

**Poster session I:
Tuesday, September 25, 2007 at 17.50 – 19.00**

AUTONOMIC AND UNSPECIFIC SYSTEMS

1. Cross-talk between leptin and glucagon-like peptide-1 (GLP-1) in the control of food intake

Bojanowska E., Nowak A
Department of Behavioral Pathophysiology, Medical University of Lodz, Poland

2. Respiratory hypoxic response to adenosine A2 antagonist in adult rats

Ilasz R., Budzinska K.
Department of Respiratory Research, Medical Research Center, Warsaw, Poland

3. Blood immune cell distribution after chronic electrical lateral hypothalamic stimulation in rats

Jankowski M., Ignatowska-Jankowska B., Glac W., Wrona D.
Department of Animal Physiology University of Gdansk, Poland

4. Immune effect of electrical stimulation on the bed nucleus of stria terminalis in rats

Glac W., Myslinska D., Ignatowska-Jankowska B., Jankowski M., Trojnar W.
Department of Animal Physiology, University of Gdansk, Poland

CIRCADIAN RHYTHMS AND SLEEP

1. The effect of obesity on sleep quality in patients treated for the sleep related breathing disorders

Antczak J.¹, Richter A.², Horn B.², Bodenschatz R.², Schmidt E.W.²

2. Effect of 8-OH-DPAT on the phase shift of locomotor activity rhythm in constant light in mice

Bartoszewicz R., Barbacka-Surowiak G.

3. Daily expression of synaptic proteins in the visual system of Drosophila

Gorska-Andrzejak J.
Department of Cytology and Histology, Jagiellonian University, Krakow, Poland

4. The effects of ACh agonist and antagonists on isoperiodic oscillations in the IGL neurons activity

Siejka S., Lewandowski M.H.
Department of Neurophysiology and Chronobiology, Institute of Zoology, Jagiellonian University, Krakow, Poland

5. Effects of constant light and the clock genes on circadian plasticity of neurons in Drosophila

Weber P., Pyza E.
Department of Cytology and Histology, Institute of Zoology, Jagiellonian University, Krakow, Poland

6. Electrical properties of morphologically characterized neurons in the IGL of the rat

Szkudlarek H.J.¹, Raastad M.²

¹Institute of Zoology, Jagiellonian University, Poland; ²Institute of Basic Medical Sciences, University of Oslo, Norway

7. Control of melatonin rhythm in chick pineal by UV-A and white light: role of retinal NMDA and D1-dopamine receptors

Zawilska J.B.¹, Lorens A.², Berezinska M.²

¹Dept. Pharmacodynamics; Dept. ²Pharmacology, Medical University Lodz, Poland

8. The Effect Of Obesity On Sleep Quality In Patients Treated For The Sleep Related Breathing Disorders

Antczak J.^{1,2}, Richter A.², Horn B.², Bodenschatz R.², Schmidt E.W.².

¹Department of Clinical Neurophysiology, Institute of Psychiatry and Neurology, Warsaw, Poland; ²Sleep Centre at Hospital Kuchwald, Chemnitz, Germany

9. The influence of orexin-A on spontaneous activity of the intergeniculate leaflet neurons – *in vitro* studies

Pekala D., Blasiak T., Lewandowski M.H.

Department of Neurophysiology and Chronobiology, Jagiellonian University, Krakow, Poland

10. Correlation between ZT and the spontaneous activity of 5-HT cells of the rat median raphe nucleus

Werhun K., Lewandowski M.H.

Department of Neurophysiology and Chronobiology, Jagiellonian University, Krakow, Poland

DEVELOPMENT AND ADULT NEUROGENESIS

1. Fibronectin stimulates the MMPs activity during neural stem cells development in vitro

Dragun P., Sypecka J., Zalewska T.

NeuroRepair Dept, Medical Research Institute, Warsaw, Poland

2. Building the central complex of the grasshopper, *Schistocerca gregaria*

Herbert Z., Williams L., Gebhardt S., Boyan G.

Division of Neurobiology, Department of Biology II, Ludwig-Maximilians-Universitat Munich, Munich, Germany

3. Thalamic dissociated culture as a model to investigate Lef1/Tcf target genes in postmitotic neurons

Misztal K.¹, Wisniewska M.¹, Kuznicki J.^{1,2}

¹International Institute of Molecular and Cellular Biology; ²Nencki Institute of Experimental Biology PAS, Warsaw, Poland

4. Timing of neurogenesis in the hippocampal formation of the opossum *Monodelphis domestica*

Olkowicz S., Glowacz A., Turlejski K., Djavadian R.L.

Department of Molecular and Cellular Neurobiology, Nencki Institute of Experimental Biology PAS, Warsaw, Poland

5. Function of the b-subunit of Na⁺/K⁺-ATPase in developing Drosophila eye disc

Radowska A., Gorska-Andrzejak J., Pyza E.

Institute of Zoology, Jagiellonian University, Krakow, Poland

6. CLIP170 role in dendritic arbor development

Sulek-Piatkowska A.¹, Swiech L.², Dortland B.³, Hoogenraad C.C.³, Jaworski J.²

¹Institute of Psychiatry and Neurology; ²International Institute of Molecular and Cell Biology, Warsaw, Poland; ³Erasmus Medical Center, Rotterdam, The Netherlands

7. Neuropathological findings in Dandy-Walker Malformation: a case report

Tsamis K.¹, Mavroudis I.A.¹, Mytilinaios D.¹, Safouris A.¹, Glaftsi S.², Njau S.N.², Baloyannis S.J.¹

¹Laboratory of Neuropathology, First Department of Neurology, AHEPA Hospital; ²Laboratory of Forensic Medicine and Toxicology, Aristotelian University of Thessaloniki, Greece

8. Control of microphthalmia transcription factor localization through regulated isoform-specific nuclear shuttling

Dziembowska M.^{1,2}, Cigna N.², Anezo O.², Cordelieres F.P.², Klein Ch.³, Saule S.²

