

# Scripta Scientifica Pharmaceutica

volume 10, 2023, supplement 2

ISSN 2367-6000 (print)  
ISSN 2367-5500 (online)





# Scripta Scientifica Pharmaceutica

*An official publication of Medical University "Prof. Dr. Paraskev Stoyanov" of Varna*

## Editor-in-Chief:

**Petko Marinov**

Dean, Faculty of Pharmacy, Medical University of Varna

## Co-Editor-in-Chief:

**Diana Ivanova**

Department of Biochemistry, Molecular Medicine and Nutrigenomics, Faculty of Pharmacy, Medical University of Varna

## Editorial Board:

**Adriana Trapani**

Aldo Moro University of Bari, Italy

**Alexander Zlatkov**

Medical University–Sofia, Bulgaria

**Bisera Pilicheva**

Medical University–Plovdiv, Bulgaria

**Carlo Franchini**

Aldo Moro University of Bari, Italy

**Carlos L. Cespedes Acuna**

University of Bio Bio of Casilla Chillan, Chile

**Dobri Ivanov**

Medical University of Varna, Bulgaria

**Evgeni Grigorov,**

Medical University of Varna, Bulgaria

**Ilko Getov**

Medical University–Sofia, Bulgaria

**Kaloyan Georgiev**

Medical University of Varna, Bulgaria

**Katarzyna Komosinska-Vassev**

Medical University of Silesia, Poland

**Kristina Mladenovska**

Ss. Cyril and Methodius University of Skopje, North Macedonia

**Marieta Georgieva**

Medical University of Varna, Bulgaria

**Milen Georgiev**

Bulgarian Academy of Sciences, Bulgaria

**Milka Nashar**

Medical University of Varna, Bulgaria

**Ola Ghaleb Ahmed Al Ahdab Albannay**

College of Pharmacy University of Sharjah, United Arab Emirates

**Pavel Olczyk**

Medical University of Silesia, Poland

**Philip J. Wiffen**

Churchill Hospital of Oxford, United Kingdom

**Robert Gaspar**

University of Szeged, Hungary

**Roberto Frontini**

University Hospital of Leipzig, Germany

**Süreyya Ölgün**

Biruni University, Istanbul, Turkey

**Svetlana Georgieva**

Medical University of Varna, Bulgaria

**Ticuta Negreanu-Pirjol**

Ovidius University of Constanta, Romania

**Velichka Andonova**

Medical University of Varna, Bulgaria

**Victoriya Georgiyants**

National University of Pharmacy, Kharkov, Ukraine

*Design and Layout Editing:*

**Emilia Yordanova**

Publishing Department,  
Medical University of Varna

*Web Design and Development:*

**Ognyan Antov**

Publishing Department,  
Medical University of Varna

*Proofreading:*

**Yordanka Peteva**

Publishing Department,  
Medical University of Varna



**Ninth Pharmaceutical Business Forum  
and  
Scientific and Practical Conference**

**Faculty of Pharmacy –  
15 Years of Traditions, Innovations,  
and Perspectives**

**BOOK OF ABSTRACTS**

**Varna, Bulgaria  
October 20–21, 2023**

**Scientific Committee:**

Velichka Andonova – Medical University of Varna  
Milka Nashar – Medical University of Varna  
Diana Ivanova – Medical University of Varna  
Yoana Kiselova-Kaneva – Medical University of Varna  
Iliyan Kolev – Medical University of Varna  
Veselina Panayotova – Medical University of Varna  
Katya Peycheva Ivanova – Medical University of Varna  
Krastena Nikolova – Medical University of Varna

**Organizing Committee:**

Petko Marinov – Medical University of Varna  
Dimitar Marinov – Bulgarian Pharmaceutical Union  
Zhivka Dobрева – Bulgarian Pharmaceutical Union  
Velichka Andonova – Medical University of Varna  
Milka Nashar – Medical University of Varna  
Albena Zlatareva – Medical University of Varna  
Anna Todorova – Medical University of Varna  
Evgeni Grigorov – Medical University of Varna  
Stanislava Georgieva – Medical University of Varna  
Stela Dragomanova – Medical University of Varna  
Mariya Koleva – Medical University of Varna  
Stanislava Georgieva – Medical University of Varna  
Miglena Koleva-Stoeva – Medical University of Varna  
Maria Petrova – Medical University of Varna  
Raya Velcheva – Medical University of Varna

