

## INAUGURATION OF THE NEW ACADEMIC YEAR



fot. Michał Rdzaneek

The official inauguration of the Jagiellonian University's 648th academic year took place on October 1st, 2011. The guest of honour this year was Polish President Bronisław Komorowski. The official inauguration ceremony was preceded by the traditional procession of the

university professors from the Collegium Maius building to the Auditorium Maximum.

An official inauguration of the 2011/2012 academic year also took place three days later, on October 3rd, at the Faculty of Biochemistry,

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## INCOMING CLASS

### Recruitment results for FBBS degree programmes

The combined incoming class for Bachelor's degree, Master's degree, PhD or post-diploma studies in our Faculty this year totals 304 new students. The exact break-up by programme of studies is as follows:

- Biochemistry B.S. programme – 42 new students accepted out of 203 applicants;
- Biotechnology B.S. programme – 76 new students accepted out of 666 applicants;
- Biophysics combined B.S./M.S. 5 year programme – 27 new students accepted out of 80 applicants;
- Biochemistry M.S. programme – 27 new stu-

dents accepted out of 45 applicants;

- Biotechnology M.S. programme – 74 new students accepted out of 123 applicants;
- Doctoral studies in biochemistry, biophysics or molecular biology – 23 new student accepted out of 25 applicants;
- Post-diploma Course in Molecular Biology – 62 new students accepted out of 67 applicants;
- "Business in Biotechnology" post-diploma course – course suspended this year due to insufficient number of applicants.

As can be garnered from the above, the B.S. degree studies and the combined B.S./M.S. studies are the programmes which have the most popularity.

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Biophysics and Biotechnology. The ceremony was attended by undergraduate and graduate students, professors, employees and authorities of the Faculty as well as some invited guests which included Prof. Michał du Vall, the Jagiellonian University's Vice-Rector for Human Resources and Financial Management, Dr. Elżbieta Haduch, the Vice-Dean for Student Affairs at the Faculty of Biology and Earth Sciences, Prof. Marek Zaionc, the Vice-Dean for Research and International Cooperation at the Faculty of Mathematics and Computer Science, Paweł Błachno, president of the Jagiellonian Centre for Innovation, Paweł Przewięźlikowski, president of the biotech company Selvita and Maciej Adamkiewicz and Krzysztof Kurowski, respectively CEO and Director of Research and Development at the pharmaceutical company Adamed.

The official programme included talks by representatives of the university and faculty governance, matriculation of the new students



and a special inauguration lecture delivered by Mr. Krzysztof Kurowski entitled „Biotechnology – the future of modern pharmaceuticals”.

Professors Wojciech Froncisz and Michał du Vall each spoke about the Faculty's and the University's illustrious history while Prof. Marta Dziejzicka-Wasylewska focused upon the importance of mutual goodwill and solidarity. Adamed's Director of R&D spoke about the pharmaceutical firm he represents and noted especially how important today is the collaboration between institutions of scientific research and business for the development of new drugs.

Everyone wished the students a very fruitful time of academic studies at the University, both in scientific and personal aspects so that after many years down the road this time would be remembered as one of the best periods of their life.

The inaugural celebration opened and closed with the hymns "Gaude Mater Polonia" and "Gaudeamus Igitur" performed by the Faculty choir.



## GRANTS

### HOMING PLUS awarded to Dr. Angieszka Jaźwa

The Foundation for Polish Science's HOMING PLUS Programme is co-financed by the European Union's European Regional Development Fund and is geared toward scientists from abroad wishing to commence work in Poland. The programme not only provides financial support for carrying experimental research but also offers fellowships for the people involved in carrying out a given project, i.e. for the principle investigator as well as for two undergraduate students.

Dr. Agnieszka Jaźwa is the recipient of funding for the project entitled, "Pre-emptive, multiple, hypoxia-regulated gene therapy for ischaemic tissue protection: an innovative approach for regenerative biomedicine." It will be carried out over the course of two years, from

September of the present year until August 2013, in the Department of Medical Biotechnology of the Jagiellonian University's Faculty of Biochemistry, Biophysics and Biotechnology.

The aim of the project is to probe whether the transfer of human heme oxygenase-1 (HO-1) and vascular endothelial growth factor (VEGF) genes leads to an intensification of regenerative processes in animal models of limb ischemia and myocardial infarction. The project will be conducted using novel methods and tools of gene therapy: "We plan to use plasmid DNA mixed together with special microbubbles filled with an innocuous gas combined with exposure of transfected tissue to low-frequency ultrasound waves (sonoporation). We will also probe the efficacy of auto-complementary serotype 9 adeno-associated viral vectors (scAAV9) as carriers of genetic in-



Dr. Agnieszka Jaźwa

formation. Moreover, we hope to implement a sort of "molecular switch" through which the therapeutic proteins will be produced only when they are truly needed, explains dr. Jaźwa.

