



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

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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

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

SESSION 4

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

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

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INTERNATIONAL SYMPOSIUM AT FACULTY OF MEDICAL SCIENCES

“Current achievements and future perspectives in medical and biomedical research”

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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- 10. The endless potential of the umbilical cord blood for investigation, research and treatment**
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- 12. Multiple predictive model for clinical and subclinical depression in adolescence**
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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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INTERNATIONAL SYMPOSIUM AT FACULTY OF MEDICAL SCIENCES

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POSTER PRESENTATIONS

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- 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 vertebral 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**
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Authors: Leonid Ramov, Velo Markoski;
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- 13. Incidence of breast cancer in Macedonia**
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- 14. HPV virus as a cause of cancer of the cervix in R.Macedonia**
Authors: Stefaniya Joveva, Velo Markoski, Vaso Taleski;
- 15. Analysis of the Pap test results by age groups in the area of Kriva Palanka**
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- 16. Giant rhinophyma treated by excision and full thickness skin grafting**
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- 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 Radii L.Dex. – A 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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- 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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- 41. Determining normal tissue toxicity of non-radioactively Lu/Y-labeled rituximab-conjugates in rat animal model**
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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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- 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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- 70. PET radiopharmaceuticals in the diagnosis of neurological diseases**
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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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Case Report: Oligoasthenoteratozoospermia, treatment with acupuncture

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Abstract

Background: Oligoasthenoteratozoospermia (OAT) is one of the most common causes of male infertility. This condition includes oligozoospermia (lower number of sperm), asthenozoospermia (poor sperm movement) and teratozoospermia (abnormal sperm shape). The quality of semen can be affected by smoking cigarettes or marijuana, alcohol, medications, hormone preparations, varicocele, infections, genetics etc or it can be idiopathic when the cause for the condition is unclear. Acupuncture is very often used to enhance male fertility. With acupuncture the sperm quality and production can be increased, hormonal factor can be corrected by restoring balance to the entire body and mechanical blockages can be dissolved or reduced.

Purpose: The main purpose of this work is to show a case of oligoasthenoteratozoospermia, the results before and after the treatment with acupuncture and the effectiveness of the treatment in the cases of man's infertility.

Methods: The acupuncture treatment was done in 'Tong da Tang' clinic for Traditional Chinese Medicine and acupuncture in Skopje. The patient is 35 year old male diagnosed with moderate degree oligoasthenoteratozoospermia according to the criteria of WHO and KRUGGER. The patient noticed the condition two years ago. The condition is not genetic, no infections were diagnosed and no other symptoms were present. The patient is non-smoker, active and hard-working 12-13 hours a day. The patient done 7 treatments in a period of two weeks. The duration of the treatments was 35-40 minutes. The needles were sterile with 0.25x25mm dimensions, made by Wuijuiang City Medical Health Material Co., LTD. The acupoints that were used in the treatment are: DU20 (BaiHui), RN12 (ZhongWan), ST25 (TianShu), RN6 (QiHai), RN4 (GuanYuan), ST26 (WaiLing), RN1 (HuiYin), DU1(CnagQiang), BL32 (CiLiao), BL28 (Bang GuangShu), LI4 (HeGu), PC6 (NeiGuan), ST36 (ZuSanLi), GB34 (YangLingQuan), SP9 (YinLingQuan), SP6 (SanYinJiao), LR3 (TaiChong), KI3 (TaiXi) and KI1 (YongQuan).

Results: The patient made two sperm analysis before and after the acupuncture treatment. The first analysis was made in 'Newborn clinic - Center for fertility and andrology' and the second in 'Avicena laboratory'. The volume of the sperm before the treatment was 3ml and after the treatment 5.2ml. The concentration of the sperm before was 2×10^6 ml and after $38,4 \times 10^6$ ml. The total number of spermatozoa before was 6×10^6 and after $199,7 \times 10^6$. The total motility before was 25% with 0% rapidly progressive motility and after the treatment 60% total motility with 35% of rapidly progressive motility. Before the treatment 3% of the spermatozoa was with normal morphology and 75% after the treatment. The diagnosis in the second analysis was: Brought in material analysis - ejaculate with complete liquefaction, without presence of mucous fibers, not noticeable oligozoospermia or asthenospermia (with a moderate degree of agglutination of the sperm). Normal ejaculate volume and normal viscosity with increased presence of leukocytes ($4,2 \times 10^6$ ml)

Conclusion: There is significant difference between the results before and after the treatments. Acupuncture can improve the overall quality and structural integrity of the sperm and increase men's fertility.

Keywords: acupoints, acupuncture, infertility, oligoasthenoteratozoospermia, treatment.