



# Academia MEDICA

Publication  
on Ecology  
and Medicine



ISSN - 1314 - 958X

Vol.1, (January - February) 2019

MU - Pleven's Medical Newspaper / 1.00 lv.

## ACADEMIC OATH ON 18 FEBRUARY MARKS THE BEGINNING OF THE NEW YEAR AT MU-PLEVEN FOR THE INTERNATIONAL STUDENTS

p. 2



p. 3

## MU-PLEVEN SUCCESSFULLY COMPLETED A PROJECT TO AID THE TRAINING OF MORE THAN 100 DOCTORAL, POST-DOCTORAL, POST-GRADUATE STUDENTS AND YOUNG SCIENTISTS



FIRST SUCCESSFUL UROLOGICAL  
ROBOTIC SURGERIES AT SVETA MARINA  
UNIVERSITY HOSPITAL - PLEVEN,  
ACHIEVED BY  
ASSOC. PROF. NIKOLAY KOLEV  
AND HIS TEAM

p. 3



INTERVIEW WITH PROF. SILVIYA YANKULOVSKA,

HEAD OF THE PROJECT  
FOR ESTABLISHING  
A LEONARDO DA VINCI  
COMPETENCE CENTER

p. 4



## SVETA MARINA UNIVERSITY HOSPITAL – PLEVEN WILL CONTINUE TO ADD TO ITS 10 YEARS OF ROBOTIC SURGERY EXPERIENCE IN 2019

p. 6



# ACADEMIC OATH ON 18 FEBRUARY MARKS THE BEGINNING OF THE NEW INTERNATIONAL STUDENTS' YEAR AT MU-PLEVEN

The 2018/2019 academic year for the new MU-Pleven international students began on 18 February 2019 at 10:00 at "Magnum" hall. The students continued the two-year tradition of taking the academic oath which committed them to the university's values and mission, the code of ethics and academic tradition. The oath was administered by Prof. Asparuh Asparuhov, Dean of the Faculty of Medicine.

The newly admitted students were welcomed by Rector, Prof. Dr. Slavcho Tomov, MD, PhD, DSc, and

Prof. Asparuh Asparuhov. The winning teams from Japan and Italy of the 2018 "Day of cultures" at MU-Pleven performed songs and dances for the new students.

Following tradition, the International Students Center organized Program for adaptation of newly admitted freshmen before the beginning of the academic year. It consisted of university tours, open days at the library, meetings with real estate agencies, Directorate "Migration" and acquainting the students with the cultural and historical heritage of Pleven by visiting the Pleven Epopee 1877, the Regional History Museum and the "Iliya Beshkov" art gallery. For the second year, there were provided special Bulgarian language classes to the new international students.

MU-Pleven maintains high acceptance numbers of international students wanting to study "Medicine" in Pleven. The 250 new students come from 28 countries, most of which are European. For the second time Italian students outnumber the rest (120 students), followed by 34 from Great Britain, 20 from India, 7 from Switzerland, 6 from Canada and 9 from

Japan. For the first time, there are students from the Republic of Cabo Verde.

MU-Pleven is renowned for being the first university in Bulgaria to introduce "Medicine" studies entirely in English to international students in 1997. There are more than 1000 students from 45 countries currently studying Medicine in English at MU-Pleven. So far, 15 classes of international doctors have graduated and found professional success all over the world – the USA, Europe, India and Australia.



## MU-PLEVEN SUCCESSFULLY COMPLETED A PROJECT TO AID THE TRAINING OF MORE THAN 100 DOCTORAL, POST-DOCTORAL, POST-GRADUATE STUDENTS AND YOUNG SCIENTISTS AT THE FACULTY OF MEDICINE AS PART OF OPERATIONAL PROGRAM "SCIENCE AND EDUCATION FOR SMART GROWTH"

Medical University – Pleven (MU-Pleven) successfully completed project № BG05M2OP001-2.009-0031-C01 "Creating a training center for doctoral, post-doctoral, post-graduate students and young scientists at the Faculty of Medicine of MU-Pleven" is part of the Operational Program "Science and education for smart growth" 2014-2020, co-funded by the European Union through the European Structural and Investment Funds. Grants for the project



amount to BGN 695,631.34, of which BGN 591 286.64 are EU funds and 104 344.70 – national, with an implementation period between 12.04.2017 to 31.12.2018. The team in charge of managing and implementing the project is led by Prof. Mariya Sredkova, MD, coordinated by assoc. prof. Galya Stavreva, MD, vice-rector of Science and Research, and members: assoc. prof. Pencho Tonchev – Science and Research, Aneliya Lukanova – accountant and Vanya Pancheva – lawyer.

The team successfully planned, controlled and implemented the project, completing goals within deadlines, budget and maintaining high quality. The main goal was to upgrade current doctoral training of MU-Pleven by introducing special activities and courses, necessary for doctoral, post-doctoral, post-graduate, young scientist and lecturer training at the faculty of Medicine. A special center was established to aid their development and improve the quality of training in order to comply with market needs. Some of the particular goals included increasing motivation in doctoral, post-doctoral, post-graduate students, young scientists and lecturers at the faculty of Medicine to advance their academic and scientific career by providing them with innovative and higher quality training.



## FIRST SUCCESSFUL UROLOGICAL ROBOTIC SURGERIES AT SVETA MARINA UNIVERSITY HOSPITAL – PLEVEN, PERFORMED BY ASSOC. PROF. NIKOLAY KOLEV AND HIS TEAM

As of January 2019 Sveta Marina University Hospital - Plevan will have applied robotic surgery for 10 years. The hospital is already equipped with state-of-the-art robotic surgery system to conduct robot-assisted gynecological, urological and general surgery. Robotic surgery entirely changed the future of surgery. Its introduction envisions better results in surgery and treatment. Its multitude of benefits for patients have been widely confirmed – less stay at the hospital, low blood loss, less post-surgery pain and discomfort, faster recovery and return to regular life.

Since the beginning of the year at Sveta Marina University Hospital - Plevan, the team of Assoc. Prof. Dr. Nikolay Kolev has been applying nine years of experience in urological robotic surgery. The first 3 successful surgeries of patients with prostate cancer were carried out. The patients have already been discharged within the shortest possible time, with normal urination. Three more patients are scheduled for surgery in the coming weeks.