The preliminary results of her research show that the gene therapy proposed in our project may provide an effective alternative to surgical methods which are sometimes unsuccessful or simply useless, and that it may also play a role in preventing against exacerbation of ischaemic disease.

### 15 young scientists receive faculty research grants

The list of recipients of the 2011 awards for scientific research supported by funds granted to the Faculty of Biochemistry, Biophysics and Biotechnology to further the development of

young scientists and doctoral students was recently announced.

Thirty-eight applications were received, of which 37 complied with all of the formal requisites. These applications were evaluated by the Faculty's Committee for the Development of Young Scientists and Doctoral Students. On July 8th, 2011 The Committee presented a ranking of the projects after an extensive evaluation of the applications. The Committee's final assessment was based on both an evaluation of the application scientific merit of the application itself as well as an evaluation of the candidate's previous scientific work including peer-reviewed publications, participation in scientific conferences and the propriety and clarity of the budget being proposed for the given project.

Based on the funds appropriated for this project, the Faculty of Biochemistry, Biophysics and Biotechnology's Vice-Dean for General Affairs decided to award funding to the top 15 projects on the list. The awardees are (in alphabetical order): G. Braś, M. Bukowski, G. Dubin, A. Górecki, U. Jankowska, J. Karkowska-Kuleta, E. Kowalska, M. Krzykawska, M. Książek, D. Mizgalska, A. Piróg, Ł. Skalniak, A. Szade, K. Szpak, M. Zdżalik.

### 2nd Biochemistry and Cell Biology Congress

The National Biochemistry and Cell Biology Congress took place in Kraków on September 5th – 9th. The event was organized by the Polish Biochemical Society, the Polish Society for Cell Biology and by the Jagiellonian University's Faculty of Biochemistry, Biophysics and Biotechnology. The actual organization of the Congress was carried out by 34 members of the Scientific Committee. The Organizing Committee included, among others, Prof. Alicja Józkowicz and Prof. Józef Dulak from the Department of Medical Biotechnology and Prof. Andrzej Kozik from the Department of Analytical Biochemistry.

Elections to the Polish Society for Cell Biology's governing body were held during the Congress. Prof. Alicja Józkowicz was re-elected as president of the Society for the 2011–2014 term.

The Congress participants included over 700 scientists, mainly from Poland but also from Austria, the Czech Republic, Great Britain,

Holland, Belarus, Germany, the United States, Japan, Italy, Sweden, Russia, Thailand, Spain and France. Over 100 lectures were presented by scientists both from Poland and abroad.

Several young scientists received awards during the Congress for their scientific achievements previous. Among these were Maciej Cieśla, M.S. from the Department of Medical Biotechnology (Polish Society for Cell Biology's award for best talk: "Heme oxygenase-1 as possible therapeutic target in the treatment of rhabdomyosarcoma") and Katarzyna Szpak, M.S. from the Department of Cell Biology (Polish Society for Cell Biology's award for the poster entitled: "Effect of fenofibrate on the properties of endothelial continuum in proximity of prostate cancer cells").

Further information about the conference can be found at: <http://www.kbbk2011.krakow.pl>.

## CONFERENCES



From left: Prof. Alicja Józkowicz, Prof. Piotr Laidler, Prof. Mari Dezawa.

Joanna Uchto

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### 6th European Meeting for Vascular Biology & Medicine

The 6th European Meeting for Vascular Biology & Medicine, one of the year's most important events related to vascular biology, was held in Kraków in September. Members of the Department of Medical Biotechnology at the Jagiellonian University's Faculty of Biochemistry, Biophysics and Biotechnology as well as members of the Polish Society for Cell Biology played a significant role in organizing this conference.

The 6th European Meeting for Vascular Biology & Medicine took place in Kraków from September 21st to 24th and was the latest in the series of meetings organized by the European Vascular Biology Organisation (EVBO) which was founded in 2006. The conference met at the Jagiellonian University's Collegium Medicum Congress Centre located at 16 Łazarza St. in Kraków.

