

**The XIX International Symposium  
of the Polish Network of Molecular  
and Cellular Biology**

**MOLECULAR and PHYSIOLOGICAL  
ASPECTS of REGULATORY  
PROCESSES of the ORGANISM**

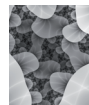
**PROGRAMME**

**11-12 June, 2010**

**Cracow, Poland**



The XIX International Symposium of the Polish  
Network of Molecular and Cellular Biology



PATRONAGE

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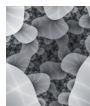
Institute of Pharmacology, Polish Academy of Sciences

**Aleksander Palczewski**

Cracow Supervisory Office for Education

ACNOWLEDGEMENTS

This congress is held under the auspices of the Polish  
Network of Molecular and Cellular Biology



The XIX International Symposium of the Polish  
Network of Molecular and Cellular Biology

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# The XIX International Symposium of the Polish Network of Molecular and Cellular Biology

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Institute of Pharmacology, Polish Academy of Sciences, Cracow

Department of Animal Physiology, Jagiellonian University

Biological Commission, Polish Academy of Sciences, Cracow Branch

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Department of Animal Physiology, N. Copernicus University of Torun

Department of Evolutionary Immunobiology, Jagiellonian University

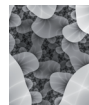
Department of Animal Physiology, University of Warsaw

Department of Animal Physiology, University of Agriculture Cracow

Laboratory of Cell Biology, The Jan Kochanowski University of Humanities and  
Sciences in Kielce

Department of Animal Physiology, M.Curie-Skłodowska University Lublin

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**ORGANIZING COMMITTEE**

Henryk Lach – Chairman

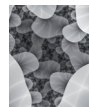
Tomasz Brzozowski, Michał Caputa, Anna Dąbek, Barbara Gajkowska,  
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Marian Lewandowski, Anna Lityńska, Lidia Mazur, Barbara Płytycz,  
Krystyna Grzybowska-Mnich, Irena Nalepa, Agnieszka Basta-Kaim,  
Mirosława Dmowska, Krystyna Pierzchała-Koziec,  
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Jerzy Vetulani – Chairman

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Maciej Pawłowski





**GENERAL PROGRAM of XIX INTERNATIONAL SYMPOSIUM**

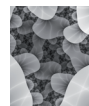
June 11, 2010 (Friday)

09.00 – 11.30	Plenary Session I
11.30 – 13.30	Poster Session I
13.30 – 14.30	Dinner
15.00 – 17.15	Plenary Session II
17.15 – 18.30	Poster Session II

June 12, 2010 (Saturday)

08.00 – 11.00	Plenary Session III
11.00 – 13.00	Poster Session III
13.00 – 15.00	Plenary Session IV
15.00 – 16.00	Conclusion





## CHRONOLOGICAL LIST OF SCIENTIFIC SESSIONS

June 11, 2010 (Friday)

08.30 a.m. Opening of the XIX International Symposium  
Prof. dr hab Henryk Lach Rector of the Jozef Dietl Malopolska  
Higher Vocational School in Cracow

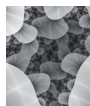
### PLENARY SESSION I

Session will be held at the Congress Center University of Agriculture in Cracow,  
29 Listopada Street no 46

Chairpersons: Krzysztof Wędzony  
Irena Nalepa  
Jerzy Vetulani  
Agnieszka Basta-Kaim

### A: LECTURES (09.00 -11.30)

- 09.00 – 09.20 **Magdalena Gaśka:** *Spatiotemporal analysis of gene expression in rat brain following antidepressant treatment.*  
(Institute of Pharmacology, Polish Academy of Sciences in Cracow)
- 09.20 – 09.40 **Beata Grygier:** *Modulatory effect of antidepressant drugs on B16F10 melanoma, MADB 106 adenocarcinoma and C26 colon carcinoma growth in experimental animals.*  
(Institute of Pharmacology, Polish Academy of Sciences in Cracow)
- 09.40 – 10.00 **Wojciech Solecki:** *Incentive learning in NR1DbhCre mice.*  
(Institute of Pharmacology, Polish Academy of Sciences in Cracow)
- 10.00 – 10.20 **Joanna Wabno:** *Influence of imipramine and corticosterone on glutamatergic and GABAergic transmission in rat frontal cortex ex vivo.*  
(Institute of Pharmacology, Polish Academy of Sciences in Cracow)
- 10.20 – 11.00 DISCUSSION
- 11.00 – 11.30 Tea/Coffee Break



The XIX International Symposium of the Polish  
Network of Molecular and Cellular Biology

**POSTER SESSION I**

Session will be held at the Congress Center University of Agriculture in Cracow,  
29 Listopada Street no 46

Chairpersons: Barbara Gajkowska  
Marian Lewandowski  
Lidia Mazur  
Mirosława Dmowska  
Barbara Bilińska  
Eugenia Tęgowska  
Anna Lityńska  
Grażyna Barbacka-Surowiak

**B: POSTERS (11.30 – 13.30)**

- P-I-1** *Differential actions of the elevated plus maze trial 1 and trial 2 on neurochemical indices in rats*  
**Bajer Marlena, Maria Krotewicz, Marek Wieczorek, Milena Koprowska, Magdalena Strzelczuk, Przemysław Dadura**  
(Department of Neurophysiology, University of Lodz)
- P-I-2** *Impact of chlorpromazine and clozapine on the level of cytochromes in prenatally LPS-treated rats*  
**Basta-Kaim Agnieszka**  
(Department of Experimental Neuroendocrinology, Institute of Pharmacology, Polish Academy of Science, Cracow, Poland)
- P-I-3** *Comparison of two EGFR inhibitors - tyrfostins AG494 and AG1478 in regulation of growth and survival of selected human cancer cell lines*  
**Bojko Agnieszka, Kinga Pinkowicz, Joanna Kisielewska, Janusz Ligeża**  
(Department of General Biochemistry, Faculty of Biochemistry, Biophysics and Biotechnology Jagiellonian University in Cracow, Poland)
- P-I-4** *Leptin protects AR42J cells via activation of heat shock protein 90*  
**Joanna Bonior<sup>1</sup>, Jolanta Jaworek<sup>1</sup>, Stanisław J. Konturek<sup>2</sup>**  
(1. Department of Medical Physiology Faculty of Health Sciences,  
2. Chair of Physiology Medical Faculty, School of Medicine Jagiellonian University, Cracow, Poland)

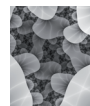


- P-I-5** *Obesity as a factor in the development of metabolic syndrome for women in the period of premenopause*  
**A. Brodska<sup>1</sup>, N. Grischenko<sup>2</sup>**  
(1. Kherson State University,  
2. Center of Family Planning and Human Reproduction of the Kherson Regional Clinical Hospital)
- P-I-6** *Immunolacclization of arabinogalactan proteins during male and female gametophyte development in *Sida hermaphrodita** Rusby  
**B. Chudzik, E. Szczuka, B. Zarzyka, R. Śnieżko**  
(Department of Cell Biology, Institute of Biology, Maria Curie Skłodowska University, Lublin)
- P-I-7** *Effects of acute diazepam administration on the serotonergic system activity in rats examined in the anxiety test*  
**Przemysław Dadura, Maria Krotewicz, Marek Wieczorek, Milena Koprowska, Magdalena Strzelczuk, Marlena Bajer**  
(Department of Neurophysiology, University of Lodz)
- P-I-8** *Pharmacological preconditioning with diazoxide in the brain*  
**M. Dmowska, R. Schoenborn, R. Śnieżko**  
(Department of Cell Biology, Institute of Biology, Maria Curie Skłodowska University, Lublin)
- P-I-9** *Role of AMPA receptors in the mechanism of action of antidepressant drugs in the forced swim test*  
**Małgorzata Dybała<sup>1,2</sup>, Agata Siwek<sup>1,2</sup>, Piotr Popik<sup>2,3</sup>, Andrzej Pilc<sup>2,3</sup>, Gabriel Nowak<sup>1,2</sup>**  
(1. Chair of Farmacobiology, Collegium Medicum, Jagiellonian University, Cracow, Poland,  
2. Department of Neurobiology, Institute of Farmacology, Polish Academy of Sciences, Cracow, Poland,  
3. Faculty of Health Sciences Collegium Medicum, Jagiellonian University)
- P-I-10** *The modulatory effect of IGF-1 on liver cell proliferation in diabetic piglets*  
**Jacek Fedorczak, Krystyna Pierzchała-Koziec, Ewa Ocioń, Joanna Zubel**  
(Department of Animal Physiology and Endocrinology, University of Agriculture in Cracow, Cracow, Poland)