# CONTENTS

Danail Pavlov, Zlatina Gospodinova, Georgi Antov, Miroslav Novakovic, Vele Tesevic, Natalia Krasteva, Mehmed Reysov, Antoaneta Georgieva, Miroslav Eftimov, Milena Todorova, Maria Tzaneva, Nadezhda Stefanova, Miglena Nikolova, Stefka Valcheva-Kuzmanova - STUDY OF THE BIOFLAVONOID FUSTIN FOR ANTITUMOR, ANTI-INFLAMMATORY AND GASTRO-ENTERO-HEPATOPROTECTIVE ACTION IN EXPERIMENTAL PHARMACOLOGICAL MODELS _____	11
Nadezhda Nikolova, Djeni Cherneva COMPARATIVE ANALYSIS OF GLOBALLY USED MEDICINAL PLANTS FOR TREATMENT AND PREVENTION OF COVID-19 _____	13
Florentina Nicoleta Roncea, Ticuta Negreanu-Pirjol, Bogdan-Stefan Negreanu-Pirjol - NUTRACEUTICALS IN DAILY LIFE _____	14
Petko Petkov, Dobri Ivanov, Jenny Cherneva DEMONSTRATION OF A SUITABLE MEDICINAL PLANT AS A POTENTIAL PHYTOPRODUCT DEVELOPMENT FOR THE TREATMENT OF ALOPECIA _____	15
Trifon T. Popov, Svetlana H. Hristova, Alexandar M. Zhivkov - HIGHLY EFFECTIVE ALUMOSILICATE-CYTOCHROME C COMPOSITE NANOPATES FOR SELECTIVE TREATMENT OF SUPERFICIALLY LOCALIZED NEOPLASMS _____	16
Simona Belcheva, Viktorio Mihaylov, Svetoslav Stoev, Hristina Lebanova - IMPROVING OUTCOMES IN PEDIATRIC PATIENTS USING POWDERED PHARMACEUTICAL FORMS _____	17
Elif Mehmedova, Viliana Gugleva, Velichka Andonova - EFFECT OF FORMULATION VARIABLES ON THE TEXTURAL CHARACTERISTICS OF POLOXAMER 407-BASED EMULGELS _____	18
Raya Velcheva, Sylvia Stamova, Silvia Mihaylova - QUALITY IDENTIFICATION OF METHYLENE BLUE DYE IN MOUTHWASH _____	19
Anton Valev, Barash Murad, Sabcho Sabev - OBSERVATIONS OVER THE TRAINEE PROGRAMME OF THE BULGARIAN SCIENTIFIC PHARMACEUTICAL LABORATORY FOR A NINE-YEAR PERIOD _____	20
Dimitrinka Miteva, Veselina Vasileva, Diana Ivanova - ASPECTS OF STRESS IN A LEARNING AND PRACTICAL ENVIRONMENT AMONG MEDICAL STUDENTS _____	21
Elina Petkova-Gueorguieva, Asena Serbezova, Stanislav Gueorguiev, Hristina Lebanova, Svetoslav Stoev, Violeta Getova-Kolarova, Anna Mihaylova, Vasil Madzharov - NARCOTIC SUBSTANCES AND THEIR IMPACT ON THE HEALTH AND MENTAL STATE OF ADOLESCENTS. PREVENTION OF DRUG USE _____	22
Ekaterina Klyambova, Veselina Vasileva, Diana Ivanova - ATTITUDE ON CAREER REALIZATION AMONG NURSING STUDENTS _____	23
Stoyka Dimitrova - CHALLENGES FOR PHARMACIES IN THE PROCESS OF PROCUREMENT OF MEDICINES DURING THE COVID-19 PANDEMIC _____	24
Yoana Dobрева, Svetoslav Stoev, Hristina Lebanova - PHARMACEUTICAL CARE IN PATIENTS WITH POLYCYSTIC OVARY SYNDROME _____	25
Yordanka Eneva, Bora Dogan, Iliana Andonova - COMPARATIVE ANALYSIS OF AI MODELS FOR MEDICAL DIAGNOSIS: CHATGPT, CODY, AND DR. GUPTA _____	26
Boyka Tsvetkova, Dessislava Ilieva-Tonova - HPLC METHOD FOR SIMULTANEOUS DETERMINATION OF IBUPROFEN AND PRESERVATIVES IN GEL FORMULATION _____	27
Velina Grigorova - TRAINING OF PHARMACISTS PREPARING SOLUTIONS OF CYTOTOXICS – A NECESSITY FOR A QUALITY PROCESS _____	28

