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APPROX.

19th International Scientific Conference "The Vital Nature Sign" Program

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Thursday, 15th of May 2025

[Microsoft Teams LINK to the conference](#)

9.00-9.15 (Time zone GMT+3)	Opening of the conference: <i>Rector of Vytautas Magnus University – Prof. Habil Dr. Juozas Augutis</i> <i>Chairman of the conference – Prof. Habil. Dr. Audrius Maruška</i>
Oral presentations. Chairpersons: Prof. Habil. Dr. Audrius Maruška; Prof. Habil. Dr. Magdalena Ligor	
9.15-9.30	Comparative Analysis of Elderberries and Black Chokeberry Extracts Composition by Chromatographic and Spectroscopic Methods <i>Magdalena Ligor, Kinga Stępkowska, Tomasz Ligor</i>
9.30-9.45	Exposure of <i>Spirodela polyrhiza</i> fronds to diclofenac did not alter biometric and physiological parameters while up taking the pharmaceutical compound <i>Fabrizio Pietrini, Magdalena Urbaniak, Laura Passatore, Davide Marzi, Massimo Zacchini, Enrica Donati</i>
10.00-10.15	Induction of conidiation in <i>Trichoderma harzianum</i> <i>Nicola Tiso</i>
10.15-10.30	Antioxidant, Antibiofilm and Bactericidal Properties of Six Polyphenol-Rich Mediterranean Wild Edible Plants <i>Enrica Donati, Valentina Ramundi, Isabella Nicoletti, Laura Righetti, Sara Cimini, Laura De Gara, Francesca Mariani</i>
10.30-11.00	Coffee break
11.00-11.15	Modeling of Wheat Bread Technologies with Buckwheat Flour Sourdough <i>Jurinta Voisvilo, Ammar Y. Jabr, Elena Bartkiene, Vita Lele</i>
11.15-11.30	Physicochemical Analysis of Rice Fermented with <i>Aspergillus oryzae</i> <i>Deimantė Karasiovaitė, Kristina Milčiuvienė, Ernesta Trečiokienė, Jurgita Mikašauskaitė-Tiso</i>
11.30-11.45	The Impact of Spontaneous Sourdoughs on the Quality Characteristics and Acrylamide Formation in Wheat Bread <i>Skaiste Urbanaviciute, Emilija Vandyte, Ema Rozaityte, Lukas Mikoliunas, Povilas Verpecinskas, Roneta Venckute, Vytaute Starkute, Dovile Klupsaite, Ernestas Mockus, Erika Mozurienne, Darius Cernauskas, Egle Kamarauskiene, Elena Bartkiene</i>
11.45-12.00	Spectrometric and HPLC UV-VIS Analysis of Medicinal Plant Extracts: Antioxidant Activity and <i>in Vitro</i> Screening for Anticancer Activity <i>Domantas Armonavičius, Audrius Maruška, Baltramiejus Jakštys, Mantas Stankevičius, Tomas Drevinskas, Kristina Bimbiraitė-Survilienė, Modesta Čaplikaitė, Hirotaka Ihara, Makoto Takafuji, Elżbieta Skrzydlewska, Ona Ragažinskienė, Yutaka Kuwahara, Shoji Nagaoka, Vilma Kaškonienė, Saulius Šatkauskas, Arvydas Kanopka</i>
12.00-12.15	Sustainable Recycling of Automotive Hydrogen Fuel Cells <i>Matas Bašinskas, Benas Gabrielis Urbonavičius</i>
12.15-12.30	Ultrafast TADF In Carbazole-Triazine Derivatives for High-Efficiency OLEDs Through Rapid Triplet Harvesting <i>Melika Ghasemi, Joseph Cameron, Woon Kai Lin, Dmytro Volyniuk, Peter J. Skabara, Juozas V. Gražulevičius, Gjergji Sini</i>
12.30-13.00	Lunch break