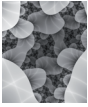


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- P-I-11** *Gut effects of long-term vagal stimulation in diet induced obesity in rats*  
**Krzysztof Gil**  
(Jagiellonian University Medical College Pathophysiology Department)
- P-I-12** *Interstitial cells of Cajal in ureteropelvic junction in children with congenital megaureter*  
**Krzysztof Gil**  
(Jagiellonian University Medical College Pathophysiology Department)
- P-I-13** *Neuroprotective effects of tianeptine against staurosporine – and doxorubicin-induced apoptosis in neuronal differentiated SH-SY5Y cells*  
**Jantas Danuta**  
(Institute of Pharmacology, Polish Academy of Sciences  
Department of Experimental Neuroendocrinology )
- P-I-14** *Estrogen receptor gene silencing unravels a crucial role of estrogen receptor beta in neuroprotection against aryl hydrocarbon receptor-mediated apoptosis*  
**M. Kajta<sup>1</sup>, E. Litwa<sup>1</sup>, J. Rzemieniec<sup>1</sup>, W. Lason<sup>1</sup>, A. K. Wójtowicz<sup>2</sup>**  
(1. Department of Experimental Neuroendocrinology, Institute of Pharmacology, Polish Academy of Sciences, Cracow, Poland,  
2. Laboratory of Genomics and Biotechnology, University of Agriculture, Cracow, Poland)
- P-I-15** *Cytotoxicity and antioxidant capacity of nociceptin and its structural analogues*  
**Margarita Kirkova<sup>1</sup>, Rositsa Zamfirova<sup>1</sup>, Simeon Todorov<sup>1</sup>, Monika Leśkiewicz<sup>2</sup>, Bogusława Budziszewska<sup>2</sup>, Agnieszka Basta-Kaim<sup>2</sup>, Barbara Korzeniak<sup>2</sup>, Magdalena Regulska<sup>2</sup>, Beata Grygier<sup>2</sup>, Jan Detka<sup>2</sup>, Katarzyna Głombik<sup>2</sup>, Aneta Dardzińska<sup>2</sup>, Ewa Szczęsny<sup>2</sup>, Marta Kubera<sup>2</sup>, Władysław Lason<sup>2</sup>**  
(1. Institute of Neurobiology, Bulgarian Academy of Sciences, Sofia, Bulgaria,  
2. Institute of Pharmacology, Polish Academy of Sciences, Cracow, Poland)
- P-I-15** *The modulation of glutamatergic input to gabaergic interneurons by 5-HT7 receptors in rat hippocampus*  
**Magdalena Klusek, Krzysztof Tokarski, Grzegorz Hess**  
(Department of Animal Physiology, Institute of Zoology, Jagiellonian University, Cracow)



- P-I-16** *If 2-Hydroxyflutamide inhibit apoptosis in ovarian granulosa cells? An In vitro study*  
**Małgorzata Knet, Małgorzata Durlej, Małgorzata Duda**  
(Department of Endocrinology & Tissue Culture, Institute of Zoology, Jagiellonian University, Cracow, Poland)
- P-I-17** *Effects of a selective proteasome inhibitor lactacystin administered into the rat substantia nigra on behavioral, neurochemical and histological markers of Parkinson`s disease*  
**Jolanta Konieczny**  
(Institute of Pharmacology, Polish Academy of Science, Cracow, Poland)
- P-I-18** *Expression of organic anion transporting peptide (Oatp1c1) mRNA in chicken ovarian follicles*  
**Ewa Kotuła, Katarzyna Pawłowska, Andrzej Sechman**  
(Department of Animal Physiology & Endocrinology, University of Agriculture in Cracow)
- P-I-19** *Dopaminergic system activity in the central and basolateral port of amygdale in diazepam treated rats*  
**Maria Krotewicz, Marek Wieczorek, Milena Koprowska, Magdalena Strzelczuk**  
(Department of Neurophysiology, University of Lodz)
- P-I-20** *Antioxidant activity of selected piperazine derivatives*  
**Monika Kubacka**  
(Department of Pharmacodynamics, Jagiellonian University Faculty of Pharmacy, Collegium Medicum)
- P-I-21** *Effect of earthworm Dendrobaena veneta and low metals concentrations on soil microbial activity and biomass*  
Ligia Kuriańska<sup>1</sup>, Małgorzata Klimek<sup>2</sup>, Beata Anna Klimek<sup>2</sup>, Jerzy Kruk<sup>3</sup>, Barbara Plytycz<sup>2</sup>, Maria Niklińska<sup>1</sup>  
(1. Institute of Environmental Sciences, Jagiellonian University, Cracow, Poland;  
2. Institute of Zoology, Jagiellonian University;  
3. Faculty of Biochemistry, Biophysics, and Biotechnology, Jagiellonian University, Cracow, Poland)
- P-I-22** *Primordial ovarian follicles in the bat, Carollia perspicillata. Ultrastructural analysis*  
**Agnieszka Lechowska**  
(Department of Systematic Zoology and Zoogeography, Institute of Zoology, Jagiellonian University, Cracow, Poland)



## The XIX International Symposium of the Polish Network of Molecular and Cellular Biology

**P-I-23**

*The effects of antipsychotic drugs on the HPA axis activity, glucocorticoid receptor level and FKBP51 concentration in neurodevelopmental model of schizophrenia in rats*

**Monika Leśkiewicz**

(Department of Experimental Neuroendocrinology, Institute of Pharmacology, Polish Academy of Science, Cracow, Poland)

**P-I-24**

*Modification of the Kramer's method in the operative treatment of the hallux valgus deformity*

**Henryk Liszka<sup>1</sup>, Agnieszka Lechowska<sup>2</sup>**

(1. Orthopaedy and Traumatology Department of ZOZ MSWiA Hospital in Cracow,

2. Department of Systematic Zoology and Zoogeography, Institute of Zoology, Jagiellonian University, Cracow, Poland)

**P-I-25**

*Cinnarizine, a calcium channels antagonist attenuates parkinsonian-like changes induced in rats by intranigraly administered proteasome inhibitor lactacystin*

**Elżbieta Lorenc-Koci**

(Institute of Pharmacology, Polish Academy of Science, Cracow, Poland)

**P-I-26**

*Primary and secondary endosymbionts in aphids (Insecta, Hemiptera, Aphidinea) – Ultrastructure and transovarial transmission*

**Anna Michalik**

(Department of Systematic Zoology and Zoogeography, Institute of Zoology, Jagiellonian University, Cracow, Poland)