¹Nencki Institute of Experimental Biology PAS, Warsaw, Poland; ²Institut Curie, CNRS UMR 146, Orsay; ³Institut Biomedical des Cordeliers, Paris, France

9. Adult neurogenesis and exploratory behavior of the laboratory opossum after buspirone treatment

M. Grabiec, R. Djavadian, K. Turlejski

Lab. of Neurobiol. of Devel. and Evolution, Nencki Institute of Experimental Biology PAS, Warsaw, Poland

10. Involvement of estrogen receptors in the neurogenesis in ovariectomized female rats

Malinowska-Kolodziej I.¹, Wlaszczuk A.¹, Jedrzejowska-Szypulka H.¹, Larysz-Brysz M.¹, Marcol W.¹, Viau V.², Lewin-Kowalik J.¹

¹Department of Physiology, Medical University of Silesia, Katowice, Poland; ²Department of Cellular and Physiological Sciences, University of British Columbia, Vancouver, Canada

11. Hippocampal microenvironment instructs NG2 precursors to become neurons

Sypecka J., Tarnowska A., Domanska-Janik K.

NeuroRepair Dept, Medical Research Institute, Warsaw, Poland

LEARNING, MEMORY AND PLASTICITY

1. Interhemispheric separation by corpus callosum transection preserved the spatial cognition in rats

Adamska I.

Nencki Institute of Experimental Biology PAS, Warsaw, Poland

2. Investigations of spatial task performance strategies in case of brain local lesions in rats

Beselia G.

I Beritashvili Institute of Physiology, Tbilisi, Georgia

3. The effects of baclofen, LY367385 and MPEP on spatial memory and the activity of MMP-2 and MMP-9

Car H.¹, Michaluk P.², Wisniewska R.J.¹, Kaczmarek L.²

¹Department of Pharmacology, Medical University of Bialystok, Poland, ²Laboratory of Molecular Neurobiology, Department of Molecular and Cellular Neurobiology, Nencki Institute of Experimental Biology PAS, Warsaw, Poland

4. Role of perirhinal cortex in the short-term auditory recognition memory in rat

Jakubowska-Dogru E.¹, Wesierska M.², Elibol B.¹, Guven S.¹

¹Middle-East Technical University, Ankara, Turkey; ²Nencki Institute of Experimental Biology PAS, Warsaw, Poland

5. Impairment in spatial but not social learning of APP-V7171 mice

Kiryk A., Wawrzyniak M., Lioudyno V., Kaczmarek L.

Nencki Institute of Experimental Biology, Warsaw, Poland

6. Comparison of activity of the noradrenergic system in rats exposed to different ethological tests

Krotewicz M., Strzelczuk M., Koprowska M.

Laboratory of Neurophysiology, University of Lodz, Poland

7. c-Fos activation in mouse auditory cortex in response to acoustic stimuli

Lioudyno V., Nikolaev E., Kiryk A., Kaczmarek L.

Nencki Institute of Experimental Biology PAS, Warsaw, Poland

8. Epileptogenesis and fear conditioning-related genes in the basolateral amygdala of rat

Majak K.^{1,2}, Dabrowski M.³, Pitkanen A.¹

¹A.I. Virtanen Institute for Molecular Sciences, University of Kuopio, Finland; ²Department of Anatomy and Neurobiology, Medical University of Gdansk; ³Laboratory of Transcription Regulation, Nencki Institute PAS, Warsaw, Poland

9. Passive avoidance and flexibility impairment in a rat model of hepatic encephalopathy

Mendez M.¹, Mendez-Lopez M.¹, Lopez L.¹, Aller M.A.², Arias J.², Arias J.L.¹

¹Laboratory of Psychobiology, School of Psychology, University of Oviedo; ²Surgery Chair, School of Medicine, Complutense University of Madrid, Spain

10. Transfer of Information Between Both Hippocampi in a Passive Avoidance Task

Mendez-Lopez M.¹, Cimadevilla J.M.², Mendez M.¹, Arias J.L.¹

¹Laboratory of Psychobiology, School of Psychology, University of Oviedo; ²Dept. of Neuroscience, University of Almeria, Almeria, Spain

11. Retrosplenial cortex (RS) participates in segregation of spatial information in the rat

Wesierska M., Adamska I., Malinowska M.

Nencki Institute of Experimental Biology PAS, Warsaw, Poland

12. The influence of t-ADA on behavioral activity of rats with experimental chronic hyperammonemia

Wisniewski R.J., Bycul I., Car H.
Department of Pharmacology, Medical University of Bialystok, Poland

13. Influence of dopaminergic system injury on working memory abilities

Zaremba M.M.¹, Kurkowska- Jastrzebska I.², Joniec I.¹, Piechal A.¹, Blecharz-Klin K.¹,
Balkowiec- Iskra E.Z.¹, Czlonkowski A.¹

¹Department of Experimental and Clinical Pharmacology, Medical University of Warsaw;
²2nd Department of Neurology, Institute of Psychiatry and Neurology, Warsaw, Poland

14. Nuclear localization of matrix metalloproteinases in neurons after stroke in the rat cortex

Aleksy M., Rogozinska K., Skangiel-Kramska J.
Nencki Institute of Experimental Biology PAS, Warsaw, Poland

15. Effect of stroke on experience dependent plasticity in the intact hemisphere

Jablonka J., Kossut M., Nosecka E.
Nencki Institute of Experimental Biology PAS, Warsaw, Poland

16. Whisker stimulation leads to the formation of excitatory synapses on spines of the barrel field

Jasinska M.¹, Siucinska E.², Glazewski S.³, Pyza E.¹, Kossut M.²

¹Department of Cytology and Histology, Institute of Zoology, Jagiellonian University, Krakow; ²Nencki Institute of Experimental Biology, Warsaw, Poland; ³Keele University, Staffordshire, UK