Flash presentations I. <i>Chairpersons: Assoc. Prof. Dr. Vilma Kaškonienė; Dr. Rūta Mickienė</i> (time zone GMT+3)	
13.00	Green Solvent-Based Extraction of Phenolic Compounds from Rose Hips: Exploring γ-Valerolactone, Cyrene, and Ethyl Lactate–Ethanol Mixtures Hanna Kaczowska, Marharyta Pestriakova, Aneta Krakowska-Sieprawska, Paweł Fijałkowski, Katarzyna Rafińska, Zbigniew Rafiński
13.07	Study of Biologically Active Compounds of Frozen and Dried Chamomile (<i>Matricaria recutita</i> L.) Goda Gustevičiūtė, Kristina Bimbraitė-Survilienė
13.14	Comparison of the Phytochemical Composition and Biological Activity of Bee Pollen and Flower Pollen Yelyzaveta Lopatina, Vilma Kaškonienė
13.21	Protozoan-Based Sustainable Biofilter for Heavy Metal Remediation Mindaugas Matijūnas, Remigijus Ivanauskas
13.28	The Content of Phenolic Compounds in Extracts from Different Color Carrot (<i>Daucus carota</i> L.) Root Uladzislau Stuharau, Marina Sidorenko, Saulius Mickevicius, Dalia Urbonaviciene
13.35	Determination of Qualitative and Quantitative Composition of Phenolic Compounds in Chaga (<i>Inonotus obliquus</i> (Ach. ex Pers.) Pilát) Samples Ernesta Zaksaitė, Mindaugas Liaudanskas, Vaidotas Žvikas, Sonata Trumbeckaitė
13.42	The Effect of Foliar Biostimulants on Drought Tolerance of Winter Wheat Irena Januškaitienė, Ugnė Diliūnaitė
13.49	Effects of Polyethylene Terephthalate (PET) Plastics on Seed Germination in Four Crop Plants: A Short-Term Germination Assay Irena Januškaitienė, Sanmugavel Saravana
13.56	Production of Lignolytic Enzymes by Basidiomycetes Exposed to Thermal Stress Marta Fernández Camacho, Nicola Tiso
14.03	Sporulation and Production of Secondary Metabolites in <i>T. harzianum</i> Monika Juselytė, Nicola Tiso
14.10-14.25	Coffee break
Flash presentations II. <i>Chairpersons: Dr. Mantas Stankevičius; Dr. Nicola Tiso</i>	
14.25	Additive Manufacturing of PMMA: Advances and Multidisciplinary Applications Maria R. Rojas, Benas G. Urbonavičius
14.32	Development of a Microbial Biofuel Cell Using Biocompatible Nanocomposites Beatričė Kulikauskaitė, Birutė Sapijanskaitė-Banevič, Antanas Zinovičius, Tomas Mockaitis, Arūnas Ramanavičius
14.39	Derivatives Of 2,7-Dibromo-9,9-Dimethyl-9H-Fluorene and 2,7-Dibromo-9,9-Spirobifluorene as Electroactive Materials Rashad Naghizade, A. Kalatozishvili, R. Keruckiene, J. V. Grazuliavicius
14.46	Imidazole And Fluorene Derivatives as Highly Efficient Fluorescent Light Sources: Synthesis and Investigation Mohamed Abdella, Guzauskas Matas, Jurate Simokaitiene, Juozas Vidas Grazulevicius
14.53	Multifunctional Carbazole-Dibenzofuran Derivatives as Emitters and Exciplex-Forming Co-Hosts for Organic LEDs Dovydas Blazevicius, Raminta Beresneviciute, Saulius Grigalevicius, Zih-Ru Heb, Fong-Yu Yangb, Chih-Hao Chang
15.00	Carbazole-Based Near-Infrared Absorbing Organic Photodetectors: Design, Synthesis and Characterization Khushdeep Kaur, Rita Butkutė, Oleksandr Bezvikonnyi, Dmytro Volyniuk, Juozas V. Gražulevičius

15.07 (time zone GMT+3)	A Shift in Lithuanian Rivers Water Quality During the Past Two Decades <u>Giedrė Kacienė</u>
15.14	Isolation and Purification of Enzyme Lysozyme from Chicken Egg White, Evaluation of Antibacterial and Antioxidant Effects <u>Deividas Grigaliūnas</u> , Mantas Stankevičius, Audrius Maruška, Arvydas Kanopka, Inga Pečiulienė
15.22	Waste Food Polymers and Microbial Biocontrol Agents as Promising Enhancers of Growth, Development and Quality of Oregano (<i>Origanum vulgare</i> L.) <u>Liliana Kozłowska</u> , Justyna Nawrocka, Kamila Kulbat-Warycha, Urszula Świercz-Pietrasiak, Dorota Żyżelewicz
15.30	An Overview of Plant-Derived Bioactive Compounds Inhibiting Oral Pathogens: Potential for Natural Oral Care Solutions <u>Kseniya Hetman</u> , Rūta Mickienė, Gintaras Janužis, Kornelijus Micka
15.37	Total Peroxidase Enzymatic Activity of <i>L. edodes</i>, <i>I. lacteus</i> and <i>P. eryngii</i> After Heat Shock <u>Viktorija Sabulytė</u> , Nicola Tiso
15.45	Closing of the Session

