Vaccines against tumors” (dr I. Horwacik), “Monoclonal antibodies” (dr Monika Bzowska), “From photosynthesis to photodynamic therapy of tumours” (dr L. Fiedor), “Transgenic plants, hopes and fears” (dr W. Strzałka). The meetings, initiated by dr A. Guzdek are well known among the teachers as well as among general public interested in biotechnology. These meetings are one of the ways of disseminating science and they seem to encourage the future students to choose our University. Dr J. Drukała was the organizer of the event this year.



SCIENTISTS FROM BBB UJ DEPARTMENT ARE CO-AUTHORS OF PAPER IN "SCIENCE"

The graduate of our Faculty, dr Joanna Węgrzyn is the first author of the paper, published on January 8th, 2009 at the website of prestigious weekly magazine Science.

Dr Węgrzyn has been working in the USA since fall of 2003. She is a part of prof. Andrew Larner team, initially at Cleveland Clinic, and then at Virginia Commonwealth University in Richmond (since fall of 2007). Prof. Larner's team is conducting studies on the regulation mechanisms of gene expression by cytokines and transcription factors - members of STAT family. The results of these studies published in Science were also the basis of PhD thesis, defended by Węgrzyn in October 2007 in Krakow. Dr Węgrzyn is an alumna of prof. Józef Dulak from Medical Biotechnology Department. Other co-authors of the Science paper are doctoral students and scientists from the same Department (Marta Derecka, Karol Szczepanek, Magdalena Szela, Agnieszka Górnicka, Joanna Cichy, Józef Dulak). Up to now, the result of cooperation between prof. Larner and researchers from Krakow is a number of publications and several PhD thesis are in preparation.

The paper published in Science describes a new role of STAT3 in regulation of cellular respiration. STAT3 is a protein known as a key mediator of gene expression caused by cytokines. It performs this function in the cell nucleus. STAT3 in mitochondria does not influence gene expression, but re-

gulates the ability of cell to produce high-energy molecules, such as ATP. This discovery is the foundation for the continuing studies of function of this protein. Researchers suggest that disruption in STAT3 action can be connected with heart failure or the normal function of immunoresistance.

"Function of Mitochondrial Stat3 in Cellular Respiration", Joanna Węgrzyn, Ramesh Potla, Yong-Joon Chwae, Naresh B. V. Sepuri, Qifang Zhang, Thomas Koeck, Marta Derecka, Karol Szczepanek, Magdalena Szelag, Agnieszka Gornicka, Akira Moh, Shadi Moghaddas, Qun Chen, Santha Bobbili, Joanna Cichy, Jozef Dulak, Darren P. Baker, Alan Wolfman, Dennis Stuehr, Medhat O. Hassan, Xin-Yuan Fu, Narayan Avadhani, Jennifer I. Drake, Paul Fawcett, Edward J. Lesnefsky, and Andrew C. Larner. Published online January 8 2009; 10.1126/science.1164551 (Science Express Reports) <http://www.sciencemag.org/cgi/content/abstract/1164551>

AWARDS FOR STUDENTS

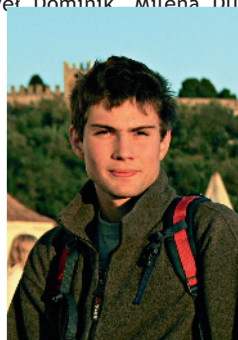
The students of the faculty were awarded with several prestigious scholarship. The scholarship of Polish Ministry of Science and Higher Education was given to five students of biotechnology: Paweł Dominik, Milena Du-



Paweł Dominik



Milena Dubiel



Krzysztof Szade

biel, Aleksander Salwiński, Krzysztof Szade and Piotr Tymoszek.

The scholarship of City of Krakow for talented graduates and PhD students was provided to Agata Marek (biotechnology student) and Anna Barbasz (PhD student). Agata Marek was also awarded with scholarship of the President of Myslowice City.

The scholarship of "Sapere Auso" foundation was granted to Milena Dubiel, Monika Maleszewska and Andrzej Mazan. The biotechnology student, Jacek Stępniewski, obtained the Jagiellonian University scholarship from Stanisław Estreicher Fund.



Agata Marek



Monika Maleszewska



Jacek Stępniewski



Andrzej Mazan

VISITS

The President of Max-Planck-Gesellschaft, prof. Peter Gruss from Max Planck Institute for Biophysical Chemistry, Gottingen, Germany, visited our Faculty on November 3rd, 2008. Rector of JU, prof. K. Musiol and prof. Gruss signed letter of intent regarding creating a laboratory of Max Planck here in Krakow (see photo).