So far, over a period of 9 years, assoc. prof. Dr. Nikolay Kolev and his team have performed more than 100 operations with the robotic da Vinci system. The first robot-assisted radical prostatectomy (prostate removal) in Bulgaria was performed on May 10, 2010 as a demonstration operation by Prof. Otavio De Cobelli of the European Cancer Institute in Milan, Italy. The first nephrectomy (kidney removal) was performed on November 10, 2010 by Prof. Dr. Grigor Gorchev and Assoc. Prof. Dr. Nikolay Kolev. The first robot-assisted radical prostatectomy, performed by a Bulgarian team, was performed on 03.10.2011 under the supervision of Assoc. Prof. Nikolay Kolev. This gives an official start to the development of robotic surgery in urology in Bulgaria and begins the construction of the first Bulgarian urological team to work with the robotic system. There are three surgeons at Sveta Marina University Hospital - Plevan in the urology team: Assoc. Prof. Dr. Nikolay Kolev, Dr. Boyan Atanasov and Dr. Alexander Vanov.



cont. from p.3

They perform robot-assisted operations for treatment of all types of malignant diseases of the urinary and male reproductive system – removal of prostate gland, resection of kidney tumor, radical kidney or bladder removal, dissection of metastatic retroperitoneal lymph nodes. The results of plastic and reconstructive operations of the ureter, renal pelvis and fistulas are also excellent. Robotic operations affecting all organs in the abdominal cavity can be performed thanks to the experience of the pioneers in robotic gynecological surgery – Prof. Grigor Gorchev and Prof. Slavcho Tomov, as well as the leading surgeons in laparoscopic surgery – Dr. Dimitar Tsankov and Dr. Minko Mihov. The ability to implement a multidisciplinary team and approach is an important trend in the treatment of cancer. This puts Sveta Marina University Hospital - Pleven in a leading position as a hub for robotic surgery in Bulgaria where patients with advanced oncological diseases requiring the joint involvement of urologists, gynecologists and surgeons can be treated.

Assoc. prof. Nikolay Kolev describes the advantages of this type of surgery with the latest generation of Da Vinci robots: “The main advantages are the excellent visibility with a large increase in fine structures, easy operation with precision instruments. Tools can be bent and rotated with much more flexibility than a human wrist. They have 7-axis mobility, which allows precise tissue dissection and various methods of internal sutures, even in very complex cases and difficult access to the operative field. In prostate cancer surgery, this allows complete nerve bundles to be retained, resulting in

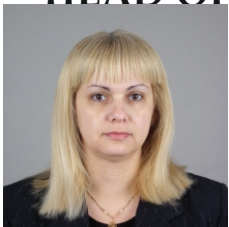
the possibility of normal urination and patient potency. Robotic surgery offers less blood loss, shorter hospital stays, lower postoperative pain, a lower incidence of complications and faster recovery compared to open surgery.” He also points out the many advantages of robot-assisted surgery over laparoscopic and open surgery: the possibility of a 3D image of the surgical field with up to 10-15 times magnification. The operator can control all four arms of the robotic system at the same time while looking at a high-resolution stereoscopic monitor that provides a more detailed three-dimensional picture of the operating field better than the human eye can provide. The robotic system repeats the movements of the operator in a ratio of 3 to 5 to 1, thus eliminating the physiological errors of the human hands and protecting the patient.

The system allows the surgeon to operate with more accuracy and precision which are imperative in retaining nerve function in radical prostatectomy.

When asked to evaluate the significance of robot-assisted surgery, assoc. prof. Kolev said, “In the United States, over 90% of prostate cancer operations are performed with a robotic da Vinci system, a similar rate for kidney cancer. In the leading European countries this percentage is about 70, and in our country – about 50%. There are 5 million da Vinci operations worldwide each year. The robotic system employs 43,000 certified surgeons in 66 countries, in 4,400 hospitals.”

by *Velina Dukova*

## INTERVIEW WITH PROF. SILVIYA YANKULOVSKA, HEAD OF THE PROJECT FOR ESTABLISHING A LEONARDO DA VINCI COMPETENCE CENTER



*Would You introduce yourself to our readers?*

I am Prof. Silviya Yankulovska. I am Head of Project BG05M2OP001-1.002-0010-C01 “Leonardo da Vinci Center of Competence in The Field of

Personalized Medicine, 3D and Telemedicine, Robotic-Assisted and Minimally Invasive Surgery”. I am an expert in public health and medical ethics. I've developed as a lecturer and scientist at Medical University – Pleven.

*Which institution do You represent and what does it do?*

I represent Medical University – Pleven, head of project implementation with major partners “Prof. Dr. Paraskev Stoyanov” Medical University – Varna and the Institute of Systems Engineering and Robotics at the Bulgarian Academy of Sciences. In my capacity as dean of the Faculty of Public Health, I am also part of the management of the university.

Medical University - Pleven stands out as a medical university in our country and in Europe by being a leader in education and research with its priorities set in the development of robotic surgery and telemedicine. Currently, the university consists of four faculties - the Faculty of Medicine, the Faculty of Public Health, the Faculty of Health Care and the, new, Faculty of Pharmacy. The College of Medicine and the Department of Language and

Specialized Education are also major units in the structure of the university. Our newest addition is the newly opened Research Institute. The university provides training in 14 specialties, 4 Master's and 10 Bachelor's programs in 4 professional fields – medicine, pharmacy, health care and public health.

*Would You tell us about the project?*

The project's objective is establishing an innovative, modern high-tech-based center of competence in the field of personalized medicine, telemedicine, 3D medicine, robotic-assisted and minimally invasive surgery for obtaining high achievements in research and the training of specialists, to enhance the competitiveness of the existing businesses and encourage entrepreneurship in the region and the country. Over the next 10 years the center will operate on the basis of high-tech and specialized pro-innovative infrastructure including equipment and specialized software to enable research and development works to be carried out, new knowledge and technologies transfer, training of students, post-graduate and PhD students and other clinical professionals in the targeted areas: General Surgery, Gynecology, Urology, ENT, Orthopedics, Pathology, Medical Genetics, etc. The Centre should continue the partners' mission by offering innovative, attractive and

cont. on p.5

*cont. from p.4*

modern education, as well as to broaden the opportunities, quality and form of training and research. Services supporting the access to new knowledge and technologies in the field of personalized medicine, 3D and telemedicine, minimally invasive and robotic-assisted surgery. They are based on the experience gained by the specialists working for the main partners under the project: Medical University – Pleven; Medical University – Varna and the Institute of System Engineering and Robotics at the Bulgarian Academy of Sciences.