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Oral presentations. <i>Chairpersons: Prof. Arvydas Kanopka; Prof. Massimo Zacchini</i>	
9.00-9.15 (time zone GMT+3)	Electroporation-Enhanced Delivery of Bleomycin for Cancer Therapy: An Investigative Study Spanning <i>In Vitro</i>, <i>In Vivo</i>, and Clinical Trials Paulius Ruzgys
9.15-9.30	Utilizing Linear Classifiers for the Multimodal detection of Canine and Feline (Sub) Cutaneous Tumours Greta Rupšytė, Martynas Maciulevičius, Renaldas Raišutis, Mindaugas Tamošiūnas
9.30-9.45	Cannabigerol and 3-O-ethyl Ascorbic Acid Combined Effect on Kinase Base Signaling in UVB Irradiated Keratinocytes Agnieszka Gegotek, Iwona Jarocka-Karpowicz, Neven Zarkovic, Elżbieta Skrzydlewska
9.45-10.00	The Role of Caffeine and Other Xanthine Metabolites in the Modulation of Colonic Inflammation Goda Butaitė, Ugnė Kūlokienė, Rūta Inčiūraitė, Jurgita Skiecevičienė
10.00-10.15	Assessing Outer Membrane Permeabilization of Gram-Negative Bacteria using Electrochemical Impedance Spectroscopy (EIS): Differentiation from Gram-Positive Bacteria and Evaluation of Pulsed Electric Field (PEF) Treatment Efficacy, With and Without Antibiotics Simona Gelažunaitė, Mindaugas Visockis, Paulius Ruzgys, Salvijus Vykertas, Saulius Šatkauskas
10.15-10.30	DNA Methylation Patterns of Behavioural Disorders: A Cross-trait Analysis Saeed Saado, Yanal Alkuddsi, Marius Aleinikovas, Benas Silinskas, Mohammad Almogdad, Mindaugas Skema, Valda Gudynaite, Manal Almukdad
10.30-11.00	<i>Coffee break</i>
11.00-11.15	The Application of Apple Powder to Enhance Quality in Chicken Meat Products Akmara Kurmanbekova, Elena Bartkiene, Aigul Tayeva, Erika Mozuriene, Vytaute Starkute, Dovile Klupsaite, Ernestas Mockus, Ernesta Tolpeznikaite, Lina Anskiene, Romas Ruibys, Pranas Viskelis
11.15-11.30	The Effect of Milk Protein Concentrate and Fermented Grain By-Products on Dough Texture, Physicochemical Properties and Quality of Crackers Nagoori Khadar Basha, Jūratė Malinauskienė, Loreta Šernienė
11.30-11.45	Impact of Valorized Milk Protein Production By-Products on the Growth and Health of Neonatal Piglets Sarunas Badaras, Vytaute Starkute, Ernestas Mockus, Modestas Ruzauskas, Dovile Klupsaite, Erika Mozuriene, Jurgita Dailidaviciene, Agila Dauksiene, Laurynas Vadopalas, Elena Bartkiene
11.45-12.00	Enhancing Bioactivity in Bee Pollen: An Overview of Treatment Methods Vilma Kaškonienė, Vaida Damulienė, Paulius Kaškonas, Audrius Maruška
12.00-12.15	Biological Activity of New Biomaterials Sylwia Terpilowska, Klaudia Piekarska
12.15-12.30	Microbiome Profile Alterations During the First Two Months of Live in Preterm Low-Weight Newborns Milena Mirow, Darja Nikitina, Vilma Ivanauskienė, Vaida Aleksejūnė, Rasa Tamelienė, Jurgita Gailiene, Ilona Aldakauskienė, Juozas Kupcinskas, Jurgita Skieceviciene
12.30-13.00	<i>Lunch break</i>
Flash presentations I. <i>Chairpersons: Domantas Armonavičius, PhD student; MSc. Kristina Bimbraitė-Survilienė</i>	
13.00	Development of an Inflammatory Organoid Model of the Large Intestinal and Assessment of Its Response to Janus Kinase Inhibitors Monika Žilinskaitė, Ugnė Kūlokienė
13.07	Electroporation-Induced Sensitization: Identifying Optimal Conditions for CHO and 4T1 Cell Viability and Membrane Permeabilization Silvija Ambrazevičiūtė, Neringa Barauskaitė-Šarkinienė, Paulius Ruzgys, Saulius Šatkauskas