In addition to the EVBO, the conference this year was co-organized by the Polish Society for Cell Biology. The organizing committee was composed of scientists from the Department of Medical Biotechnology at the JU's Faculty of Biochemistry, Biophysics and Biotechnology (Prof. Józef Dulak – organizing committee chairman and EVBO council member, Prof. Alicja Józkwicz, co-chairman of the organizing committee and president of the Polish Society for Cell Biology, Dr. Angieszka Łoboda) and from the JU's Collegium Medicum (Prof. Tomasz Guzik, Prof. Maciej Małecki). The conference's opening lecture was delivered by Prof. Andrzej Szczeklik of the JU's Collegium Medicum's 2nd Chair of Internal Medicine. Several dozen other lectures were delivered during the course of the symposium by distinguished researchers from Europe, the USA, Japan and Australia including Prof. Kari Alitalo (Finland), Prof. Peter Carmeliet (Belgium), Prof. John P. Cooke (USA),



Prof. Alicja Józkwicz - co-chair of the organizing committee, Prof. Józef Dulak – organizing committee chairman, EVBO council member.



Conference hall during the opening lecture given by Prof. Andrzej Szczeklik from the Department of Internal Medicine Jagiellonian University Medical College.

Elisabetta Dejana (Italy), Prof. Ingrid Fleming (Germany, current EVBO president), Prof. Andrew Newby (Great Britain, former EVBO president) and Prof. Alain Tedgui (France). The congress was attended by a total of 313 scientists from 23 countries which is a success in light of the previous EVBO meetings including the ones in Mar-

seille (2009) and Bristol (2007).

The congress was held under the honorary patronage of Prof. Karol Musioł, Rector of the Jagiellonian University; Prof. Andrzej Białas, President of the Polish Academy of Learning; Prof. Jacek Majchrowski, Mayor of Krakow; Mr. Stanisław Kracik, Voivode of the Malopolska Voivodeship and Mr. Marek Sowa, Marshal of the Małopolska Voivodeship.

During the Congress, several young scientists received awards for their scientific work. Among these were Department of Medical Biotechnology graduate students Urszula Florczyk (European Society of Cardiology's award for the



The winners honored by the European Society of Cardiology in the company of Prof. Józef Dulak (far right), Prof. Andrew Newby (second from right) and Prof. Sarah Jane George (first from left).

talk entitled "Nrf2 deficiency diminishes angiogenic potential of endothelial progenitor cells in vitro but improves neovascularization under ischemic conditions in vivo") and Krzysztof Szade (award for the poster presentation entitled "A novel spheroid-plug model to study tumour angiogenesis and development").

More information about the conference may be found at: <http://www.emvbm2011.org/en>.

*Joanna Uchto*

### 16th International Symposium on Carotenoids

The 16th International Symposium on Carotenoids took place in July 17–22, 2011 in Krakow. The organizers of the Symposium were: Jagiellonian University, International Carotenoid Society and *Targi w Krakowie*. These prestigious symposia are organized every three years in different parts of the world. However, Central Europe had to wait long for such a meeting to be organized there. Finally, according to the decision taken during the previous Carotenoid Symposium in Okinawa, Kraków was selected as the site of the 16th International Symposium

on Carotenoids. The Local Organizing Committee with Kazimierz Strzałka as Chairman and Anna Wiśniewska-Becker as Secretary with valuable advice of ICS Committee and Symposium Advisory Board, prepared the scientific program of the Symposium. The program was divided into eight sessions covering all fields of carotenoid research and it included also novel, emerging areas as computational and in silico studies of carotenoids.

The Symposium gathered 259 participants, among them 67 plenary and session speakers. From submitted abstracts 27 have been selected as oral presentation, and 128 contributions were presented as posters. Support to the Symposium by 17 Sponsors and Exhibitors is also gratefully acknowledged. We hosted at the Symposium participants from 37 countries, from all continents except of Antarctica. The highest number of participants was from the US (45), Poland (43) being on second and Japan (23) on third position. From the country most distant to Poland – New Zealand, we had 3 participants.

The 16th International Symposium on Carotenoids was an excellent platform to share the newest achievements and to discuss the future trends in carotenoid research. Moreover, the Symposium was a good occasion to honour eminent carotenoid scientists for their lifetime scientific achievements. Accordingly, Prof. John W. Erdman received the Norman Krinsky award, Prof. Johan Lugtenburg obtained the Otto Isler award and Prof. Joseph Hirschberg

was presented with the Trevor Goodwin award.

