



## Conference Schedule

### HUMANITIES SCIENCES SESSION

#### On-line Presentations

- 09:50 – 10:00 **Opening the Conference and discussing technical matters**
- 1 10:00 – 10:10 **ADRIANA DRÓŹDŹ**  
(*University of Natural Sciences and Humanities in Siedlce*)  
THE IMPACT OF COVID-19 ON HUMAN TRAFFICKING (ENG)
- 2 10:10 – 10:20 **NINA KĘDZIORA**  
(*The University of Warsaw*)  
INFLUENCE OF GENERAL INTELLIGENCE ON THE EFFECTS OF EVALUATIVE  
CONDITIONING
- 3 10:20 – 10:30 **KAJA MAKOWSKA**  
(*University of Gdańsk*)  
TRANSLATING THE UNTRANSLATABLE – TRANSLATING HUMOROUS ELEMENTS  
IN TRENTON LEE STEWART’S THE MYSTERIOUS BENEDICT SOCIETY
- 4 10:30 – 10:40 **ALEKSANDRA PRUS**  
(*University of Szczecin*)  
STUDENTS’ COOPERATIVES’ FORMS OF ACTIVITY IN THE SECONDARY SCHOOLS
- 5 10:40 – 10:50 **MONIKA SARNAT**  
(*Pedagogical University*)  
DEVELOPMENT OF ARTIFICIAL INTELLIGENCE AND THE FUTURE OF MANKIND:  
THE ANALYSIS OF TWO POSSIBLE SCENARIOS
- 6 10:50 – 11:00 **WOJCIECH SAWICKI**  
(*University of Silesia in Katowice*)  
THE RULE OF PROTECTION OF ACQUIRED RIGHTS – CONCEPTIONS REGARDING THE WAY  
OF DISTINGUISHING ACQUIRED RIGHTS AND THE FORMS OF THEIR PROTECTION
- 7 11:00 – 11:10 **MAGDALENA SŁOWIK**  
(*University of Warmia and Mazury in Olsztyn*)  
E-EDUCATION AND REMOTE PSYCHOLOGICAL AND PEDAGOGICAL HELP  
AS A CONTEMPORARY CHALLENGE FOR TEACHERS, PARENTS AND STUDENTS
- 8 11:10 – 11:20 **ALEXANDRA STANIEWSKA**  
(*Adam Mickiewicz University*)  
MEMORY AND POLITICS IN THE SPANISH EXHUMATION CYCLES (ENG)
- 9 11:20 – 11:30 **WERONIKA STAWIŃSKA**  
(*Kozminski University in Warsaw*)  
THE RIGHT TO THE COURT FOR AN ADMINISTRATIVE OFFENSES IN POLAND  
AND IN GERMANY
- 10 11:30 – 11:40 **ANNA STERNA**  
(*Ward for Personality Disorder’s and Neurosis’s Treatment, Psychiatric Hospital, Międzyrzecz, Poland*)  
WHAT HAPPENS BETWEEN PSYCHOTHERAPIST, MR. YAVIS AND MR. HOUND?  
PSYCHOTHERAPIST’S EXPECTATIONS TOWARDS PATIENTS
- 11 11:40 – 11:50 **FRANCISZEK WRÓBEL**  
(*The John Paul II Catholic University of Lublin*)  
I AM IN THE (VIRTUAL) WORLD - BLURRING THE BOUNDARIES BETWEEN THE REAL  
AND THE VIRTUAL WORLD AS A CHALLENGE FOR THE YOUNG GENERATION



## **Presentations**

- 1 **PRZEMYSŁAW MIROŚLAW PAZDER**  
*(Pomeranian University in Slupsk)*  
POLISH MARCHLEWSKI AUTONOMOUS ETHNIC REGION IN UKRAINE (1925–1935)
- 2 **PRZEMYSŁAW MIROŚLAW PAZDER**  
*(Pomeranian University in Slupsk)*  
POLISH NATIONAL REGION FELIKS DZERZHINSKY
- 3 **MATEUSZ BOCZAR**  
*(FIS Technology Services (Poland), Marii Skłodowskiej-Curie 12, 50-381 Wrocław, Poland)*  
NEGATIVE APPROACH IN SOCIAL SCIENCES (ENG)
- 4 **ROKSANA CZUBA**  
*(John Paul II Catholic University of Lublin)*  
MEDIATION, OR A METHOD OF RESOLVING ADMINISTRATIVE DISPUTES
- 5 **JAKUB CZYŻYKOWSKI**  
*(University of Gdansk)*  
MODERN EUROPE'S MODIFICATIONS OF INTERNATIONAL REFUGEE LAW
- 6 **AGATA DRÓŹDŹ**  
*(Jan Kochanowski University of Kielce)*  
INTERPERSONAL DIFFICULTIES IN PEOPLE WITH CLUSTER B PERSONALITY DISORDERS
- 7 **IRMINA FLOREK**  
*(Maria Curie-Skłodowska University)*  
THE IMPORTANCE OF STUDENTS' FINANCIAL LITERACY - COMPARATIVE ANALYSIS OF INTERNATIONAL INDEXES
- 8 **PIOTR FRELKE**  
*(University of Silesia in Katowice)*  
PHILOSOPHY AS AN ART OF LIFE
- 9 **ALBERT GUZIAK**  
*(University of Warsaw)*  
PHRASEOLOGY IN THE LANGUAGE OF POLITICS – SELECTED ISSUES
- 10 **ALEKSANDRA KORCZYC**  
*(University of Warsaw)*  
ENERGY TRANSFORMATION IN POLAND AFTER 2020
- 11 **WERONIKA KOSMAŁSKA**  
*(Adam Mickiewicz University)*  
THE NEW FACE OF MICKIEWICZ. THE LANGUAGE OF THE PARISIAN LECTURES AND "THE PEOPLE'S TRIBUNE"
- 12 **ALINA NOWAK**  
*(University of Silesia in Katowice)*  
DISCOVERING AND SUPPORTING THE CHILD'S ABILITIES – MODERN CONCEPTS
- 13 **NATALIA PENDZIAŁEK**  
*(University of Silesia in Katowice)*  
GAMIFICATION – MODERN PROBLEMS REQUIRE MODERN SOLUTIONS
- 14 **MARTYNA PERZAN**  
*(University of Warmia and Mazury in Olsztyn)*  
SOCIAL RELATIONS OF YOUNG ADULTS DURING THE PANDEMIC
- 15 **ZUZANNA PORĘBOWICZ**  
*(The Maria Grzegorzewska University)*  
THE ZONE OF PROXIMAL DEVELOPMENT (ZPD). WHAT IS IT? HOW DOES IT WORK?  
WHY IS IT IMPORTANT?