17. Neuronal activity-driven synaptic localization of matrix metalloproteinase-9 mRNA

Konopacki F.A.^{1,2}, Rylski M.¹, Wilczek E.³, Amborska R.¹, Detka D.¹, Kaczmarek L.¹
¹The Nencki Institute; ²School of Molecular Medicine; ³Medical University of Warsaw, Warsaw, Poland

18. Are early immediate genes activated in learning-induced plasticity?

Radwanska A., Filipkowski R.K., Konopacki F.A., Wilczynski G.M., Zakrzewska R., Kossut M.
Nencki Institute of Experimental Biology PAS, Warsaw, Poland

19. Beta-dystroglycan as a target for MMP-9, in response to enhanced neuronal activity

Michaluk P., Kolodziej L., Mioduszewska B., Wilczynski G.M., Dzwonek J., Kaczmarek L.
Nencki Institute of Experimental Biology PAS, Warsaw, Poland

20. Rats with overexpression of MMP9 show impairment in long term memory

Wawrzyniak M., Kiryk A., Owczarek D., Liudyno V., Meyza K., Konopacki F., Michaluk P., Majczynski H., Balcerzyk M., Kaczmarek L.¹
Nencki Institute of Experimental Biology PAS, Warsaw, Poland

MOTOR SYSTEMS

1. Calbindin-D28K is critical factor of precise motor coordination in cerebellar Purkinje cells

Barski J.^{1,2}, Hartmann J.², Rose Ch.³, Hoebeek F⁴., Noll-Hussong M.³, de Zeeuw Ch.I.⁴, Meyer M.³

¹Institute of Biotechnology and Environmental Sciences, University of Zielona Gora, Poland; ²Max-Planck-Institute of Neurobiology, Martinsried, Germany; ³Institute of Physiology, Ludwig-Maximilians-University of Munich, Germany; ⁴Department of Neuroscience, Erasmus University Rotterdam, The Netherlands

2. Influence of location of single motor unit within a muscle on shape of a mechanomyographic signal

Celichowski J.¹, Kaczmarek P.², Drzymala H.¹, Kasinski A.²

¹Department of Neurobiology, University School of Physical Education in Poznan; ²Institute of Control and Information Engineering, Poznan University of Technology, Poland

3. Differences between motor unit properties in distal and proximal muscles of rat hind limb

Ciechanowicz I., Celichowski J.

Department of Neurobiology, University School of Physical Education, Poznan, Poland

4. Nonlinear summation of motor unit forces in rat medial gastrocnemius muscle

Drzymala H., Celichowski J., Krutki P.

Department of Neurobiology, University School of Physical Education, Poznan, Poland

5. Force generated by fast motor units during stimulation with pulses at variable intervals

Krutki P.¹, Pogrzebna M.¹, Drzymala H.¹, Raikova R.², Celichowski J.¹

¹Department of Neurobiology, University School of Physical Education, Poznan, Poland;

²Centre of Biomedical Engineering, Bulgarian Academy of Sciences, Sofia, Bulgaria

6. Division of motor units into fast and slow on the basis of profile of 20 Hz unfused tetanus

Krysiak K.¹, Krutki P.¹, Celichowski J.¹, Slawinska U.², Majczynski H.²

¹Department of Neurobiology, University School of Physical Education, Poznan; ²Nencki Institute of Experimental Biology PAS, Warsaw, Poland

7. Interhemispheric relations in the motor function of the subthalamic region

Ledochowski P., Grembecka B., Jerzemowska G., Trojnar W.

Department of Animal Physiology, University of Gdansk, Poland

8. Tetanic depression of fast motor units during gradually increasing frequency of stimulation

Lochynski D.^{1,2}, Celichowski J.¹

¹Department of Neurobiology; ²Department of Kinesiotherapy, University School of Physical Education, Poznan, Poland

9. Changes in afterhyperpolarization after double stimuli in rat motoneurons

Mrowczynski W., Krutki P., Celichowski J.

Department of Neurobiology, University School of Physical Education, Poznan, Poland

10. The successive contractions subtracted from unfused tetanus of fast and slow motor units

Pogrzebna M.¹, Raikova R.², Drzymala H.¹, Celichowski J.¹, Aladjov H.²

¹Department of Neurobiology, University School of Physical Education, Poznan, Poland;

²Centre of Biomedical Engineering, Bulgarian Academy of Sciences, Sofia, Bulgaria

11. Influence of Repetitive Transcranial Magnetic Stimulation on Motor Function in Parkinson's Disease

Rakowicz M., Antczak J., Derejko M., Rola R., Inglot E., Tarnecka B.

Institute of Psychiatry and Neurology, Warsaw, Poland

NEUROBIOLOGY OF GLIA

1. STAT oligodeoxynucleotide decoys efficiently modulate gene expression in glial cells

Adach A., Kaminska B., Dabrowski M.

Nencki Institute of Experimental Biology PAS, Warsaw, Poland

2. Ammonia-induced alteration in S100B secretion in astrocytes is not reverted by creatine addition

Brolese G., Leite M., Almeida L., Goncalves C.A.

Universidade Federal do Rio Grande do Sul, Brasil

3. Expression of chemokine proteins in the rat model of temporal lobe epilepsy

Lukasiuk K., Guzik A., Sliwa A.

Nencki Institute of Experimental Biology PAS, Warsaw, Poland

4. Induced glia activation is harmful for neurogenesis of human umbilical cord blood neural stem cells

Markiewicz I.

NeuroRepair Department, CMDiK PAS, Warsaw, Poland

5. Response of glia in hippocampus of immature rat brain after prolonged Pb exposure

Struzynska L., Dabrowska-Bouta B., Koza K.

Laboratory of Pathoneurochemistry, Department of Neurochemistry, Medical Research Centre, PAS, Warsaw, Poland

6. Morphological and quantitative analysis of hippocampal microglia in endotoxemic mature rat brain

Wojcik A., Ziaja M.