***How is the project funded?***

Project BG05M2OP001-1.002-0010-C01 “Leonardo da Vinci Center of Competence in The Field of Personalized Medicine, 3D and Telemedicine, Robotic-Assisted and Minimally Invasive Surgery” is funded by Operational Program “Science and Education for Smart Growth” and the European Fund for Regional Development. The funds for the project amount to BGN 23 695 179.29, out of which BGN 20 140 902.40 are EU funds and BGN 3 554 276.89 – national.

***What are the activities intended for each laboratory?***

The goals and tasks of the project are set out in the following packages:

**Personalized Medicine Package** – developing, investigating and introducing new approaches to diagnosis, treatment and prevention in different fields of medicine. This would enable an individual research approach to be worked out for patients of different pathology (in the field of oncology, internal medicine, dysmorphic syndromes and genetic conditions, etc.) based on the acquired knowledge of the application of new genomic and biological research methods. The package includes a laboratory equipped with the latest genomic equipment (new-generation gene sequencer) and a research team.

**3D Medicine Package** – creating a complete process for research and training of surgeons, junior doctors and students through virtual reality (VR) surgical manipulation using VR headsets. A 3D printing lab will be set up with the use of 3D printers from leading companies in the world. This new technology will create next-generation orthotic and prosthetic devices, custom implants and external fixation devices, surgical instruments, as well as models of anatomical organs to assist preoperative planning and training of physicians in minimally invasive and robotic surgery.

**Telemedicine Package** – distinguishing and introducing the use of telepathology in modern education and research. Equipping a laboratory for digitizing histological and cytological specimens. Creating virtual microscopy training rooms, computer-assisted morphometry and telepathology, as well as a system for remote access to training courses of virtual specimens for high-tech training of students, postgraduates and doctoral students. Links will be established for telepathological consultations between partners. Establishing integrated operating rooms and telecommunications between partners. This would allow research to be carried out in the fields of surgery, gynecology, urology, ENT and more.

**Robotic Surgery Package** – both the Da Vinci S and the Da Vinci Si robotic systems allow the possibilities of scientific studies to be developed and implemented to improve the

quality of surgery through robotic surgery with reduction of complications, higher quality examination of surgical resections, testing the quality of life of patients, studying the speed of recovery of patients, cost-effectiveness, maintaining of sexual and excretory function of patients after this type of surgery in patients with cancer of the cervix and uterus, prostate, rectum and others.

**Minimally Invasive Surgery Package** – creating the necessary telemedicine infrastructure between partners in order to introduce a third level of highly specialized training for physicians to master specific skills and gain experience in this type of surgery. Creating the preconditions for conducting in-depth research and entering into a lasting partnership with similar global centers, which will improve the dialogue and cooperation between business and academia with a view to intensifying innovation processes and their successful market realization.

***What are the benefits from the successful completion of the project to the community?***

The benefits to society come in many aspects. On the one hand, there will be experts with new, unique knowledge and skills. They will give back to society in the form of patient care and prevention of genetic diseases. Bioprinting will allow the creation of models of anatomical organs to support preoperative planning and training of physicians in minimally invasive and robotic surgery, which will increase the success rate of complex surgical procedures. Long-term positive effects on the health economy of the country are also expected as a result of the increasing number of doctors using minimally invasive surgery in the treatment of patients. The project's view of development in the field of personalized medicine will allow development of an individual approach to patients of different pathology in the field of oncology, internal diseases, genetic conditions and others.

***How do You evaluate your team?***

Both the management and research teams consist of professionals with many years of experience and know-how. We work with a specific goal in mind, with great concentration and cooperation. Everyone is very motivated to achieve the project's goals.

***Are there many young people who wish to pursue science in Your field?***

The project area is attractive to young professionals who will not only be able to be trained in an innovative 3D surgery approach but will also be able to develop valuable and competitive research that will bring them professional satisfaction, self-confidence, and keep them up to date with the latest scientific and medical developments worldwide. They could find a worthy place in the highest rated international publications. The latter is also important for the institutional development of partners, considering the new criteria for quality of research. These types of publications, however, require real research output of their own that is competitive with international publications and withstands the independent anonymized review process. In this sense, the project relies on the development of competencies and specialists, not just the accumulation of tangible assets.

***What do You think needs to radically change in Bulgarian science?***

cont. from p.5

Most of all, science in Bulgaria should be valued and encouraged, and monetarily stimulated. Scientists are the intelligent part of society which is the face of the country and its intellectual independence. If scientific work is not valued and respected, and adequately rewarded, people in whom it has been invested seek recognition abroad. And it's not only about money, but also true recognition and satisfaction from your work. What's also important is the feeling you get when people look at you with reverence, not ridicule, because most say, "you chase windmills" and "your work doesn't pay". Of course, it is also necessary to eradicate vicious scientific practices, breaches of publication ethics and non-compliance with universal research standards, which severely undermine the quality of scientific production and create a negative image. The sensitivity of the academic community to these problems is also important. Effective mechanisms must be put in place to protect those scientists who are alert to the violations, those who dare point them



out and fight for the purity and image of their scientific field.

*Interview by Rositsa Tashkova  
from "Bulgarian Science"*

<https://nauka.bg/intervyu-prof-silviya-yankulovska-rakovoditel-proekta-izgrajdane-centar/>

## SVETA MARINA UNIVERSITY HOSPITAL – PLEVEN WILL CONTINUE TO ADD TO ITS 10 YEARS OF ROBOTIC SURGERY EXPERIENCE IN 2019

As of January 2019 Sveta Marina University Hospital - Pleven will have applied robotic surgery for 10 years. The hospital is already equipped with state-of-the-art robotic surgery system to conduct robot-assisted gynecological, urological and general surgery. Robotic surgery entirely changed the future of surgery. Its introduction envisions better results in surgery and treatment. Its multitude of benefits for patients have been widely confirmed – less stay at the hospital, low blood loss, less post-surgery pain and discomfort, faster recovery and return to regular life.

In January 2018, 10 years passed since the introduction of robotic surgery in Bulgaria and Southeastern Europe for the first time by the teams of Prof. Dr. Grigor Gorchev and Prof. Dr. Slavcho Tomov. Prof. Gorchev is the first surgeon to receive certification to use the "da Vinci" robotic system in Southeastern Europe.