- 16 **JOANNA SKRABURSKA**  
*(PhD student at the Naval Academy in Gdynia)*  
BORDER MANAGEMENT IN THE CONTEXT OF THE MIGRATION CRISIS IN THE EU
- 17 **MONIKA STRZELECKA**  
*(Catholic University of Lublin)*  
IDENTITY CHANGES AS A RESULT OF LIFE STORY TELLING
- 18 **AGNIESZKA TYCZKA-NOWAK**  
*(Adam Mickiewicz University in Poznań)*  
HOW TO TEACH VOCABULARY TO STUDENTS WITH AUTISM SPECTRUM DISORDER? (ENG)
- 19 **JULIA UKLEJA**  
*(University of Warmia and Mazury in Olsztyn)*  
THE IMPORTANCE OF HOMEWORK IN THE TEACHING PROCESS
- 20 **JERZY FRYDERYK WOJCIECHOWSKI**  
*(Adam Mickiewicz University)*  
AVANT-GARDE TERROR – AN OUTLINE OF THE SITUATION OF COMPOSERS IN THE 1950S AND 1960S
- 21 **SYLWIA ZAROŚLAK**  
*(The Maria Grzegorzewska University)*  
FAIRY TALES, FABLES, STORIES AS A FORM OF THE STIMULATING CHILDREN’S DEVELOPMENT
- 22 **DOMINIKA ZIĘBA**  
*(University of Rzeszów)*  
MONUMENTS’ PROTECTION AS A COMMUNE’S OWN TASK

#### **Posters**

- 1 **KATARZYNA CHOJNACKA**  
*(The Maria Grzegorzewska University)*  
FORMS AND METHODS OF WORK IN KINDERGARTEN
- 2 **CZESŁAW FLIŚNIK**  
*(WSB University)*  
DIGITAL MEDIA AND MANAGEMENT IN TIMES OF CRISIS
- 3 **KATARZYNA HAMANT**  
*(SWPS University of Social Sciences and Humanities)*  
SERVICE-LEARNING AS A KEY TO STRENGTHENING YOUTH CITIZENSHIP COMPETENCES
- 4 **KATARZYNA KRUPA**  
*(The Maria Grzegorzewska University)*  
THE COMPARISON OF GLENN DOMAN METHOD AND TEACHING READING AND WRITING WITH MARIA MONTESSORI
- 5 **ANGELIKA LENART**  
*(Catholic University of Lublin John Paul II)*  
REVALIDATION CLASSES
- 6 **MICHAŁ LUDEWICZ**  
*(The John Paul II Catholic University of Lublin)*  
PORTRAITS OF DEMONS AND ETERNAL DAMNATION IN BEDE’S ECCLESIASTICAL HISTORY (ENG)
- 7 **KAJA OPASIŃSKA**  
*(INFAKO Sp. z o.o.)*  
SOCIO-EMOTIONAL COMPETENCES OF CHILDREN
- 8 **KAJA OPASIŃSKA**  
*(INFAKO Sp. z o.o.)*  
THEORY OF MIND IN DEAF CHILDREN
- 9 **ALEKSANDRA SAWICKA**  
*(Academy of Special Education in the name of M. Grzegorzewska in Warsaw)*  
PROBLEMS OF ADULTS WITH DYSLEXIA



- 10 **KATARZYNA TABIŚ**  
*(University of Wrocław)*  
RESEARCH ON THE POLISH VERSION OF BASIC PSYCHOLOGICAL NEED SATISFACTION AND FRUSTRATION SCALE – VALIDATION AND MEANING FOR WELL-BEING AND MENTAL HEALTH DISORDERS (ENG)
- 11 **BEATA TUBEK**  
*(Jagiellonian University)*  
INTERNAL AUDIT AS A TOOL CREATING ADDED VALUE IN THE MANAGEMENT OF A LOCAL AUTHORITY
- 12 **WERONIKA WOJCIESZEK**  
*(The Maria Grzegorzewska University)*  
A CHILD IN THE ROLE OF A TEACHER
- 13 **KATARZYNA ZAGAŁA**  
*(Cracow University of Economics)*  
RESEARCH ON CONSUMER AWARENESS OF THE IMPACT OF MENTAL ACCOUNTING ON FINANCIAL DECISIONS

## **MEDICAL SCIENCES SESSION**

### **On-line Presentations**

- 1 12:10 – 12:20 **PATRYCJA BELDZIŃSKA**  
*(University of Gdansk)*  
THE IMPACT OF PLATINUM NANOPARTICLES ON CISPLATIN AND CARBOPLATIN: INTERACTIONS AND BIOLOGICAL ACTIVITY OF THE ANALYZED COMPOUNDS (ENG)
- 2 12:20 – 12:30 **GABRIELA BLAT**  
*(State Higher School of Technology and Economics in Jarosław)*  
HPV AS A FACTOR IN THE DEVELOPMENT OF CERVICAL CANCER
- 3 12:30 – 12:40 **DARIA BUCZKOWSKA**  
*(Doctoral School of the University of Szczecin)*  
APPLICATIONS SUPPORTING PHYSICAL ACTIVITY AS A TOOL FOR PHYSICAL EDUCATION TEACHERS
- 4 12:40 – 12:50 **MATEUSZ DOBRZYŃSKI**  
*(Collegium Medicum Uniwersytetu Mikołaja Kopernika)*  
CAN REHABILITATION REPLACE RECONSTRUCTION? MANAGEMENT OF ANTERIOR CRUCIATE LIGAMENT INJURIES
- 5 12:50 – 13:00 **KAROL GRYCZKA**  
*(Nicolaus Copernicus University in Toruń, Collegium Medicum in Bydgoszcz)*  
THYROID DYSFUNCTION AND THE RISK OF ALZHEIMER'S DISEASE
- 6 13:00 – 13:10 **NATALIA KALICKA**  
*(Student Scientific Circle "Kinezis" at the Department of Medical Rehabilitation and Clinical Physiotherapy)*  
VIRTUAL REALITY AS A METHOD OF REHABILITATION OF PATIENTS DURING A PANDEMIC
- 7 13:10 – 13:20 **BARTOSZ KULPA**  
*(Nicolaus Copernicus University in Toruń, Collegium Medicum in Bydgoszcz)*  
PD-1 / PD-L1 INHIBITORS IN ADVANCED NON-SMALL CELL LUNG CANCER
- 8 13:20 – 13:30 **PAULINA KWAŚNIK**  
*(Medical University of Lublin)*  
IMMUNOLOGICAL AND MOLECULAR CHARACTERISTICS OF CHRONIC MYELOID LEUKEMIA PATIENTS AFTER STOPPING IMATINIB
- 9 13:30 – 13:40 **NATALIA LIS**  
*(State Higher School of Technology and Economics in Jarosław)*  
NUTRITION OF THE ELDERLY