Department of Neuroanatomy, Institute of Zoology, Jagiellonian University, Krakow, Poland

7. Glutathione and homocysteine toxicity in rat astrocytes in vitro

Ziemska E.¹, Wegrzynowicz M.², Dybel A.², Albrecht J.², Lazarewicz J.¹

¹Department of Neurochemistry; ²Department of Neurotoxicology Medical Research Centre PAS, Warsaw, Poland

NEUROCHEMISTRY AND NEUROANATOMY

1. Brain expression and subcellular localization of Calmyrin 2, a novel Ca-binding protein

Blazejczyk M.¹, Sobczak A.¹, Jaworski J.1, Kuznicki J.1.², Wojda U.²

¹Laboratory of Neurodegeneration, IIMCB; ²Laboratory of Calcium Binding Proteins, Nencki Institute of Experimental Biology PAS, Warsaw, Poland

2. Cytochrome P450-mediated synthesis of dopamine in rat brain

Bromek E, Haduch A., Daniel W.A.

Institute of Pharmacology PAS, Krakow, Poland

3. NAPE-PLD, 12-LOX and TRPV1 immunoexpression in the hippocampus and cerebellum of the mouse brain

Cristino L.¹, Starowicz K.¹, De Petrocellis L.¹, Guglielmotti V.¹, Di Marzo V.^{1,2}

¹Endocannabinoid Research Group, Inst. Cybernetics; ²Inst. Biomol. Chem. CNR, Pozzuoli, Italy

4. Structural and biochemical properties of Calmyrin 2, a novel calcium binding protein in the brain

Sobczak A.¹, Blazejczyk M.¹, Debowska K.¹, Cymerman I.¹, Kirilenko A.³, Pikula S.³, Wojda U.¹

¹Laboratory of Neurodegeneration; ²Laboratory of Bioinformatics; ³Laboratory of Biochemistry of Lipids IIMCB, Warsaw, Poland

5. Looking for beta-catenin target genes in mature neurons

Wisniewska M.B.¹, Klejman M.¹, Michowski W.¹, Dabrowski M.², Filipkowski R.K.², Kuznicki J.^{1,2}

¹International Institute of Molecular and Cellular Biology; ²Nencki Institute of Experimental Biology PAS, Warsaw, Poland

6. Role of brain dopaminergic pathways in the regulation of cytochrome P450 in the liver

Wojcikowski J.

Institute of Pharmacology PAS, Krakow, Poland

7. Double modifications of RAS protein change the DNA-binding activities of transcription factors

Zhuravliova E.¹, Narmania N.^{1,2}, Barbakadze T.¹, Ramsden J.², Mikeladze D.¹

¹Institute of Physiology, Tbilisi, Georgia; ²Collegium Basilea, Basel, Switzerland

8. AdTx1, novel selective modulator of alpha1a adrenoceptor subtype isolated from snake venom

Gilles N.¹, Quinton L.², Girard E.³, Ciloek J.⁴, Mourier G.¹, Molgo J.³

¹CEA, IBITECS, Gif sur Yvette; ²Ecole Polytechnique, Palaiseau; ³CNRS, UPR 9040, France; ⁴Nicolaus Copernicus University, Torun, Poland

9. Expression of chemokine proteins in the rat model of temporal lobe epilepsy

Lukasiuk K., Guzik A., Sliwa A.

Nencki Institute of Experimental Biology PAS, Warsaw, Poland

10. Alterations of the dendrites and dendritic spines of the human Purkinje cells during normal aging

Mavroudis I. A., Tsamis K., Safouris A., Mytilinaios D., Njau S.N., Costa V.

Laboratory of Neuropathology, First Department of Neurology, Aristotelian University of Thessaloniki, Greece

11. Stereological approach to seasonal volume changes of telencephalic structures in the common shrew

Michalski A., Bartkowska K., Turlejski K.

Nencki Institute of Experimental Biology PAS, Warsaw, Poland

12. Differences in the ponto-cerebellar projection to the vermis: double labeling method in the rabbit

Mierzejewska-Krzyzowska B., Bukowska D., Zguczynski L.,

Department of Anatomy in Gorzow and Department of Neurobiology in Poznan, University School of Physical Education, Poznan, Poland

13. Amacrine cells of the mouse retina

Perez de Sevilla L.M.

University of Oldenburg, Neurobiology, Oldenburg, Germany

14. Alterations of the human visual cortex during normal aging, revealed by silver staining methods

Safouris A.¹, Tsamis K.¹, Mavroudis I.A.¹, Mytilinaios D.¹, Njau S.N.², Costa V.¹

¹Laboratory of Neuropathology, First Department of Neurology, AHEPA Hospital;

²Laboratory of Forensic Medicine and Toxicology, Aristotelian University of Thessaloniki, Greece

15. Synaptic localisation of NPY Y1 receptors in the rat cingulate cortex

Sichardt K.¹, Beck-Sickinger A.G.², Nieber K.¹

¹Institute of Pharmacy, Dept. Pharmacology; ²Institute of Biochemistry, University of Leipzig, Germany

16. Kir4.1, Kir2.1 and aquaporin-4 mRNA level in the brain and retina of rat with toxic liver failure

Obara M.¹, Pannicke T.², Bringmann A.³, Reichenbach A.², Albrecht J.¹

¹Dept. Neurotoxicology, Medical Research Centre PAS, Warsaw, Poland; ²Dept. Neurophysiology, P. Flechsig Institute of Brain Research; ³Dept. Ophthalmology and Eye Clinic, Medical Faculty of the University of Leipzig, Germany

17. Procaine injections into the PPN suppress behaviour evoked by stimulation of the VTA

Jerzemowska G.

