



## Conference Schedule

### HUMANITIES SCIENCES SESSION

#### On-line Presentations

- 09:50 – 10:00 **Opening the Session and discussing technical matters**
- 1 10:00 – 10:10 **PATRYK DĄBROWSKI**  
(*Nicolas Copernicus University*)  
ADVANTAGES OF USING THE TRANSLATION METHOD IN FOREIGN LANGUAGE LEARNING
- 2 10:10 – 10:20 **JAKUB RYS**  
(*Pedagogical University of Cracow*)  
INFLUENCE OF VIDEO GAMES ON YOUNG PEOPLE'S MORALITY DEVELOPMENT
- 3 10:20 – 10:30 **MONIKA SARNAT**  
(*Pedagogical University of Cracow*)  
THE IMPACT OF USING PHYSICAL PUNISHMENTS ON CHILDREN'S DEVELOPMENT
- 3 10:30 – 10:40 **ANGELINA SIELEWICZ, PATRYCJA SKOCZEK**  
(*Lukasiewicz – Instytut Mikroelektroniki i Fotonika*)  
PROMOTION OF SCIENCE IN TIMES OF FAKE NEWS, CHAT GPT, AND TINFOIL HATS

#### Presentations

- 1 **BEATA DUDA**  
(*University of Silesia*)  
LEXICAL MANIFESTATIONS OF REFLECTIVE EMOTIONS IN REMINISCENT NARRATIVES FROM THE ARCHIVE OF ORAL HISTORY OF THE WARSAW UPRISING MUSEUM. RESEARCH PROJECT PRESENTATION
- 2 **KATARZYNA JANKOWSKA**  
(*University of Warmia and Mazury in Olsztyn*)  
TEENAGERS ONLINE – THE RELATION AMONG SOCIAL MEDIA AND SELF-ESTEEM
- 3 **KATARZYNA JANKOWSKA**  
(*University of Warmia and Mazury in Olsztyn*)  
THE IMPACT OF ONLINE LEARNING ON YOUNG PEOPLE'S MENTAL HEALTH
- 4 **DOMINIKA ŁUKOWSKA**  
(*Jan Grodek State University in Sanok*)  
IMPACT OF GLOBALIZATION ON NATIONAL SECURITY
- 5 **SANDRA PACZKOWSKA**  
(*University of Nicolaus Copernicus*)  
ROMANESQUE ARCHITECTURE

#### Posters

- 1 **MARIA CZUBAK**  
(*Maria Grzegorzewska University in Warsaw*)  
TPACK AND SAMR – HOW TO IMPLEMENT TECHNOLOGY IN MY CLASSROOM?
- 2 **KATARZYNA WRÓBEL**  
(*Uni-Terra University in Poznań*)  
CONTEMPORARY FACES OF FATHERHOOD



3 **SYLWIA ZAROŚLAK**

*(The Maria Grzegorzewska University)*

EDUCATIONAL EXPERIENCES OF A GROUP OF APS ERASMUS STUDENTS IN RELATION TO THE EDUCATIONAL INSTITUTION PUSZCZYK IN OSOWICZE

4 **SYLWIA ZAROŚLAK**

*(The Maria Grzegorzewska University)*

ACTIVATION – NOT A JOKE. DO IT! ACTIVATION METHODS IN WORK WITH PRESCHOOL CHILDREN

## MEDICAL SCIENCES SESSION

### On-line Presentations

09:50 – 10:00 **Opening the Session and discussing technical matters**

1 10:00 – 10:10 **AGNIESZKA DYMEK**

*(Institute of Health Sciences, University of Rzeszów)*

CHOLINE – THE FORGOTTEN INGREDIENT IN THE DIET OF A MOTHER-TO-BE

2 10:10 – 10:20 **NATALIA KUROWSKA**

*(Medical University of Silesia in Katowice)*

THYMOQUINONE – A POTENTIAL PLANT-DERIVED ANTICANCER AGENT AND ITS EFFECT ON THE EXPRESSION OF COLORECTAL CANCER-RELATED GENES