Additionally, at the Symposium banquet, Professors Synnoeve Liaen-Jensen, George Britton and Hanspeter Pfander received presidential awards for their enormous contributions to carotenoid science, particularly for writing, editing and publishing the carotenoid book series. The fourth presidential award was given to Prof. Maria Sapuntzakis for her many years of contributions in writing and publishing the Carotenoid Newsletter, very important source of information about the carotenoid world.

At the Symposium, the authors of the best posters were also awarded. A Commission cha-



ired by George Britton and Wiesław Gruszecki evaluated all the displayed posters and selected four of them for grant awards. Authors of three other posters received diplomas.

Symposia on Carotenoids are also an opportunity to elect a new chairman of the International Carotenoid Society. During our Sym-

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Prof. Juliusz Pryjma, head of the FBBB's Department of Immunology retired at the end of the academic year. A commemorative ceremony was held on June 21st during which the Dean of the Faculty, Prof. Froncisz, thanked Prof. Pryjma for his years of dedicated work and presented him with a special Jagiellonian University photo album signed by Prof. Pryjma's colleagues and former students. The meeting was enhanced with a performance by the Faculty's choir.

Juliusz Pryjma obtained his Ph.D. in 1971, the habilitation in 1977 and was named professor in 1990. He worked first at the Department of Microbiology (which later became the Institute of Microbiology at the JU's Collegium Medicum), in the Mother and Child Institute (Rabka branch) and in the Department of Immunology at the Collegium Medicum's Institute of Paediatrics. Since 1994 he directed the Department of Immunology in our Faculty.

Prof. Pryjma's scientific interests focused on three main topics:

- the role of antibodies in the regulation of the immune response (this was the topic of his doctoral thesis)
- the characteristics of T-independent antigens (his habilitation lecture)
- various aspects of the role of human peripheral blood monocytes in the regulation of the immune response and the response to bacterial infections.

These areas of interest pertained both to monocyte populations as a whole as well as sub-populations of monocytes expressing high and low-affinity immunoglobulin receptors (CD64, CD16). The last topic is still being actively investigated in the context of the role of monocytes in arteriosclerosis.

posium, prof. Hideki Hashimoto took over as the ICS President. It was proper time to thank the former president prof. Fred Khachik for his outstanding work for the Society.

It is also worth mentioning that the papers presented during the Symposium will be published in *Acta Biochimica Polonica*.

Many participants of the 16th Interna-

tional Symposium on Carotenoids consider it a big scientific and organizational success. We also hope that it helped to promote our town not only as a tourist attraction with its long and rich history, but also as an important scientific centre.

*Prof. Kazimierz Strzałka, Ph.D, D.Sc*  
*Anna Wiśniewska-Becker, Ph.D, D.Sc*

## AWARDS AND SCHOLARSHIPS

### FPS award to Maciej Cieśla

Maciej Cieśla, M.S. from the Faculty of Biochemistry, Biophysics and Biotechnology's Department of Medical Biotechnology was named among the nine best scientists in the 7th edition of the Foundation for Polish Science VENTURES programme. This programme provides support to undergraduate and graduate students as well as recent university graduates for innovative projects with practical business applications. Maciej Cieśla is currently working on a project in the field of oncology.

The aim of the VENTURES programme is to promote scientific research in Poland, encourage young scientists in their scientific endeavours and also to increase the number of projects with practical business applications.

The project entitled "A new strategy for the treatment of rhabdomyosarcoma: induction of tumour differentiation aims to develop a therapeutic approach for the treatment of this form of children's cancer". The goal of the project is to investigate the possibility of arresting the development of the sarcoma using compounds to inhibit heme oxygenase-1 activity.

The experiments will be carried out in the Department of Medical Biotechnology from July 2011 to June 2013. Among the experimental techniques used will be microRNA expression analysis, chromatin immunoprecipitation and the use of laser microdissection. This research will be possible thanks to the new experimental apparatus purchased through the Molecular Biotechnology for Health structural programme (POIG.02.01.00-12-064/08).

### Marie Skłodowska Curie Award for Monika Czapla

Monika Czapla, a graduate student at the Jagiellonian University's Faculty of Biochemistry,

Biophysics and Biotechnology's Department of Biophysics has been selected as the recipient of the Marii Skłodowska-Curie Prize awarded by the 3rd European Congress of Women.

The 3rd European Congress of Women (September 17th–18th, 2011) was an official event of the Polish European Union presidency. The recipient of the award was presented with a check for 16,500 PLN by the Polish Minister for Science and Higher Education, Barbara Kudrycka, on September 18th during the Congress.