**P-I-27**

*Effect of antisecretory factor on amylase release from pancreatic and on expression of pancreatic CCK-A receptor*

**Katarzyna Nawrot-Porąbka<sup>1</sup>, J. Jaworek<sup>1</sup>, A. Leja-Szpak<sup>1</sup>, M. Kot<sup>1</sup>, W. W. Pawlik<sup>2</sup>, S. Lange<sup>3</sup>, B. Sternby<sup>4</sup>**

(1. Department of Medical Physiology Faculty of Health Sciences,

2. Chair of Physiology Medical Faculty, School of Medicine

Jagiellonian University, Cracow, Poland,

3. Department of Clinical Bacteriology Goteborg University, Sweden,

4. Department of Medicine University of Lund, Sweden)

**P-I-28**

*Effect of sildenafil on the anticonvulsant action and adverse effects of three antiepileptic drugs in the maximal electroshock in mice*

**Dorota Nieoczym**

(Department of Animal Physiology, Institute of Biology, Maria Curie-Skłodowska University, Lublin)



- P-I-29** *Alterations in hippocampal calcium binding neurons induced by olfactory bulbectomy*  
**Barbara Nowak, M. Zadrożna, J. Makuch**  
(Department of Cytobiology, Collegium Medicum University, Cracow, Poland; )
- P-I-30** *Effect of capsaicin on death rate in Colorado potato beetle*  
**Justyna Olszewska, Beata Adamkiewicz, Maria Jolanta Katkowska, Eugenia Tęgowska**  
(Department of Animal Toxicology, Institute of General and Molecular Biology, Nicolaus Copernicus University, Torun)
- P-I-31** *Epigallocatechin gallate (EGCG) and green tea extract (GTE) stimulate COLO 205 survival via clusterin-dependent pathway*  
**Beata Pajak<sup>1</sup>, Elzbieta Kania<sup>1</sup>, Barbara Gajkowska<sup>1</sup>, Arkadiusz Orzechowski<sup>1,2</sup>**  
(1. Medical Research Center, Polish Academy of Sciences, Department of Cell Ultrastructure, Warsaw, Poland,  
2. University of Life Sciences (SGGW), Faculty of Veterinary Medicine, Department of Physiological Sciences, Warsaw Poland)
- P-I-32** *Chromium as a new antidepressant – how does it work? Analysis of adaptive changes after chronic use*  
**Anna Piotrowska<sup>1</sup>, Żaneta Domoń<sup>1</sup>, Gabriel Nowak<sup>2</sup>**  
(1. Chair of Pharmacobiology, Collegium Medicum, Jagiellonian University, Cracow, Poland,  
2. Department of Neurobiology, Institute of Pharmacology, Polish Academy of Sciences, Cracow, Poland)
- P-I-33** *Capsaicin - induced nerve injury and the analgesic efficacy of alpha-substituted derivative of gamma-butyrolactone in mice*  
**Kinga Sałat**  
(Department of Pharmacodynamics, Jagiellonian University Faculty of Pharmacy, Collegium Medicum)

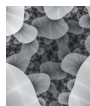


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- P-I-34** *The role of vanilloid sensory neurons in annexin-1 protective action against NSAID-related injury of the jejunal mucosa*  
**R. Sendur, J. Biernat., Z. Warzecha, P. Ceranowicz, A. Dembiński**  
(Department of Physiology, Jagiellonian University, Cracow, Poland)
- P-I-35** *Sildenafil (Viagra) augments the activity of some antidepressant drugs in the forced swim test in mice*  
**Katrzyna Socala**  
(Department of Animal Physiology, Institute of Biology, Maria Curie-Skłodowska University, Lublin)
- P-I-36** *The effect of prenatal LPS-treatment on the glycogen synthase kinase-3 phosphorylation in the rat frontal cortex*  
**Ewa Szczęśny**  
(Institute of Pharmacology PAS, Department of Experimental Neuroendocrinology)
- P-I-37** *The influence of orexins on the activity of nucleus incertus – in vitro studies*  
**Natalia Świętek, Katarzyna Palus, Anna Błasiak, Marian H. Lewandowski**  
(Institute of Zoology, Jagiellonian University, Cracow)
- P-I-38** *Immunoexpression of androgen receptor in the ovary of immature pigs following exposure to flutamide*  
**Iwona Wiecech, Małgorzata Durlej, Katarzyna Knapczyk-Stwora, Małgorzata Duda, Maria Słomczyńska**  
(Department of Endocrinology and Tissue Culture, Institute of Zoology, Jagiellonian University, Cracow, Poland)
- P-I-39** *The influence of intraperitoneally injected LPS (Proteus mirabilis) on the brain dopaminergic system activity in the rats*  
**Marek Wieczorek, Maria Krotewicz, Milena Koprowska, Magdalena Strzelczuk**  
(Department of Neurophysiology, University of Lodz)
- P-I-40** *The role of kinases: Akt and Src in the growth regulation and survival of human prostate cancer cell line DU145*  
**Anna Wolsza, Patrycja Wróbel, Janusz Ligęza, Joanna Kisielewska**  
(Department of General Biochemistry, Faculty of Biochemistry, Biophysics and Biotechnology Jagiellonian University in Cracow, Poland)



- P-I-41** *Influence of reperfusion on serum cytokine profile after experimental stroke*  
**Sylwia Wrotek<sup>1,2,3</sup>, A. Kozak<sup>1,2</sup>, K. Behen<sup>1,2</sup>, S. C Fagan**  
(1. University of Georgia, Clinical and Administrative Pharmacy, Augusta, GA;  
2. Charlie Norwood VA Medical Center, Augusta, GA;  
3. Nicolaus Copernicus University, Department of Immunology, Torun, Poland)
- P-I-42** *The effect of olfactory bulbectomy in the rat on calcium binding neurons in medial prefrontal cortex*  
**Monika Zadrożna**  
(Department of Pharmacobiology, Jagiellonian University, Cracow, Poland)
- P-I-43** *In vitro pyrogenic priming of rat macrophages*  
**T. Jędrzejewski, J. Piotrowski, M. Kowalczevska, E. Potera, P. Terlecki, S. Wrotek, W. Kozak**  
(Department of Immunology, Institute of General and Molecular Biology, Nicolaus Copernicus University, Toruń, Poland)



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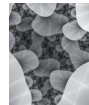
**PLENARY SESSION II**

Session will be held at the Congress Center University of Agriculture in Cracow,  
29 Listopada Street no 46

Chairpersons: Krystyna Pierzchała-Koziec  
Kazimierz Kochman  
Barbara Płytycz  
Lidia Mazur  
Janusz Sławiński  
Svitlana Shmalyey

**A: LECTURES (15.00-17.15)**

- 15.00-15.25 **Lidia Mazur, Marta Stojak, Małgorzata Opydo-Chanek:**  
*Anthracyclines in cancer chemotherapy: past, present and future.*  
(Department of Experimental Hematology, Jagiellonian University,  
Cracow, Poland)
- 15.20-15.40 **Kazimierz Kochman:** *Physiological and molecular aspects of aging process.*  
(Institute of Animal Physiology and Nutrition, Polish Academy of  
Sciences, Jablonna, Poland)
- 15.40-16.00 **Magdalena Chadzińska:** *Neuroendocrine-immune interaction during  
inflammation in teleost fish: a role for opioids.*  
(Department of Evolutionary Immunobiology, Jagiellonian  
University, Cracow)
- 16.00-16.20 **Janusz Sławiński:** *Photon emission from – a new aspect of regulatory  
processes of the organism*  
(State Higher Vocational School in Gniezno)
- 16.20-16.40 DISCUSSION  
16.40-17.15 Tea/Coffee Break