3 10:20 – 10:30 **SZYMON LEONIK**

*(Medical University of Silesia, Katowice)*

ANDROGENETIC ALOPECIA IN MEN – THERAPEUTIC CHALLENGES AND THE USE OF MICRONEEDLING IN COMBINATION THERAPY

4 10:30 – 10:40 **KATARZYNA MILCARZ**

*(Warsaw Medical University)*

2-IDOANILINE PICRATE POLYMORPHS STUDY, AS AN EXAMPLE OF APPLICATION OF MOLECULAR MODELLING IN POLYMORPHIC TRANSITION (ENG)

5 10:40 – 10:50 **NATALIA MŁYŃCZYK**

*(University of Silesia)*

TIN SN-117M A PROMISING REPLACEMENT FOR TECHNETIUM TC-99M – COMPUTER SIMULATION OF DOSES AND COMPARISON OF PROPERTIES OF RADIOISOTOPES USED IN NUCLEAR MEDICINE (ENG)

6 10:50 – 11:00 **EWA NAPIÓRKOWSKA**

*(Medical University of Warsaw)*

MOLECULAR MODELING STUDIES OF THIAMINE HYDROCHLORIDE HYDRATES (ENG)

7 11:00 – 11:10 **JAKUB POBIDEŁ**

*(Medical University of Lublin)*

UROMODULIN IN PREVENTION OF URINARY TRACT INFECTIONS

### Presentations

1 **KATARZYNA BARAŃSKA**

*(University of Rzeszów)*

ASSESSMENT OF BODY COMPOSITION AND FITNESS LEVEL OF WOMEN IN A 3 LEAGUE CLUB

2 **JOANNA BIELSKA**

*(Non-public Health Care Center South Cracow Central Laboratory)*

LYME DISEASE- SYMPTOMS AND TREATMENT



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- 3 **JOANNA BIELSKA**  
(*Non-public Health Care Center South Cracow Central Laboratory*)  
IMMUNOPROPHYLAXIS RH DISEASE
- 4 **EWA DZIEDZIECH**  
(*The John Paul II Specialist Hospital In Krakow*)  
AUTOTRANSFUSION, AS AN ALTERNATIVE TO BLOOD TRANSFUSIONS FROM DONORS
- 5 **EWA DZIEDZIECH**  
(*The John Paul II Specialist Hospital In Krakow*)  
ALLOANTIBODIES PRODUCED BY PATIENTS OF THE KRAKOW SPECIALIST HOSPITAL JOHN PAUL II IN KRAKOW IN 2020-2022
- 6 **SZYMON GALAS**  
(*Eugeniusz Piasecki Academy of Physical Education in Poznań*)  
SELECTED METHODS OF STROKE SPEED AND SERVICE ACCURACY IN TABLE TENNIS BY PURASHWANI – LITERATURE REVIEW
- 7 **ANNA GLINKOWSKA**  
(*Medical University of Silesia in Katowice*)  
BIODEGRADABLE POLYMERS AND THEIR USE IN CONTROLLED RELEASE OF MEDICINAL SUBSTANCES AND DRUGS
- 8 **KAMIŁA GORCZYCA**  
(*Medical University of Lublin*)  
DIET USED IN GESTATIONAL DIABETES AND THE COMPOSITION OF THE VAGINAL MICROBIOTA
- 9 **KAROLINA KARAŚ**  
(*University of Rzeszów*)  
RISKS ARISING FROM THE LACK OF FREE TIME DEVOTED TO CHILDREN IN THE AGE RANGE 9-14 YEARS IN THE OPINION OF FAMILY MEMBERS
- 10 **KINGA KOGUT**  
(*University of Rzeszów*)  
ASSESSMENT OF FITNESS AND PHYSICAL ACTIVITY LEVELS IN SCHOOL-AGED CHILDREN
- 11 **DAWID KOŻLENIA**  
(*Wroclaw University of Health and Sport Sciences*)  
IMPACT OF ISOMETRY BACK SQUAT ON JUMP HEIGHT IN TRAINED FEMALES
- 12 **MONIKA KUŚMIERZ-WOJTASIK**  
(*Pomeranian Medical University*)  
INFLUENCE OF PTERYGIUM REMOVAL SURGERY ON CORNEAL PARAMETERS
- 13 **ADRIANNA LIEDKE**  
(*University of Rzeszów*)  
PHYSICAL ACTIVITY LEVELS AND BODY COMPOSITION OF SCHOOL-AGED CHILDREN
- 14 **JAKUB MARTYŃSKI**  
(*Poznan University of Medical Sciences*)  
USAGE OF REVERSE TRANSCRIPTASES IN MOLECULAR BIOLOGY
- 15 **AGNIESZKA MITUŁA**  
(*"Chojna" Pharmacy*)  
CURRENT AND FUTURE THERAPIES IN TAM-RELATED CANCEROGENESIS (*ENG*)
- 16 **WIKTORIA MONIKA PISKORZ**  
(*Medical University of Białystok*)  
PROAPOPTOTIC ACTIVITY OF PROTEASOME INHIBITOR – MARIZOMIB – ON MELANOMA CANCER CELLS