Department of Animal Physiology, University of Gdansk, Poland

18. A new, precise method of bregma detection

Blasiak T., Ignaciak A., Czubak W., Lewandowski M.H. Department of Neurophysiology and Chronobiology, Jagiellonian University, Krakow, Poland

SENSORY SYSTEMS

1. Evidence for diverging projection from the dorsal column nuclei to the cerebellar pyramis and uvula

Bukowska D.¹, Zguczynski L.², Mierzejewska-Krzyzowska B.²

¹Department of Neurobiology, University School of Physical Education, Poznan; ²Department of Anatomy, University School of Physical Education, Gorzow Wlkp., Poland

2. Aspects of Testing in the Human Chromatic Memory

Georgescu C.¹, Catalin B.², Grigorie D.², Grigorie O.², Nicorescu A.², Ciorbagiu M.², Velicu N.²

¹National College Carol I; ²University of Medicine and Pharmacy, Craiova, Romania

3. Electrophysiological testing of coloured sight through visual evoked potentials

Iancau M., Georgescu D., Catalin B., Sfredel V., Romanescu F., Georgescu M., Nestianu V.
University of Medicine and Pharmacy of Craiova, Romania

4. Electrophysiological correlates of auditory perception of temporal order

Lewandowska M.¹, Bekisz M.², Szymaszek A.¹, Szelag E.^{1,3}

¹Laboratory of Neuropsychology; ²Laboratory of Visual System, Nencki Institute of Experimental Biology PAS; ³Warsaw School of Social Psychology, Warsaw, Poland

5. Variability of visual responses of superior colliculus neurons depend on their velocity preferences

Mochol G., Wypych M., Wojcik D.K., Wrobel A., Waleszczyk W.J.

Nencki Institute of Experimental Biology PAS, Warsaw, Poland

6. Modelling the neural network of the upper layers of the superior colliculus

Wypych M., Mochol G., Waleszczyk W.J., Wrobel A.

Nencki Institute of Experimental Biology PAS, Warsaw, Poland

7. Pupil diameter oscillations in the rat

Czubak W., Blasiak T., Lewandowski M.H.

Department of Neurophysiology and Chronobiology, Jagiellonian University, Krakow, Poland

SYNAPTIC TRANSMISSION AND EXCITABILITY

1. A high-threshold heat-activated channel in cultured rat dorsal root ganglion neurons resembles TRPV2

Babes A.^{1,2}, Leffler A.³, Linte R.^{1,2}, Nau C.³, Reeh P.¹

¹Department of Physiology; ³Department of Anesthesiology, Friedrich-Alexander University Erlangen-Nuremberg, Erlangen, Germany; ²Department of Animal Physiology and Biophysics, Faculty of Biology, University of Bucharest, Bucharest, Romania

2. Bistability of frog tectal pear-shaped neurons: modeling and experimental study

Baginskas A., Kuras A.

Laboratory of Neurophysiology, Institute for Biomedical Research, KMU, Kaunas, Lithuania

3. Influence of capsaicin on spontaneous activity of GABAergic hippocampal neurones

Drebot Iuliia

Bogomoletz Institute of Physiology, Department of General Physiology of Nervous System, Kiev, Ukraine

4. Both glutamate and ATP mediate evoked excitatory transmission in CA3 neurons of rat hippocampus

Kondratskaya E., Akaike N.

Research Division for Life Sciences, Kumamoto Health Science University, Kumamoto, Japan

5. 17beta-estradiol alters tonic and phasic GABAergic currents during development in vitro

Wojtowicz T.¹, Pytel M.¹, Mercik K.¹, Sarto-Jackson I.², Sieghart W.², Ikonomidou C.³

¹Lab. Neurosci., Dept. Biophysics, Wroclaw Med. Univ., Wroclaw, Poland; ²Div. Biochem. Mol. Biol., Center for Brain Res., Vienna Med. Univ., Vienna, Austria; ³Dept. of Pediatric Neurol., Carl Gustav Carus, Tech. Univ. Dresden, Dresden, Germany

6. Molecular and morphological basis of neuronal excitability in the visual cortex of albino rats

Blaszczyk W.M.^{1,4}, Neuhaus E.M.², Epplen J.T.^{3,4}, Hoffmann K.P.^{1,4}

¹General Zoology & Neurobiology, ²Cell Physiology, ³Human Genetics, ⁴International Graduate School of Neuroscience, Ruhr-University Bochum, Germany

7. The gap junction mediation of hippocampal theta rhythm in anesthetized rats

Bocian R., Posluszny A., Kowalczyk T., Golebiewski H., Konopacki J.

Department of Neurobiology, University of Lodz, Poland

8. EEG activity during intermittent hypoxia in the rat

Budzinska K., Ilasz R.

Department of Respiratory Research, Medical Research Center, Warsaw, Poland

9. Cholinergic/GABAergic interaction in hippocampal theta production in freely moving cats

Golebiewski H., Eckersdorf B., Kowalczyk T., Bocian R., Posluszny A., Konopacki J.

Department of Neurobiology, University of Lodz, Poland

10. Spectral analysis of rat cerebellar activity in an animal model of epilepsy

Grbic G.¹, Culic M.¹, Martac Lj.¹, Sokovic M.¹, Spasic S.²

¹Institute for Biological Research; ²Center for Multidisciplinary Studies, University of Belgrade, Belgrade, Serbia

11. Is the dental gyrus an independent generator of in vitro theta rhythm?

Kowalczyk T., Golebiewski H., Bocian R., Posluszny A., Konopacki J.

Department of Neurobiology, University of Lodz, Poland

12. Effects of bicuculline and muscimol injection into the area of A10 cells on hippocampal theta rhythm

Orzel-Gryglewska J., Kusmierczak M., Trojnar W.

Dept. Animal Physiology, University of Gdansk, Poland

13. The effects of muscimol and bicuculline on slow bursting activity of OPT neurons in the rat

Szkudlarek H., Zakiewicz I., Lewandowski M.H.

