

September 8, 2015 Afternoon poster session

## Poster session P13. Visual system

### P13.1

#### **SPECVIS: FREE AND OPEN-SOURCE SOFTWARE FOR VISUAL FIELD EXAMINATION**

**Piotr Dzwiniel<sup>1</sup>, Mateusz Gola<sup>2</sup>, Anna Wójcik-Gryciuk<sup>3</sup>, Wioletta Waleszczyk<sup>1</sup>**

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### P13.2

#### **CHARACTERIZATION OF LIGHT-SENSITIVE NEURONS WITHIN THE DORSAL LATERAL GENICULATE NUCLEUS (DLGN) OF URETHANE-ANAESTHETIZED LONG EVANS RATS – IN VIVO STUDY**

**Jagoda Jęczmień<sup>1</sup>, Patrycja Orłowska-Feuer<sup>1,2</sup>, Marian Henryk Lewandowski<sup>1</sup>**

<sup>1</sup>*Department of Neurophysiology and Chronobiology, Institute of Zoology, Jagiellonian University, Kraków, Poland;* <sup>2</sup>*The Malopolska Centre of Biotechnology, Jagiellonian University, Kraków, Poland*

### P13.3

#### **UNCOUPLING OF RETINAL GAP JUNCTIONS DEPRESSES LIGHT SIGNAL TRANSDUCTION TO THE RAT OLIVARY PRETECTAL NUCLEUS (OPN)**

**Patrycja Orłowska-Feuer<sup>1,2</sup>, Jagoda Jęczmień<sup>2</sup>, Marian Henryk Lewandowski<sup>2</sup>**

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### P13.4

#### **SENSORY EXPERIENCE INFLUENCES MAGNITUDE OF RESPONSES IN THE RAT VISUAL SYSTEM**

**Katarzyna Żeber, Andrzej Foik, Paulina Urban, Agnieszka Porowska, Wioletta J. Waleszczyk**

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### P13.5

#### **FOCAL CORTICAL STROKE IN THE CAT VISUAL CORTEX**

**Marcelina Szczerba<sup>1</sup>, Paulina Urban<sup>2</sup>, Andrzej Foik<sup>3</sup>, Ewa Kublik<sup>3</sup>, Anaida Ghazaryan<sup>3</sup>, Joanna Borowska<sup>4</sup>, Maria Sadowska<sup>4</sup>, Jan Jablonka<sup>5</sup>, Wioletta Waleszczyk<sup>3</sup>**

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**P13.6**

**THE INFLUENCE OF ASSOCIATIVE PAIRING OF VISUAL STIMULATION AND TAIL SHOCK ON SOMATOSTATIN EXPRESSION IN MOUSE PRIMARY VISUAL CORTEX**

**Ida Raciborska, Jan Popiolkiewicz, Wioletta J. Waleszczyk**

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**P13.7**

**FREQUENCY SPECIFIC CHANGES IN SIGNAL POWER AND FUNCTIONAL CONNECTIVITY FOLLOWING STROKE IN THE CAT VISUAL CORTEX**

**Paulina Urban<sup>1</sup>, Andrzej Foik<sup>1</sup>, Anaida Ghazaryan<sup>1</sup>, Anna Popek<sup>1</sup>, Jan Jablonka<sup>3</sup>, Ewa Kublik<sup>2</sup>, Maciek Kamiński<sup>4</sup>, Rafał Kuś<sup>4</sup>, Jarosław Żygierewicz<sup>4</sup>, Wioletta Waleszczyk<sup>1</sup>**

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**Poster session P14. Neurodegeneration and protection**

**P14.1**

**MEMANTINE AND MEMANTINE COMBINED WITH HH OR HBO DECREASES APOPTOSIS AND AFFECTS EXPRESSION OF BCL-2, BAX AND HIF1A IN BRAINS OF 7 DAYS OLD RATS IN EXPERIMENTAL HYPOXIA-ISCHEMIA**