- 17 **KLAUDIA TOPOLSKA**  
(*State University of Applied Sciences in Krosno*)  
KNOWLEDGE OF THE POLISH SOCIETY ON CANCER DISEASES TYPICAL FOR WOMEN
- 18 **NATALIA WACEK**  
(*University of Jan Kochanowski in Kielce, Collegium Medicum*)  
METHODOLOGY OF CORRECTIVE GYMNASICS FOR CONCAVE BACKS
- 19 **ALEKSANDRA WOLSKA**  
(*Wroclaw Medical University*)  
POPULATION COHORT STUDY OF WROCLAW CITIZENS (PICTURE): BASELINE REPORT FORM HEALTH STATUS OF CHILDREN AND THEIR PARENTS PARTICIPATING IN PICTURE PROJECT
- 20 **MAGDALENA ZAPALSKA**  
(*Medical University of Lublin*)  
MEASLES – EPIDEMIOLOGICAL SITUATION AND MAJOR CHALLENGES
- 21 **JAN ZIĘBA**  
(*Poznan University of Medical Sciences*)  
BACTERIOPHAGE – OUR ALLY IN THE FIGHT AGAINST THE GROWING PROBLEM – ANTIBIOTIC RESISTANCE
- 22 **WERONIKA ZIÓLKOWSKA**  
(*Ludwik Rydygier Collegium Medicum in Bydgoszcz, Nicolaus Copernicus University in Toruń*)  
TREATMENT OF MIGRAINE WITH CALCITONIN GENE-RELATED PEPTIDE RECEPTOR ANTAGONISTS
- 23 **JOANNA ŻANDAREK**  
(*Jagiellonian University*)  
INFLUENCE OF ENVIRONMENTAL FACTORS ON DRUG PHOTODEGRADATION

### Posters

- 1 **BARTŁOMIEJ BRZOZOWSKI**  
(*Medical University of Warsaw*)  
THE SIGNIFICANCE OF  $\mu$ -OPIOID RECEPTORS IN ETHANOL CONSUMPTION IN MICE SELECTED FOR HIGH AND LOW ENDOGENOUS OPIOID SYSTEM ACTIVITY – POSSIBLE IMPLICATIONS FOR ADDICTION (ENG)
- 2 **JUSTYNA DZIEDZIC**  
(*Maria Curie Skłodowska University in Lublin*)  
BACTERIOPHAGES IN THE TREATMENT OF BACTERIAL DISEASES
- 3 **SABINA GALINIAK**  
(*Rzeszow University*)  
OXIDATIVE STRESS MARKERS IN URINE OF PATIENTS WITH BLADDER CANCER (ENG)
- 4 **KATARZYNA GDULA**  
(*Maria Curie-Skłodowska University*)  
3D BIOPRINTING TECHNOLOGY AND ITS PROSPECTS IN MEDICINE
- 5 **DORIAN GŁADYSZ**  
(*5th Military Clinical Hospital with the SP ZOZ Polyclinic in Krakow: Academy of Silesia in Katowice*)  
POSSIBILITY OF USING BDNF PROTEIN AS A MOLECULAR MARKER OF LUMBOSACRAL INTERVERTEBRAL DISC DEGENERATIVE DISEASE
- 6 **MARCIN GRALEWSKI**  
(*5th Military Clinical Hospital with the SP ZOZ Polyclinic in Krakow: Academy of Silesia in Katowice*)  
EXPRESSION OF THE GROWTH-ASSOCIATED PROTEIN 43 IN PATIENTS WITH INTERVERTEBRAL DISC DEGENERATION
- 7 **KAMIL JANAWA**  
(*Pomeranian Medical University in Szczecin*)  
GLP-1 ANALOGUES AND THYROID TUMORS – REVIEW PAPER



