## UNIVERSITY OF DEFENCE

## FACULTY OF MILITARY HEALTH SCIENCES

## **ANNUAL REPORT**

# 2015

HRADEC KRÁLOVÉ

**CZECH REPUBLIC** 



## **Faculty of Military Health Sciences**

Hradec Králové

## **EDITORIAL NOTES**

Dear Reader,

This publication presents the main activities of the Faculty of Military Health Sciences of the University of Defence in Hradec Králové.

The 24<sup>th</sup> Annual Report includes the principal research and educational activities of the 8 departments, so that it may act as a basis for internal and external evaluation respectively.

Should you require more detailed information about our Faculty, it is available on our website http://fvz.unob.cz or http://www.pmfhk.cz.

In case of any suggestions or comments to our activities, do not hesitate to contact us at the address listed below.

Vice-Dean for Research Prof. Pavel BOŠTÍK pavel.bostik@unob.cz

Our contact address in different languages is as follows:

Univerzita obrany Brno Fakulta vojenského zdravotnictví Hradec Králové

University of Defence Brno Faculty of Military Health Sciences Hradec Králové

Universität der Verteidigung Brno Wehrmedizinische Fakultät Hradec Králové

Université de la Défense de Brno Faculté de Médecine Militaire de Hradec Králové

Universidad de Defensa Brno Facultad de Sanidad Militar Hradec Králové

Universitas Defensionis Brunensis Facultas Medicinae Militaris Greczreginensis

Třebešská 1575 500 01 Hradec Králové Czech Republic

## CONTENTS

EDITORIAL NOTES	3
CONTENTS	5
FOREWORD	7
INTRODUCTION	9
HISTORY	۵
THE MAIN AIMS OF THE FACULTY IN 2015	
THE MAIN AIMS OF THE FACOLITIIN 2013     THE STRUCTURE OF THE FMHS	-
THE STRUCTURE OF THE FMHS	23
THE DEAN OF THE FACULTY AND HIS DEPUTIES	24
THE DEAN OF THE FACULTY AND HIS DEPOTIES	24
	25
MEMBERS OF THE SCIENTIFIC COUNCIL	
MEMBERS OF THE ACADEMIC SENATE	
MEMBERS OF THE EDUCATION COMMISSION	
MEMBERS OF THE EDITORIAL COMMISSION	27
DEPARTMENT OF EPIDEMIOLOGY K-301	
DEPARTMENT OF MILITARY MEDICAL SERVICE ORGANIZATION AND	
MANAGEMENT K-302	33
DEPARTMENT OF RADIOBIOLOGY K-303	
DEPARTMENT OF TOXICOLOGY AND MILITARY PHARMACY K-304	
DEPARTMENT OF MILITARY SURGERY K-305	45
DEPARTMENT OF MILITARY INTERNAL MEDICINE AND MILITARY	
HYGIENE K-306	
DEPARTMENT OF EMERGENCY MEDICINE AND MILITARY GENERAL	
MEDICINE K-307	
DEPARTMENT OF MOLECULAR PATHOLOGY AND BIOLOGY K-308	-
VIVARIUM	
COMMUNICATION AND INFORMATION SYSTEMS OFFICE	
VISITORS TO THE FACULTY OF MILITARY HEALTH SCIENCES	72
VISITS ABROAD	73
WORKSHOPS, COURSES, RESIDENCIES AT THE FACULTY	
INTERNATIONAL COOPERATION	
SCIENTIFIC AND RESEARCH ACTIVITIES	87
THE REVIEW OF RESEARCH PROJECTS CARRIED OUT AT THE	
FACULTY OF MILITARY HEALTH SCIENCES	
ARTICLES IN JOURNALS WITH IMPACT FACTOR	
ARTICLES IN OTHERS JOURNALS1	05
TEXTBOOKS, MONOGRAPHS, ARTICLES IN MONOGRAPHS AND	
PROCEEDINGS1	11