Department of Neurophysiology and Chronobiology, Institute of Zoology, Jagiellonian University, Krakow, Poland

14. Modulation of neuronal activity in the pre-Bötzinger complex by medullary raphe neurons

Ptak K.¹, Milescu L.S.¹, Yamanishi T.¹, Zhang R.¹, Richerson G.B.², Smith J.C.¹

¹Cellular and Systems Neurobiology Section, NINDS-NIH, Bethesda, MD 20892;

²Dept. of Physiology, Yale University School of Medicine, New Haven, CT, USA

Poster session II:

Wednesday, September 26, 2007 at 17.50 – 19.00

ADDICTION

1. Effects of delta-9-tetrahydrocannabinol on natural killer cell cytotoxicity

Badtke P., Glac W., Orlikowska A., Stojek W., Tokarski J.

Department of Animal Physiology, University of Gdansk, Poland

2. Morphine regulates the level of Kinesin Light Chain 1, a molecule involved in neuronal trafficking

Bilecki W., Wawrzczak-Bargiela A., Przewlocki R.

Dept. of Molecular Neuropharmacology, Institute of Pharmacology PAS, Krakow, Poland

3. Cross-reinstatement of nicotine-conditioned place preference in rats

Budzynska B., Kruk M., Biala G.

Department of Pharmacology with Pharmacodynamics, Medical University of Lublin, Poland

4. Involvement of CB1 cannabinoid receptors in memory-related response induced by nicotine in mice

Kruk M., Budzynska B., Biala G.

Department of Pharmacology with Pharmacodynamics, Medical University of Lublin, Poland

5. Significance of the CB-1 receptor antagonist SR-141716 in the ethanol drinking in WHP rats

Dyr W., Ligieza J., Wyszogrodzka E., Kostowski W.

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6. Opioid systems in the brain of inbred mouse strains

Gierek A., Ziolkowska B., Solecki W., Przewlocki R.

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7. Motor activity and the immune response to repeated amphetamine in rats

Glac W., Kloss G., Badtke P., Orlikowska A., Sielicka-Dudzin A., Tokarski J.

Department of Animal Physiology, Institute of Biology, University of Gdansk, Poland

8. Alterations of the cocaine- or food-induced relapse by serotonin (5-HT)1B receptor ligands in rats

Golda A., Filp M., Przegalinski E.

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9. Involvement of 5-HT1A receptors in cocaine treatment-related impairment of LTP

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10. Effects of morphine on gene expression in the striatum

Korostynski M., Piechota M., Kaminska D., Solecki W., Przewlocki R.

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11. In vitro studies of the interactions between opioids and cannabinoids

Kryst J.

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12. Development of behavioral disorders due to intravenous fentanyl self-administration in rats

Maglakelidze G., Naneishvili T., Noselidze A., Chkhvishvili N., Dashniani M., Burjanadze M., Asanidze T.

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13. Effect of alcohol on rat brain MAO and immunity

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14. Analysis of regulatory elements in promoters of genes regulated by morphine in mouse brain

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15. Behavioral opioid-related phenotype in three inbred strains of mice

Solecki W., Kubik J., Krowka T., Przewlocki R.

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16. Does pre-exposure to methadone modify locomotor and brain c-Fos responses to morphine in rats?

Taracha E.¹, Chrapusta S.J.², Lehner M.¹, Skorzevska A.¹, Maciejak P.^{1,3}, Szyndler J.³

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17. Regulation of Extracellular Signal-Regulated Kinases activity by morphine in mouse brain

Wawrzczak-Bargiela A., Bilecki W., Przewlocki R.

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18. Cocaine- and tiagabine-induced changes in alpha-1-adrenoreceptors mRNA

Sitarski T., Nawrot D., Roman A., Kowalska M., Nalepa I.

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19. Effects of morphine on immediate-early gene expression in C57BL/6 and DBA/2 strains of mice

Ziolkowska B., Korostynski M., Piechota M., Kamienska D., Przewlocki R.

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20. Alcohol as a modulator of steroids in peripheral blood in rats

Oczkowski M.¹, Dyr W.², Kostowski W.², Gromadzka-Ostrowska J.¹

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HUMAN BRAIN IMAGING AND NEUROPSYCHOLOGY

1. fMRI study of individual differences in working memory capacity

Binder M., Urbanik A., Sobiecka B., Kozub J.

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2. Attention engagement operation, pulvinar activity, and diurnal variability: fMRI study

Fafrowicz M.¹, Golonka K.¹, Marek T.¹, Mojsa-Kaja J.¹, Tucholska K.¹, Oginska H.², Gatkowska I.³, Kozub J.⁴, Sobiecka B.⁴, Urbanik A.⁴, Orzechowski T.⁵

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3. Switching handedness: fMRI study of motor function lateralisation

Gut M.¹, Urbanik A.², Forsberg L.³, Binder M.⁴, Rymarczyk K.¹, Sowiecka B.², Grabowska A.¹

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4. Functional dissociation within the reward system in humans

Jednorog K.¹, Szatkowska I.¹, Marchewka A.¹, Wolak T.², Bogorodzki P.²

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5. fMRI study of emotional processing in males and females

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6. The effect of emotion on false recognition: an fMRI study

Marchewka A.¹, Grabowska A.¹, Nowicka A.¹, Brechmann A.², Scheich H.²

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7. Region of interest analysis of fMRI studies with fluid dynamics based segmentation

Wolak T.^{1,2}, Kuriata R.¹, Orzechowski M.¹, Bogorodzki P.¹, Piatkowska-Janko E.¹

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8. General Intelligence and Temporal Control of Motor Tasks

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9. Procedural and declarative memory deficits in Parkinson's disease

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10. The effects of important stimuli on irrelevant cortical activity

Michalski A., Milner R., Gierych E.

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11. Temporal training as a new method of aphasia therapy

Szymaszek A.^{1,2}, Szelag E.^{1,2}, Lewandowska M.¹, Seniow J.³, Fink M.⁴, Ulbrich P.⁴, Pöppel E.⁴

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12. Right and left hand performance in bimanual adaptation to visuomotor rotation in pointing movements

Weigelt C.