- 8 **GRZEGORZ JANKOWSKI**  
(*Medical University of Lublin*)  
DESIGNING AND GROWING THE NEW FLUORESCENT M. TUBERCULOSIS STRAIN
- 9 **JOANNA KUBICA**  
(*Pomeranian Medical University in Szczecin*)  
THE ROLE OF OXLDL AS A LAMP IN THE PATHOGENESIS OF ATHEROSCLEROSIS (ENG)
- 10 **DARIA ŁASKAWIEC-ŻUŁAWIŃSKA**  
(*Medical University of Silesia*)  
CAN WE TALK ABOUT POST-PANDEMIC STRESS DISORDER AMONG HEALTH CARE PERSONNEL?
- 11 **MARCEL MADEJ**  
(*Medical University of Silesia*)  
BETULIN AND ITS DERIVATIVES AS NEW TREATMENT OPTIONS FOR COLORECTAL CANCER (ENG)
- 12 **ILONA NOWAK**  
(*Medical University of Silesia*)  
SNP NOT SO STRANGE
- 13 **OLGA PAPRZYCKA**  
(*Medical University of Silesia*)  
EPIGENETICS OF SELECTED MENTAL DISORDERS – AN OVERVIEW OF THE LATEST RESEARCH
- 14 **AGNIESZKA RUCZAJ**  
(*Medical University of Białystok*)  
THE IMPACT OF THE ADMINISTRATION OF THE EXTRACT FROM ARONIA MELANOCARPA L. BERRIES ON THE CONCENTRATION OF GH2AX (DNA HISTONE) IN THE BRAIN – AN EXPERIMENTAL STUDY IN AN ANIMAL MODEL REFLECTING LOW-LEVEL AND MODERATE HUMAN EXPOSURE TO CADMIUM (ENG)
- 15 **ROBERT SARNA**  
(*Medical University of Silesia*)  
ANGELICA SINENSIS – HEALTH MESSENGER FOR THE LIVER
- 16 **JULIA SECEMSKA**  
(*Medical University of Silesia*)  
PROMISING ANTI-ONCOGENES IN THERAPY – PHYTOESTROGENS FOUND IN FOODS
- 17 **MAGDALENA STACHURA**  
(*Szpital sw. Rafała in Cracow; Jagiellonian University Medical College*)  
EPIDEMIOLOGICAL EVALUATION OF THE INCIDENCE OF GLIOBLASTOMA IN THE POLISH POPULATION TREATED AT ST. RAPHAEL'S HOSPITAL IN 2015-2018
- 18 **KLAUDIA SUCHAŃSKA**  
(*Wrocław Medical University*)  
STUDY ON PHARMACOPOEIAL FOAM INDEX FOR SAPONIN-CONTAINING HERBAL DRUGS
- 19 **MICHAŁ TOMASZEK**  
(*Pomeranian Medical University in Szczecin*)  
EFFECT OF SUPPLEMENTATION WITH LION'S MANE (HERICIUM ERINACEUS) ON COGNITIVE ABILITIES IN HUMANS – A REVIEW PAPER
- 20 **KATARZYNA ŻANDAREK**  
(*University of Bielsko-Biala*)  
THE IMPACT OF BREASTFEEDING ON INFANT HEALTH