The use of robotic surgery in Bulgaria began on 08.05.2008 with the implementation of the first robot-assisted radical hysterectomy (removal of the uterus) in robotics by the pioneer in robotics Prof. Grigor Gorchev. In 2012 he performed the first robotic surgery in Eastern Europe on a woman with cervical cancer, preserving her reproductive function (robotic radical



trachelectomy), after which the patient underwent a successful in vitro fertilization procedure and became the mother of a healthy baby in August 2012. As of 2012, only 19 cases of women with such pathology undergoing surgery with the da Vinci robotic system have been described in scientific literature, but the Bulgarian patient is the only one with a successfully completed pregnancy.

In 2011, under the guidance of Prof. Gorchev, began the development of robotic surgery in urology in Bulgaria. The first robot-assisted nephrectomy in Bulgaria (kidney removal) was performed. Two urologists were trained and performed the first radical robotic prostatectomies in Bulgaria (prostate removal).

Prof. Grigor Gorchev leads a project under the Operational Program "Development of the Competitiveness

of the Bulgarian Economy" 2007-2013 with the title "Development of research, development and training activity at the Medical University - Pleven through the purchase of high-tech equipment for robotic surgery". A latest-generation robotic system with a training simulator to train and develop research activities was installed in 2014. The country's first general surgery team to operate using the robotic system was formed and successfully completed a training course in Strasbourg, France. On April 9, 2014, the first surgery on a patient with colon cancer with the robotic system "Da Vinci" was performed in Bulgaria.

The 10<sup>th</sup> anniversary of the introduction of robotic surgery in Southeastern Europe and in Bulgaria by the team of Prof. Dr. Grigor Gorchev was officially celebrated at the beginning of 2018 at the Medical University - Pleven. It was celebrated with the opening of the History of Minimally Invasive Surgery at the Telecommunication Endoscopy Center at the Medical University - Pleven. It is dedicated to the celebration of four important anniversaries: 25 years since the first minimally invasive surgery (laparoscopic cholecystectomy) performed in Pleven in May 1993; 10

cont. on p.7

*cont. from p.6*

years since the opening of the first in Southeast Europe Telecommunication Endoscopy Center Taurus at the Medical University - Pleven in June 2007; 10 years since the introduction of robotic surgery for the first time in Southeastern Europe and Bulgaria in January 2008 and 5 years since the introduction of the concept of "scalpel-free surgery" and the treatment of solid tumors by high-intensity focused ultrasound (HIFU) in Bulgaria and Southeast Europe in December 2012.

Over 10 years, the team of member of correspondence at BAS Prof. Grigor Gorchev performed a total of 1200 robot-assisted surgeries in gynecology, 693 of which were robot-assisted hysterectomies for endometrial cancer; 494 robot-assisted radical hysterectomies for cervical cancer; 10 robot-assisted parametrectomies and 3 robot-assisted radical trachelectomies (organ-saving operations to remove the cervix and preserve the uterus to preserve the reproductive function of the woman). For the last 5 years, the scientific work of robotic surgery teams has been significant: 3 doctoral theses; 3 abstracts; 2 Master's theses; 11 publications in foreign scientific journals and more than 112 publications in Bulgarian scientific journals. Medical University - Pleven was the first medical university in the country to introduce the discipline "Minimally invasive surgery" into the curriculum of "Medicine" in the 2017/2018 academic year.

For four consecutive years, Prof. Grigor Gorchev and Prof. Slavcho Tomov have participated in the World Congress on Robotic Surgery in the United States. Prof. Gorchev is the presided over the 3<sup>rd</sup> International Congress of Robotic Surgery of the Association of Robotic Surgery for Southeastern Europe, which was held in October 2014 in Sofia, Bulgaria under the auspices of the Medical University - Pleven. For two consecutive terms he was a member of the Governing Board of the European Association for Robotic Gynecological Surgery. To date, the rector of the Medical University - Pleven Prof. Dr. Slavcho Tomov is a member of the Council. In September 2019, under the patronage of the Medical University - Pleven in Sofia, Bulgaria will be held the XI. European Congress on Robotic Surgery.

## MEDICAL COLLEGE - PLEVEN BECAME PART OF THE HIGHER EDUCATION MAP FOR THE EUROPEAN AREA

In 2018 Medical College-Pleven participated in the Erasmus+ in two of its strategic directions - incoming and outgoing lecturer and student mobility.

Incoming mobility was through the new agreement exchange between the MC-Pleven and the International College of Cosmetology in Riga, Latvia. Between 6-8 November 2018, three representatives of the Latvian College, Deputy Director Ilse Bloom, Ingrid Fismane and Byba Grinkberg, exchanged experience with their colleagues from Medical College-Pleven. G. Grinkberg, a lecturer in Nutrition and Dietetics, delivered a lecture on "The role of spices in maintaining health and beauty".

The conversations and discussions with the Director of the Medical College-Pleven, Assoc. prof. Dr. Evgenia Barzashka, MD, that took place during the visit will contribute to the improvement of the conditions and maintaining a long-term partnership.

Another priority in the Internationalization Strategy of MU-Pleven is the outgoing mobility for lecturers and students for training and practice. The new approach applied to balance the two types of mobility, both incoming and outgoing, provides more synergy and interaction between formal, non-formal and informal education. As a result of the continuous improvement of the University Information Infrastructure and

participation in Information Days held by the Center for Promotion of the Erasmus+ Program, a lecturer from the MU-Pleven realized mobility for the purpose of study. Assist. prof. Veronika Spassova, Department of Social and Pharmaceutical Activities, participated in a training course organized by the DOREA Educational Institute WTF, Limassol, Cyprus. The training took place in Athens, Greece. Lecturers from different European countries - Spain, Poland, Hungary, Bulgaria and Romania - participated in the training. Assist. prof. Spassova said that through the course she had perfected some special teaching competencies in the field of integrated learning and had acquired the skills to present material in an interactive way. She also pointed out the significance of the mobility regarding her scientific and career development.

Student mobility for training was also realized in 2018. Tsvetelina Tsankova, 2<sup>nd</sup> year "Social work" student participated in training at "Retirement Home" in Ljubljana, Slovenia. Tsvetelina considers travel a



new challenge which she is ready to take on with all her energy. "Before I began this adventure, I was uncertain and even a little scared. My strong motivation and the support, most of all, of my family, my friends, colleagues and lecturers at the Medical University - Pleven, did not allow me to give up. Visiting another country and learning more about their traditions and customs was a dream come true. Doing something new is difficult and there are many obstacles, so it was with me, but I did not give up and went by myself. I found myself in a foreign country, among strangers who spoke another language. Instead of being paralyzed by the unknown, I made a decision to handle this new situation, and it gave me the strength to succeed."

