



GOCE DELCEV UNIVERSITY - STIP
FACULTY OF MEDICAL SCIENCES



International symposium at
Faculty of medical sciences

CURRENT ACHIEVEMENTS AND FUTURE PERSPECTIVES IN MEDICAL AND BIOMEDICAL RESEARCH



STIP, 24 NOVEMBER 2015
MULTIMEDIA CENTRE – UGD, STIP

INTERNATIONAL SYMPOSIUM AT FACULTY OF MEDICAL SCIENCES
“Current achievements and future perspectives in medical and biomedical research”

SCIENTIFIC PROGRAM

November 24, 2015 - Stip

8:30 – 9:00

Registration

9:00 – 9:15

Rector / Vice rector/Dean

SESSION 1

Chair: Prof. Emilija Janevik Ivanovska

Co-chair: Ass. Prof. Elena Drakalska

9:15 – 9:35

Ass. Marija Darkovska Serafimovska
Macedonian agency of drug and medical
devices, Director
University Goce Delcev Stip
Republic of Macedonia

Step forward of Macedonian agency for medicines and medical devices, establishment and strategic plan for development

9:35 – 9:55

Assoc. Prof. Zorica Arsovska Sarafinovska
Institute of Public Health of the
Republic of Macedonia, Skopje,
University Goce Delcev Stip
Republic of Macedonia

Adherence to Therapy: A Modern Pharmacotherapeutic Approach

9:55 – 10:15

Prof. Biljana Gjorgjeska
University Goce Delcev Stip
Republic of Macedonia

Use of disinfectants and antiseptics in selected health institutions in Republic of Macedonia

10:15 – 10:35

Assoc. Prof. Bistra Angelovska
University Goce Delcev Stip
President of Pharmaceutical Chamber
of Macedonia. Republic of Macedonia

Code of Ethics for Pharmacists – Pharmaceutical Chamber of Macedonia

10:40 – 11:10

Coffee break

Poster presentation

Chair: Prof. Milka Zdravkovska
Co-chair: Ass. Prof. Darinka Gjorgieva Ackova

10:10 – 11:50

Prof. Neven Zarkovic
Rudjer Boskovic Institute, Croatia

4-Hydroxynonenal – major bioactive marker of lipid peroxidation

11:50 – 12:10

Assoc. Prof. Tatjana Ruskovska University
Goce Delcev Stip Republic of Macedonia

Nicotinamide adenine dinucleotide biosynthesis and consumption in dysfunctional white adipocytes

12:10 – 12:30

Prof. Rubin Gulaboski University
Goce Delcev Stip Republic of Macedonia

New insights into the chemistry and functions of Coenzyme Q

12:30 – 12:50

Assoc. Prof. Darko Bosnakovski
University Goce Delcev Stip
Republic of Macedonia

Genetically modified systems to study muscular dystrophies

12:50 – 14:00

Coffee break

Poster presentation

Chair: Assoc. Prof. Cena Dimova
Co-chair: Ass. Prof. Nevenka Velickova

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| 14:00 – 14:40 | Prof. Lia Rimondini Università del Piemonte Orientale, Novara, Italy | <i>Counteracting microbial biofilm formation onto dental materials</i> |
| 14:40 – 15:00 | Prof. Elizabeta Zisovska Agency for Quality and Accreditation of Healthcare Institutions, Skopje, Republic of Macedonia | <i>The endless potential of the umbilical cord blood for investigation, research and treatment</i> |
| 15:00 – 15:20 | Ass. Misko Milev University Goce Delcev Stip Republic of Macedonia | <i>The cytokinesis-blocked micronucleus assay: Good choice for detection and evaluation of genotoxicity in human cells</i> |
| 15:20 – 15:40 | Prof. Lence Miloseva University Goce Delcev Stip Republic of Macedonia | <i>Multiple predictive model for clinical and subclinical depression in adolescence</i> |
| 15:40 – 16:00 | Coffee break | Poster presentation |

SESSION 4

Chair: Assoc. Prof. Darko Bosnakovski
Co-chair: Ass. Prof. Katarina Smilkov

| | | |
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| 16:00 – 16:40 | Prof. Adriano Duatti University of Ferrara, Ferrara, Italy | <i>Molecular imaging and radionuclide therapy of prostate cancer</i> |
| 16:40 – 17:00 | Assoc. Prof. Vaso Taleski University Goce Delcev Stip Republic of Macedonia | <i>Where Nanotechnology and Nanomedicine meet – Applications and Potential Risks</i> |
| 17:00 – 17:20 | Dr. Aleksandar Cvetkovski University Goce Delcev Stip Republic of Macedonia | <i>The role of molecular cocrystals in drug development</i> |
| 17:20 – 17:40 | Prof. Emilija Janevik Ivanovska University Goce Delcev Stip Republic of Macedonia | <i>Drug development based on radiolabeled antibodies</i> |
| 17:40 – 18:00 | Closing remarks | |

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The organizers would like to acknowledge the support given from the University Goce Delcev- Stip and the Pharmaceutical chamber of Macedonia.