## TECHNICAL SCIENCES SESSION

### On-line Presentations

- 11:50 – 12:00 **Opening the Session and discussing technical matters**
- 1 12:00 – 12:10 **IRENA BYLIŃSKA**  
*(University of Gdańsk)*  
 NEW NON-PROTEINOGENIC FLUORESCENT AMINO ACIDS: BENZOXAZOL-5-YL-ALANINE DERIVATIVES CONTAINING ACETYLENE UNIT
- 2 12:10 – 12:20 **PIOTR CIEPLIŃSKI**  
*(Proman Sp. z o.o.)*  
 THE USE OF ARTIFICIAL INTELLIGENCE FOR ADAPTIVE PRODUCTION PLANNING AND SCHEDULING IN THE PROMAN-PROMES APS SYSTEM
- 3 12:20 – 12:30 **JUSTYNA CZAJKA**  
*(Bydgoszcz University of Science and Technology)*  
 NEW LANTHANIDE-ION-DOPED LUMINESCENT HYBRID MATERIALS: A REVIEW
- 4 12:30 – 12:40 **JAROSŁAW DOMINKIEWICZ**  
*(ELWIKO Stanisław Dropik)*  
 DEVICE FOR MOUNTING MODULAR LIFT SHAFTS.
- 5 12:40 – 12:50 **EWELINA GODEK**  
*(Maria Curie-Skłodowska University in Lublin)*  
 THE INFLUENCE OF THE IONIC STRENGTH OF KCL AND CACL<sub>2</sub> BACKGROUND ELECTROLYTES ON STABILIZING AND FLOCCULATING PROPERTIES OF THE AQUEOUS SEPIOLITE SUSPENSIONS IN THE PRESENCE OF CATIONIC STARCH
- 6 12:50 – 13:00 **ANGELIKA PRZECISZOWSKA**  
*(University of Gdańsk)*  
 INFLUENCE OF ACID-BASE BALANCE ON ELECTROCHEMICAL PROCESSES OF TRICLOSAN OXIDATION
- 7 13:00 – 13:10 **EWELINA WARMBIER**  
*(Poznan University of Technology)*  
 THE INFLUENCE OF METAL IONS ON VISCOELASTIC WORMLIKE MIXTURES WITH ZWITTERIONIC AND IONIC SURFACTANTS (*ENG*)
- 8 13:10 – 13:20 **KONRAD BRZYSKI**  
*(Silesian University of Technology)*  
 INFLUENCE OF SECONDARY PARAMETERS OF THE PRESS HARDENING PROCESS OF HIGH-STRENGTH STEEL IN INDUSTRIAL CONDITIONS ON THE MECHANICAL PROPERTIES OF CAR BODY PARTS

### Presentations

- 1 **WOJCIECH BAŃKOSZ**  
*(Cracow University of Technology)*  
 INTERDISCIPLINARY NUMERICAL METHODS AND THEIR APPLICATIONS
- 2 **KRZYSZTOF BARON**  
*(Ofama Sp. z o.o.; Politechnika Opolska)*  
 INNOVATIVE DESIGN AND USAGE ON A NATIONAL SCALE, INTEGRATED COMPUTER-CONTROLLED VIBRATING CONVEYOR FOR EFFICIENT TRANSPORT OF VARIOUS SOLID MATERIALS
- 3 **ANETA KALBARCZYK**  
*(Warsaw University of Technology; Solid Energy Group LLC)*  
 LIFEPO<sub>4</sub> CATHODE MATERIAL COATINGS FOR LITHIUM-ION BATTERIES