German Sport University, Physiology and Anatomy, Cologne, Germany

13. Neural correlates of the perception of bimodal emotional incongruity

Gierych E., Miner R., Michalski A.

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INJURY OF SPINAL CORD AND BRAIN

1. Functional and structural changes in rat medial gastrocnemius muscle after spinal cord transection

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2. Morphological changes underlying secondary axonal impairment in ganglia and peripheral nerves

Lackova M., Schreiberova A., Kolesar D., Davidova A., Lukacova N., Marsala J.

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3. Positive effects of microcrystalline chitosan application after laminectomy in rats

Larysz-Brysz M., Marcol W., Slusarczyk W., Malinowska-Kolodziej I., Lewin-Kowalik J.

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4. Noradrenergic contribution in control of hindlimb motor function in adult spinal rats

Maleszak K.¹, Cabaj A.¹, Majczynski H.², Slawinska U.²

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5. nNOS-IMMUNOREACTIVITY AXONS IN THE WHITE MATTER AFTER ISCHEMIA/REPERFUSION INJURY OF THE SPINAL CORD

Schreiberova A., Lackova M., Lukacova N., Jergova S., Marsala J.

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6. New approach to spinal cord injury: non-laminectomy model – pressure impactor

Wlaszczuk A.¹, Marcol W.¹, Slusarczyk W.¹, Gzik M.², Tejszerska D.², Bobrowski M.², Lewin-Kowalik J.¹

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7. Spinal cord transection alters NGF and its p75 receptor expression: does exercise counteract it?

Ziemka-Nalecz M.¹, Ziemińska E.², Macias M.², Sulejczak D.², Czarkowska-Bauch J.², Skup M.²

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8. Postoperative scar to the laminectomy which is a source of changes in morphology of somatosensory evoked potentials

Jankowski R.¹, Szukala A.², Huber J.², Blok T.¹, Szymas J.³

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9. The role of IL-1 in leukocyte migration into the CNS after subarachnoid hemorrhage in rats

Jedrzejowska-Szypulka H.¹, Larysz-Brysz M.¹, Kotulska K.², Olakowska E.¹, Woszczycka-Korczynska I.¹, Lewin-Kowalik J.¹

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10. Retinal ganglion cells changes following complete optic nerve transection

Lewin-Kowalik J., Golka B., Pietrucha-Dutczak M., Olakowska E., Korczynska I., Marcol W. Department of Physiology, Medical University of Silesia, Katowice, Poland

11. NO production after brain injury at different developmental stages examined with EPR spectroscopy

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12. Effect of mature brain injury on NADPH-diaphorase expression induced by lipopolisaccharide

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13. Influence of bone marrow stromal cells on injury-induced astrogliosis in the rat cerebral cortex

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14. Brain injury and 3-nitrotyrosine expression induced by peripheral lipopolisaccharide administration

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NEURODEGENERATION AND NEUROLOGIC DISEASES

1. OPA1 protein influences mitochondrial structure and function

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2. Progressive motoneurons death in animal model of neurodegenerative disease

Cabaj A.¹, Lapinska I.², Majczynski H.², Gorlewicz A.², Wilczynski G.², Nestorowicz K.³, Herbig M.A.³, Slawinska U.²

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3. Systemic inflammation influences brain response to Abeta peptides. The role of COX and LOX

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4. 17beta-estradiol restores the nigrostriatal function following MPTP intoxication in aged male mice

Ciesielska A.^{1,2}, Joniec I.², Przybylkowski A.², Kurkowska-Jastrzebska I.^{1,2}, Czlonkowska A.^{1,2}, Czlonkowski A.²

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5. Apoptosis and autophagy are induced in hippocampal neurons during systemic inflammatory response

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6. Search for diagnostic methods in Alzheimer's disease using human immortalized lymphocytes

Kachamakova N.¹, Zebrowska B.¹, Szybinska A.¹, Kuznicki J.^{1,2}, Wojda U.¹

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7. Purinergic receptors P2X7 in the course of EAE

Koza K., Sulkowski G., Rafalowska U., Struzynska L.

Laboratory of Pathoneurochemistry, Department of Neurochemistry, Medical Research Centre PAS, Warsaw, Poland

8. Use of an endogenous suicide mechanism to study pathogenesis of neurodegenerative diseases

Kreiner G., Parlato R., Rieker C., Bierhoff H., Grummt I., Schutz G.

German Cancer Research Center, Dept. Molecular Biology of the Cell I, Heidelberg, Germany

9. Preliminary results of haplotyping study in a group of Polish patients with SCA2.

Krysa W.¹, Sulek-Piatkowska A.¹, Rajkiewicz M.¹, Zdzienicka E.¹, Rakowicz-Raczynska M.², Szirkowiec W.¹

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10. Homocysteine-induced alterations in tau phosphorylation in cultured rat cerebellar granule neurons

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11. BDNF gene polymorphisms and increased risk of MS

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12. Processing of tau in Pick bodies parallels the early processing of tau found in Alzheimer disease

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13. Neuronal excrescences in CA3 area of human hippocampus in ageing and in Alzheimer's disease

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14. Modulation of neurological deficits during EAE by glutamate receptors antagonists MPEP and memantine

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15. Homocysteine modulates expression of β -APP immunoreactivity and tau protein phosphorylation in the rat brain hippocampus in vivo.

Gordon-Krajcer W., Filip A., Kuszczyk M., Lazarewicz J.W.

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16. Searching for the FMR1 gene premutations in large cohort of Polish ataxia patients and in controls

Rajkiewicz M., Sulek-Piatkowska A., Zdzienicka E., Szirkowiec W., Krysa W., Fidzianska E.
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17. Status epilepticus (SE) - induced gene expression - new epileptogenesis related genes

Stefaniuk M., Lukasiuk K.