Mariya Dangova, Florentina Nicoleta Roncea, Ticuta Negreanu-Pirjol, Laura Bucur, Milen Dimitrov, Velichka Andonova - PRECISION MEDICINE MEETS 3D PRINTING: THE FUTURE EXTEMPORANEOUS DRUG DOSAGE FORMS _____	29
Stefka Stoeva, Deyana Vankova, Milena Pasheva, Todorka Sokrateva, Milka Nashar - A COMPARATIVE STUDY OF THE BIOLOGICAL EFFECTS OF NATURAL FOOD SOURCES OF SULFUR ON HUMAN INTESTINAL CELLS _____	30
Elis Rafailova, Stefka Valcheva-Kuzmanova - POTENTIAL ANTI-CANCER ACTIVITY OF ANETHOLE—A REVIEW _____	31
Angelina Veleva, Mario Mitonchev, Kaloyan Todorov, Veselka Ivanova, Anton Valev - REVIEWING DATA ON POTENTIAL FALSE POSITIVE ALCOHOL BREATHALYZER TEST RESULTS _____	32
Anton Iliev, Pavlina Koseva - MAGNESIUM SUPPLEMENTATION: UNRAVELING THE DIFFERENT FORMS AND THEIR POTENTIAL APPLICATIONS _____	33
Betina Krasenova, Arzu Shevked, Plamen Bekyarov, Dimana Dimitrova, Silvia Mihaylova - NEW TREATMENT OPTIONS FOR MULTIDRUG-RESISTANT BACTERIA _____	34
Momchil Yordanov, Daniela Gromova - A BRIEF OVERVIEW ON THE MANUFACTURING AND UTILIZATION OF <sup>177</sup> LU- DOTATATE _____	35
Dimitrina Dimitrova, Monica Tsaneva, Magdalena Pesheva, Galina Petrova - PATIENT AWARENESS IN THE CHOICE OF DIETARY SUPPLEMENTS AND OTC MEDICINES _____	36
Zhulieta Arnaudova, Anna Todorova, Magdalena Pesheva - SPECIALIZED PHARMACEUTICAL SERVICES FOR PATIENTS WITH CARDIOVASCULAR DISEASES AND PATIENTS' ATTITUDE TOWARD PAYMENTS OF THIS SERVICES _____	37
Iasmin Hamami, Gergana Taneva, Ivan Ivanov, Magdalena Pesheva, Galina Petrova - FACTORS AFFECTING CONSUMER SELECTION OF COMMUNITY PHARMACIES _____	38
Yoana Kostova, Viliana Gugleva, Velichka Andonova - PERMEATION ENHANCERS OF NATURAL ORIGIN—RECENT APPLICATIONS AND ADVANCES _____	39
Irena Evgenieva, Kirila Yovcheva, Darina Dimitrova, Anton Valev - METHODS FOR STABILIZATION OF EX-TEMPORE FORMS WITH TRETINOIN _____	40
Kirila Yovcheva, Irena Evgenieva, Maria Dimitrova, Barash Murad, Anton Valev - QUALITATIVE COMPARISON OF THE EFFECTS OF VALERIAN ROOT EXTRACT (EXTR. RADICIS VALERINAE, <i>VALERIANA OFFICINALIS L.</i> ) ON HUMANS AND DOMESTIC CATS ( <i>FELIS CATUS</i> ) _____	41
Mario Mitonchev, Angelina Veleva, Maria Dimitrova, Darina Dimitrova, Anton Valev - IDENTIFYING THE DISPLACEMENT VOLUME WHEN COMPOUNDING SUPPOSITORIES FROM TABLETS _____	42
Maria Dimitrova, Mario Mitonchev, Presian Bonev, Anton Valev - ADVANCEMENTS IN THE PHARMACEUTICAL COMPOUNDING TECHNOLOGY FOR CAPTOPRIL SOLUTIONS _____	43
Maria Desislava Panayotova, Milla Ovcharova, Svetla Slavova, Anna Todorova - PLANT-DERIVED SUBSTANCES FOR PAIN TREATMENT AND MANAGEMENT USED IN THE PAST _____	44
Maria Petrova, Stanila Stoeva, Marieta Georgieva - ANALYTICALLY POSITIVE BUT CLINICALLY NEGATIVE RESULTS IN THE TOXICOCHEMICAL ANALYSIS OF SPECIMENS FROM PASSIVE CANNABIS SMOKERS _____	45
Maria Petrova, Stanila Stoeva, Marieta Georgieva - HEALTH RISKS ARISING FROM FOLLOWING A VEGETARIAN OR VEGAN DIET _____	46