13.14 (time zone GMT+3)	Cotton Metal Oxide Nanoparticle-Treated Material Action on Microalgae of the <i>Prototheca</i> Genus <u>Agnė Giedraitienė</u> , Rita Šiugždinienė, Modestas Ružauskas, Raminta Rodaitė, Darius Milčius
13.21	Towards Safe and Effective Biomedical Nanocoatings: Plasma-Sputtered Magnesium Nanoparticles with Cytoprotective and Antimicrobial Properties <u>Laura Kairytė</u> , Raminta Rodaitė, Agnė Giedraitienė, Modestas Ružauskas, Rita Šiugždinienė, Šarūnas Varnagiris, Darius Milčius
13.28	Strain-Dependent Antimicrobial Activity of Lactoferrin Against <i>Escherichia coli</i>: an Important Factor That Must Be Taken into Account <u>Kacper Roszak</u> , Oleksandra Pryshchepa, Michalina Ehlert, Dewi Sartika, Agnieszka Ludwiczak, Kamil Szpotkowski, Ewa Olewnik-Kruszkowska, Joanna Rudnicka, Grzegorz Trykowski, Sylwia Wrotek, Paweł Pomastowski
13.35	Association Between IL1RAP Polymorphism and Pituitary Adenoma in the Lithuanian Population <u>Augustė Simanonytė</u> , Meda Norkutė, Kristė Kaikarytė, Rasa Liutkevičienė
13.42	Cell Electrofusion and Viability Assessment after Electroporation <u>Erikas Stravinskas</u> , Baltramiejus Jakštys, Saulius Šatkauskas
13.49	Effect of DNA Methyltransferase 1 Inhibitors on Protein Expression in Cells <u>Arnas Treimakas</u> , Eglė Jakubauskienė
13.56	Assessment of Plant Origin, Microbial Contaminants, and Pigment Levels in Bee Pollen <u>Karina Eidintaitė</u> , Yelyzaveta Lopatina, Vilma Kaškonienė, Rūta Mickienė, Audrius Maruška
14.00-14.15	Coffee break
14.15	Genetic Diversity of Lithuanian Populations of <i>Impatiens noli-tangere</i> L. <u>Rūta Budrevičiūtė</u> , Lina Jocienė, Eugenija Kupčinskienė
14.22	Phytochemical Analysis and Evaluation of Antimicrobial Activity of <i>Aegopodium podagraria</i> L. Aerial Parts <u>Ugnė Gabrytė</u> , Kseniya Hetman, Rūta Mickienė, Audrius Sigitas Maruška
14.29	Prevalence of Micromycetes in Strawberries in Relation to Cultivar and Ripening Stage <u>Jūratė Staveckienė</u> , Rūta Mickienė, Audrius Sigitas Maruška
14.36	Some Aspects of Genetic Diversity of Lithuanian Populations of <i>Impatiens parviflora</i> DC. <u>Vaida Jasionytė</u> , Lina Jocienė, Eugenija Kupčinskienė
14.43	Survival of Tardigrades in Low Temperature Conditions <u>Gintarė Antanavičiūtė</u> , Ingrida Šatkauskienė
14.50	Spectrophotometric Analysis of <i>Canabis sativa</i> L. Extracts and Evaluation of Their Anticancer Activity in vitro <u>Simona Drackytė</u> , Audrius Sigitas Maruška, Juozas Šiurkus, Domantas Armonavičius, Arvydas Kanopka
14.57	Perceptions of Ecosystem Services: Evidence from Communities in Lithuania <u>Bernadeta Laurinaitytė</u> , Gintarė Sujetovienė
15.05	Conference Closing