On November 18th, 2008, Department BBB UJ played host to the delegation representing three scientific institutions from Singapore: Agency for Science Technology and Research, A*STAR (www.a-star.edu.sg), National University of Singapore, NUS (www.nus.edu.sg) as well as Nanyang Technological University, NTU (<http://www.ntu.edu.sg/>). The guests presented the exchange program for scientists and students which supports the cooperation between Eastern European countries and NUS. Since 2001, 50 scientists participated in the EERSS program. (<http://www.nus.edu.sg/iro/intl/staff/prog/eerss/index.html>)

On December 11th, 2008 a series of talks by guests from the University of Aarhus in Denmark took place at F BBB. The aim of the visit was to present the exchange program of students MOBIL (www.mobil-phd.au.dk), as well as the opportunities of scientific cooperation in several areas: non-coding transcription of eukaryotic genomes, quality control of mRNA synthesis and mRNP formation, RNA helicases, RNA decay, structure of RNP complexes, NMR spectroscopy, membrane proteins, protein fibrils, extracellular matrix protein, biophysics, organic synthesis - peptide mimics, fibril inhibitors, drugs.

Torben Heick Jensen and Susanna Pakkasmaa presented a talk on "Introduction to the MOBIL programme". Torben Heick Jensen talked about: "mRNP: Quality control of apparent and hidden transcription". Then Kurt Gothelf presented "CDNA: DNA-programmed assembly of nanostructures" and Adriana Kantcheva "Pumpkin: From atomic structures of ion pumps to physiology and drug discovery". At the end Susanna Pakkasmaa discussed the practical aspects of studying in UA.

On December 9th, the delegation from University Twente in Netherlands visited our Faculty. They presented the opportunities for the student exchange in the field of biomedical engineering. (<http://www.utwente.nl/corporate/en/>)

36TH WINTER SCHOOL WBBB UJ

This year Winter School of WBBB UJ will take place in Zakopane between 21 and 26 of February. It will be dedicated to the newest research in cellular and molecular biology, in particular to intermolecular interactions in physiology and disease. The participants will include scientists and students from our department, as well as invited guests. The main organizer is dr J. Cichy. The main topics will concentrate on: 1. Molecules involved

in intercellular communication, 2. The intracellular interactions in regulation of the cellular functions, 3. The structure and function, 4. Molecular interactions in diagnostics and therapy, 5. Tools for studying macro-molecular interactions. The annual meeting of the participants of ACUP grant "Functional analysis of new acute phase proteins" will accompany the Winter School. Similarly as in the previous year, a lot of emotions can be expected during the Prof. Wasylewski Skiing Memorial. Winter School Program details can be found at: <http://biotka.mol.uj.edu.pl/zakopane2009/>

THAT'S A HISTORY! RICOCHET OF THE HISTORY

Contemporary philosophical views on the truth (the truth in general, and the scientific truth as well), are based in the large part on the theory of truth, concepts of context and meta-language of the natural language, initiated by Alfred Tarski. His thought had influenced strongly the development of contemporary mathematics, logic and sciences, which use these ideas to model and describe the reality. Certain authors regard Tarski, a mathematical logician, as the most outstanding intellectual of the XX century. Others include names such as Noam Chomsky, Kurt Gödel, Karl Popper among the biggest intellectuals. I would mention also perhaps Alan Turing. However, for all reformers of the thinking and drawing conclusions techniques Tarski was and still is the important source of inspiration. It's not only about direct and mutual inspirations - it's worth checking up to see how many times these names are quoted together, or how many times they appear together in texts, also in the Internet. Alfred Tarski is mentioned next to Aristotle, Frege and Gödel as one out of four the greatest logicians of all time.

In his studies, Tarski initiated also the mathematical theory of the models. Although it does not have a lot in common with the theory and even less with the practice of mathematical modeling, however, the logical foundations of both application of mathematics are the same. They are the same for both the techniques of

determinating the truth of any statement, and in studying objects unavailable for the direct experiment.

I would like to point out an amazing long-distance effects (it seems that even against "the logic of the history") of certain life decisions. Tarski was the student of biology at the University of Warsaw, in our budding Homeland in 1918. He was "converted" by a mathematics philosopher, prof. Stanisław Leśniewski to abandon biology and take up logic as his major. The decision of young Alfred can be superficially treated as a great loss for biological sciences. This loss seems to be compensated, however, by the significance of his achievements in logic.