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- 4 **KATARZYNA KARWOWSKA**  
*(University of Białystok)*  
 INVESTIGATION OF THE INFLUENCE OF SELECTED TRITERPENE SAPOGENINS ON THE PROPERTIES OF LIPID MODEL BILAYERS: INTERFACIAL TENSION AND MICROELECTROPHORETIC STUDIES
- 5 **MARIUSZ KOMOROWSKI**  
*(Vivid Games S.A.)*  
 PHYGAME – RESULTS OVERVIEW *(ENG)*
- 6 **SARA KRAWCZYK**  
*(University of Silesia)*  
 HOW TO IMPROVE NEUROLOGICALLY ACTIVE DRUG DELIVERY SYSTEMS? *(ENG)*
- 7 **PAULINA LASZUK**  
*(University in Białystok)*  
 INVESTIGATION OF THE EFFECT OF KAEMPFEROL ON THE PROPERTIES OF LIPOSOMAL MEMBRANES
- 8 **ADRIAN OLSZEWSKI**  
*(University of Lodz)*  
 LIPOIC ACID COMPLEXATION STUDIES EXTENDED TO DIETARY SUPPLEMENT ANALYTICS
- 9 **URSZULA SUDOMIR**  
*(University of Lodz)*  
 SALIVA AS A DIAGNOSTIC MATERIAL
- 10 **MILDA SZLAUŻYS**  
*(Adam Mickiewicz University in Poznań)*  
 SYNTHESIS OF NEW INDOLE-URACIL BIOCONJUGATES WITH POTENT BIOLOGICAL ACTIVITY
- 11 **WOJCIECH SZOT**  
*(Gdansk University of Technology)*  
 FUNCTIONALIZED POLYOLEFINS AS BITUMEN MODIFIERS – THE APPROACHES TOWARD A MODIFICATION OF VISCOELASTIC PROPERTIES OF ASPHALT ROADS *(ENG)*
- 12 **SEBASTIAN SZUMSKI**  
*(Vivid Games S.A.)*  
 ADJUSTING THE DIFFICULTY LEVEL OF REAL-TIME GAMEPLAY FOR MOBILE GAMES USING PSBGEN TECHNOLOGY
- 13 **WOJCIECH URBANIEC**  
*(Magtherm sp z o.o.)*  
 INNOVATIVE PROCESSES OF ENVIRONMENTALLY FRIENDLY ARCHITECTURAL PREFABS FORMING
- 14 **JAKUB WASZAK**  
*(Vivid Games S.A.)*  
 GTF – GAME TESTING FRAMEWORK *(ENG)*

### Posters

- 1 **BARTOSZ ADAMKIEWICZ**  
*(Gdynia Maritime University)*  
 ANALYSIS OF MATERIALS FOR 3D PRINTING OF MARINE MACHINERY AND EQUIPMENT PARTS
- 2 **DAMIAN ARENTOWICZ**  
*(Gdynia Maritime University)*  
 ANALYSIS OF TECHNOLOGY FOR 3D PRINTING OF MARINE MACHINERY AND EQUIPMENT PARTS
- 3 **AGNIESZKA BAJER**  
*(Adam Mickiewicz University)*  
 AMBIDENTATE LIGANDS AS PLATFORMS FOR EFFICIENT SYNTHESIS OF Pd-BASED METALOSUPRAMOLECULAR CAGES



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- 4 **WOJCIECH BAŃKOSZ**  
*(Cracow University of Technology)*  
 CHARACTERIZATION OF MR FLUID WORKING IN PINCH MODE USING FINITE ELEMENT METHOD
- 5 **JERZY DOROBISZ**  
*(Military University of Technology in Warsaw)*  
 ATTACK GRAPHS
- 6 **STANISŁAW KOWALIK**  
*(Silesian University of Technology)*  
 USE OF CLUSTERING FOR THE SALESMAN PROBLEM (ENG)
- 7 **TOMASZ MAŃDOK**  
*(Silesian University of Technology)*  
 DETERMINATION OF MACROELEMENTS IN TAP WATER IN THE UPPER SILESIA REGION
- 8 **PIOTR MICHAŁOWSKI**  
*(Poznan University of Technology)*  
 MULTIFUNCTIONAL THERAPEUTIC IN THE FIGHT AGAINST DISEASES OF CIVILIZATION – TRI-ELEMENT PRODRUGS
- 9 **FILIP REKAS**  
*(Rzeszów University of Technology)*  
 PREDICTING THE NUMBER – AND WEIGHT-AVERAGE MOLECULAR WEIGHT OF A POLYMER USING A NEURAL NETWORK
- 10 **ANNA SHYSH**  
*(University of Lodz)*  
 MAGNETIC CONTROL OF A STEERABLE GUIDEWIRE UNDER ULTRASOUND GUIDANCE USING MOBILE ELECTROMAGNETS (ENG)
- 11 **PRZEMYSŁAW ZAWADZKI**  
*(Folnet Sp. z o. o. Sp. k.)*  
 DESIGN OF AN IT SYSTEM FOR DATA PROCESSING IN THE SHEET METAL CLINCHING OPERATION IN THE MANUFACTURING OF ROOF ACCESSORIES