**National Scientific Conference**  
**„Science and Young Researchers“**  
**V edition**  
**June 05, 2021**



- 10 13:40 – 13:50 **INEZ MRUK**  
(Intercollegiate Faculty of Biotechnology UG & MUG, Laboratory of Biophysics)  
PLATINUM NANOPARTICLES AND THEIR IMPACT ON DOXORUBICIN ACTIVITY (ENG)  
**Coffee Break**
- 11 14:00 – 14:10 **PATRYCJA MŚCIWUJEWSKA**  
(State Higher School of Technology and Economics in Jarosław)  
PREVENTION IS BETTER THAN CURE – CANCEROUS DISEASES
- 12 14:10 – 14:20 **SZCZEPAN OLSZEWSKI**  
(Gdansk College of Health - Students' Science Club - Dietetyka WSZ)  
OXIDATIVE STRESS – FRIEND OR ENEMY?
- 13 14:20 – 14:30 **ANASTAZJA POCZTA**  
(University of Lodz)  
NEW MELPHALAN ANALOGS AS INDUCERS OF MITOTIC CATASTROPHE AND APOPTOSIS  
IN HEMATOLOGICAL MALIGNANCY CELLS (ENG)
- 14 14:30 – 14:40 **PATRYCJA ŚLIWIŃSKA**  
(Gdansk University of Physical Education and Sport)  
BODY IMAGE AND PHYSICAL ACTIVITY OBJECTIVES PHYSICAL EDUCATION TEACHERS
- 15 14:40 – 14:50 **NATALIA TYNDORF**  
(Ludwik Rydygier Collegium Medicum in Bydgoszcz, Nicolaus Copernicus University in Toruń)  
PSYCHODERMATOLOGY – THE INFLUENCE OF STRESS ON THE CONDITION OF THE SKIN
- 16 14:50 – 15:00 **NATALIA WOJTAROWICZ**  
(University School of Physical Education in Wrocław)  
ASSESSMENT OF THE FUNCTIONAL STATE OF NON-PROFESSIONAL CROSSFIT ATHLETES
- 17 15:00 – 15:10 **WOJCIECH ZEZULIŃSKI**  
(Students Scientific Association at the Chair and Department of Medical Microbiology,  
Medical University of Lublin)  
DISINFECTION, ANTISEPSIS AND ASEPTICS DURING COVID 19 PANDEMIC
- 18 15:10 – 15:20 **JULIA ZYŚK**  
(Medical University of Lublin)  
MICROFLORA ON DISPOSABLE MASKS ACCORDING TO THE TIME OF USE
- 19 15:20 – 15:30 **DAWID ŻYREK**  
(Wrocław Medical University)  
CROSS-RESISTANCE TO METHOTREXATE AND AZOLES IN CANDIDA SPP. STRAINS  
ISOLATED FROM PATIENTS TREATED WITH CYTOSTATICS

### **Presentations**

- 1 **AGNIESZKA ARENDT-GARBULA**  
(Gdansk College of Health)  
SMALL INTESTINAL BACTERIAL OVERGROWTH (SIBO) – SYMPTOMS AND DIAGNOSIS
- 2 **MAGDALENA DANISZEWSKA**  
(Gdansk College of Health)  
DIET TREATMENT AND MANAGEMENT OF SIBO
- 3 **ADRIANNA BARAN**  
(Medical University of Lublin)  
WE APPRECIATE WHEN WE LOSE – POSTTRAUMATIC GROWTH AMONG PATIENTS SUFFERING FROM  
CANCER
- 4 **NATALIA BIAŁOŃ**  
(Medical University of Silesia in Katowice)  
INFLUENCE OF GUT MICROBIOME ON THE BRAIN
- 5 **KLAUDIA BONOWICZ**  
(Collegium Medicum UMK, Bydgoszcz, Poland)  
ARTIFICIAL NEURAL NETWORK AS A WAY TO IDENTIFY CELLULAR SENESCENCE (ENG)





- 6 **MARLENA BUDEK**  
*(Ludwik Rydygier Collegium Medicum in Bydgoszcz Nicolaus Copernicus University in Toruń)*  
SMALL BOWEL NEUROENDOCRINE TUMORS – BRIEFLY ON PATHOPHYSIOLOGY,  
DIAGNOSIS AND TREATMENT
- 7 **MARLENA BUDEK**  
*(Ludwik Rydygier Collegium Medicum in Bydgoszcz Nicolaus Copernicus University in Toruń)*  
5-HYDROXYINDOLEACETIC ACID – IS IT STILL IMPORTANT IN THE DIAGNOSIS OF NEUROENDOCRINE  
TUMORS?
- 8 **TYMON BYKOWSKI**  
*(Students Research Club of Medical Biology, Ludwik Rydygier Collegium Medicum in Bydgoszcz, Nicolaus Copernicus University in Toruń)*  
THE ROLE OF SELECTED DISORDERS OF LIPID METABOLISM IN THE PATHOGENESIS OF ALZHEIMER'S  
DISEASE
- 9 **JUSTYNA CABAJ**  
*(Medical University of Lublin)*  
ANTITUMOR ACTIVITY OF BETULIN AND ITS DERIVATIVES, WITH PARTICULAR EMPHASIS ON LUNG  
CANCER THERAPY
- 10 **KORNELIA CICHÓN**  
*(Students' scientific circle of cell biology and ultrastructure department of histology and embryology, Nicolaus Copernicus University in Toruń, Ludwik Rydygier Collegium Medicum in Bydgoszcz, Poland)*  
THE EFFECT OF VITAMIN A IN THE TREATMENT OF PATIENTS WITH OVARIAN CANCER
- 11 **MAGDALENA DĘBIEC**  
*(Medical University of Silesia)*  
FRIEND OR FOE? THE ROLE OF ENDOGENOUS FACTORS IN UNDERSTANDING NEURAL STEM CELL  
BIOLOGY
- 12 **DOMINIK DUDEK**  
*(Students Research Club of Medical Biology, Ludwik Rydygier Collegium Medicum in Bydgoszcz, Nicolaus Copernicus University in Toruń)*  
ROLE OF MICRORNA IN PARKINSON'S DISEASE
- 13 **KATARZYNA DUDZIŃSKA**  
*(University of Rzeszow)*  
PHYSICAL ACTIVITY OF OFFICIALS FROM MIELEC
- 14 **WERONIKA FAŁĘCKA**  
*(Students Research Club of Medical Biology, Ludwik Rydygier Collegium Medicum in Bydgoszcz Nicolaus Copernicus University in Toruń)*  
CORRELATION BETWEEN PARKINSON'S DISEASE AND MELANOMA
- 15 **DAWID GAWEL**  
*(Jerzy Kukuczka Academy of Physical Education in Katowice)*  
ACUTE AND CHRONIC IMPACT OF BLOOD FLOW RESTRICTION ON MAXIMAL STRENGTH (ENG)
- 16 **MARTA HAŁAS-WIŚNIEWSKA**  
*(Nicolas Copernicus University in Toruń, Collegium Medicum in Bydgoszcz)*  
THE EFFECT OF EZRIN EXPRESSION ON MIGRATION POTENTIAL OF CANCER CELL LINES
- 17 **JUSTYNA JANDERNAL**  
*(Regional Specialist Hospital Dr Władysław Biegański in Grudziądz)*  
ADVANCED COLON CANCER – TREATMENT BASED ON CURRENT GUIDELINES
- 18 **DORIAN JAREK**  
*(Students Research Club of Medical Biology, Ludwik Rydygier Collegium Medicum in Bydgoszcz, Nicolaus Copernicus University in Toruń)*  
ROLE OF PTAU181 IN PATOGENESIS OF ALZHEIMER'S DISEASE
- 19 **KAROLINA KARAŚ**  
*(Student research club of travelers, University of Rzeszow)*  
PHYSICAL ACTIVITY OF SCHOOL-AGE YOUNG PEOPLE IN PRIMARY SCHOOL IN KSIĘŻPOL