**Marcin Gamdzyk, Apolonia Ziembowicz, Elżbieta Salińska**

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**P14.2**

**THE NEW TOOL FOR PRECISE TRANSECTION OF PERIPHERAL NERVES AND SOFT TISSUES – BLADE WITH GRADED BIOACTIVE SURFACE**

**Joanna Lewin-Kowalik<sup>1</sup>, Wiesław Marcol<sup>1</sup>, Jan Miodoński<sup>2</sup>, Bogusław Rajchel<sup>3</sup>, Elżbieta Pyza<sup>4</sup>, Adam Właszczyk<sup>1</sup>, Magdalena Larysz-Brysz<sup>1</sup>**

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**P14.3**

**THE INVOLVEMENT OF PURINERGIC SIGNALING IN MITOCHONDRIA DYSFUNCTION INDUCED BY ALPHA-SYNUCLEIN**

**Anna M. Lenkiewicz, Anna Wilkaniec, Agata Adamczyk**

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**P14.4**

**VALPROIC ACID BUT NOT MINOCYCLINE ALLEVIATES STRIATAL NEURON DEGENERATION IN THE RAT MODEL OF INTRACEREBRAL HEMATOMA**

**Katarzyna Majak, Przemysław Kowiański, Jerzy Dziewiątkowski, Sławomir Wójcik, Janusz Moryś**

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**P14.5**

**OXIDATIVE STRESS AND INFLAMMATORY RESPONSE IN RAT BRAIN AND LIVER FOLLOWING ORAL ADMINISTRATION OF SILVER NANOPARTICLES**

**Joanna Skalska<sup>1</sup>, Małgorzata Frontczak-Baniewicz<sup>2</sup>, Aleksandra Lenkiewicz<sup>1</sup>, Lidia Strużyńska<sup>1</sup>**

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**P14.6**

**SELOL PROTECTS PC12 CELLS AGAINST SODIUM NITROPRUSSIDE-INDUCED APOPTOSIS THROUGH ACTIVATION OF SE-DEPENDENT ANTIOXIDATIVE ENZYMES**

**Agnieszka Dominiak<sup>1</sup>, Anna Wilkaniec<sup>2</sup>, Piotr Wroczyński<sup>1</sup>, Agata Adamczyk<sup>2</sup>**

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**P14.7**

**STREPTOZOTOCIN AND DIMETHYL FUMARATE DECREASES PLASMA TUMOR NECROSIS FACTOR ALPHA CONCENTRATION IN RATS**

**Maria Grzybowska, Magdalena Podlacha, Irena Majkutewicz, Ewelina Kurowska, Dorota Myślińska, Beata Grembecka, Danuta Wrona**

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**P14.8**

**METABOTROPIC GLUTAMATE RECEPTORS GROUP II (MGLUR2/3) AGONISTS EXERT NEUROPROTECTION BY REDUCING APOPTOSIS AFTER HYPOXIC-ISCHEMIC PRECONDITIONING**

**Ewelina Bratek, Apolonia Ziembowicz, Elżbieta Salińska**

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**P14.9**

**RAPID ACTIVATION OF CB1 RECEPTORS IN MOUSE BARREL CORTEX AFTER WHISKER-SHOCK FEAR CONDITIONING**

**Ewa Siucińska, Wojciech Brutkowski, Tytus Bernas**

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**P14.10**

**THE EFFECTS OF TREHALOSE ADMINISTRATION ON AUTOPHAGY ENHANCEMENT IN MICE WITH CONDITIONAL AND PROGRESSIVE DEGENERATION OF MEDIAL SPINY NEURONS**

**Grzegorz Kreiner, Katarzyna Rafa-Zabłocka, Monika Bagińska, Irena Nalepa**

*Department of Brain Biochemistry, Institute of Pharmacology, Polish Academy of Sciences, Kraków, Poland*

**P14.11**

**INITIATION OF NEURODEGENERATIVE PROCESS DURING IMPAIRED BIOSYNTHESIS OF COA AND EXCESS INTAKE OF CARBONYL IRON**

**Nina Kanunnikova<sup>1</sup>, Valery Gurinovich<sup>2</sup>, Dzmitry Semenovich<sup>1</sup>, Tatyana Pekhovskaya<sup>2</sup>, Sofya Omelyanchik<sup>2</sup>, Andrey Moiseenok<sup>2</sup>**