ABSTRACTS IN JOURNALS WITH IMPACT FACTOR	115
ABSTRACTS	117
PRESENTATIONS AND POSTERS	123
INDEX	149

## FOREWORD

The Faculty of Military Health Sciences of the University of Defence in Hradec Kralove is a centre of medical education and research in the Czech Army with long-term history in the Czech Republic. The military medical education began in Hradec Kralove in 1951. The school was established by an order of the President of the Republic as the Military Medical Academy, and later a honorary title of "Jan Evangelista Purkyne" was added. Later on, the name was changed to the Military Medical Research and Postgraduate Institute and in 1988 its original name was used again. In 2004, during professionalization of the army, reorganization of military education and establishment of the University of Defence, a new phase of the Faculty entitled the Faculty of Military Health Sciences began. Since 2004, our faculty has been one of the three faculties at the University of Defence. Presently, the Faculty of Military Health Sciences plays a key role in military university education with the highest scientific contribution at the university. After merging with two other originally separated military faculties, we have created a viable and developing organism emphasizing strengths of its units. Each faculty covers variety of different tasks with limited staff and resources. Our role is not only to educate and train all medical, pharmaceutical and nursing specialists and to keep scientific excellence, but also to provide a general support to the Military Medical Service which is influenced by staff cuts and restructuring policy as well. Primarily, the Faculty provides study in one accredited Bachelor's study programme (Military Paramedic), three Master's study programmes (Military General Medicine, Military Dentistry, Military Pharmacy) and eight doctoral study programmes.

In spite of every year lower financial budget and personnel reduction, we would like to continue and even to increase most of our activities. Our scientific production rate is the highest at the entire University of Defence. The Czech (Medical Service) field hospitals are well-known around the world and there are not so many similar good examples in our Military except military police and chemical troops. Our approach is different from the majority of other services. Our training is both long-term and intensive thus the students gain deeper knowledge and wider skills as well as awareness of military life. Education, training and research should be joint and a pool of excellent professors, scientists and teachers should be created. But it is a long way to go. The Faculty of Military Health Sciences is an open body for mutual cooperation with scientists and teachers from all democratic countries. In spite of changing priorities in the Czech Military, we have been still dealing with specialization of the Czech Armed Forces in nuclear, biological and chemical protection and we have been engaged in many humanitarian and military deployments of military medical services abroad. Our Faculty will play the key role in this demanding process. We will guarantee the research and fulfilment of training needs for medical corps,

#### FOREWORD

specialized forces and for some NATO countries. Nevertheless, our primary concern is to educate and train students and young physicians. This can be hardly possible without our closest partners, international workmates and friends.

At present, the Faculty covers the needs of troops concerning medical professional training in all specializations, medical informatics, science and research. The Faculty represents an optimal model of education for less populous medical specialities in close cooperation with Charles University in Hradec Kralove. The Faculty has educated a lot of specialists not only at a national, but also (at least) at European level. A lot of important positions prove it. These positions have been held by former and present faculty personnel in important international institutions from the NATO Surgeon General in Europe, through a membership in various NATO, EU, United Nations Security Council, and World Health Organization boards, thw European Centre for Disease Prevention and Control. The Faculty provides and solves a lot of research projects, it has its own complex laboratory technologies for scientific work, above all within the sphere of life force protection against NBC agents. The scientific results are published in many respected international journals such as the Lancet.

The very fact that the Faculty has survived all reforms, reorganization and other changes demonstrates its uniqueness, high educational, professional and research level. That could not be achieved without close cooperation with other scientific and educational workplaces. Not all universities can be proud of so close collegial relationship as we have with the Medical and Pharmaceutical Faculties of Charles University, the University of Hradec Kralove, the Faculty of Health Studies in Pardubice, the Faculty Hospital in Hradec Kralove and the Military Medical Agency. In 2012, the Central Military Hospital in Prague was declared the Military Faculty Hospital. This medical facility, which we have cooperated very closely with creates a good background for military medical practice of our students. Personally, I value a cooperation with representatives of the city of Hradec Kralove, thanks to which the Faculty has an excellent reputation at city public. I am pleased that this collaboration continues.