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- 20 **KAMILA KASPRZAK-DROZD**  
*(Medical University of Lublin)*  
TLC-DPPH AS A METHOD FOR DETERMINING THE ANTIOXIDANT PROPERTIES OF FUNCTIONAL FOOD (THEORETICAL BASICS AND ANALYSIS)
- 21 **JOANNA KRUSZKA**  
*(Students Research Club of Medical Biology, Ludwik Rydygier Collegium Medicum in Bydgoszcz, Nicolaus Copernicus University in Toruń)*  
OXIDATIVE STRESS IN HUNTINGTON'S DISEASE
- 22 **AGNIESZKA ŁASKA-JESIONOWSKA**  
*(University of Lodz)*  
HYDROXY ACIDS AND THEIR ROLE IN ANTI-ACNE THERAPY (ENG)
- 23 **BARBARA MADOŃ**  
*(Student Research Circle at the Chair and Department of Epidemiology and Clinical Research Methodology, Medical University of Lublin)*  
POTENTIAL ROLE OF GUT MICROBIOTA IN COURSE AND DEVELOPMENT OF DIABETES MELLITUS
- 24 **JAN MILANOWSKI**  
*( Students Research Club of Medical Biology, Ludwik Rydygier Collegium Medicum in Bydgoszcz, Nicolaus Copernicus University in Toruń)*  
ROLE OF SELECTED PRO-INFLAMMATORY CYTOKINES IN HUNTINGTON'S DISEASE
- 25 **MICHAŁ MROTEK**  
*(Students Research Club of Medical Biology, Ludwik Rydygier Collegium Medicum in Bydgoszcz Nicolaus Copernicus University in Toruń)*  
REMYELINATION IN MULTIPLE SCLEROSIS – ITS IRREGULARITIES AND THERAPEUTIC OPPORTUNITIES
- 26 **PAULINA MUCHA**  
*(Students Research Club of Medical Biology, Ludwik Rydygier Collegium Medicum in Bydgoszcz, Nicolaus Copernicus University in Toruń)*  
THE IMPACT OF MENTAL HEALTH ON THE PERCEPTION OF PHYSICAL PAIN
- 27 **PAWEŁ MYŚLIBORSKI-WOŁOWSKI**  
*(Department of Clinical Oncology in Grudziądz)*  
NUTRITIONAL TREATMENT OF CANCER PATIENTS
- 28 **AGNIESZKA NAWROCKA**  
*(Students Research Group of Cell Biology and Ultrastructure, Nicolaus Copernicus University in Toruń, Collegium Medicum in Bydgoszcz)*  
SARS-COV-2 – THERAPEUTIC STRATEGIES IN VITRO – A REVIEW
- 29 **MALWINA NOWOSADA**  
*(Gdansk College of Health)*  
HEALTH PROMOTING PROPERTIES OF COFFEE
- 30 **PAULINA PELC**  
*(Medical University in Lublin)*  
POCHP- EDUCATIONAL ROLE OF THE NURSE
- 31 **MAGDA PIĄTKOWSKA**  
*(Nicolaus Copernicus University in Toruń, Collegium Medicum in Bydgoszcz)*  
THE ROLE OF METALLOPROTEINASES IN CANCER PROGNOSIS AND THERAPY
- 32 **EWA PIEKARSKA**  
*(Student Scientific Association at Department of Epidemiology and Clinical Research Methodology Medical University of Lublin)*  
MALE INFERTILITY AND VITAMIN D (ENG)
- 33 **ZOFIA PIETRZAK**  
*(Student Scientific Association at the Department and Clinic of General and Children's Ophthalmology of the Medical University of Lublin)*  
THE EFFECT OF DRUGS ON THE ORGAN OF VISION