Mira Todorova, Berat Niyazi, Momchil Lambey, Plamen Bekyarov, Mariya Dangova - THE IMPACT OF ARTIFICIAL INTELLIGENCE IN PHARMACY _____	47
Mihaela Dineva, Darina Dimitrova, Anton Valev, Angelina Veleva - MAGISTRAL FORMULATIONS OF 5-FLUOROURACIL _____	48
Svetlin Slavov, Yoana Fileva, Natalina Panova - EXPLORING THE PHYSICS OF <sup>18</sup> F-FDG IN ONCOLOGY IMAGING _____	49
Yoana Nikolova, Monika Markova, Radost Dimitrova, Krastena Nikolova, Natalina Panova - APPLICATION OF ULTRASOUND IN THE EXTRACTION OF BIOLOGICALLY ACTIVE SUBSTANCES _____	50
Nadezhda Nikolova, Anna Todorova, Magdalena Pesheva - SURVEY OF HEALTHCARE PROFESSIONALS' VIEWS ON THE ADOPTION AND PROSPECTS OF THE HEALTH RECORD _____	51
Aleksandrina Cheneva, Nikol Angelova, Anna Todorova, Magdalena Pesheva - EVALUATION OF ADHERENCE TO THERAPY IN PATIENTS WITH CHRONIC DISEASES _____	52
Hristo Zaykov, Mirela Zamtikova, Jana Mitrova, Asena Serbezova - VIRTUAL CLINICAL TRIALS— BENEFITS AND CHALLENGES _____	53
Alexandrina Mateeva, Lily Peikova, Alexander Zlatkov - DEVELOPMENT AND VALIDATION OF NOVEL AND RAPID RP-HPLC METHOD FOR SIMULTANEOUS ANALYSIS OF PARACETAMOL, BROMHEXINE, AND LEVOFLOXACIN _____	54
Emilio Mateev, Magdalena Kondeva-Burdina, Maya Georgieva, Alexander Zlatkov - NOVEL PYRROLE-BASED AMIDES AS ANTIOXIDANTS AND MAO-B INHIBITORS _____	55
Ivanka Mutafova, Evgeni Grigorov, Kaloyan Georgiev, Teodora Handjieva-Darlenska, Alexander Zlatanov - ANTISENSE OLIGONUCLEOTIDES (ASO): THE NEXT FRONTIER FOR TREATMENT OF DUCHENNE MUSCULAR DYSTROPHY (DMD) _____	56
Paola Petkova, Evgeni Grigorov, Petko Salchev, Ilko Getov - COMPARATIVE ANALYSIS OF THE CURRENT MEDICAL DEVICE LANDSCAPE IN BULGARIA, ROMANIA, GREECE, TURKEY, AND SERBIA _____	57
Stela Dragomanova, Velichka Andonova, Maria Lazarova, Miroslava Stefanova, Elina Tsvetnova, Albena Alexandrova, Diamara Uzunova, Konstantin Volcho, Aldar Munkuev, Evgeny Suslov, Neriman Salakhutdinov, Reni Kalfin, Lyubka Tancheva - MYRTENAL-AMINO ADAMANTANE DERIVATIVES IN EXPERIMENTAL DEMENTIA _____	58
Tanya Dimova - 3,4,5-TRIMETHOXY-2-iodoxybenzoic acid _____	59
Tonika Stoycheva, Diana Dobрева, Albena Merdzhanova - FAT SOLUBLE VITAMINS AND ANTIOXIDANTS IN BLOSSOMS AND LEAVES OF <i>PELARGONIUM ROSEUM</i> _____	60
Daniela Vankova, Miglena Nikolova, Stefka Stoeva, Milka Nashar, Diana Ivanova, Bistra Galunska - COMPARISON STUDY ON ANTIOXIDANT ACTIVITY AND PHENOLIC COMPOSITION IN FRESH JUICE AND WINE FROM THE NORTH-EAST BULGARIAN BLACK SEA AREA _____	61
Deyana Vankova - NEW INSIGHTS OF THE ADIPONECTIN PARADOX _____	62
Diana Tzankova, Iva Valkova, Hristina Kuteva, Magdalena Kondeva-Burdina, Maya Georgieva - PRELIMINARY EVALUATION OF THE ADMET PROPERTIES OF A SERIES OF PYRROLE-BASED SCHIFF BASES _____	63
Ivayla Kuleva, Nikoleta Ivanova, Stoyan Stoyanov, Vanya Koleva, Galina Yaneva - THE SUPERHERBS OF BULGARIA _____	64
Yoana Kiselova-Kaneva, Deyana Vankova, Turgay Kalinov, Nikola Kolev, Alexandar Zlatarov, Diana Ivanova - PLASMA ADIPONECTIN AND LEPTIN mRNA LEVELS IN COLORECTAL CANCER PATIENTS IN RELATION TO BODY MASS INDEX AND GLUCOSE LEVELS _____	65