Why am I writing about it? Maybe because Tarski always had a strong effect on everyone encountered. Biographers claim that he received his abilities and intellect from his mother - Róża. In the context of parents and their children it's worth mentioning that among the participants of prof. Tadeusz Kotarbiński seminars in Warsaw were both Alfred Tarski, and Kazimierz Pasenkiewicz, the father of prof. Marta Pasenkiewicz-Gierula. She is the initiator of recently established Computational Biophysics and Bioinformatics Department at our Faculty. The contact with the Tarski's family (the son - Janusz) still continues. So maybe the change of Tarski's scientific orientation in 1918 turn out for better for biological sciences? Who really Tarski was? The logician? The mathematician? The philosopher? The linguist? The failed biologist? Should our students learn logic? Isn't it pointless to artificially separate and classify the so-called humane sciences from science? The discrimination of the so-called theoretical sciences which are more and more equated by media and even by decision-maker scientists [<http://wiadomosci.onet.pl/1894393,12,item.html>] with the basic research which are conducted at polish universities, where allegedly "applied sciences are less appreciated than theoretical sciences?"

Przemysław Płonka

PUBLICATIONS FBBB - THIRD QUARTER 2008 CONTINUATION

(according to ISI Web of Science) (J. Fiedor)

1. Rydengard V, Shannon O, Lundqvist K, Kacprzyk L, Chatupka A, Olsson AK, Morgelin M, Jahnhen-Dechent W, Malmsten M, Schmidtchen A, Histidine-rich glycoprotein protects from systemic Candida infection, PLOS PATHOG 4 (8): art. no. e1000116 AUG 2008
2. Papież MA, Cierniak A, Krzysciak W, Bzowska M, Taha HM, Józkowicz A, Pi-skuła M, The changes of antioxidant defense system caused by quercetin

administration do not lead to DNA damage and apoptosis in the spleen and bone marrow cells of rats, FOOD CHEM TOXICOL 46 (9): 3053-3058 SEP 2008

3. Martinez-Seara H, Rog T, Karttunen M, Reigada R, Vattulainen I, Influence of cis double-bond parametrization on lipid membrane properties: How seemingly insignificant details in force-field change even qualitative trends, J CHEM PHYS 129 (10): art. no. 105103 SEP 14 2008
4. Appenroth KJ, Luther A, Jetschke G, Gabryś H, Modification of chromate toxicity by sulphate in duckweeds (Lemnaceae), AQUAT TOXICOL 89 (3): 167-171 SEP 17 2008

PUBLICATIONS WBBiB - FOURTH QUARTER 2008

(according to ISI Web of Science)

1. Dziejdzicka-Wasylewska M, Faron-Górecka A, Górecki A, Kuśmider M, Mechanism of action of clozapine in the context of dopamine D-1-D-2 receptor hetero-dimerization - a working hypothesis, *PHARMACOL REP* 60 (5): 581-587 SEP-OCT 2008
2. Martinez-Seara H, Róg T, Pasenkiewicz-Gierula M, Vattulainen I, Karttunen M, Reigada R, Interplay of unsaturated phospholipids and cholesterol in membranes: Effect of the double-bond position, *BIOPHYS J* 95 (7): 3295-3305 OCT 1 2008
3. Łoboda A, Jaźwa A, Grochot-Przeczek A, Rutkowski AJ, Cisowski J, Agarwal A, Józkwicz A, Dulak J, Heme oxygenase-1 and the vascular bed: From molecular mechanisms to therapeutic opportunities, *ANTIOXID REDOX SIGN* 10 (10): 1767-1812 OCT 2008
4. Mak P, Maszewska A, Rozalska M, The amino acid sequences and activities of synergistic hemolysins from *Staphylococcus cohnii*, *FEMS MICROBIOL LETT* 287 (2): 230-235 OCT 2008
5. Dulak J, Łoboda A, Józkwicz A, Effect of heme oxygenase-1 on vascular function and disease, *CURR OPIN LIPIDOL* 19 (5): 505-512 OCT 2008
6. Bonarek P, Kędracka-Krok S, Kępys B, Wasylewski Z, Quantitative analysis of the ternary complex of RNA polymerase, cyclic AMP receptor protein and DNA by fluorescence anisotropy measurements, *ACTA BIOCHIM POL* 55 (3): 537-547 2008
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