- 34 **KAMIL PYTLAK**  
*(Jan Kochanowski University of Kielce)*  
PREVENTION OF DIABETES COMPLICATIONS CONCERNING ROLE OF MODERN PHARMACOTHERAPY
- 35 **AGATA ROLNIK**  
*(University of Lodz)*  
ANTIOXIDANT PROPERTIES OF PREPARATION FROM CUCURBITS VEGETABLES IN 'IN VITRO' STUDIES  
(ENG)
- 36 **DARIA RUDNIK**  
*(University School of Physical Education in Wrocław)*  
THE VENTRAL SWIMMING START: STATE OF THE ART (ENG)
- 37 **JAGODA SKRZESZEWSKA**  
*(Students Research Club of Medical Biology, Ludwik Rydygier Collegium Medicum in Bydgoszcz Nicolaus Copernicus University in Toruń)*  
THE EFFECT OF COFFEE CONSUMPTION ON TYPE 2 DIABETES
- 38 **AGATA ŚLADEK**  
*(School of Health Sciences at the Medical University of Silesia)*  
THE PROBLEM OF RECTUS ABDOMINIS DIASTASIS IN PHYSIOTHERAPY. WOMEN'S AWARENESS OF THE RECTUS ABDOMINIS DIASTASIS DURING PREGNANCY AND AFTER CHILDBIRTH. PREVENTION AND THERAPY
- 39 **DOROTA SZPYTMA**  
*(Medical University of Lublin)*  
BURNOUT PROBLEM AMONG HEALTH CARE WORKERS
- 40 **ANITA ŚWIERZ**  
*(Student Research Club of Department of Clinical Chemistry and Laboratory Diagnostics, Medical University of Silesia)*  
TNF-A INHIBITORS THERAPY IN RHEUMATOID ARTHRITIS
- 41 **NATALIA TARASEK**  
*(Scientific Circle at the Chair and Department of Immunology and Serology, Medical University of Silesia in Katowice)*  
STARVATION – ALLY OR ENEMY OF THE IMMUNE SYSTEM?
- 42 **NATALIA WILCZEK**  
*(Student Research Circle at the Chair and Department of Epidemiology and Clinical Research Methodology, Medical University of Lublin)*  
APPLICATION OF ARTIFICIAL INTELLIGENCE (AI) IN MAMMOGRAPHY
- 43 **NATALIA WILCZEK**  
*(Student Research Circle at the Chair and Department of Epidemiology and Clinical Research Methodology, Medical University of Lublin)*  
THE POTENTIAL ROLE OF VITAMIN D IN DEVELOPMENT OF AUTISM SPECTRUM DISORDER
- 44 **WIOLETTA ZIELIŃSKA**  
*(Collegium Medicum in Bydgoszcz Nicolaus Copernicus University in Toruń)*  
COLLECTIVE VS. SINGLE CELL MIGRATION. HOW TO STUDY MIGRATION IN CELL CULTURE?
- 45 **WIOLETTA ZIELIŃSKA**  
*(Collegium Medicum in Bydgoszcz Nicolaus Copernicus University in Toruń)*  
TRPM2 CALCIUM CHANNEL IN INFLAMMATORY RESPONSE OF ENDOTHELIAL CELLS
- 46 **ALICJA ZIĘTARA**  
*(Students Research Club of Medical Biology, Ludwik Rydygier Collegium Medicum in Bydgoszcz Nicolaus Copernicus University in Toruń)*  
PREVENTION OF ALZHEIMER'S DISEASE

### **Posters**

- 1 **EMILIA DOMEL**  
*(Medical University of Białystok)*  
OXIDATIVE STRESS AND THE HEALING OF CRANIOFACIAL BONES





- 2 **MARTYNA KUCZYŃSKA**  
(*University of Gdańsk*)  
PSORIASIS AND STRESS
- 3 **MARTYNA KUCZYŃSKA**  
(*University of Gdańsk*)  
PSORIASIS AND OBESITY
- 4 **AGNIESZKA SKIBSKA**  
(*Medical University of Lodz*)  
SHIKIMIC ACID AS AN INHIBITOR OF TYROSINASE ACTIVITY IN SKIN PIGMENTATION DISORDERS
- 5 **ALEKSANDRA WOLSKA**  
(*Screening Laboratory of Biological Activity Tests and Collection of Biological Material, Wrocław Medical University Biobank*)  
SYNTHESIS AND EVALUATION OF BIOLOGICAL ACTIVITY OF NEW 5-(IMINOMETHYL) PYRIMIDINE DERIVATIVES
- 6 **ALEKSANDRA WOLSKA**  
(*Screening Laboratory of Biological Activity Tests and Collection of Biological Material, Wrocław Medical University Biobank*)  
THE POLISH BIOBANKING NETWORK - THE NEXUS BETWEEN GOOD RESEARCH BASED ON HIGH QUALITY PILLARS EXPLOITING NATIONAL SCIENTIFIC POTENTIAL IN COOPERATION WITH EUROPEAN BIOBANKING INFRASTRUCTURE BBMRI-ERIC
- 7 **ANNA MARIA ZOŃ**  
(*Wrocław Medical University*)  
CARDIOVASCULAR SYSTEM MANIFESTATION OF COVID-19
- 8 **ANNA MARIA ZOŃ**  
(*Wrocław Medical University*)  
DIFFERENT FACES OF CORONARY ARTERY SYNDROMES

## **TECHNICAL SCIENCES SESSION**

### **On-line Presentations**

- 1 15:40 – 15:50 **SZYMON SENYK, ARKADIUSZ CHODKIEWICZ**  
(*Doctoral School, Military University of Technology, Warsaw*)  
ANALYSIS OF THE PROPERTIES OF HEXAGONAL MICRO AND NANO BORON NITRIDE AS AN ADDITIVE TO LUBRICANTS
- 2 15:50 – 16:00 **CEZARY DRENDA**  
(*AGH University of Science and Technology*)  
ANALYSIS OF TRIBOLOGICAL PROPERTIES AT ELEVATED TEMPERATURE OF WELDED LAYERS
- 3 16:00 – 16:10 **RAFAL DUNAL**  
(*Lodz University of Technology*)  
ORGANIC FIELD EFFECT TRANSISTORS MADE BY SOLUTION METHODS
- 4 16:10 – 16:20 **PIOTR HAŁUBEK**  
(*AGH University of Science and Technology*)  
ARE URBAN CABLEWAYS COMFORTABLE FOR PASSENGERS? VIBRATION MEASUREMENTS IN MEANS OF PUBLIC TRANSPORT
- 5 16:20 – 16:30 **ALICJA HOŁOWIECKA**  
(*Lublin University of Technology*)  
THE (UN)BREAKABLE ENIGMA - MATHEMATICAL METHODS OF BREAKING ENIGMA'S CIPHER