Tsvetelina did not hesitate to go forward and upward and follow her dreams. She met with many people, acquired new skills and valuable experience, and developed her language skills. "I also learned a little of their language. I met people who were radiant, kind and good. They welcomed me as warmly and hospitably as if I had been at home. I was helped by the employees of the host organization - the Director of the Retirement Home, his partners and colleagues. I created new contacts and friendships. The training and the place

*cont. on p.8*

cont. from p.7

changed me in a positive direction, it gave me the opportunity to work in a real professional working environment and to enrich my knowledge. It changed my life entirely." Tsvetelina not only improved her linguistic and academic skills but visited new places, expanded her worldview. Here's what she said about the life lessons she learned: "During my internship I was involved in every activity there, I became acquainted with the place and the elderly people in the home. At the end of the project, I received an EU Certificate certifying the competences I had acquired during the volunteer service. This organization provided me with invaluable practical experience. If I get the opportunity, I would take part in mobility again. I learned how to be strong and confident and how to follow my dreams! I realized what I want from life, how should I achieve it and how to be useful to others."

The realization of outgoing Mobility for Learning or Training provides more and better opportunities to raise students' skills and competences, enabling talented and motivated students to stand out. The expansion of the labor market, globalization and the free movement of labor require

## FIRST SURGERIES WITH "DA VINCI" Xi AT "SVETA MARINA" – PLEVEN UNIVERSITY HOSPITAL

10 January 2019, two successful surgical interventions were performed on women with uterine tumors at "Sveta Marina"- Plevan University Hospital. They were performed by pioneers of robotic surgery – member of correspondence at BAS, Prof. Dr. Grigor Gorchev and Prof. Dr. Slavcho Tomov – using "da Vinci" Xi. The device is the only one in Bulgaria and it provides more patient safety, precision and faster recovery. It will soon be used for urological surgeries, directed by assoc. prof. Nikolay Kolev, as well as for thoracic interventions.

The Institute at BAS and Medical University – Plevan have both reliably planned scientific and research programs for 5 years into the future. During that period the older system, "da Vinci" S, will be used and it is already re-sited at the university's telecommunications center. It will be used to train students and professionals with an interest in robotic surgery.



*Interview with Prof. Dr. Grigor Gorchev*

## 'MEDICINE IS STILL UNDERFINANCED'



We are third in Europe in robotic gynecological surgery, says Prof. Grigor Gorchev. Bulgaria has already had its two first successful robot-assisted surgeries using the da Vinci Xi. How is robotic surgery advancing in Bulgaria? How many operations will be covered by the

National Health Insurance Fund? What reforms are necessary? We asked Prof. Grigor Gorchev, obstetrician and gynecologist, oncologist and director of "Sveta Marina" Hospital in Plevan.

Prof. Gorchev, how do you evaluate the advancements in robotic surgery in Bulgaria?

There are two aspects to this. First, we have advancements in gynecological robotic surgery and second, advancements in urological and abdominal surgery. We began our program in 2008 with robotic surgery on cancer

future professionals in the fields of public health, health and social care to live and work in a global world. Hence, mobility is a prerequisite for acquiring not only professional but also intercultural competencies. It helps explore and understand foreign cultures and develops the ability to accept and appreciate the Other, contributes to the acceleration of integrative processes within the EU and are a powerful means of achieving the goals of European education policy in the Higher Education sector.

By pursuing its mission to prepare highly qualified and competitive staff for public and private establishments in line with European standards, Medical College-Plevan will continue to provide more access to lecturers and students to participation in Erasmus + mobility programs.



diseases in the female reproductive system in mind. In 2010, we began operating on prostate cancers, also progressing well. In 2014, we launched the abdominal surgery program. We're mainly working in these three directions. Actually, we are a bit lagging behind Romania and Greece in urology and surgeries but it's different with gynecology. Only Sweden and Italy are ahead of us in robotic surgery when it comes to gynecology.

How many surgeries will the NHIF cover this year?

There is a limit of 312 procedures for the entire country, so we expect ours to be about 130. Considering cancer of the female reproductive system.

Do you have a waiting list?

Yes, but we plan it so there's no longer than a month's wait. Treatment of cancer patients shouldn't be delayed. We operate almost every other day. I'm certain that the broad implementation of robotic surgery will provide even better results in surgery and recovery.

cont. on p.9



*cont. from p.8*

You have said that the NHIF shouldn't cover the costs of surgeries using da Vinci if they are on non-cancer patients. Why?

It's like that everywhere. The system is intended for complicated surgery, especially cancer. It's also very expensive and other pathology could benefit from endoscopy instead. Take uterine fibroids, for example, they could be removed through laparoscopy. The state can't afford to pay for benign pathology, too. It doesn't require robotic surgery – that should be applied in complicated cancer surgery, as it is across the world.

Do you agree with Dr. Decho Dechev, director of the NHIF, that BGN 8000 is too much for robotic surgery?

I met with Dr. Dechev and we talked a lot. This price tag was set about 6 years ago when we began doing this kind of surgery. Back then the Ministry of Health covered the cost of supplies and maintenance of the system. Just the upkeep of da Vinci is BGN 300 000 a year. So, the pricing isn't off, BGN 8000 is about the floor. Dr. Denchev agreed and the price stayed that. It's a complex matter that requires certain competences. The supplies are costly and the NHIF, not having competitors, decides the price. That's just how it is.

What is the benefit for the patients from such an intervention?

The better question is – what is the benefit for the government or society. The patient benefits a lot because a woman with cervical cancer operated on Friday can be home by Sunday and be back to work on Tuesday. I'm tired of asking politicians this. When will the Ministry of Labor issue regulation that patients of minimally invasive surgery do not need 2, 3 or even 6 months of sick leave? The purpose of this type of surgery is to decrease the stay at the hospital so the government doesn't have to pay for it. Any patient who has received this type of surgery needs no more than 15 days of sick leave. What happens now is that we perform endoscopy on a patient and then they take 2-3 months of sick leave. Politicians fail to understand that this type of surgery doesn't require such a long recovery period. I've seen it in the US. Over there, after robotic surgery, a patient only stays a day at the hospital. On the other hand, when we deliver reports stating that patients take 104 days of sick leave after surgery, foreign doctors are just baffled. They get back to work within 5 days of surgery. I've said it so many times, the government needs to focus on newer technology and minimally invasive surgery. It is very serious but apparently the benefits are misunderstood so we're lagging. Minimally invasive surgery is precise and safe. It's performed without incisions and scars, there's almost no post-surgery pain, recovery is fast, and patients can quickly return to their daily lives.