## POSTER SESSION II

Session will be held at the Congress Center University of Agriculture in Cracow,  
29 Listopada Street no 46

Chairpersons: Krystyna Skwarło-Sońta  
Teodora Król  
Anna Kordowiak  
Paweł Maćkowiak  
Leszek Nogowski  
Krzysztof Nowak  
Stanisława Stokłosa  
Grzegorz Hess

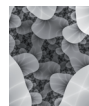
### B: POSTERS (17:15 – 18:30)

- P-II-1** *Eating patterns, physical activity and anthropometric parameters in physiotherapy students*  
**Jan Bilski,**  
(Department of Ergonomics and Exercise Physiology, Faculty of Health Sciences, Jagiellonian University Medical College, Cracow)
- P-II-2** *Effects of meal on the hemorheologic responses to intensive exercise*  
**Jan Bilski,**  
(Department of Ergonomics and Exercise Physiology, Faculty of Health Sciences, Jagiellonian University Medical College, Cracow)
- P-II-3** *Comparison of CRH or/and AVP effect on in vitro adrenal cortex activity in cortisol release*  
**Małgorzata Błachuta, Danuta Wrońska-Fortuna, Maria Mika**  
(Department of Animal Physiology and Endocrinology, University of Agriculture in Cracow, Cracow Poland)
- P-II-4** *Comparison of two EGFR inhibitors – tyrfostins AG494 and AG1478 in regulation of growth and survival of selected human cancer cell lines*  
**Agnieszka Bojko, Kinga Pinkowicz, Joanna Kisielewska, Janusz Ligęza**  
(Faculty of Biochemistry, Biophysic and Biotechnology, Jagiellonian University, Cracow)



## The XIX International Symposium of the Polish Network of Molecular and Cellular Biology

- P-II-5** *Relationship between apoptosis in boar semen and DNA fragmentation in porcine embryos*  
**Bryła Magdalena**  
(National Research Institute of Animal Production, Department of Animal Reproduction Biotechnology)
- P-II-6** **Effects of riboflavin deficiency on RAW 264.7 cells**  
**Beata Buchała, Agnieszka Irena Mazur, Barbara Płytycz**  
(Institute of Zoology, Jagiellonian University, Cracow)
- P-II-7** *Salsolinol acts on the interstitial cells of Cajal and on myenteric neurons in the rat gut*  
**Andrzej Bugajski**  
(Jagiellonian University Medical College, Dep. of Pathophysiology)
- P-II-8** *Effect of morphine on matrix metalloproteinase 9 (MMP-9): studies on mice deficient in complement factor 3 (C3-/-)*  
**Katarzyna Bydłoń, Magdalena Chadzińska, Barbara Płytycz, Elżbieta Kołaczowska**  
(Institute of Zoology, Jagiellonian University, Cracow)
- P-II-9** *Immunoexpression of androgen receptors in the ovary of immature pigs following exposure to flutamide*  
**Małgorzata Durlej**  
(Department of Endocrinology & Tissue Culture Institute of Zoology, Jagiellonian University, Cracow, Poland)
- P-II-10** *If 2-hydroxylutamide inhibits apoptosis in ovarian granulose cells? In vitro study*  
**Małgorzata Durlej**  
(Department of Endocrinology & Tissue Culture Institute of Zoology, Jagiellonian University, Cracow, Poland)
- P-II-11** *The influence of 4-tetr-octylphenol on the immunoexpression of steroid hormone receptors in the blank vole ovary*  
**Małgorzata Durlej**  
(Department of Endocrinology & Tissue Culture Institute of Zoology, Jagiellonian University, Cracow, Poland)
- P-II-12** *The modulatory effect of IGF-I on liver cell proliferation in diabetic piglets*  
**Jacek Fedorczak, Krystyna Pierzchała-Koziec, Ewa Ochoń, Joanna Zubel**  
(Department of Animal Physiology and Endocrinology, University of Agriculture in Cracow)



- P-II-13** *Primary human melanoma cell interaction with vitronectin: role of glycosylation*  
**Małgorzata Fudali**  
(Department of Glycoconjugate Biochemistry, Jagiellonian University, Cracow)
- P-II-14** *The role of insulin-like growth factor 1 receptor (IGF-1R) and vascular endothelial growth factor receptor (VEGFR) in regulation of autocrine growth of A549 cells in vitro*  
**Agnieszka Góral, Joanna Kisielewska, Janusz Ligęza**  
(Department of General Biochemistry, Faculty of Biochemistry, Biophysics and Biotechnology Jagiellonian University in Cracow, Poland)
- P-II-15** *Effects of sodium valproate and secretion in human trophoblast BeWo cell line*  
**Patrycja Gut**  
(Institute of Zoology, Jagiellonian University)
- P-II-16** *Induction of metallothionein gene expression in *Allolobhora chlorotica* coelomocytes following heavy metal exposure*  
**Joanna Homa, Małgorzata Klimek, Jerzy Kruk, Franck Vandenbulcke, Barbara Płytycz**  
(Institute of Zoology, Jagiellonian University, Cracow)
- P-II-17** *Effect of GH on basal and LH stimulated steroids secretion in vitro by granulosa and theca layers of chicken preovulatory follicles*  
**Anna Hrabia, Janusz Rząsa**  
(Department of Animal Physiology and Endocrinology, University of Agriculture in Cracow)
- P-II-18** *Expression of vitellogenin II and  $\alpha$  and  $\beta$  estrogen receptors in chicken liver during maturation*  
**Anna Hrabia, Agnieszka K. Grzegorzewska, Joanna Rzepa, Emil Stefańczyk, Janusz Rząsa**  
(Department of Animal Physiology and Endocrinology, University of Agriculture in Cracow)
- P-II-19** *Evaluation of potential alpha-1 adrenergic activity of the arylpiperazine derivatives of phenytoin in in vitro functional bioassay*  
**Magdalena Jastrzębska-Więsek**  
(Department of Pharmacodynamics, Jagiellonian University, Faculty of Pharmacy, Collegium Medicum)



## The XIX International Symposium of the Polish Network of Molecular and Cellular Biology

P-II-20

*Expression and release of anti-inflammatory TGF-beta is delayed in mice deficient in matrix metalloproteinase 9 (MMP-9)*

**Elżbieta Kołaczkowska, Arnold Bernd, Ghislain Opendakker**

(Institute of Zoology, Jagiellonian University, Cracow)

P-II-21

*Time-dependent effect of sodium metavanadate on ultrastructural changes in hepatocytes of rats*

**A. Kopacz-Bednarska<sup>1</sup>, T. Król<sup>1</sup>, A. Ścibior<sup>2</sup>, H. Zaporowska<sup>2</sup>, D. Gołębiowska<sup>2</sup>, E. Trybus<sup>1</sup>, W. Trybus<sup>1</sup>**

(1. Department of Cell Biology, Institute of Biology, The Jan Kochanowski University of Humanities and Sciences, Kielce, Poland,

2. Department of Cell Biology, Institute of Environmental Protection, The John Paul II Catholic University of Lublin, Poland)

P-II-22

*Influence of ortho- and metavanadate [V(V)] or vanadyl sulphate and BMOV bis (maltolato) oxovanadium [V(IV)] on human rhabdomyosarcoma (RMS) cell line.*

**Anna M. Kordowiak, Anna Adamczyk, Katarzyna Ciurkot, Przemysław Holko, Wojciech Dąbroś**

(Department of General Biochemistry, Faculty of Biochemistry, Biophysics and Biotechnology; Jagiellonian University, Cracow, Poland)