In conclusion, I would like to say that all results and successes I perceive as a consequence of the cooperation of teachers and students and other employees of our faculty, as well as developing relationships with graduates and other partners. My wish for the next period is to continue in the successful development of the faculty and continually to improve the quality of our work.

Dean of the Faculty of Military Health Sciences

COL Assoc. Prof. Jiří PÁRAL, M.D., PhD.

 $24^{th}$  Annual Report, 2015-8

## INTRODUCTION

## HISTORY

The Purkyně Military Medical Academy has been a long-term educational and scientific centre of the Czech Army Medical Service. There has been a very long history of systematic education of military medical personnel in our country. Its beginnings lie, as in many European countries, in the 18th century. Large, permanent armies were being built and the military medical service became a normal part of these armies. In 1776 the War Council of the Vienna Court issued an administrative order which definitely prohibited the employment of field surgeons in the armed forces who had not studied anatomy and who had not had their knowledge officially examined. This can be considered the beginning of organized education of military medical personnel in our country. Six-month courses were organized for field surgeons at the Garrison Hospital in Gumpendorf near Vienna.

The fundamental milestone in the "Austrian" stage was, however, in 1785 with the establishment of the Military Medical (Surgical) Academy named the Josephinum after its founder, the enlightened monarch and father of many political and social reforms, Emperor Joseph II. He saw the mission of the school as fulfilling these tasks:

- education of qualified military surgeons (physicians)
- · creation of a learned society for research in medical science

• creation of a permanent field sanitary commission for solving questions concerning combat casualty care.

A number of renowned physicians of Czech origin significantly contributed to nearly 90 years of the school's history.

The foundation of the independent Czechoslovak Republic in 1918 meant at the same time the creation of a democratic army. The basic element of career military physician training was represented by the Military Medical School. Its establishment was the result of a decision by the Czechoslovak Republic government which by its resolution of 25 June 1926 defined the principles of recruiting professional medical and pharmaceutical personnel to the army. The Military Medical School provided professional training for military physicians and further qualification growth for the performance of higher command functions in the military medical service structure.

The development of the Czechoslovak Military Medical Service in our country was interrupted by the Second World War. When the army was disbanded a number of physicians and medical students participated in

#### HISTORY

foreign and domestic resistance. The largest number of them were concentrated in England. The British government permitted medical students to complete their studies at British universities. They graduated from Oxford University. The Czechoslovak Military Hospital was created at London Hammersmith Hospital. A few courses of the Medical and Pharmaceutical Reserve Officer School were taught in Leamington and Walton-on-the-Naze where the Czechoslovak Brigade's out-patients' department was situated. Thus, the tradition of the Czechoslovak military medical educational system maintained its continuity.

In 1945, the pre-war practice of recruiting professional personnel to the Military Medical Service was rebuilt. The Military Medical School in Prague was renowned. At the same time tendencies referring to the practice of some medical services of the world's leading armies which required the establishment of an independent military medical university were increasing. The results of the Second World War and the growth of new knowledge in the field of medicine and especially military medicine played a significant role in this.

In 1951, a new period began in the development of the Czechoslovak military medical educational system. This period has been permanently connected with Hradec Králové for 55 years. Rapid establishment of the Military Medical Academy (MMA) was possible only due to the fact that it was built on the basis of being a theoretical and clinical part of the Faculty of Medicine – a branch of Charles University established in 1945. Thanks to the reputation of its workers, a majority of whom became employees of the MMA, the school became an educational and scientific centre of the Czechoslovak Medical Service and within a short time gained a good reputation both at home and abroad. The MMA has educated a number of outstanding military medical specialists of Czechoslovak medicine were connected with its existence.

Beginning in 1958 and for the next 30 years the military medical system was transformed into the form of the Purkyně Military Medical Research and Postgraduate Institute. Research tasks and activities in the area of further schooling and specialization of military physicians and pharmacists became a fundamental part of its activity. The main portion of a further basic task of the school – the pregraduate training of future military physicians – was taken over by the renewed Faculty of Medicine of Charles University in Hradec Králové. The development of mutual cooperation between these two partner schools, to which the Faculty of Pharmacy of Charles University in Hradec Králové joined in 1976 as a significant guarantee of the education of military pharmacists, has become a part of the military medical system.