Kaloyan Mihalev, Ivelin Iliev, Svetlana Georgieva - A REVIEW OF THE MOST COMMONLY USED LINKERS IN CREATING HYBRID MOLECULES _____	66
Lili Peykova, Dobrina Tsvetkova, Lily Andonova, Ivanka Pencheva - REGULATION AND CONTROL OF THE UNREGULATED USE OF CANNABIS AND CANNABIDIOL IN NOVEL FOODS _____	67
Momchil Barbolov, Desislava Ivanova, Galya Mihaylova, Miglena Nikolova, Neshe Nazifova, Ayshe Salim, Oskan Tasinov, Maria Radanova - NEW NON-CODING RNAS AS POTENTIAL THERAPEUTIC TARGETS IN COLORECTAL CANCER _____	68
Miglena Nikolova, Maria Zhelyazkova-Savova, Yoto Yotov, Neshe Nazifova-Tasinova, Deyana Vankova, Atanas Atanasov, Bistra Galunska - DO STATINS ENHANCE CALCIUM ACCUMULATION IN THE ARTERIAL WALL BY INHIBITING VITAMIN K-DEPENDENT PROTEINS IN CARDIOVASCULAR DISEASE PATIENTS? _____	69
Milena Pasheva, Neshe Nazifova-Tasinova, Deyana Vankova, Miglena Nikolova, Yoana Kiselova-Kaneva, Yoto Yotov, Atanas Atanasov, Bistra Galunska - PERIPHERAL BLOOD MONONUCLEAR CELLS MATRIX GLA-PROTEIN EXPRESSION IN RELATION TO CVD RISK FACTORS _____	70
Nikoleta Ivanova, Ivayla Kuleva, Stoyan Stoyanov, Galina Yaneva - A LITERATURE REVIEW ON THE CLINICAL APPLICATION OF BIOACTIVE GLASSES AS DRUG DELIVERY SYSTEMS _____	71
Svetla Slavova, Galina Yaneva - CONTAMINATED SEAFOOD: A NEW POTENTIAL SOURCE OF TOXOPLASMA GONDII TRANSMISSION TO HUMANS _____	72
Stoyan Stoyanov, Tsonka Dimitrova, Oskan Tasinov, Galina Yaneva - STUDIES CONDUCTED ON THE PREVALENCE OF <i>TRICHOMONAS TENAX</i> IN THE POPULATION AFFECTED BY PERIODONTAL DISEASE—A SYSTEMATIC REVIEW _____	73
Todorka Sokrateva, Ayshe Salim, Momchil Barbolov, Galina Nenkova, Milka Nashar, Diana Ivanova, Bogdan Roussev - IS THERE AN ASSOCIATION BETWEEN VITAMIN D STATUS AND SPERM QUALITY? _____	74
Kalina Ilieva, Zhivko Zoykov, Erkan Kemal, Nadezhda Nikolova, Raya Ivanova, Yoana Sotirova, Iliyan Kolev, Ivo Kumanov, Velichka Andonova - ELABORATION OF ALL-NATURAL ANTIPLAQUE CHEWING GUM _____	75
Ivan Ivanov, Nadezhda Ivanova, Ivo Kumanov - START SHOT: A DIETARY SUPPLEMENT TO OVERCOME THE SYMPTOMS OF ALCOHOL INTOXICATION _____	76
GUIDELINES FOR AUTHORS _____	77