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November 24, 2015 – Stip

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- 2. Adherence to Therapy: A Modern Pharmacotherapeutic Approach**
Author: Zorica Arsovska Sarafinovska
- 3. Use of disinfectants and antiseptics in selected health institutions in Republic of Macedonia**
Author: Biljana Gjorgjeska
- 4. Code of Ethics for Pharmacists – Pharmaceutical Chamber of Macedonia**
Author: Bistra Angelovska
- 5. 4-Hydroxynonenal – major bioactive marker of lipid peroxidation**
Authors: Neven Zarkovic, Kamelija Zarkovic
- 6. Nicotinamide adenine dinucleotide biosynthesis and consumption in dysfunctional white adipocytes**
Authors: Prof. Tatjana Ruskovska, David Bernlohr
- 7. New insights into the chemistry and functions of Coenzyme Q**
Authors: Rubin Gulaboski, Valentin Mirceski, Ivan Bogeski, Sasa Mitrev, Kokoskarova Pavlinka, Velo Markovski, Reinhard Kappl, Markus Hoth
- 8. Genetically modified systems to study muscular dystrophies**
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- 13. Molecular Imaging and therapy with radionuclides of prostate cancer**
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- 14. Where Nanotechnology and Nanomedicine meet – Applications and Potential Risks**
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- 15. The role of molecular cocrystals in drug development**
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- 16. Drug development based on radiolabeled antibodies**
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POSTER PRESENTATIONS

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Authors: Danche Vasileva, Daniela Lubenova, Marija Mihova, Ivan Maznev, Lence Nikolovska, Zhu Jihe;
- 2. Effect of kinesitherapy on physical activity in patient with Guillain-Barré syndrome**
Authors: Antoaneta Dimitrova, Kristin Petrova Grigorova, Daniela Lubenova, Danche Vasileva, Milena Nikolova;
- 3. Case Report :
Oligoasthenoteratozoospermia, treatment with acupuncture**
Authors: Jihe Zhu, Blagica Arsovska, Dance Vasileva, Andrijana Sterjovska-Aleksovska, Kristina Kozovska;
- 4. Treatment of cervical spondylosis with acupuncture**
Authors: Kristina Kozovska, Jihe Zhu, Blagica Arsovska, Andrijana Sterjovska-Aleksovska;
- 5. Effect of kinesitherapy on static and dynamic balance in patient after vertebro-basilar system stroke**
Authors: Milena Nikolova, Antoaneta Dimitrova, Danche Vasileva, Daniela Lubenova, Kristin Petrova Grigorova;
- 6. Malignant pleural effusions in lung cancer: the condition during the disease**
Authors: Marija Karakolevska-Ilova, Elena Simeonovska Joveva, Aleksandar Serafimov, Lidija Petrovska;
- 7. Systemic fungal infections in hematological malignancies**
Authors: Petar Kuzmanovski, Velo Markoski;
- 8. Morbidity and mortality of malignant neoplasms in Macedonia**
Authors: Viktorija Vukovikj, Velo Markoski;
- 9. Cognitive behavioral program in treating insomnia among elderly patients**
Authors: Kneginja Richter, Lence Miloseva, Guenter Niklewski, Anja Piehl;
- 10. Regulations and legal aspects in management of medical waste**
Authors: Biljana Shikoska, Cena Dimova, Gjorgji Schumanov;
- 11. Control of the psychiatric disorders in the Republic of Macedonia**
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- 12. Monitoring of the renal function in Indometacin treated patients with rheumatoid arthritis**
Authors: Drita Yzeiri Havziu, M.Hiljadnikova-Bajro, T. Kadifkova Panovska;
- 13. Incidence of breast cancer in Macedonia**
Authors: Dijana Stojanova, Velo Markoski;
- 14. HPV virus as a cause of cancer of the cervix in R.Macedonia**
Authors: Stefanija Joveva, Velo Markoski, Vaso Taleski;
- 15. Analysis of the Pap test results by age groups in the area of Kriva Palanka**
Authors: Robert Nikolovski, Kristina Denchovska, Goran Mladenovski, Velo Markovski;
- 16. Giant rhinophyma treated by excision and full thickness skin grafting**
Author: Emilija Lozanovska Doneva;
- 17. Incidence of patients with chronic renal failure in Skopje**
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- 18. Calculation of effective dose to family members of patients with thyroid diseases**
Authors: Marina Zdravevska Kochovska, Emilija Janjevik Ivanovska, Meri Angeleska, Sasho Nikolovski, Zlatko Filipovski;