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18. Expression of mRNAs coding for phosphate-activated glutaminases (PAG) in human cerebral tumors

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NEUROPROTECTION

1. The role of the inducible cAMP early repressor (ICER) isoforms in neuronal survival

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2. Effect of delayed postconditioning against kainate induced neurodegeneration in the rat brain

Burda J.¹, Danielisova V.¹, Nemethova M.¹, Gottlieb M.¹, Domorakova I.²

¹Institute of Neurobiology, Slovak Academy of Sciences; ²Faculty of Medicine, P. J. Safarik University, Kosice, Slovakia

3. Bradykinin postconditioning induces protective effects against transient forebrain ischemia in rats

Danielisova V., Gottlieb M., Nemethova M., Burda J.

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4. Expression of NPY in gerbil hippocampus after ischemic and hypoxic preconditioning

Duszczyk M.¹, Smialowska M.², Gadamski R.¹, Ziembowicz A.¹, Lazarewicz J.W.¹

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5. TNF-alpha receptor 1 regulates the production of BDNF in trimethyltin-treated dentate gyrus cultures

Figiel I.

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6. Paradoxical effects of adenosine receptor ligands on L-DOPA-induced generation of free radicals

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7. FK506 prevents pro-inflammatory and cytotoxic events associated with reactive astrogliosis in vitro

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8. Chemical preconditioning attenuates excitotoxic, but not apoptotic neuronal cell death

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9. Neuroprotective effect of 17beta-estradiol administration in murine model of Parkinson disease

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10. cAMP effects and neuroprotective activity of PACAP in astrocytes and neurons subjected to hypoxia

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11. The endoplasmic reticulum/Golgi cross-talk in response to ischemia/reperfusion injury

Lehotsky J., Pavlikova M., Urban P., Kaplan P., Dobrota D.

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12. 1,2,3,4-tetrahydroisochinolines inhibit NMDA receptor-mediated excitotoxicity

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13. Time- dependend desensitisation of the adenosine A1-receptor during hypoxia

Rufke C., Nieber K.

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14. Inhibition of NMDA receptor by dantrolene: new putative mechanism of neuroprotection

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15. Neuroprotective effects of methylnicotinamide in cultured cerebellar granule cells

Skup M.¹, Macias M.¹, Dwornik A.¹, Ziemska E.¹, Strzalkowski R.¹, Slomka M.², Ziemska E.², Salinska E.², Stafiej A.², Lazarewicz J.W.²

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16. Neuroprotective effects of some neuropeptides, PACAP, VIP or NPY, in primary neuronal cultures

Smialowska M., Domin H., Kajta M.
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17. ERK activation mediates astrocyte death and is a target for neuroprotectant FK506

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18. Alteration of UPR reaction after global forebrain ischemia/reperfusion

Urban P., Pavlikova M., Sivonova M., Dobrota D., Lehotsky J.
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19. Mitochondrial apoptosis but not dysfunction is significantly affected by ischemic preconditioning

Racay P., Tatarkova Z., Drgova A., Kaplan P., Dobrota D.
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20. Hypoxic preconditioning enhances glutamate receptor-mediated calcium transients in rat brain slices

Semenov D.¹, Belyakov A.¹, Samoilov M.¹, Lazarewicz J.²
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21. Antimyelelin basic protein T cells stimulate hippocampal neurogenesis in trimethyltin intoxicated rats

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PAIN

1. Different effects of local and systemic administrations of morphine on G-protein gene expression

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2. The role of interleukins 1-alpha and 1-beta in nociception in rat model of neuropathic pain

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3. Behavioural visceral nociceptive response is associated with vagal nerves activity in rats

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4. The role of mGluR2/3 and mGluR7 agonists in neuropathic pain

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5. Endovanilloids mediate neurotransmitter release in PAG-RVM descending pain pathways

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6. Gastric ulcers induce vagal afferents hypersensitivity and increase somatic sensitivity in rats

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STRESS AND MOOD DISORDERS

1. Chronic stress and neurogenesis in structures of the limbic system in rat

Badowska-Szalewska E., Klejbor I., Cecot T., Sidor-Kaczmarek J., Lietzau G., Spodnik E., Morys J.

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2. Chronic mild stress affects mRNA expression of heat shock proteins in rat hippocampus

Bielawski A.¹, Papp M.², Nalepa I.¹

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3. Age-related changes of BDNF and TrkB distribution under chronic stress exposure in rat

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4. Effects of buspirone treatment of the neonatally stressed mice

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5. Analysis of the serotonergic system activity in various models of fear in the rats

Koprowska M., Krotewicz M., Strzelczuk M.

Laboratory of Neurophysiology, University of Lodz, Poland

6. Strain-Specific Response to Kappa Opioid Receptor Ligands is Modulated by Social Isolation Stress

Kostrzewa E., Solecki W., Kubik K., Przewlocki R.

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7. Neurobiological changes in the frontal cortex in rats differing in the strength of a fear reaction

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8. Does Ras in neurons promote antidepressant activity?

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9. Stress-induced changes of interleukin-1beta (IL-1beta) within the limbic system in rat

Lietzau G., Sidor-Kaczmarek J., Badowska-Szalewska E., Klejbor I., Domaradzka-Pytel B., Cecot T., Morys J.

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10. Divergent behavioral and molecular response to novelty in RHA/verh and RLA/verh rats

Meyza K., Nikolaev E., Olszewski M., Zagrodzka J.

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11. The effects of exercise and restraint on the NK cytotoxicity in rats of different motor activity

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12. Corticosterone-induced increase in the responsiveness of 5-HT7 receptor is reversed by imipramine

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13. The anxiolytic-like effects of acute administration of corticosterone

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14. Effects of repeated brief restraint stress on LTP in the dentate gyrus of mice

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15. Chronic imipramine decreases glutamatergic transmission in rat frontal cortex

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16. Up-regulation of GABAergic system in suicide victims with mood disorders

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17. Effects of cytokines in the striatum on motivated behaviour in rats

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18. Possible participation of the brain dopaminergic system in the control of the animals anxiety behavior

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