Are there any physicians who want to learn how to use the system?

There are many but not everyone can have a robot. The company itself doesn't agree to have systems everywhere. Bulgaria was the first in Eastern Europe to get da Vinci. A year later, the Health Minister of Macedonia invited me to develop robotic surgery there. They had decided to get a robot but the company sent me an official letter from the US stating they didn't want to expand to Macedonia. So, it's the

company that decides where to send their machine, regardless if you have the funds or not. They don't have it in Serbia, Croatia and Hungary. The Czech Republic has just begun the process of acquiring one and there's only one system in Poland. Western Europe, on the other hand, has far more developed robotic surgery. Spain bought 30 systems for their hospitals. That's state policy. It requires a lot of thought because, really, that's a standard. We want to impose this standard in Eastern Europe but it's not easy. When we first began in 2008, Turkish doctors hadn't even heard of this type of surgery, now they have 35 machines. Romania got its da Vinci three years after us and already have multiple. There are no more than three devices in Bulgaria.

Are there any significant changes in obstetrician wards stemming from the Annex to the National Framework Treaty from this year?

Not too significant. As far as I know, the price of birth has increased, as it should. There are some restrictions concerning cancer and obese women.

“The Hospital Index” shows big differences between obstetric clinics with births at some of them falling significantly short of standard requirements. What do You think?

One or two births a month are too few, so the physician's qualification could drop. Obstetrics should be concentrated in long-standing facilities with better equipment and, most of all, 24-hour availability. There are times when more complex surgery is needed. If an intervention is required post-delivery or prenatally and there isn't an anesthetist on duty, a delay could be fatal. I stand by the notion that delivery assistance is a grave matter that requires highly qualified experts in post-op care as well as in operative obstetrics and gynecology. Having a maternity ward in every city is unnecessary. Considering modern communication, infrastructure and transport, delivering a patient to the proper facility could be a lot faster where the woman in labor and the baby could receive adequate care and not be exposed to unnecessary risk at an understaffed facility with obsolete equipment.

Does the health insurance model need to change and how?

I've said it before, the quality of treatment needs to be considered. I think we should let the market decide, as difficult as that could be. The market should be free in order to provoke competition. Only quality hospitals would be left in the end. And, I hope you already know, many only exist in name.

Do you believe there will be any reforms soon?

No, because the decision is political and, with elections coming up, I hardly think anyone would risk doing anything unpopular. Bulgaria is one of few countries with budgeted health care. Whether the money comes from the government or the NHIF makes no difference. It's still budgeted and limiting. In order to have a real medical market, it needs to be free and there needs to be competition.

**Interview by Lilyana Lambeva, Clinica.bg**

## PROF. SLAVCHO TOMOV, MD - RECTOR OF MU-PLEVEN - RECEIVED AN AWARD FROM THE PLEVEN JOURNALIST ASSOCIATION

At a festive ceremony at the BTA Press Club, the Plevn Journalists Association presented its annual Northern Echo awards. Official guests of the festive ceremony were the Chairman of the Municipal Council of Plevn – Martin Mitev and the Mayor of the Municipality – Georg Spartanski. One of the people to receive an award was the Rector of MU-Plevn, Prof. Dr. Slavcho Tomov, MD, who received the “Award for Dialogue and Communication with the Media. The award was presented by Martin Mitev, who expressed his gratitude to Prof. Tomov for his mission not only as a doctor, but also as an ambassador of Plevn all over the world. Due to work obligations, the Rector of MU - Plevn could not attend the ceremony personally. The award was received on his behalf by vice-rector assoc. prof. Galya Stavreva, MD.



## MIDWIFE DESISLAVA BETOVA RECEIVED AN INTERNATIONAL CERTIFICATE FOR LACTATION CONSULTANT

Midwife Desislava Betova, who works at the Second base of the Dr Georgi Stranski University Hospital - Plevn, successfully passed the exam for a Lactation Consultant. She is the first volunteer breastfeeding consultant in Plevn at the National Breastfeeding Support Association. The International IBCLC Certificate enables her to work as a breastfeeding consultant anywhere in the world in different settings – hospitals, medical centers, community at large. The exam represents the applicant's knowledge in accordance with the requirements for the most specialized nursing mothers care.

Desislava Betova started as a volunteer breastfeeding consultant in 2010. Thanks to all the families who allowed her in their homes and provided her with the required minimum of 1000 hours of practical work, as well as the team from the National Breastfeeding Support Association, the midwife fulfilled her dream to be able to pursue this activity at home and abroad.



## ACADEMICAL OSCAR FOR MEDICAL UNIVERSITY - PLEVEN

Medical university – Plevn was awarded the academic “Oscar” at the “Bulgaria's Best Universities” ceremony. The university was placed first in 2018 in the “Health care” field. Deputy Minister of Health - Dr. Boyko Penkov presented the award to Assoc. Prof. Aleksandar Valkov, Dean of the faculty of “Health care” at MU-Plevn.



## “STORK” - SCHOOL FOR FUTURE PARENTS

Dr. Polina Vasileva, MD and Dr. Elitsa Gyokova, MD are young and ambitious physicians who have graduated Medicine at Medical University – Plevn. They specialize in Obstetrics and Gynecology at Dr Georgi Stranski University Hospital in Plevn, and from 2016 and 2017 are full-time PhD students at Medical University – Plevn with interests in the area of high-risk pregnancy and

childbirth. For them, medicine is not related to the clichéd expression “a dream come true”, but rather fate. MU-Plevn is the place where they developed their skills, received preparation for their next stage of life – professional realization. Numerous courses and specializations at home and abroad (Greece, Slovenia, the Netherlands, Belgium, Italy, Singapore, England, Germany, Spain, Russia, Turkey) as well as the state of obstetrics and gynecology in Bulgaria, spurred the creation of “Stork”, a school for future parents. The school is the first modern school in Bulgaria, established by qualified doctors in obstetrics and gynecology.



cont. from p.10

*Dr. Vasileva, being the founder and manager of "Stork" School for Future Parents, could You tell us more about its creation? How could Your school aid future mothers?*