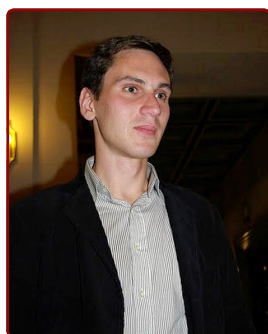
Monika Czapla is a recipient of the Foundation for Polish Science's START fellowship. She is also the first author of the Science paper (Triplet no. 11,4/2011)

An analysis of the ISI 1945-2010 database reveals that this is the first publication by Polish researchers in Science where the Jagiellonian University is the corresponding author's home institution.

### Prime Minister's award to Dr. Artur Osyczka

On July 7th Poland's Prime Minister Donald Tusk signed a list of awardees recognized for their doctoral or habilitation theses or for their scientific, technical or artistic work during the year 2010. Among those distinguished with this honour is Dr. Artur Osyczka of the FBBB's Department of Biophysics. Last year Dr. Ewa Zuba-Surma received the Prime Minister's award for her habilitation thesis.

The list signed by the Prime Minister included a total of 44 names and two research groups from all over Poland. Dr. Artur Osyczka, a Jagiellonian University associate professor, was nominated for his scientific work on cytochrome bc1. The justification for the award states, "Dr. Artur Osyczka's discovery pertained to the molecular mechanisms of the fundamental structure responsible for energy metabolism in



Maciej Cieśla



Monika Czapla



cells, the respiratory chain, and in particular, to the third complex in this chain. The monomers of this complex (cytochrome bc1) make up three different proteins, but the functional unit is the H-dimer which is connected by a special bridge near cytochrome b."

The results of his work were published in the journal *Science* (which we reported previously) in the article „An electronic bus bar lies in the core of cytochrome bc1". Dr. Osycz-

ka's award is certainly also a recognition of the excellent scientific work carried out by his entire team which worked on solving the mechanism of this protein's function and proposed the system which has been compared to an H-shaped bus bar. This team includes Monika Czapla, M.S., Ewelina Cieluch, M.S., Arkadiusz Borek, M.S., Rafał Pietras, M.S. and Dr. Marcin Sarewicz.

## MBH PROJECT: NEW DEVELOPMENTS

### Molecular Biotechnology for Health

Despite the summer vacation period, much has taken place in the "Molecular Biotechnology for Health" project. New equipment was purchased for the Plant Biotechnology Laboratory and the Animal Facility

### Radioactivity detector

The Department of Plant Physiology and Biochemistry for many years has been conducting research on the presence, biosynthesis and function of prenyl lipids in plants. At present we are focusing on experiments to test the effects of light-induced stress on the biosynthesis and recirculation of these compounds which is important in the context of their antioxidative function in the plant cell.

One of the most advanced methods for probing the rate of prenylated lipid synthesis and metabolism is to analyse the precursors labelled with <sup>14</sup>C and <sup>14</sup>H isotopes. We were able to determine the turnover rate of the compound HGA in various experimental conditions using an HPLC system equipped with a radioactivity detector and coupled to absorption and fluorescence detectors. These experiments were carried out on cyanobacteria which are easy to work with for this type of study. Furthermore, using HBA and this same detection method, new previously unknown precursors of prenyl lipids were discovered.

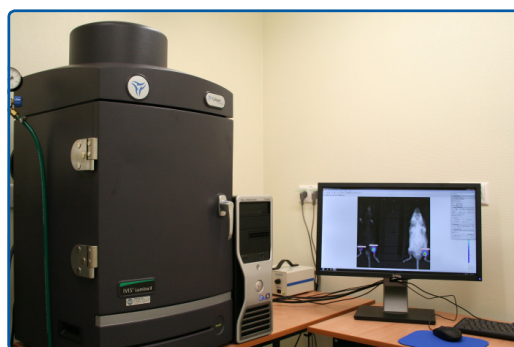
### Detection channel with a 220-MS mass detector for gas chromatography

The Department of Plant Physiology and Biochemistry's Varian gas chromatographer equipped with a flame ionization detector (FID) was updated to the 450-GC version and an additional channel was added with a 220-MS mass detector equipped with a turbomolecular pump. The quadrupole ion trap makes it po-

ssible to carry out analysis using electron ionization. The chromatographer is also equipped with a Split/Splitless injector and an automatic sample feeder.