In 1988, the school changed its name to the Purkyně Military Medical Academy which, institutionally, reflects more precisely the wide variety of its activities.

In November 1989, the school entered a qualitatively new period of development. It has passed through a transformation which has basically changed some military-professional teaching programmes, the organizational structure of the school, personnel support, the composition of the educational staff and so on.

The Academy has been included in the new university educational system and since 1993 (origin of the Czech Republic) has served as a training centre for Czech Army medical professionals. It has trained nearly 2600 military surgeons, dentists, and pharmacists till now.

Some special activities have become a main part of the school's activities. The humanitarian role of the Military Medical Service and the Military Medical Academy personnel in the present foci of conflicts in the world without doubt rank among them. As early as 1991 an independent Czechoslovak NBC battalion was sent to the Gulf. In 1994 a further tradition was established - regular operation of military medical personnel in peacekeeping missions in the territory of the former Yugoslavia. The 6th Field Hospital is known to the public for its operations abroad, first in the former Yugoslavia and later in Albania, and then in Turkey following the earthquake in that country. In 2002 members of the Czech Army Military Medical Service were employed in the ISAF mission in Afghanistan. From May to October it was the 6th Field Hospital. Then this mission was taken over by the 11th Field Hospital which completed its operations at the end of 2002. Professional training and personal acquaintance of both field hospitals personnel before their departure abroad has been traditionally carried out at the Purkyně Military Medical Academy.

Some employees of the Purkyně Military Medical Academy are representatives at international non-governmental institutions and in the positions of UN and NATO experts and advisers. The highest position within the NATO Allied Command Europe Medical Service was held by Brigadier-General Assoc. Prof. Leo Klein, M.D., CSc. He remained in this position until September 2002 when he completed his period of service.

COL Assoc. Prof. Roman Prymula, M.D., CSc., PhD. has been elected the new Rector of the Purkyně Military Medical Academy. He officially assumed this position on October 1, 2002.

The Academy continued to be a centre for integrated education and scientific research activity ensuring educational and research activities of all kinds and degrees for the training of military medical professionals.

The year 2003 was significant with regard to different opinions on the reform of the Czech Republic Armed Forces. The initially proposed conception was reevaluated in the wake of the reform of public finances which was enforced by the Government. Therefore financial sources were redistributed and reduced. There were new efforts to establish an economic army structure. The Czech Republic Government Resolution no. 1154 of 12 November 2003 entitled "The Conception of the Professional Czech Republic Army Development and Mobilization of the Czech Republic Armed Forces Modified According to Financial Sources" has become the final document respecting NATO general interests.

Academy life was significantly affected by the mission of the Czech Republic Army 7th Field Hospital to Iraq. (The hospital followed with activities of the Czech Chemical Protection Contingent in Kuwait). Transport of soldiers and material began on 18 April 2003. Basra, in southern Iraq, was appointed the final destination. In September 2003 a personnel rotation was carried out and the hospital finished its activities in December 2003. The Academy significantly supported the deployment of the 7th Field Hospital through its personnel, organizational activities, professional education and training.

One of the most important preconditions of transformation of the Czech Republic Army to the fully professional system, is a reorganization of military school system. In the year 2004, substantial changes were introduced in this area. With the aim to join together all military academic institutions, i. e. the Military School of Ground Forces in Vyškov, the Military Academy in Brno and the Purkyně Military Medical Academy in Hradec Králové, the University of Defence in Brno was established. It comprises three faculties – the Faculty of Military Technology, the Faculty of Economics and Management, the Faculty of Military Health Sciences and three independent university institutes. Act No.214/2004 of the Code makes up the legal framework of a new legal subject which at the same time identified the date of establishing the University of Defence on 1 September 2004. Brig Gen Assoc. Prof. Ing. František Vojkovský, CSc. became the Rector of the University of Defence. The University of Defence was oficially opened with a solemn inauguration on October 8, 2004.