P-II-23

*Vanadyl cations: bis (maltolato) oxovanadium (BMOV) or vanadyl sulphate [V(IV)] affects growth and morphology of human lung cancer cells line A549*

**Anna M. Kordowiak, Przemysław Holko, Michał Sekuła, Wojciech Dąbroś**

(Department of General Biochemistry, Faculty of Biochemistry, Biophysics and Biotechnology; Jagiellonian University, Cracow, Poland)

P-II-24

*Structure and development ovary in aphid glyphiona betuloe (Hemiptera, Aphidinea: Thelaxidae)*

**Marta Kot**

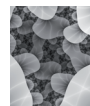
(Department of Systematic Zoology, Institute of Zoology, Jagiellonian University, Cracow, Poland)

P-II-25

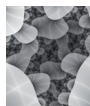
*Is 4-tert-octylphenol able to cause adverse effects on testicular function of adult bank voles?*

**Małgorzata Kotula-Balak, Anna Hejmej, Marta Łydka, Barbara Bilińska**

(Department of Endocrinology, Institute of Zoology, Jagiellonian University, Cracow, Poland)



- P-II-26** *Expression of organic anion transporting peptide 1c1 mRNA In chicken ovaria follicles*  
**Ewa Kotuła, Katarzyna Pawłowska, Andrzej Sechman**  
(Department of Animal Physiology and Endocrinology, University of Agriculture in Cracow)
- P-II-27** *Enzymatic and nonenzymatic antioxidants mitochondrial and postmitochondrial fraction in both vanadium and fructose treated rats*  
**M. Krośniak, R. Francik, A. Makuch**  
(Department of Food Chemistry and Nutrition, Faculty of Pharmacy, Jagiellonian University, Cracow)
- P-II-28** *Influence of vanadium treatment on glutathione level in organs of rats*  
**M. Krośniak<sup>1</sup>, W. Krzyściak, A. Kareta<sup>1</sup>, R. Gryboś<sup>2</sup>**  
(1. Department of Food Chemistry and Nutrition, Faculty of Pharmacy, Jagiellonian University, Cracow,  
2. Faculty of Chemistry, Jagiellonian University, Cracow)
- P-II-29** *Allergy and risk of cancer disease*  
**M. Kowalczevska, E. Potera, T. , J. Piotrowski, P. Terlecki, S. Wrotek, W. Kozak**  
(Department of Immunology, Institute of General and Molecular Biology, Nicolaus Copernicus University, Torun, Poland)
- P-II-30** *Ultrastructure of primordial ovarian follicles in the bat carollie perspicillata*  
**Agnieszka Lechowska**  
(Department of Systematic Zoology, Institute of Zoology, Jagiellonian University, Cracow, Poland)
- P-II-31** *Antioxidant activity of phenylpiperazine derivatives of phenytoin*  
**Tadeusz Librowski**  
(Department of Pharmacodynamics, Jagiellonian University, Faculty of Pharmacy, Collegium Medicum)
- P-II-32** *Comparative investigations of antioxidant status of ester- and amide- local anesthetics*  
**Tadeusz Librowski**  
(Department of Pharmacodynamics, Jagiellonian University, Faculty of Pharmacy, Collegium Medicum)
- P-II-33** *The evaluation of therapeutic activity of AXJ09 on skin defect treatment*  
**Tadeusz Librowski**  
(Department of Pharmacodynamics, Jagiellonian University, Faculty of Pharmacy, Collegium Medicum)



## The XIX International Symposium of the Polish Network of Molecular and Cellular Biology

**P-II-34**

*Vimentin expression in testes of Arabian stallions*

Marta Łydka<sup>1</sup>, Małgorzata Kotula-Balak<sup>1</sup>, Ilona Kopera-Sobota<sup>1</sup>,  
Marian Tischner<sup>2</sup>, Barbara Bilińska<sup>1</sup>

(1. Department of Endocrinology, Institute of Zoology, Jagiellonian  
University, Cracow, Poland,

2. Department of Animal Reproduction, University of Agriculture,  
Cracow, Poland)

**P-II-35**

*The evaluation of activity changes of N-acetyl- $\beta$ -glucosaminidase in the  
liver of male mice after the exposition of different doses of ionizing radiation*

**Małgorzata Łysek-Gładysińska<sup>1</sup>, Król Teodora<sup>1</sup>,  
Anna Wiczorek<sup>1</sup>, Monika Pietrowska<sup>2</sup>, Anna Walaszczyk<sup>2</sup>**

(1. Department of Cell Biology, Institute of Biology, University of  
Jan Kochanowski, Kielce, Poland,

2. Department of Experimental and Clinical Radiobiology, Maria  
Sklodowska-Curie Cancer Center and Institute of Oncology,  
Gliwice, Poland)

**P-II-36**

*Primary and secondary endosymbionts in aphids (Insecta, Hemiptera,  
Aphidinea)*

**Anna Michalik**

(Department of Systematic Zoology and Zoogeography, Jagiellonian  
University, Cracow, Poland)

**P-II-37**

*Local anti-inflammatory and analgesic effect of the [3,4]-d piridazine  
derivative in a rat and mice model of pain*

**Szczepan Mogilski**

(Department of Pharmacodynamics, Jagiellonian University, Faculty  
of Pharmacy, Collegium Medicum)

**P-II-38**

*Development and validation of in vitro method to study of  
malondialdehyde, a peroxidation biomarker*

**Andrzej Moniczewski**

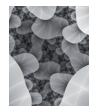
(Department of Toxicology, Jagiellonian University Faculty of  
Pharmacy, Collegium Medicum)

**P-II-39**

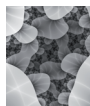
*Interactions between nicotine and xanthenes derivatives on free radical  
scavenging activity in vitro studies*

**Andrzej Moniczewski**

(Department of Toxicology, Jagiellonian University Faculty of  
Pharmacy, Collegium Medicum)

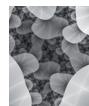


- P-II-40** *The effect of inhibitor HMG-CoA reductase on cardiac visfalin levels in piglets with metabolic syndrome*  
Ewa Ocloń, Krystyna Pierzchała-Koziec, Joanna Zubel, Jacek Fedorczyk  
(Department of Animal Physiology and Endocrinology, University of Agriculture in Cracow)
- P-II-41** *Does glycosylation of melanoma cell influence FAK phosphorylation?*  
**Katarzyna Opióła, Ewa Pocheć, Monika Bubka, Anna Lityńska**  
(Department of Glycoconjugate Biochemistry, Jagiellonian University)
- P-II-42** *Targeting diverse death pathways in human leukemic cells by purine nucleoside analogues*  
**M. Opydo-Chanek<sup>1</sup>, M. Stojak<sup>1</sup>, G. Zwierzyńska<sup>2</sup>, P. Borowicz<sup>2</sup>, L. Mazur<sup>1</sup>**  
(1. Department of Experimental Hematology, Jagiellonian University, Cracow,  
2. Institute of Biotechnology and Antibiotics, BIOTON S.A. Warsaw)
- P-II-43** *Effects of AMPA receptor ligands in elevated plus maze test in rats*  
**Anna Partyka**  
(Department of Pharmacodynamics, Jagiellonian University, Faculty of Pharmacy, Collegium Medicum)
- P-II-44** *Enkephalin-like peptides in the piglets striatum during induced metabolic syndrome*  
**Krystyna Pierzchała-Koziec, Joanna Zubel, Ewa Ocloń, Jacek Fedorczyk**  
(Department of Animal Physiology and Endocrinology, University of Agriculture in Cracow)
- P-II-45** *Changes the expression level of cyclooxygenase-2 during delayed type hypersensitivity reaction – DTH in Wistar Rats*  
**Ewa Potera**  
(Institute of General and Molecular Biology, N. Copernicus University, Torun)
- P-II-46** *Antihistaminic activity of amide derivatives of lidocaine*  
**Karolina Pytka**  
(Department of Pharmacodynamics, Jagiellonian University, Faculty of Pharmacy, Collegium Medicum)