- 6 16:30 – 16:40 **MATEUSZ KOPEC**  
(*Institute of Fundamental Technological Research Polish Academy of Sciences, Warsaw*)  
A NOVEL FAST LIGHT ALLOYS STAMPING TECHNOLOGY (FAST) FOR COMPLEX TITANIUM ALLOY COMPONENTS (ENG)
- 7 16:40 – 16:50 **MICHAŁ PALCZEWSKI**  
-  
WHICH WAY FURTHER IN PHYSICS? (ENG)
- 8 16:50 – 17:00 **IGOR PERLIKOWSKI**  
(*Wroclaw University of Science and Technology*)  
CZTS – A NEW MATERIAL FOR THIN FILM PHOTOVOLTAICS: FUNDAMENTAL STUDIES
- 9 17:00 – 17:10 **MICHAŁ STARCZEWSKI**  
(*Silesian University of Technology; Zlotecki Sp. z o.o.*)  
IMPROVING THE QUALITY OF PISTON CASTINGS MADE OF NEAR-EUTECTIC AL-SI ALLOYS – THE IMPACT OF THE USE OF PRODUCTION RETURNS ON THE QUALITY OF THE RAW MATERIAL
- 10 17:10 – 17:20 **BARBARA STEPIEŃ**  
(*AGH University of Science and Technology*)  
ANALYSIS OF THE INFLUENCE OF SELECTED FACTORS ON GEOMETRICAL PARAMETERS OF THE SURFACE LAYER OF MAGNETICALLY ABRASIVE PROCESSED ELEMENTS WITH THE USE OF MAGNETORHEOLOGICAL FLUIDS
- 11 17:20 – 17:30 **RADOSŁAW SZYMON**  
(*Wroclaw University of Science and Technology*)  
PHONON SPECTRA ANALYSIS FOR INVESTIGATION OF PROPERTIES OF ALGAN/GAN/ALN NANOWIRES
- 12 17:30 – 17:40 **ANNA TEKIELI**  
(*Cracow University of Technology*)  
THE IMPACT OF BETALAINS ON ANTIMICROBIAL ACTIVITY OF MULTI-COLOURED P. GRANDIFLORA PETALS

### **Presentations**

- 1 **KATARZYNA BEDNARCZYK**  
(*University of Lodz*)  
THE USE OF VARIOUS METAL CITRATES IN THE SYNTHESIS OF GOLD NANOPARTICLES
- 2 **ANNA FENYK**  
(*University of Lodz*)  
FUNCTIONAL SMART MATERIALS AND THEIR CURRENT IMPORTANCE AND APPLICATIONS
- 3 **SZYMON GODEK**  
(*Main School of Fire Service*)  
THE IMPACT OF SARS-COV-2 ON THE WORK OF THE OHS SERVICE
- 4 **KAROL GRZELAK**  
(*Lodz University of Technology*)  
RECONSTRUCTION PROCESS OF COMPLEX SHAPED PART USING 3D SCANNING
- 5 **KATARZYNA JANKOWSKA**  
(*Poznan University of Technology*)  
REMOVAL OF DYES FROM AQUEOUS SOLUTIONS BY SYSTEM MADE OF LACCASE/ELECTROSPUN FIBERS/MEMBRANE (ENG)
- 6 **KAROLINA KOPROWSKA**  
(*University of Lodz*)  
SYNTHESIS OF NEW FLUOROPHORES - DERIVATIVES OF 2-ADAMANTYL- AND 2,7-DIADAMANTYLPYRENE
- 7 **KAROLINA KOPROWSKA**  
(*University of Lodz*)  
SYNTHETIC AND NATURAL COMPONENTS OF FRAGRANCE COMPOSITION



- 8 **AGNIESZKA LECH**  
(*University of Lodz*)  
THE USE OF POLYPHENOLS IN THE SYNTHESIS OF SILVER NANOPARTICLES
- 9 **AGNIESZKA MAŃKOWSKA**  
(*Lodz University of Technology*)  
COMMUNITY ARCHITECTURE /TEMPORARY ARCHITECTURE IN SOCIAL SERVICE/ (ENG)
- 10 **ADRIAN NOWAK**  
(*Czestochowa University of Technology*)  
INFLUENCE OF THE MODIFICATION OF ALUMINOSILICATE GLASSES ON VISCOSITY AND ACIDITY MODULUS
- 11 **ADAM PAŃKO**  
(*AGH University of Science and Technology*)  
PATTERN RECOGNITION AND ELECTROFACIES IDENTIFICATION USING ARTIFICIAL INTELLIGENCE (AI)
- 12 **ANNA PIETRZYK**  
(*Student Research Club by Department of Cosmetic and Pharmaceutical Chemistry, Pomeranian Medical University in Szczecin*)  
THE EFFECT OF EXTRACTION CONDITIONS ON THE ANTIOXIDANT PROPERTIES OF ALCOHOLIC EXTRACTS OF APRICOT (*PRUNUS ARMENIACA L.*) LEAVES COLLECTED AFTER THE VEGETATION
- 13 **BARBARA POPANDA**  
(*AGH University of Science and Technology*)  
EFFECT OF SOLVENT AND CATALYST TYPES ON STABILITY AND PROPERTIES OF METAL PHTHALOCYANINE IN THE HYBRID GLASS
- 14 **ALEKSANDRA RZESZOWSKA**  
(*Wroclaw University of Science and Technology*)  
MODEL-BASED CONTROLLERS IN CONTROL OF DYNAMIC OBJECTS
- 15 **MARIETTA SZEWCZYK**  
(*Silesian University of Technology*)  
GLYCOCONJUGATION OF NATURAL BIOLOGICALLY ACTIVE COMPOUNDS AS A METHOD OF OBTAINING POTENTIAL ANTICANCER AGENTS
- 16 **JOANNA SZEWCZYK**  
(*Poznan University of Technology*)  
EXPERT SYSTEMS IN MEDICINE

### **Posters**

- 1 **FILIP BORYS**  
(*Warsaw University of Technology*)  
SYNTHESIS AND STUDY OF DIBENZO[B, F]OXEPINE COMBINED WITH FLUOROAZOBENZENES – NEW PHOTOSWITCHES FOR APPLICATION IN BIOLOGICAL SYSTEMS (ENG)
- 2 **ANNA BRUDNY**  
(*Łukasiewicz Research Network — Institute of Non-Ferrous Metals*)  
INFLUENCE OF SHIELDING GASES USED IN WAAM TECHNOLOGY ON THE GEOMETRY OF THE ELEMENTS PRINTED USING CUAL8 ALLOY (ENG)
- 3 **KINGA CZARNOTA**  
(*Jagiellonian University*)  
APPLICATION OF BIOORTHOGONAL HETERO-DIELS–ALDER CYCLOADDITION OF 5-ARYLIDENE DERIVATIVES OF 1,3-DIMETHYLBARBITURIC ACID AND VINYL THIOETHER FOR IMAGING INSIDE LIVING CELLS
- 4 **MATEUSZ DUBICKI**  
(*West Pomeranian University of Technology in Szczecin*)  
EVALUATION OF THE ANTIBACTERIAL PROPERTIES OF CUNPS/TIO<sub>2</sub>-LOADED CARBON FIBERS BASED ON DEACTIVATION ENTEROBACTER CLOACAE AND BACILLUS SUBTILIS BACTERIA CELLS