## NATURAL SCIENCES SESSION

### On-line Presentations

- 11:50 – 12:00 **Opening the Session and discussing technical matters**
- 1 12:00 – 12:10 **STANISŁAW CIECHANOWSKI**  
*(University of Warmia and Mazury in Olsztyn)*  
 GLYPHOSATE-INDUCED ALTERATIONS IN THE GALANIN-LIKE IMMUNOREACTIVE ENTERIC NEURONS IN THE PORCINE SMALL INTESTINE
- 2 12:10 – 12:20 **KATARZYNA KOŁODZIŃSKA**  
*(University of Science and Technology)*  
 PLANT AND MICROALGAE-DERIVED COMPOUNDS AS FUNCTIONAL ADDITIVES IN HYDROGELS IN FOOD APPLICATION
- 3 12:20 – 12:30 **ADRIANNA MICHNIEWICZ**  
*(University of Warmia and Mazury in Olsztyn)*  
 ASSESSING THE EFFECTS OF GLYPHOSATE SUPPLEMENTATION ON THE POPULATION OF IMMUNOREACTIVE (LI) VIP-TYPE INTESTINAL NEURONS IN THE PORCINE ILEUM.
- 4 12:30 – 12:40 **ADRIANNA MICHNIEWICZ**  
*(University of Warmia and Mazury in Olsztyn)*  
 SELENIUM AND VITAMIN E DEFICIENCY IN CATTLE – A CASE REPORT





## Presentations

- 1 **JUSTYNA GORZKIEWICZ**  
(*University of Rzeszow*)  
XENOBIOTICS AND MICROPLASTICS – TOXIC EFFECT ON ALGAE
- 2 **SANDRA GRABA**  
(*Maria Curie-Skłodowska University in Lublin*)  
EFFECTS OF DRUG INDUCED ENVIRONMENTAL POLLUTION ON FLORA AND FAUNA
- 3 **PAULINA KSIĄŻEK-TRELA**  
(*University of Rzeszow*)  
THE EFFECT OF NATURAL AND BIOLOGICAL PESTICIDES ON DEGRADATION OF SYNTHETIC PESTICIDES
- 4 **MARZENA MAZUREK**  
(*University of Rzeszow*)  
ASSESSMENT OF THE AGRICULTURAL PRODUCTION SPACE OF CEREALS IN THE DISTRICTS OF THE PODKARPACKIE VOIVODESHIP IN 2010-2020 YEARS
- 5 **ALEKSANDRA RĄCZKA**  
(*West Pomeranian University of Technology*)  
INFLUENCE OF C2 AND C9 GENE POLYMORPHISMS ON MASTITIS RESISTANCE IN BLACK-AND-WHITE HOLSTEIN COWS (ENG)
- 6 **MAGDALENA ŚPIEWAK**  
(*West Pomeranian University of Technology*)  
POLYMORPHISM IN EXON 4 OF THE SLC35A2 GENE IN REFERENCE TO THE MILK YIELD IN POLISH HOLSTEIN-FRIESIAN CATTLE (ENG)