Gas chromatography is the most popular method for analysing the composition of fatty acids after transforming them into volatile derivatives. Our studies focus primarily on lipids isolated from plant tissue. A recently concluded project carried out in conjunction with the Ukrainian National University of Kyiv Faculty of Biology the changes in the composition of fatty acids isolated from plant leaves and roots when subjected to the influence of heavy metals were analysed. Another project carried out in conjunction with the German Leipzig University's Biology Institute aims to determine the profile of fatty acids composing the lipids that occur in diatoms. This will help us understand how these organisms' photosynthetic apparatus adapts to low temperatures.

### IVIS Lumina



IVIS Lumina

The IVIS Lumina in vivo imaging device allows detection of luminescence and fluorescence in live organisms and to measure both the location and intensity of the signal. It is especially useful for monitoring the growth of tumours

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## MCB PROJECT: NEW DEVELOPMENTS



Dr. Roosa Laitinen

### The Max Planck Laboratory in the Malopolska Centre of Biotechnology

During the past summer, the Max Planck Laboratory was created in the Malopolska Centre of Biotechnology. This laboratory will collaborate closely with the Jagiellonian University's Faculty of Biochemistry, Biophysics and Biotechnology. The laboratory will carry out research in the field of plant molecular biology. It is headed by Dr. Roosa Laitinen, the winner of an international contest organized by the Max Planck Society and the Jagiellonian University to select the leader of the new group.

Dr. Laitinen obtained her knowledge and experience at the University of Helsinki where she was one of the youngest students to obtain a doctoral degree. Since July 1st, 2011, she is responsible for forming a research team and for obtaining grants for research which will be carried out over the course of the next five

years with a possibility of an extension of up to four years. The scientific publications resulting from the laboratory's research will share joint affiliation with the Max Planck Society, the Malopolska Centre of Biotechnology and the Jagiellonian University's Faculty of Biochemistry, Biophysics and Biotechnology.

While the construction of the Malopolska Centre for Biotechnology's main building is being completed, the laboratory will be housed in the Jagiellonian University's Centre for in the Natural Science Research located at 3 Gronostajowa St. and some of its facilities will also be housed in the Jagiellonian University's Faculty of Biochemistry, Biophysics and Biotechnology at 7 Gronostajowa St.

Jolanta Rogowska

MYGEN



We would like to extend an invitation to Triplet's readers to attend the 13th National Biotechnology Students' Seminar which will also be the 3rd International Biotechnology Students' Conference. This event will take place on November 18th–20th, 2011 in Kraków.

The National University Biotechnology Students' Seminars (*Ogólnopolskie Akademickie Seminarium Studentów Biotechnologii, OASSB*) have been organized for the past twelve years by the University Biotechnology Students' Association (*Akademickie Stowarzyszenie Studentów Biotechnologii, ASSB*) in various academic institutions throughout Poland. In the last two years they have taken on an international character which is how the second name, the International Biotechnology Students' Conference, came to be. Each OASSB provides young scientists with the occasion to present the results of their research in the form of short talks or a research poster.

The conference attendees are comprised of students of biotechnology and associated fields such as biochemistry, biology, medicine, pharmacology, neurobiology, etc. They are accompanied by established researchers from both national and international institutions.

240 people participated in the last edition of the conference which took place last year in Wrocław. We hope that the „Krakow edition” of this event will also generate a great amount of interest. Our special guest this year will be Prof. Claudine Kieda from the University of Orlean, winner of the Polish Academy of Science's Nicholas Kopernik Medal in 2009 and member of the Polish Academy of Learning.

We cordially invite you to Krakow!  
13th OASSB Organizing Committee in Krakow



► **MBH PROJECT: NEW DEVELOPMENTS cont. from p. 7**

and detecting metastasis formation by cells transfected with the luciferase gene. It can also be used to observe the development of stem cells and to carry out repopulation tests. Moreover, it is possible to monitor fluorescently marked cells, for example using quantum dots, albeit with a lower degree of sensitivity. In combination with a Vevo-2100 ultrasound machine and a Doppler flow detector, the IVIS Lumina provides a unique system for carrying out experiments on small animals such as mice, gerbils, hamsters and rats. This instrument is lo-

cated in the imaging laboratory of the animal facility. You are invited to use it, and the team will ensure assistance during your first experiments while you learn how to use it.

We also invite you to read the special edition of Triplet entirely dedicated to the Molecular Biotechnology for Health project, which can be found at the project's website: <http://bmz.wbbib.uj.edu.pl>.

*Leszek Fiedor, Ph.D, D.Sc  
Prof. Alicja Józkowicz, Ph.D, D.Sc*

The fall semester for the members of the Nobel Biophysics Students' Association is marked by a spirit of integration with incoming class which, since October, has been faced with the challenging task of studying biophysics in our University. Nobel's first official meeting took place on October 5th. The meeting was attended by Prof. Jerzy Dobrucki and by almost half of the first year students.