- 19. Contemporary Microbiological Diagnostic Tests for Rapid Identification and Detection of Resistance of Mycobacterium tuberculosis**
Authors: Oliver Taleski, Vaso Taleski;
- 20. Analysis of clinical features and complications in patients with β -thalassemia in the region of Strumica**
Authors: Silvana Sinokapovska, Cena Dimova;
- 21. Lymphoepithelioma : A case report**
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- 22. F-ra Capitulum Radium L.Dex. – A Case report**
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- 23. Patient with intracranial hemorrhage and arteriovenous malformation detected with transcranial color duplex sonography – case report**
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- 24. Hereditary supracondylar spur of the humerus: Case report**
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- 25. Prosthetic rehabilitation in patient with advanced degree of functional disorders (case report)**
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- 26. Marginal Implants Bone Loss – a Case Report**
Authors: Kiro Papakoca, Ana Radeska-Panovska, Katerina Zlatanovska;
- 27. Ectodermal Dysplasia, a Case Report: Challenge for Prosthodontic Solution**
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- 28. Alveolar socket preservation and shaping using temporary prosthetic construction – cases presentation**
Authors: Nikola K. Gigovski, Vesna Korunoska- Stevkoska, Emilija Bajraktarova, Aneta Mijoska, Ana Radeska-Panovska, Ana Gigovska;
- 29. Porcelain veneers produced by refractory die method**
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- 30. Correlation of Two Different Local Hemostatic Modalities in Oral Surgery Patients with Oral Anticoagulants**
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- 31. Assessment of orthodontic treatment need among school children by using IOTN (index of orthodontic treatment need)**
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- 36. Iatrogenic mistakes, cause for a failure at surgical treatment of a chronic periapical processes**
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- 42. Genetically Engineered Mouse Models For Human Pancreatic Cancer: A Review Of The KC, KPC And iKRas*P53* Models**
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- 51. Comparison of volatile aroma compounds between cultivated and spontaneous flowering stems of *Sideritis scardica* Griseb. from R. Macedonia**
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- 52. Bioactive compounds of cold-pressed oil from the seeds of Gojy Berry (*Lycium barbarum*)**
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- 53. Development and validation of HPLC method for determination of flavonoids in herbal preparations**
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- 54. Atomic emission spectrometry with inductively coupled plasma (ICP-AES) analysis of trace elements in *Camellia sinensis* teas**
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- 55. Determination of trace elements analyzed by atomic emission spectrometry with inductively coupled plasma (ICP-AES) in *Matricaria chamomilla* L. teas present on macedonian market**
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- 56. Human health risks from heavy metals via consumption of contaminated food**
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- 57. Development of an ultrasonic method for effective extraction of capsaicin as a potent bioactive compound**
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- 66. Cancer specific conjugated monoclonal antibodies for anticancer therapy**
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- 67. Accreditation of the Laboratory of Radiopharmacy – requested requirements or need of challenge**
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- 68. Quality control of PET radiopharmaceuticals, with reference to its specifics vs quality control of conventional pharmaceuticals**
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- 69. Production of [11C] Choline in The University Institute for PET – new perspective in diagnostics of prostate malignancy in R. of Macedonia**
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- 71. Achievements and perspectives in formulation of stable immunoconjugate of the HER2-targeting trastuzumab – potential for rapid labelling with Gallium-68**
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Faculty of Medical Sciences

University Goce Delcev – Stip, Macedonia

INTERNATIONAL SYMPOSIUM AT FACULTY OF MEDICAL SCIENCES

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Therapeutic approach in the treatment of benign prostatic hyperplasia

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Abstract

Prostate (*glandulae prostatae*) is a small gland, part of the reproductive system in males, shaped like a chestnut or pyramid, a bit flat front to back. The dimensions of the prostate gland show an age and individual differences. By the age of puberty, the prostate develops slowly and has a small footprint. At puberty it began to grow rapidly to 17 years and reaches its final shape and size with weight around 20 gr.

Benign prostatic hyperplasia (BPH) or even also called nodular or stromal hyperplasia, is very common abnormality of the prostate. It is present in a significant number of men around 40 years of age, and its incidence increasing with age. Prostatic hyperplasia is characterized by proliferation of the stromal and epithelial elements leading to an increasing of the gland and, in some cases, to urinary obstruction. Significant clinical features are associated with BPH symptoms in the lower urinary tract (LUTS).

In patients, diagnosed with benign prostate hyperplasia, depending on the severity of symptoms, the risk of progression and morbidity determination and type of the therapy prescribed (monitoring, drug treatment or surgical intervention) is important next step after diagnosis. In individuals with mild to moderate uncomplicated symptoms of BPH only drug therapy can be applied. The most commonly used are alpha - 1 - blockers and inhibitors of 5 - alpha reductase. Combination of these drugs reduces the symptoms of BPH better and faster than these two drugs applied individually. Herbal preparations can be used as a supplementary therapy.

Keywords: alpha – 1 – blockers, 5- alpha reductase, herbal drugs, prostate.