## Posters

- 1 **CHROBAK DARIA**  
(*Polish Society of Bioinformatics and Data Science – BIODATA*)  
INTRODUCTION TO MICROBIAL AND SUSCEPTIBILITY IDENTIFICATION WITH ML METHODS (ENG)
- 2 **NIKOLA DŁUŻNIEWSKA**  
(*Poznan University of Economics and Business*)  
SURFACTANTS AND THEIR IMPACT ON THE NATURAL ENVIRONMENT
- 3 **DOROTA GENDASZEWSKA**  
(*Łukasiewicz Research Network, Lodz Institute of Technology*)  
A NEW FOLIAR PREPARATION THAT STIMULATES THE GROWTH OF COMMON WHEAT (TRITICUM AESTIVUM L.)
- 4 **DOMINIKA GULDA**  
(*Scientific-Didactic Council, Bydgoszcz Zoological Garden, Forest Park for Culture and Leisure in Bydgoszcz*)  
MOTIVATOR AND DEMOTIVATOR AS A STRESS FACTOR IN WORKING WITH AFRICAN PORCUPINE AT THE ZOO (ENG)
- 5 **DOMINIKA GULDA**  
(*Scientific-Didactic Council, Bydgoszcz Zoological Garden, Forest Park for Culture and Leisure in Bydgoszcz*)  
THERMOGRAPHIC ASSESSMENT OF THE LEVEL OF ADAPTIVE STRESS OF THE SOMALI WILD ASS – CASE REPORT (ENG)
- 6 **NATALIA JASZEK**  
(*Maria Curie-Skłodowska University in Lublin*)  
FUNGI DEGRADING PLASTICS - CHARACTERISTICS OF SELECTED SPECIES AND PROSPECTS FOR THEIR USE IN COMBATING ENVIRONMENTAL POLLUTION



- 7 **WIKTORIA JĘDRYS**  
(*Maria Curie-Skłodowska University in Lublin*)  
EFFECTS OF GUT MICROBIOTA ON STRESS AND DEPRESSION
- 8 **WERONIKA KOŃCZEWSKA**  
(*West Pomeranian University of Technology in Szczecin*)  
NEW PROSPECTS FOR COUNTERACTING REDUCED FERTILITY OF BULLS
- 9 **WERONIKA KOSTAŃSKA**  
(*Adam Mickiewicz University in Poznań*)  
NEW TECHNOLOGIES AS AN OPPORTUNITY FOR TOURISM DEVELOPMENT IN THE MIEDZYZDROJE MUNICIPALITY
- 10 **POLINA KOZLOVSKA**  
(*University of Szczecin, Polish Society of Bioinformatics and Data Science BIODATA*)  
Q-LEARNING: A NOVEL APPROACH TO UNDERSTANDING BIOLOGY
- 11 **ADRIANNA KRZEMIŃSKA**  
(*University of Szczecin; Polish Society of Bioinformatics and Data Science BIODATA*)  
INTRODUCTION TO BIOPYTHON
- 12 **KLAUDIA LEWITA**  
(*University of Szczecin, Polish Society of Bioinformatics and Data Science BIODATA*)  
BIOINFORMATICS IN FOCUS
- 13 **NATALIA LISIECKA**  
(*Poznan University of Technology*)  
DO IONIC LIQUIDS EXHIBIT INDEPENDENT CATIONIC AND ANIONIC BEHAVIOUR WHEN SORBED IN A SOIL CONTAINING MICROPLASTICS? (ENG)
- 14 **NATALIA MIKOŁAJCZAK**  
(*University of Warmia and Mazury in Olsztyn*)  
INFLUENCE OF VINYL PHENOLIC DERIVATIVES ON THE QUALITY OF COLD-PRESSED FLAXSEED OIL WITH DIFFERENT WATER CONTENTS DURING STORAGE (ENG)
- 15 **KATARZYNA MIŚKIEWICZ**  
(*Łukasiewicz Research Network, Lodz University of Technology*)  
INVESTIGATION OF THE EFFECT OF PROTEIN BIOSTIMULATORS ON THE GROWTH OF WINTER WHEAT USING PHYTOTESTS
- 16 **KAROLINA PAKUŁA**  
(*Poznan University of Economics and Business*)  
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