On October 22nd–23rd the „Nobles”, along with those new students who are willing, will participate in the second edition of the Biophysicist's Mountain Integration (GIB 2011) which this year will take place in Sromowce Niżne in the heart of the Pieniny mountains. The aim of this event is to provide the newbie students

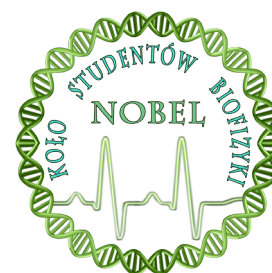
with information about the benefits of studying biophysics, to give them a general idea about what biophysical research is about and to inform them about the basic principles of studies in our Faculty.

Closely related to the integration weekend is another one of KSB Nobel's initiatives: "What's happening in the Lab?" This project essentially consists of introducing first and second year students to the realities of working in a biophysics-related laboratories.

We believe that it is very important for students to choose a precise path to follow during their university education.

*Aleksander Szczurek*

## NOBEL



Prof. Toshio Suda, Department of Cell Differentiation, The Sakaguchi Laboratory of Developmental Biology, Keio University School of Medicine, Tokyo, Japan, "Glycolytic metabo-

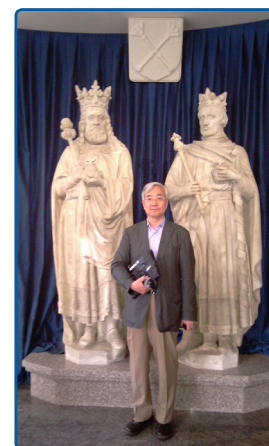


Prof. Toshio Suda – meeting with Medical Biotechnology Department team.

lism of stem cells in hypoxic niche", 25 July, hosted by Medical Biotechnology Department.

Prof. Toru Shimizu, Multidisciplinary Research for Advanced Materials Tohoku University 2-1-1 Katahira. Aoba-ku, Sendai, Japan, "Heme-based Oxygen Sensor Enzymes, YddV and Ec DOS, Function in the Synthesis and Degradation of Cyclic-dinucleotide GMP, an Important Second Messenger for Bacteria", 1 September, Prof. Shimizu was hosted by Medical Biotechnology Dept. from 14 August to 10 September and also participated in the 2nd Congress of Biochemistry and Cell Biology.

Paweł Murański, MD, National Cancer Institute Bethesda, Surgery Branch, National Institutes of Health, Bethesda, USA, "Immunotherapy of cancer with adoptive transfer of Th17-polarized CD4+ T cells", 27 September,



Prof. Toshio Suda

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hosted by Medical Biotechnology Department.

Dr. Klaus Appenroth, Institute of General Botany, University of Jena, Germany, "Turion formation as an adaptation strategy of duckweeds to climatic conditions", 29 September, hosted by Plant Biotechnology Department.

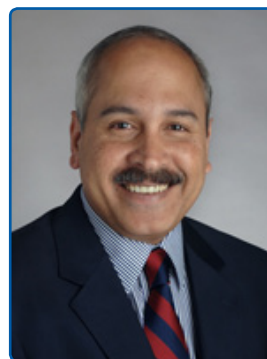
The guests of Medical Biotechnology Dept. were also lecturers of the 2nd Congress of Biochemistry and Cell Biology– prof. Roberto Motterlini (INSERM, Paris), who as FEBS National Lecturer gave a plenary lecture; prof. Maria Czyzyk-Krzeska (University of Cincinnati) prof. Mari Dezawa (Tohoku University, Sendai, Japan), who also gave plenary lecture, prof. Takahiro Ochiya (National Cancer Institute, Tokyo, Japan) and prof. Hideo Kimura (National Institute of Neuroscience, Tokyo, Japan).

Guests of Plant Physiology and Biochemistry Dept.: dr Maria Maleva 9–19 September, Department of Plant Physiology and Biochemistry, Ural State University, Ekaterinburg, Russia, dr Nadezhda Chukina 9–19 September, Department of Plant Physiology and Biochemistry, Ural State University, Ekaterinburg, Russia, dr Natalia Pshybytko 13–30 September, Institute of Biophysics and Cell



From left: Dr. Maria Maleva, Prof. Kazimierz Strzałka, Dr. Natalia Pshybytko, Dr. Nadezhda Chukina.