## The XIX International Symposium of the Polish Network of Molecular and Cellular Biology

- P-II-47** *In vitro effects of gherin and its cooperation with Gh on progesterone secretion and caspase-3 activity in porcine corpora lutea*  
**Agnieszka Rak-Mardyła**  
(Institute of Zoology, Jagiellonian University)
- P-II-48** *Effect of co-administration of fluoxetine and risperidone on peritoneal and pleural cell parameters of rats subjected to a forced swimming test*  
**A. Roman, Z. Rogoż, J. Kuśmierczyk, E. Klimek, I. Nalepa**  
(Institute of Pharmacology, Polish Academy of Sciences, Cracow, Poland)
- P-II-49** *Triiodothyronine is a potent modulator of cAMP/PKA signaling system in granulose cells of chicken ovarian follicles*  
**Andrzej Sechman, Katarzyna Pawłowska, Janusz Rząsa**  
(Department of Animal Physiology & Endocrinology, University of Agriculture in Cracow)
- P-II-50** *Primary human melanoma cell interaction with vitronectin: role of integrins*  
**Elżbieta Sokół**  
(Department of Glycoconjugate Biochemistry, Jagiellonian University, Cracow)
- P-II-51** *Programmed death – induction in human leukemic cells by anthracycline antibiotics*  
**Marta Stojak<sup>1</sup>, M. Opydo-Chanek<sup>1</sup>, G. Zwierzyńska<sup>2</sup>, P. Borowicz<sup>2</sup>, L. Mazur<sup>1</sup>**  
(Department of Experimental Hematology, Jagiellonian University, Cracow, <sup>2</sup>Institute of Biotechnology and Antibiotics, BIOTON S.A. Warsaw)
- P-II-52** *Exercise in water at 4°C and 25°C on blood rheological properties and the composition of fatty acids in erythrocyte membranes of laboratory rats*  
**Aneta Teległów, Jan Bilski, Zbigniew Dąbrowski, Anna Marchewka, Jerzy Jaśkiewicz, Joanna Gdula-Argasińska, Jacek Głodzik**  
(Department of Rehabilitation, University School of Physical Education)
- P-II-53** *Behavioral fever of Paramecium caudatum to IL-6 is attenuated by acetylsalicylic acid*  
**Piotr Terlecki**  
(Institute of General and Molecular Biology, N. Copernicus University, Torun)



- P-II-54** *Adrenaline modulates innate immune response of carp*  
**Ewa Tertil, Anna Zawada, Magdalena Kępa, Magdalena Chadzińska**  
(Institute of Zoology, Jagiellonian University, Cracow)
- P-II-55** *Cytotoxicity study of aloe-emodin in Chinese hamster ovary cells*  
**Wojciech Trybus, Teodora Król, Ewa Trybus, Anna Kopacz-Bednarska**  
(Department of Cell Biology, Institute of Biology, The Jan Kochanowski University of Humanities and Sciences, Kielce, Poland)
- P-II-56** *Mitotic activity index in CHO cells after budesonide application*  
**Ewa Trybus, Teodora Król, Wojciech Trybus, Anna Kopacz-Bednarska**  
(Department of Cell Biology, Institute of Biology, The Jan Kochanowski University of Humanities and Sciences, Kielce, Poland)
- P-II-57** *Effect of antioxidants added to boar semen extender on sperm membrane integrity, mitochondrial activity and motility*  
**Monika Trzcińska**  
(National Research Institute of Animal Production, Department of Animal Reproduction Biotechnology)
- P-II-58** *Changes in the blood antioxidant defense capacity during a competitive 24h run*  
**Z. Waśkiewicz, E. Sadowska-Kępa, B. Kłapcińska, S. Jągsz, M. Michalczyk, S. Poprzęcki**  
(Department of Biochemistry, Academy of Physical Education, Katowice, Poland)
- P-II-59** *Liver  $\beta$ -glucuronidase and acid phosphatase response to irradiation of mouse heart with 0.2Gy, 2Gy and 8Gy*  
**Anna Wiczorek<sup>1</sup>, Teodora Król<sup>1</sup>, Małgorzata Łysek-Gładysińska<sup>1</sup>, Monika Pietrowska<sup>2</sup>, Karol Jelonek<sup>2</sup>**  
(1. Department of Cell Biology, Institute of Biology, The Jan Kochanowski University of Humanities and Sciences, Kielce, Poland, 2. Maria Skłodowska-Curie Memorial Cancer Center and Institute of Oncology, Gliwice, Poland)
- P-II-60** *The study of bounded water molecular dynamic in protein solutions by NMR relaxation method*  
**Dorota Wierzuchowska, Łukasz Żelazny, Barbara Blicharska**  
(Pedagogical University of Cracow)



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**P-II-61**

*The role of kinases: Akt and Src in the growth regulation and survival of human prostate cancer cell line DU145*

**Anna Wolsza, Patrycja Wróbel, Janusz Ligęza, Joanna Kisielewska**  
(Faculty of Biochemistry, Biophysic and Biotechnology, Jagiellonian University, Cracow)

**P-II-62**

*The androgens releasing from female sheep adrenal gland during stress and adaption*

**Danuta Wrońska-Fortuna, Andrzej Sechman, Maria Mika, Małgorzata Błachuta**

(Department of Animal Physiology and Endocrinology, University of Agriculture in Cracow)

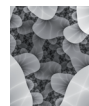
**P-II-63**

*The changes of IGF-I and insulin plasma levels in pigs after streptozotocin administration*

**Joanna Zubel, Krystyna Pierzchała-Koziec, Ewa Ocioń, Jacek Fedorczyk, Malwina Kuta**

(Department of Animal Physiology and Endocrinology, University of Agriculture in Cracow, Poland)

The XIX International Symposium of the Polish  
Network of Molecular and Cellular Biology



June 12, 2010 (Saturday)

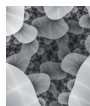
**PLENARY SESSION III**

Session will be held at the Congress Center University of Agriculture in Cracow,  
29 Listopada Street no 46

Chairpersons: Stanisław Konturek  
Tomasz Brzozowski  
Wiesław Pawlik  
Ryszard Sendur  
Jolanta Jaworek

**A: LECTURES (8.00-11.00)**

- 08.00 – 8.30 **Wiesław Pawlik:** *Importance of renin-angiotensin system in the control of gastrointestinal functions.*  
(Department of Physiology, Jagiellonian University Medical College, Cracow, Poland)
- 08.30 – 9.00 **Tomasz Brzozowski:** *Role of cyclooxygenase -2 (COX-2) in physiology and pathophysiology of the stomach.*  
(Department of Physiology, Jagiellonian University, Medical College, Cracow, Poland)
- 09.00 – 9.30 **Jolanta Jaworek:** *Endogenous melatonin in the pancreatic disorders.*  
(Department of Medical Physiology, Faculty of Health Sciences, Jagiellonian University, Medical College, Cracow, Poland)
- 09.30 – 10.00 **Bujak-Giżycka, M. Suski, J. Madej, A. Niepsuj, A. Gębska, R. Olszanecki, R. Korbut:** *Pharmacology of rennin-angiotensin system- a new angiotensins, a new challenge for pharmacotherapy.*  
(Chair of Pharmacology, Jagiellonian University Medical College, Cracow, Poland)
- 10.00-10.30 DISCUSSION
- 10.30-11.00 Tea/Coffee Break