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**P14.12**

**DYNAMICS OF DEVELOPMENT AND MORPHOLOGY OF REACTIVE ASTROGLIOSIS IN RESPONSE TO ONE HOUR TRANSIENT CEREBRAL ISCHEMIA IN THE RAT - IMMUNOHISTOCHEMICAL STUDIES**

**Aleksandra Steliga<sup>1</sup>, Grażyna Lietzau<sup>2</sup>, Monika Waśkow<sup>1</sup>, Zbigniew Karwacki<sup>3</sup>, Sławomir Wójcik<sup>2</sup>, Waldemar Sienkiewicz<sup>4</sup>, Janusz Moryś<sup>2</sup>, Przemysław Kowiański<sup>1,2</sup>**

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**P14.13**

**MINOCYCLINE ADMINISTRATION PROTECTS TIGHT JUNCTION PROTEINS FROM DEGRADATION AFTER PRE-CHIASMATIC SUBARACHNOID HEMORRHAGE IN RATS**

**Daria Gendosz, Dębska Kamila, Halina Jędrzejowska-Szypułka, Joanna Lewin-Kowalik**

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**Poster session P15. Electrophysiology**

**P15.1**

**ANOMALOUS DECAY OF POWER OF HIGH FREQUENCY OSCILLATIONS (HFO) WITH DISTANCE FROM THE SOURCE**

**Tomasz Górski, Mark Hunt, Stefan Kasicki, Daniel Wójcik**

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**P15.2**

**MODELLING STIMULATION ARTIFACT ON LOCAL FIELD POTENTIAL RECORDINGS FROM MULTI-ELECTRODE ARRAYS**

**Michał Czerwiński<sup>1</sup>, Marinka Brouwer<sup>2</sup>, Dirk Schubert<sup>2</sup>, Daniel K. Wójcik<sup>1</sup>**

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**P15.3**

**CORRELATION BETWEEN ACTIVITY PATTERN OF MIDBRAIN DOPAMINERGIC NEURONS AND SPONTANEOUS BRAIN STATE ALTERNATIONS IN URETHANE ANAESTHETISED RATS**

**Magdalena Walczak, Tomasz Błasiak**

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**P15.4**

**BLOCKADE OF NEURONAL ACTIVITY IN THE RAT PREFRONTAL CORTEX AFFECTS LOCAL FIELD POTENTIAL OSCILLATIONS RECORDED IN THE NUCLEUS ACCUMBENS**

**Karolina Nowak-Stańczyk<sup>1</sup>, Stefan Kasicki<sup>2</sup>**

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**P15.5**

**INTERACTION BETWEEN VOLTAGE-DEPENDENT SODIUM CHANNEL AND ITS SITE-3 LIGAND MODIFIED BY EXPOSURE TO 50 HZ ELECTROMAGNETIC FIELD**

**Milena Jankowska<sup>1</sup>, Agnieszka Pawłowska-Mainville, PhD<sup>2</sup>, Maria Stankiewicz<sup>1</sup>, Justyna Rogalska<sup>1</sup>, Joanna Wyszowska<sup>1</sup>**

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**P15.6**

**CLOZAPINE, GLYCINE AND NMDA ALL REDUCE THE FREQUENCY OF HIGH FREQUENCY OSCILLATIONS IN THE NUCLEUS ACCUMBENS OF FREELY MOVING MICE**

**Maciej Olszewski<sup>1</sup>, Joanna Piasecka<sup>1</sup>, Miles A. Whittington<sup>2</sup>, Stefan Kasicki<sup>1</sup>, Mark J. Hunt<sup>1</sup>**

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**P15.7**

**INVOLVEMENT OF THE VENTRAL TEGMENTAL AREA IN THE GENERATION OF HIGH FREQUENCY OSCILLATIONS IN THE NMDAR HYPOFUNCTION MODEL OF SCHIZOPHRENIA**

**Joanna Piasecka<sup>1</sup>, Maciej Olszewski<sup>1</sup>, Miles A. Whittington<sup>2</sup>, Stefan Kasicki<sup>1</sup>, Mark J. Hunt<sup>1</sup>**