Engineering, National Academy of Sciences of Belarus, Minsk, Belarus.



Prof. Buddhadeb Dawn

Professor Buddhadeb Dawn M.D., FACC, FAHA (Director, Division of Cardiovascular Diseases, Vice Chair for Research in the Department of Internal Medicine, The University of Kansas Medical Center, Cardiovascular Research Institute, Kansas City, KS, USA) has been recently invited by Cell Biology Dept. and visited our Faculty between 26th and 27th of September. For several years, Professor Dawn has been a leader of multiple scientific projects related to applications of bone marrow-derived stem cells in heart repair. His wide collaboration with several scientists in USA and Europe extends also to Poland where he works together with Dr Ewa Zuba-Surma from Cell Biology Department.

Several notable outcomes of such collaboration comprise publications, patent applications and cooperative grants including the project currently led by Dr. Ewa Zuba-Surma entitled: "Optimization of preparation of antigenically defined mesenchymal stem cells for regenerative therapy of infarcted myocardium".

## LIST OF PUBLICATIONS: 2011, 3RD QUARTER

### PUBLICATIONS 2nd quarter 2011, cont.

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## Brzechwa for biotechnologists

"You know, Adam, human skin is the most excellent of fabrications. Nothing can compare to it. It reacts to touch, is elastic, waterproof, resistant to changes in temperature, soft and smooth. Practically any student of medicine can produce an artificial heart or artificial lungs. There's no philosophy to that. But to be able to obtain living human skin from common components one must be Ambrose Inkblot, the great Ambrose Inkblot."

Jan Brzechwa, "Mr. Inkblot's Triumph"

If it weren't for the reference to the main character of Brzechwa's trilogy in the last line, one might suppose that this quote was taken from Pedro Almodóvar's latest film or from an interview with Dr. Justyna Drukała. But who was Ambrose Inkblot?

Jan Brzechwa, a lawyer, (who was involved, among others, in creating Polish copyright laws), an excellent poet and linguist, has met at his cousin, Bolesław Leśmian, an illustrious and extravagant person, very famous in pre-war Warsaw. I am referring to Franc Fiszer, the unsuccessful philosopher, who was also a farceur and a wag, a bon vivant and a well-known regular in Warsaw's saloons. His views as well as his physis are reminiscent of the scholarly character described in „Mr. Inkblot”. The main protagonist of the story was created in the 1940's or even earlier than that. But his character evolved over time. The first part of the trilogy (“Mr. Inkblot's Academy”) was written in occupied Warsaw. The third part („Mr. Inkblot's Triumph”, published in 1965) was most likely written 20 years later.

Perhaps this book, the last published during the author's life, presents a recapitulation of his thought and of the development of his life experience and creative path. Every time I return to this book (which I believe played a decisive role in who I chose to become in life), I see in the figure of Mr. Inkblot someone who was a mentor in the field of science for many of us, Professor Stanisław Łukiewicz. So many similarities... even in the tendency to play the matchmaker. But a reading of Brzechwa's trilogy engenders some deeper

questions as well, questions about the essence of science and of the scientist, or rather, of the scholar. Questions about the essence of science which, like the other fields of art, is “engrossed with being”, interprets the world and creates models to represent reality. Questions about the essence of scientific passion which strives towards a synthesis of knowledge, toward a wedlock of the „exact” and „humanist” sciences, toward applied and fundamental research, toward encompassing the nature of everything, toward creating a universal model of reality, toward imitating and even sometimes toward correcting the Creator (whoever or whatever He may be). Questions about the essence of the scholar who is an educator, an artist, a passionate being but also an oddball and an absent-minded eccentric... Someone who creates his own image, or better yet, who creates himself... and along the way creates his followers... Is it not truly so?

I am sure many of us have their favourite childhood books whose characters permeate our memories at various important moments of our lives... Each of us chose to become a scientist in part due to those books. Nevertheless, in this case the thing goes a bit deeper: the book about a scientist must have had a prototype for its main character. Whom did Brzechwa describe in “Mr. Inkblot's Triumph” so suggestively that he seems to be portraying one of us? Prof. Anna Szóstak from the University of Zielona Góra correctly adds Brzechwa himself to the person of Franc Fiszer as a model. But the passage cited above also points to an inspiration from the world of science and medicine. Is this conclusion correct? It is! Halina Korecka, Jan Brzechwa's sister, once stated that her brother began his academic education with veterinary science but „when it came time to dissect a frog, he interrupted his studies.” That explains so much.

Przemysław Płonka

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