This last year was to us a dream come true, establishing "Stork" School for Future Parents. As a doctor, a woman, a mother, working and interacting with pregnant women and mothers daily, I gradually realized that I was missing a very large piece of the puzzle. Visits to Women's Counseling and Pregnancy Tracking are extremely important for the proper development of pregnancy and are the result of the efforts of wonderful colleagues, but are 15 minutes a month enough to cover all the needs and concerns of a pregnant woman? So, I realized, something needed to change in order to help these women have their special moments, to guide and support them! Then I met Eli, Dr. Gyokova. And Stork was born – the child of much love, perseverance, want, struggles, and, most of all, of our desire to help. We put a lot of effort into preparing our presentations based on global medical practices and standards, which we enrich during courses and specializations at home and abroad, to present them to those who need this information. We believe that prospective parents deserve to get information from qualified professionals rather than asking Google. The first steps of Stork were in February 2018 in Pavlikeni, later that year we started our monthly visits to Troyan. Since August 2018, Stork set up a nest in Pleven, 148 Doyran Blvd. We have created a cozy place in the heart of the city to make everyone who visits us feel at home. We can be most of use when adequate medical information and preparation can be presented in an environment where the doctor-patient distance is eliminated.

*Dr. Gyokova, what do You consider the most important in Your lectures?*

It is very important for pregnant women and their partners to be aware of what constitutes a normal pregnancy and what are the normal changes that occur in a woman's body. This way, they will be able to spot deviations that are not normal and seek adequate help in a timely manner. Worldwide, prenatal medicine is developing at an incredible rate, screening programs are being created to detect and prevent early obstetric complications, even those that threaten the life of the mother and the fetus. Women in Bulgaria have the right to access such treatment. Dr. Vasileva's and my classes have this in mind. Gradually our idea attracted a lot of followers. Dr. Preslava Gatseva, a doctoral student and post-graduate in neonatology, joined our initiative. Dr. Gatseva runs monthly first aid courses for infants and young children. These courses are of great interest to current and future parents, and not by chance. This way, participants gain a great deal of knowledge about critical situations and have practical knowledge about the most important first aid points.

Part of our team also includes midwives. They are Vanya Zaharieva, in charge of practical training in preparing for a normal birth; Desislava Betova, breastfeeding consultant at the National Breastfeeding Support Association, one of the few in Bulgaria certified by the International Board of Lactation Consultant Examiners - IBCLC and mother of 3, is in charge of classes, workshops and courses related to the first year of the child. Miglena Petrova conducts practically targeted trainings for the first days of the new-born. Our team also has a psychologist - Svetla Ralcheva, who runs group psychotherapy related to important moments around pregnancy and raising a young child. Last but not least, "Stork" has classes in gymnastics, according to the mother's needs in this important

period.

*Do You see any worry in mothers who attend Your lectures? Do You think they have enough knowledge about pregnancy and what comes after?*

You could say they're slightly worried when they first come. They don't know what to expect but that worry goes away quickly. The environment, the smiles on and the interesting information quickly breaks down the initial anxiety. And with each subsequent visit, our relationships become more friendly, which greatly aids the learning. The modern woman is lost in a sea of information. However, internet access and free communication is a double-edged sword. Anyone can write whatever they want and there is no way to control health information on the Internet. Information on this important period should only be provided by credible sources. This is also one of the main reasons for the creation of "Stork".

*Do You plan such lectures on possible pregnancy- and maternity-related genital and extragenital diseases?*

Yes. The tendencies to postpone pregnancy to a later stage of life and some women's diseases occurring at an earlier age make this a very important topic. We will certainly cover such subjects in the future.

More and more women suffer from reproductive issues and premature births in recent years. Why do You think that is?

There are multiple factors that contribute to this. One of them is, as mentioned earlier, postponing pregnancy. This inevitably causes serious issues. The way of life, diet and, not least, overall stress should not be underestimated. Fortunately, reproductive medicine is well-developed and continues to advance which give couples with reproductive issues a chance. With regards to premature birth, there are screening which makes it possible to identify women under risk and modern prevention methods.

*Why gynaecologist? Was it a childhood dream?*

**Dr. Vasileva:** I became aware of my passion for obstetrics and gynecology in my student years. In fact, it wasn't me who chose the specialty, it chose me, and that makes me happy every day!

**Dr. Gyokova:** I knew I wanted to be obstetrician-gynecologist before I even realized this meant I need to be physician first. My studies were me just following this dream.

I want to ask about the person whose actions inspired You during Your studies. Who are they?

**Dr. Vasileva:** I consider that person to be assoc. prof. Svetlozar Stoykov. We first met during my studies at Medical University – Pleven, at the Maternity ward, if memory serves me right. Right away his way of work, his attitude to the patient and his team greatly impressed me. He invoked a desire to become better, to perfect myself, learn from my mistakes and to never give up but keep at it with a smile on my face.

**Dr. Gyokova:** The person who inspired me during my studies was Prof. Dr. Slavcho Tomov. The way he constantly strives for the new and better inspired even more zeal in me to follow my dreams.

*The first babies born in Pleven for 2019 are twins. Do You consider this a good omen?*

Yes, this certainly is a good omen for our city. Twins symbolize fertility. We are all aware of the worrying tendency for less births and we need to do our best to change that.

What would You wish Yourselves and Your colleagues in 2019?

More and healthier babies, healthy and happy mothers!

*Interview by Valentina Kirilova*

## EYE CLINIC, UMHAT "DR. GEORGI STRANSKI" WITH CONSTELLATION® VISIONE SYSTEM

The Eye clinic at UMHAT "Dr. Georgi Stranski" – Pleven is now equipped with a high tech instrument for laparoscopic surgery. It is a microsurgical device consisting of three modules each with unique capabilities. Assoc. prof. Dr. Snezhana Murgova, MD and her team are the ones who will put it to use.

The Constellation® Visione System is made in the USA and acquired with hospital funds. It is one of the best composite microsurgical systems with which to perform vitreoretinal operations and removing cataracts. The instrument greatly improves patient safety – greater speed ensures safe work in the immediate vicinity of the retina as well as quicker, improved efficacy of the procedure.



## ROTARY CLUB PLEVEN CENTRUM CHARITY CAMPAIGN FOR THE NEONATOLOGY CLINIC AT UNIVERSITY HOSPITAL - PLEVEN

On February 18 in the Art - hall of Hotel "Rostov" Rotary Club Pleven Centrum donated a video laryngoscope to the Clinic of Neonatology at Dr. G. Stranski University Hospital - Pleven. The donation was received by head of the clinic, assoc. prof. Victoria Atanasova, MD. The video laryngoscope was purchased with the funds

raised from the campaign "Helping premature babies get their first breath of air" organized by Rotary Club Pleven Centrum and friends of the club at the traditional Christmas Charity Evening in 2018, at which BGN 6970 was raised. The device costs 3310 euros.