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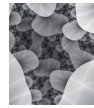
**POSTER SESSION III**

Session will be held at the Congress Center University of Agriculture in Cracow,  
29 Listopada Street no 46

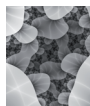
Chairpersons: Lucyna Antkiewicz-Michaluk  
Jerzy Vetulani  
Ryszard Przewłocki  
Irena Nalepa  
Wiesław Pawlik  
Ryszard Sendur  
Michał Caputa  
Barbara Przewłocka

**B: POSTERS (11.00 – 13.00)**

- P-III-1** *Oxidative stress and metabolic disturbances in fructose-rich diet-fed rats (15). Influence of red kidney beans in diet on some biochemical and antioxidant parameters in rats' plasma, erythrocytes and major organs.*  
**Henryk J. Barton**  
(Jagiellonian University Medical College, Cracow Department Food Chemistry and Nutrition)
- P-III-2** *Impact of capsaicin on carbamate toxicity on American cockroach *Periplaneta americana**  
**Beata Adamkiewicz**  
(Department of Animal Toxicology, Institute of General and Molecular Biology, Nicolaus Copernicus University, Torun)
- P-III-3** *Influence of prenatal stress on adrenal cortex reaction to ethanol treatment*  
**Beata Beszczyńska**  
(Institute of General and Molecular Biology UMK Torun)
- P-III-4** *Dual role of sensory neuropeptides in folic acid antagonist – induced liver damage*  
**J. Biernat, R. Sendur, Z. Warzecha, A. Dembiński**  
(Department of Physiology, Jagiellonian University, Cracow, Poland)
- P-III-5** *Obesity as factor of development of metabolic syndrome for women on the stage of premenopause of climax*  
Anastasiia Brodska<sup>1</sup>, Natalia Grischenko<sup>2</sup>



- (1. Kherson State University,  
2. Center of Planning of Family and Reproduction of Human of the  
Kherson Regional Clinical Hospital)
- P-III-6** *Interaction between ischemic preconditioning and coagulation in protection against acute experimental pancreatitis*  
**Piotr Ceranowicz<sup>1</sup>, Zygmunt Warzecha<sup>1</sup>, Artur Dembinski<sup>1</sup>, Jakub Cieszkowski<sup>1</sup>, Romana Tomaszewska<sup>2</sup>**  
(1. Department of Physiology  
2. Department of Pathology, Jagiellonian University Medical College, Cracow, Poland)
- P-III-7** *The effect of 2 years period of dietary exposition on different doses of lead on LH plasma levels in goldfish (*Carassius gibelio* B.) at spawning time*  
**E. Drag-Kozak, E. Łuszczek-Trojar, M. Socha, B. Fałowska, W. Popek**  
(Department of Ichthyobiology and Fisheries, University of Agriculture in Cracow)
- P-III-8** *Epigallocatechin gallate (EGCG) and green tea extract (GTE) stimulate colo 205 survival via clusterin-dependent pathway*  
**Barbara Gajkowska**  
(Department of Physiology, Jagiellonian University, Cracow, Poland)
- P-III-9** *Effect of motility, ATP level and susceptibility to lipid peroxidation on survival time of boar spermatozoa*  
**Piotr Gogol**  
(National Research Institute of Animal Production, Cracow)
- P-III-10** *The influence of KCL, CaCl<sub>2</sub>, NaCl on the resting potential of *Tenebrio molitor* larva and imaga*  
**Barbara Grajpel**  
(Department of Animal Toxicology, Institute of General and Molecular Biology, Nicolaus Copernicus University, Torun)
- P-III-11** *A comparative study of the aggregation effect on thermal behaviour of blowfly *Calliphora vomitoria**  
**P. Grodzicki, K. Walentynowicz, M. Caputa**  
(Nicolaus Copernicus University, Torun, Institute of General and Molecular Biology)
- P-III-12** *The effect of photoperiod on thermal preference of the honeybee *Apis mellifera**  
**P. Grodzicki, M. Caputa, E. Gutowska**  
(Nicolaus Copernicus University, Torun, Institute of General and Molecular Biology)



## The XIX International Symposium of the Polish Network of Molecular and Cellular Biology

P-III-13

*Heat stroke in rat*

**Jakub Gutowski, Adam Dubicki**

(Nicolaus Copernicus University, Torun, Faculty of Biology and Earth Sciences, Institute of General and Molecular Biology)

P-III-14

*Dietary supplementation of high doses polyphenols evidently promotes activity of antioxidant enzymes in liver and hardly extent in brain of CD-1 mice*

**Grzegorz Kazek, Monika Głuch-Lutwin, Barbara Nawieśniak, Renata Francik, Marek Stępniewski**

(Department of Radioligands, Chair of Pharmacobiology, Jagiellonian University – Collegium Medicum, Cracow, Poland)

P-III-15

*Effect of high doses polyphenols supplementation on oxidative proteins modification in liver of CD-1 mice*

**Grzegorz Kazek, Barbara Nawieśniak, Monika Głuch-Lutwin, Renata Francik, Marek Stępniewski**

(Department of Radioligands, Chair of Pharmacobiology, Jagiellonian University – Collegium Medicum, Cracow, Poland)

P-III-16

*Effects of a 24-h ultra marathon run on hematological and biochemical parameters*

**B. Kłapcińska, Z. Waśkiewicz, E. Sadowska-Kępa, S. Jagsz, M. Michalczyk, S. Poprzęcki**

(Department of Biochemistry, University of Agriculture in Cracow AWF Cracow)

P-III-17

*Monitoring of oxidative stress in type 2 diabetes mellitus*

**Wirginia Krzyściak<sup>1</sup>, Mirosław Krośniak<sup>2</sup>, Joanna Kowalska<sup>3</sup>,**

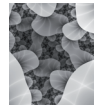
(1. Radioligand Department, Chair of Pharmacobiology, Jagiellonian University Medical College, Pharmacy Faculty, Cracow,  
2. Department of Food Chemistry and Nutrition, Jagiellonian University Medical College, Pharmacy Faculty, Cracow,  
3. The Henryk Niewodniczanski Institute of Nuclear Physics, Polish Academy of Sciences, Department of Applied Spectroscopy, Cracow)

P-III-18

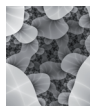
*Vascular Endothelial Growth Factor (VEGF) as a marker of leukocytes adhesion to extracellular matrix (ECM) mediated by  $\beta$ 2 integrins*

**Wirginia Krzyściak**

(Radioligand Department, Chair of Pharmacobiology, Jagiellonian University Medical College, Pharmacy Faculty, Cracow)