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**P15.8**

**SOMATOSENSORY RESPONSES IN POSTERIOR MEDIAL NUCLEUS OF NON-ANESTHETIZED RATS**

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**P15.9**

**RELAXIN-3 IN THE HYPOTHALAMIC PARAVENTRICULAR NUCLEUS (PVN) OF RAT. ELECTROPHYSIOLOGICAL APPROACH TO UNDERSTAND THE SEX-DEPENDENT RELATIONS BETWEEN STRESS AND FEEDING**

**Alan Kania<sup>1</sup>, Marian H. Lewandowski<sup>1</sup>, Grzegorz Hess<sup>1</sup>, M. Akhter Hossain<sup>2</sup>, Andrew L. Gundlach<sup>2</sup>, Anna Błasiak<sup>1</sup>**

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**P15.10**

**MECHANISM THAT FORMS BETA BAND ATTENTIONAL DE/SYNCHRONIZATION IN THE VISUAL CORTEX**

**Elżbieta Gajewska-Dendek<sup>1</sup>, Wioletta Waleszczyk<sup>2</sup>, Marek Bekisz<sup>2</sup>, Andrzej Wróbel<sup>2</sup>, Piotr Suffczyński<sup>1</sup>**

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**P15.11**

**INTERHEMISPHERIC ACTIVITY EQUILIBRIUM CHANGES AFTER THE SPREADING DEPRESSION WAVES**

**Maciej Winiarski, Jan Jabłonka**

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**P15.12**

**PROTONS AFFECT GABAA RECEPTOR GATING BY ALTERING BOTH PREAMPLIFICATION AND DESENSITIZATION TRANSITIONS**

**Magdalena Kisiel<sup>1</sup>, Magdalena Jatczak<sup>1,2</sup>, Jerzy W. Mozrzymas<sup>1,2</sup>**

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**P15.13**

**OREXINS EXCITES THE NEURONS OF THE RAT VENTRAL LATERAL GENICULATE NUCLEUS PREDOMINANTLY VIA OX2 RECEPTORS**

**Katarzyna Palus, Łukasz Chrobok, Marian Henryk Lewandowski**

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**P15.14**

**OREXINS EXCITE THE DORSAL LATERAL GENICULATE NUCLEUS NEURONS IN PIGMENTED AND ALBINO RATS**

**Łukasz Chrobok, Katarzyna Palus, Marian Henryk Lewandowski**

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**P15.15**

**SEMI-AUTOMATIC MICRODRIVE SYSTEM FOR POSITIONING ELECTRODES DURING ELECTROPHYSIOLOGICAL RECORDINGS FROM RAT BRAIN**

**Ewa Kublik<sup>1</sup>, Piotr Dąbrowski<sup>2</sup>, Jakub Możaryn<sup>2</sup>**

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**P16. Peripheral nervous system**

**P16.1**

**SYMPATHETIC NERVOUS SYSTEM MEDIATES AMPHETAMINE-INDUCED STIMULATION OF BLOOD AND SPLENIC NATURAL KILLER CELL CYTOTOXICITY IN RATS**

**Wojciech Glac, Piotr Badtke, Aleksandra Orlikowska, Arkadiusz Działoszewski, Grzegorz Kloss**

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**P16.2**

**PERIPHERAL INFLAMMATION AFFECTS FUNCTION OF TRIGEMINAL GANGLION NEURONS**

**Olga Kuzawińska, Krzysztof Lis, Tomasz Grygorowicz, Agnieszka Cudna, Marta Dąbrowska, Dagmara Mirowska-Guzel, Ewa Bałkowiec-Iskra**

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**P16.3**

**CHANGES IN EXPRESSION OF SOMATOSTATIN IN THE CSMG NEURONS SUPPLYING PREPYLORIC AREA OF THE PORCINE STOMACH INDUCED BY INTRAGASTRIC INFUSION OF HYDROCHLORIC ACID**

**Katarzyna Palus, Jarosław Calka**

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**P16.4**

**ANALYSIS OF EXPRESSION OF SP AND NOS IN THE PORCINE NODOSE GANGLION (NG) SENSORY NEURONS SUPPLYING PREPYLORIC STOMACH REGION AFTER INTRAGASTRIC HYDROCHLORIC ACID INFUSION**

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