- 5 **JOANNA DZIAŁKOWSKA**  
(Adam Mickiewicz University)  
HIGHLY EFFECTIVE SUPPORTED IONIC LIQUID-PHASE (SILP) CATALYSTS: CHARACTERIZATION AND APPLICATION TO THE HYDROSILYLATION REACTION
- 6 **DOMINIKA GOŁASZEWSKA**  
(University of Gdańsk)  
HETEROGENEOUS PHOTOCATALYSIS AND ITS APPLICATION IN ENVIRONMENTAL PROTECTION
- 7 **PAULINA HINC**  
(Adam Mickiewicz University)  
QUATERNARY AMMONIUM SALTS BASED ON BICYCLIC AMINES– SYNTHESIS AND ASSESSMENT OF THE APPLICATION POTENTIAL AS HARDENERS FOR EPOXY RESINS
- 8 **AGNIESZKA KAŁAMAGA**  
(West Pomeranian University of Technology Szczecin)  
EFFECT OF AMMONIA MODIFICATION OF SORPTION PROPERTIES OF CARBON MATERIALS PRODUCED FROM POLYFURFURYL ALCOHOL
- 9 **RAFAL KUKAWKA**  
(Innosil Sp. z o.o.)  
APPLICATION OF NEW BTH DERIVATIVE AS SUPPLEMENT OF STANDARD FUNGICIDAL PROGRAM IN STRAWBERRY CULTIVATION
- 10 **ALEKSANDRA LOREK**  
(Adam Mickiewicz University)  
4-VINYLBENZYL BASED IONIC LIQUIDS AS NOVEL POLYMERIZABLE GROUP OF COMPOUNDS
- 11 **JOANNA PACYŃSKA**  
(Adam Mickiewicz University in Poznań)  
DEVELOPMENT AND VALIDATION OF A MULTICLASS METHOD FOR ANALYSIS OF VETERINARY ANTIBIOTIC RESIDUES IN EGGS BY LIQUID CHROMATOGRAPHY-TANDEM MASS SPECTROMETRY (ENG)
- 12 **MAGDA PEŚKA**  
(Military University of Technology)  
METHODS OF HYDROGEN STORAGE IN THE AUTOMOTIVE INDUSTRY
- 13 **REGINA PRZYWARA**  
(Rzeszow University of Technology)  
INVESTIGATION OF PARTICLE SIZE DISTRIBUTION OF ADSORBENTS (ENG)
- 14 **AGNIESZKA RACZYŃSKA**  
(Wrocław University of Science and Technology)  
THE INFLUENCE OF GREEN SOLVENTS ON THE ENANTIOSELECTIVITY OF BIOTRANSFORMATION REACTIONS- IONIC LIQUIDS AND DEEP EUTECTIC SOLVENTS
- 15 **MAGDALENA RZESZOTARSKA**  
(Military University of Technology)  
IS IT POSSIBLE TO MANUFACTURE MG<sub>2</sub>FEH<sub>6</sub> FROM AUSTENITIC STAINLESS STEEL?
- 16 **ANDREA SZPECHT**  
(Adam Mickiewicz University)  
IONIC LIQUIDS BEARING ONE OR MORE 4-VINYLBENZYL GROUPS AS POLYMERIZATION INITIATORS FOR EPOXY RESINS (ENG)
- 17 **PIOTR TOBIASZ**  
(Warsaw University of Technology, Faculty of Chemistry)  
SYNTHESIS OF HYBRID DIBENZO[B,F]OXEPINE AND 4,4'-DIETHOXYBIPHENYL SUBUNITS
- 18 **JADWIGA TOLPA**  
(West Pomeranian University of Technology Szczecin)  
COMPOSITION, DISTRIBUTION, CHARACTERISTICS AND APPLICATIONS OF ACTIVATED CARBONS (ENG)
- 19 **ALICJA TROCKA**  
(Gdańsk University of Technology)  
SYNTHESIS AND STUDY OF SPECTROSCOPIC PROPERTIES MOLECULAR PROBES FOR DETERMINING THE ABSOLUTE CONFIGURATION OF SECONDARY ALCOHOLS



- 20 **BARBARA ZAKRZEWSKA**  
(University of Warsaw)  
ELECTROCATALYTIC PROPERTIES OF REDUCED-GRAPHENE-OXIDE SUPPORTED BY TRANSITION METAL HEXACYANOFERRATES AS AN EFFICIENT CATALYSTS FOR OXYGEN REDUCTION (ENG)
- 21 **DAWID ZIELIŃSKI**  
(Poznan Science and Technology Park)  
INVESTIGATION ON DABCO DICYANAMIDE IONIC LIQUIDS APPLICATION AS LATENT CURING AGENTS FOR EPOXY RESIN

## NATURAL SCIENCES SESSION

### On-line Presentations

- 1 17:50 – 18:00 **KAROLINA BASIAK**  
(University of Wrocław)  
CAR-T AS A NOVEL ANTICANCER THERAPY: RECENT DISCOVERIES AND LIMITATIONS
- 2 18:00 – 18:10 **ALEKSANDRA BURZACKA-HINZ**  
(University of Gdańsk)  
HOW CAN TAXONOMIC REVISION AFFECT THE PROTECTION OF BIODIVERSITY?
- 3 18:10 – 18:20 **MAJA HARTUNG**  
(University of Warmia and Mazury)  
IMMUNOHISTOCHEMICAL CHARACTERIZATION OF PACAP EXPRESSION IN THE PIG ENTERIC NEURONS OF THE DUODENUM DURING STREPTOZOTOCIN INDUCED HYPERGLICAEMIA CONDITIONS
- 4 18:20 – 18:30 **ADRIANNA MICHNIEWICZ**  
University of Warmia and Mazury  
EFFECT OF LOW AND HIGH DOSES OF ACRYLAMIDE ON THE EXPRESSION OF GALANIN (GAL) IN INTRAMURAL NEURONS OF THE PORCINE JEJUNUM
- 5 18:30 – 18:40 **JULIA SADOWSKA**  
(University of Life Sciences in Lublin)  
KEEPING AND BREEDING SOLITARY BEE – A WILD POLLINATOR FOR EVERYONE (OSMIA)
- 6 18:40 – 18:50 **KATARZYNA ZEGADŁO**  
(Jan Kochanowski University of Kielce)  
CHARACTERISTICS OF GENOME SEQUENCE OF PROTEUS MIRABILIS K817 (ENG)
- 18:50 **End of the Conference**