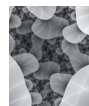


- P-III-19** *Regulatory process of calcium-phosphate balance in girls with idiopathic scoliosis and in women during menopause*  
**Aleksandra Kulis<sup>1</sup>, Grzegorz Głab<sup>2</sup>, Jerzy Jaśkiewicz<sup>3</sup>**  
(1. Jozef Dietl Malopolska Higher Vocational School in Cracow,  
2. Academy of Physical Education, Cracow  
3. Department of Pharmacology and Biophysic, Academy of Physical Education, Cracow)
- P-III-20** *The anti-oedematous activity and influence of AX109 on skin defect treatment*  
**J. Kurek<sup>1</sup>, A. W. Pantuchin<sup>2</sup>, T. Librowski<sup>3</sup>**  
(1. Nes Pharma, Ostrogskich 5, Tarnów,  
2. Dept. of Pharmaceutical Technology and Biotechnology, Saratov State Medical University, Bolshaya Kazachia, Saratov, Russia;  
3. Dept. of Pharmacodynamics, Jagiellonian University, Medical College, Medyczna 9, Craców, Poland)
- P-III-21** *The influence of 4-tert-octylphenol on the immunoexpression of steroid hormone receptors in the bank vole ovary*  
**Dominik Marko, Małgorzata Durlej, Katarzyna Knapczyk-Stwora, Jerzy Galas**  
(Department of Endocrinology and Tissue Culture, Chair of Animal Physiology, Institute of Zoology, Jagiellonian University, Cracow)
- P-III-22** *Short-term regulation of adiponectin secretion. Studies on isolated rat adipocytes*  
**Leszek Nogowski**  
(Department of Animal Physiology and Biochemistry Poznan University of Life Sciences, Poznan)
- P-III-23** *Obestatin modulates expression of transcription factors during brain adipocytes differentiation*  
**Krzysztof W. Nowak, Dominika Oleś, Joanna Chmielewska, Dawid Szczepankiwicz, Maciej Sassek, Ewa Pruszyńska, Przemek Kaczmarek**  
(Department of Animal Physiology and Biochemistry, Poznan University of Life Sciences)
- P-III-24** *Effect of genistein on insulin secretion in vitro*  
**Ewa Nowicka-Stańczyk**  
(Department of Animal Physiology and Biochemistry Poznan University of Life Sciences, Poznan)



## The XIX International Symposium of the Polish Network of Molecular and Cellular Biology

- P-III-25** *Effect of capsaicin on death rate in Colorado potato beetle*  
**Justyna Olszewska**  
(Department of Animal Toxicology, Institute of General and Molecular Biology, Nicolaus Copernicus University, Torun)
- P-III-26** *Regulation of serotonin N-acetyltransferase protein level and activity by 14-3-3 protein in the chicken pineal gland*  
**Aneta Piesiewicz, Alicja Olesiejuk, Urszula Kędzierska, Krystyna Skwarło-Sońta, Paweł Majewski**  
(Department of Animal Physiology, Faculty of Biology, University of Warsaw)
- P-III-27** *Effect of cobalt protoporphyrin IX on endotoxin fever and pyrogenic tolerance in rat*  
**Jakub Piotrowski**  
(Institute of General and Molecular Biology, Nicolaus Copernicus University, Torun)
- P-III-28** *Influence of natural triterpenoids and melatonin on IL-1 $\beta$  level in mice colon mucosa and PTLs during DSS-induced chronic colitis.*  
**Paulina Podrecka, Joanna Wytrykowska, Krystyna Skwarło-Sońta, Mateusz Gołąb**  
(Department of Animal Physiology, Faculty of Biology, University of Warsaw)
- P-III-29** *The estimation vegetative maintenance of physical activity of visually impaired preschool children to correlation adaptometry*  
**Iryna Redka**  
(Institution of Nature Sciences, Kherson State University, Kherson, Ukraine)
- P-III-30** *Both ghrelin and obestatin inhibit enucleation-induced adrenocortical proliferation in the rat*  
**Marcin Ruciński, Marcin Trejter, Agnieszka Ziółkowska, Marianna Tyczewska, L. K. Malendowicz**  
(Department of Histology and Embryology, Poznan University of Medical Sciences, Poznan, Poland)
- P-III-31** *Expression of spexin gene in the rat adrenal gland under different conditions and evidences suggesting the role of this peptide in control of adrenocortical cell proliferation*  
**Marcin Ruciński<sup>1</sup>, Andrea Porzionato<sup>2</sup>, Agnieszka Ziółkowska<sup>1</sup>, Marta Szyszka<sup>1</sup>, Veronica Macchi<sup>2</sup>, Raffaele De Caro<sup>2</sup>, Ludwik K. Malendowicz<sup>1</sup>**  
(1. Department of Histology and Embryology, Poznan University of Medical Sciences,  
2. Department of Human Anatomy and Physiology, Section of Anatomy, University of Padua (Italy))



- P-III-32** *Correction of speech-motor activity of preschoolers with children's aphasia*  
**Svitlana Shmal'yey**  
(Institution of Nature Sciences, Kherson State University, Kherson, Ukraine)
- P-III-33** *Hydrokinesotherapy in the system of physical rehabilitation of people ankle-bones break*  
**Svitlana Shmal'yey**  
(Institution of Nature Sciences, Kherson State University, Kherson, Ukraine)
- P-III-34** *Adrenal reaction to diazepam in prenatally stressed rats*  
**Agnieszka Siejka, Beata Beszczyńska**  
(Institute of General and Molecular Biology, UMK Torun)
- P-III-35** *Relationship between photon emission, motility, ATP level of boar spermatozoa and fertility of semen stored for 3 days*  
**Barbara Szczęśniak-Fabiańczyk**  
(National Research Institute of Animal Production, Cracow)
- P-III-36** *Short-term regulation of adiponectin secretion studies on isolated rat adipocytes*  
**Tomasz Szkudelski**  
(Department of Animal Physiology and Biochemistry, Poznan University of Life Sciences)
- P-III-37** *Adaption to Lambda-cyhalotrin in *Periplaneta americana* L.*  
**Marek Tyczyński, J. Różański**  
(Institute of General and Molecular Biology, N. Copernicus University, Torun)
- P-III-38** *Development rate and survivability of the blowfly *Calliphora vomitoria* in different ambient temperatures*  
**K. Walentynowicz, P. Grodzicki, M. Caputa**  
(Nicolaus Copernicus University, Torun, Institute of General and Molecular Biology)
- P-III-39** *Local and peripheral immunomodulatory effects of triterpenoids and melatonin in mice with experimental chronic colitis*  
**Joanna Wytrykowska, Paulina Podrecka, Krystyna Skwarło-Sońta, Mateusz Gołąb**  
(Department of Animal Physiology, Faculty of Biology, University of Warsaw)



The XIX International Symposium of the Polish  
Network of Molecular and Cellular Biology

**P-III-40**

*The branches of abdominal artery in hamster, rat and guinea pig*

**Agnieszka Zywert**

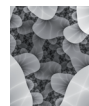
(Department of Animal Physiology and Biochemistry Poznan  
University of Life Sciences, Poznan)

**P-III-41**

*The role of adenosine in the regulation of insulin secretion in vitro*

**Agnieszka Zywert**

(Department of Animal Physiology and Biochemistry Poznan  
University of Life Sciences, Poznan)



## PLENARY SESSION IV

Session will be held at the Congress Center University of Agriculture in Cracow,  
29 Listopada Street no 46

Chairpersons: Jerzy Vetulani  
Henryk Marona  
Marek Stepniewski  
Arkadiusz Orzechowski  
Maciej Pawłowski

### A: LECTURES (13.00 – 16.00)

- 13.00-13.20 **Arkadiusz Orzechowski:** *Lipid rafts are platforms to combine survival and death signals.*  
(Institute of Experimental and Clinical Medicine Polish Academy of Sciences)
- 13.20-13.40 **Jerzy Vetulani:** *Fear, anxiety, amygdale.*  
(Faculty of Cosmetology; Jozef Dietl Malopolska Higher Vocational School in Cracow)
- 13:40-14:00 **Anna M. Kordowiak:** *Lipid rafts – microdomains of biological membranes*  
(Department of General Biochemistry, Faculty of Biochemistry, Biophysics and Biotechnology, Jagiellonian University, Cracow, Poland)
- 14:00-14:20 DISCUSSION
- 14:20-14:40 Conclusions
- 14:40-16:00 Catering