## THREE HOSPITALS IN PLEVEN RECEIVED DIAPER DONATIONS FOR PREMATURE BABIES

The Pampers charity campaign, spanning 45 neonatological wards in 30 cities across Bulgaria, brought a little bit more joy to parents of premature babies at three Pleven hospitals. "Sveta Marina" University Hospital, 2nd Clinical Base of "Dr. Georgi Stranski" University Hospital and "Avis Medica" Hospital received a donation of 350 000 specialized diapers for babies born underweight (800 grams) in the second trimester of pregnancy. Each year there are about 6000 premature births in Bulgaria. In 2017 and 2018 there were 283 premature births in Pleven.



## 11TH EUROPEAN CONGRESS ON ROBOTIC GYNECOLOGICAL SURGERY

The 11th European congress on robotic gynecological surgery will be held in Sofia between 26 and 28 September under the auspices of Medical University – Pleven in cooperation with the Bulgarian Association for Minimally Invasive Gynecologic Surgery. The forum will be under the slogan "Beyond borders" as the participation of 300 scientists from Europe, the USA and China is expected. The pioneers of robotic surgery – prof. Robert Holloway, prof. John Boggess and prof. Richard Satawa – will share their visions on the future of high technology. Hosts, prof. Dr. Slavcho Tomov, DScM, Rector of MU-Pleven and Member of correspondence for the Academy of Science, prof. Dr. Grigor Gorchev, DScM, who are both members of the "Society of Laparoendoscopic Surgeons", were glad to have been provided the opportunity to host the congress, an acknowledgement of the advancement of robotic surgery in Bulgaria. Ten members of the Society will visit MU-Pleven a day before the congress to



conduct training for a group of students. This year medical students will also be able to take part in the congress.

МЕДИЦИНСКИ ЦЕНТЪР  
КЛИНИЧЕН ИНСТИТУТ  
ЗА РЕПРОДУКТИВНА МЕДИЦИНА

8th INTERNATIONAL WORKSHOP  
"AUTOIMMUNITY IN 2019:  
THE GOOD AND THE BAD NEWS"

The 8th international workshop "Autoimmunity in 2019: the good and the bad news" was held from 10th to 11th April 2019 at the "Balkan" hotel in Pleven. It was organized by the Center for reproductive health at MU-Pleven, the Clinical Institute for Reproductive Medicine Medical Center – Pleven, the Clinical Immunology Laboratory, "St. Ivan Rilski" University Hospital, MU-Sofia and the Bulgarian Association of Clinical Immunology. The workshop is planned to include reports, briefs and poster sessions on current topics in autoimmunity – treatments, unsolved issues, doctor-patient relationship. Work language is English.



17TH NATIONAL CONGRESS ON CLINICAL MICROBIOLOGY AND INFECTION



The Bulgarian association of microbiologists' 17th National congress on clinical microbiology and infection will be held at park hotel Moskva in Sofia between 9 and 11 May 2019. Some topics that will be discussed are microbial drug-resistance, respiratory tract infections and tuberculosis, zoonoses with a risk of becoming epidemic and biorisk management, sexually transmitted infections, vaccine-preventable infections as well as food- and water-borne infections, vector-borne infections, health-care associated infections

and infections with immunodeficiency and related illnesses. Among the organizers are experts from all medical universities in Bulgaria. Prof. Mariya Sredkova, M.D., Ph.D., Vice-Rector of Science and Research and Head of the Department of Microbiology, Virology and Medical Genetics.



"MEDICAL REHABILITATION AND  
ERGOTHERAPY" – NEW MASTER'S  
PROGRAMS AT MU-PLEVEN

Medical University-Pleven will begin accepting applications for two new master's programs in "Medical Rehabilitation and Ergotherapy" in mid-February. The program will be fully paid by the student, part-time and take two semesters to complete for students with a bachelor's degree in "Medical Rehabilitation and Ergotherapy", and four semesters for students with a professional bachelor's degree in "Rehabilitation". Applicants will be approved after an interview. The training in both programs aims to build upon existing knowledge and professional skills.



'CHRISTMAS CARD WITH A CAUSE'

On December 21, 2018, students from Medical University – Pleven and friends surprised the children from the Leda Mileva Special Education Support Center, Dolni Dabnik with a Christmas celebration. The campaign to raise money and warm hats, scarves and gloves, launched December 5, was successful for another year. The organizers - Shenai Sadak (6th year "Medicine" student and AMSB member) and Natalia Burdarska (1st year "Medicine" student, local representative of the Human Rights and Peace Committee at AMSB), expressed satisfaction and gratitude to their partners in the charitable cause: Lady Lion Club Pleven Mirror, Violet Caffe Bar, Baba Yaga Children's Club. Within a week, thanks to the "Mittens" Christmas Bazaar and the "Christmas Card with a Cause" campaign, BGN 468 were raised. The sum includes money collected from students from MU-Pleven. Then the warm hats, scarves and gloves, which were sorted in advance by MU-Pleven lecturers, were gifted to the children.

On the day of the Christmas celebration, the children received many treats, they danced, recited poems and followed the Christmas Eve custom by performing Christmas carols. "We saw the eyes of the kids glitter again. Whenever I come here, I get charged with so much positive energy! What we did is a great good and should not be bound by an exact date or a specific holiday," Shenai said. Such initiatives, in which first-year students from the Medical University participate, encourage her that the medical community in Pleven as a whole has a big heart, open to all children's problems.



Academia  
MEDICA

Editor-in-chief: Prof. Slavcho Tomov, MD, PhD

Editor: Valentina Kirilova

Translation and Proofreading: Tsvetelin Lisaev

Prepress: Engr. Silvia Emileva

Materials received are not to be returned. Authors are held responsible for the contents of their articles.

Pleven, 5800; Bulgaria  
1 Kliment Ohridski Str.  
Contract no. 064/884-260  
e-mail: balashkova@abv.bg

Academia Medica Newspaper  
provides spaces for advertising

Prices:

Entire page, A4 – 140.00lv.

½ page – 80.00lv.

¼ page – 40.00lv.

Excluding VAT.

We feature notices and advertisements on  
medical or ecological topics only.