### Presentations

- 1 **BARBARA DUDA**  
(University of Life Sciences in Lublin)  
NOSEMA – NOT ONLY BEE PARASITES (ENG)
- 2 **PAULINA JEDYNAK**  
(Warsaw University of Life Sciences)  
EFFECT OF MECHANICAL CONDITIONING ON GROWTH DYNAMICS AND AUXIN CONTENT IN SELECTED SPECIES OF ORNAMENTAL PLANTS
- 3 **OSKAR KAMIŃSKI**  
(Adam Mickiewicz University in Poznań)  
TISSUE ENGINEERING AS A TECHNIQUE OF REGENERATIVE MEDICINE
- 4 **EWELINA MASIARZ**  
(Warsaw University of Life Sciences)  
ASSESSMENT OF CONSUMER KNOWLEDGE ON DRIED FRUIT SNACKS AND THE AVAILABILITY OF THESE PRODUCTS ON THE POLISH MARKET





- 5 **EWELINA MASIARZ**  
(*Warsaw University of Life Sciences*)  
THE USE OF DRYING IN THE PRODUCTION OF CEREAL-GRAIN BARS
- 6 **KAMILA NURKOWSKA**  
(*Silesian University of Technology*)  
COSMETIC POTENCIAL OF CENTELLA ASIATICA
- 7 **KAMIL OSTROWSKI**  
(*Adam Mickiewicz University in Poznań*)  
SYNTHESIS OF NEW CAFFEINE DERIVATIVES OF BIOLOGICAL ACTIVITY
- 8 **JAKUB OSYPIUK**  
(*University of Warmia and Mazury in Olsztyn*)  
CHALLENGES OF MODERN ANIMAL THERAPY
- 9 **JAKUB OSYPIUK**  
(*University of Warmia and Mazury in Olsztyn*)  
DOG ROLES IN HUMAN LIFE
- 10 **ALEKSANDRA PURKIEWICZ**  
(*University of Warmia and Mazury in Olsztyn*)  
ASSESSMENT OF THE SENSORY QUALITY OF THE DESIGNED DATE-BASED SNACK WITH INCREASED OIL CONTENT
- 11 **JULIA SADOWSKA**  
(*University of Life Sciences in Lublin*)  
DIET OF HONEYBEE – IMMUNO-STIMULATING FACTOR
- 12 **KAROLINA SMYTKIEWICZ**  
(*Institute of Soil Science and Plant Cultivation, State Research Institute*)  
USING THE SPAD INDEX TO ASSESS WINTER WHEAT NITROGEN NUTRITION UNDER DIFFERENT CULTIVATION SYSTEMS
- 13 **IWONA SZYMAŃSKA**  
(*Warsaw University of Life Sciences*)  
THE ROLE OF VARIOUS LIPIDS IN SHAPING THE STABILITY OF DAIRY CREAM ANALOGUES (ENG)
- 14 **IWONA SZYMAŃSKA**  
(*Warsaw University of Life Sciences*)  
IMPACT OF SONICATION TIME ON THE PROPERTIES OF O/W EMULSIONS WITH DIFFERENT LIPIDS (ENG)
- 15 **MARTA WĘCŁAWSKA**  
(*Adam Mickiewicz University in Poznan*)  
PETROGRAPHY OF POTTERY FROM TEL AKKO ON THE EXAMPLE OF MORTARIA
- 16 **JOANNA ZAZIĄBŁO**  
(*University of Opole*)  
INFLUENCE OF PHTHALOCYANINES ON MICROORGANISMS AND THEIR USE IN PACT THERAPY

### **Posters**

- 1 **MARTYNA CHOTOMSKA**  
(*Wroclaw University of Environmental and Life Sciences*)  
NOVEL IFN- $\gamma$  REPORTER SENTINELS FOR THE REAL-TIME MONITORING OF LABORATORY MICE'S HEALTH (ENG)
- 2 **KRZYSZTOF GOLBA**  
(*University of Rzeszow*)  
STARCHES OF VARIOUS BOTANICAL ORIGIN USED IN THE FOOD INDUSTRY
- 3 **SZYMON TOMASZ JUCHNIEWICZ**  
(*Wroclaw University of Environmental and Life Sciences*)  
HYDROLYSIS OF POULTRY BY-PRODUCTS (ENG)



- 4 **BARTOSZ KAMIŃSKI**  
(University of Warsaw)  
PEPTIDES BASED ON SER-HIS MOTIF IN PREBIOTIC REACTIONS
- 5 **ALEKSANDRA KARPIESIUK**  
(University of Warmia and Mazury in Olsztyn)  
THE PREVALENCE OF TOXIC FUNGI IN SELECTED DRIED PLANTS USED IN RABBIT NUTRITION
- 6 **MARCIN LEWICKI**  
(University of Rzeszow)  
SEA BUCKTHORN (*HIPPOPHAË RHAMNOIDES L.*) IN HUMAN NUTRITION
- 7 **DOMINIKA NGUYEN NGOC**  
(Maria Curie-Skłodowska University)  
DIRECT AND INDIRECT MECHANISMS FOR PLANT STIMULATION BY PLANT GROWTH PROMOTING RHIZOBACTERIA (PGPR)
- 8 **WIOLETTA SEK**  
(Warsaw University of Life Sciences)  
MICROBIOLOGICAL ANALYSIS UNPASTEURIZED VEGETABLE JUICES
- 9 **KORNELIA STEINDEL**  
(Wrocław University of Science and Technology)  
GRANZYME A ACTIVATES PROGRAMMED CELL DEATH
- 10 **MAGDALENA WĄDRZYK**  
(Wrocław University of Science and Technology)  
WHAT DO WE KNOW ABOUT HUMAN NEUTROPHIL SERINE PROTEASE 4?
- 11 **KAROLINA WORONKO**  
(University of Szczecin)  
AS-PCR BASED DETECTION AND IDENTIFICATION OF GLU-A1 HIGH MOLECULAR WEIGHT GLUTENIN SUBUNITS (HMW-GS) IN POLISH COMMON WHEAT CULTIVARS (*TRITICUM AESTIVUM L.*)
- 12 **KAROLINA WORONKO**  
(University of Szczecin)  
HOW DO ENVIRONMENTAL FACTORS INFLUENCE THE END-USE QUALITY OF COMMON WHEAT (*TRITICUM AESTIVUM L.*)?
- 13 **NATALIA ŻUREK**  
(University of Rzeszow)  
POLYPHENOL PROFILE AND ANTIOXIDANT ACTIVITY OF *CRATAEGUS LAEVIGATA X RHIPIDOPHYLLA X MONOGYNA* FLOWERS, LEAVES AND FRUITS EXTRACTS