After the transformation of the Purkyně Military Medical Faculty into the Faculty of Military Health Sciences (seated still in Hradec Králové), the basic functions and tasks of the school focused on a specialized training of the Czech Army medical officers and research work in the area of military health service. However, number of school employees was cut down.

Our school was, once again, renamed to University of Defence, Faculty of Military Health Sciences in Hradec Králové. The former rector of school COL Assoc. Prof. Roman Prymula, M.D., CSc., PhD. was elected to be the dean of our school by the vote of the Academic senate.

In the year 2004, members of our school together with other Czech Republic Army officers carried out their assignments in peacekeeping missions in Iraq, Afghanistan and the Balkans. Specialists of the Department of Field Surgery played there a principal role. In the frame of joint operation of multinational forces in Iraq (MNF – Multinational Forces Iraq) they fulfilled their tasks at special work places in British military hospital. Their assistance was highly appreciated and positively assessed.

During 2005 the process of establishing the new university subject – the University of Defence continued with solving the seat and the position of the Faculty of Military Health Sciences. The Faculty of Military Health Sciences received an important position in the supreme self-governing body of the university by electing COL Assoc. Prof. Jiří Kassa, M.D., CSc. as the Head of the Academic Senate of the University of Defence on October 6, 2005. He worked at that points as the Head of the Department of Toxicology and he was a chief specialist of the Czech Republic Army for toxicology.

The year 2006 was an aniversary year. The staff of the Faculty of Military Health Sciences of the University of Defence commemorated the 55th anniversary of the military medical school system in Hradec Králové and its eighty-year existence in the Czech Republic. This school is an irreplaceable centre of training and education of military health care professionals of all branches for the Army of the Czech Republic. The Faculty of Military Health Sciences of the University of Defence guarantees a good quality of the solved research tasks for the benefit of the military health service. High level of the scientific and research activity facilitated the establishment of scientific cooperation with NATO and EU partners.

The extent of school activities is very wide. The clinical departments provide the general public with the health care including special therapeutic activities. Military health care experts are involved in the integrated emergency system. The preparation of personnel for humanitarian and peacekeeping missions is implemented here. The school provides medical information service, experts reports and language teaching for the Army of the Czech Republic.

More information about the history and the present state of the military medical school system and the Faculty of Military Health Sciences of University of Defence is to be found in the publication "Military medical school system", edition: Ministry of Defence, Avis, Prague 2006.

In 2007, intensive activity was typical for all aspects of school life. The Faculty participated in the preparation of Czech field hospital contingents, which provided the health support of ISAF mission in the region of Kabul in Afghanistan. Some medical specialists of the Faculty were directly fulfilling the mission assignments as members of the contingent: MAJ Michal Plodr, M.D., PhD. worked as head doctor of the hospital, MAJ Ivo Žvák, M.D. as head doctor of operating theatres, and MAJ. Jan Psutka, M.D. worked at the

department of contemporary hospitalization. The main task of the field hospital is to provide professional health care for the wounded and sick during outside combat activities, as well as for their short-time hospitalization.

The public show of scientific and research results is traditionally an important part of school activities. The climax was the 7th Conference of the Association of Military Doctors, Pharmacists and Veterinary Doctors of the Czech Medical Society of Jan Evangelista Purkyně in October, and the 4th Conference Disaster Medicine and Traumatological Planning in November 2007. A competition for the best scientific student's work in doctoral study programmes was introduced for the first time that year. The cooperation with foreign school and scientific partner institutions went on. In this context, the November visit from the Military Medical Academy Lyon, led by its new commander General Maurice Vergos, was a remarkable event.

During the year, COL Prof. Roman Prymula, M.D., PhD., was re-elected as the Dean of the school and on December 10 was inaugurated into this function.

Public acknowledgement of some of the Faculty eminent research specialists represented significant features of the activity of the Faculty of Military Health Sciences, University of Defence, were in the year 2008. Already in February, Assoc. Prof. Jiří Bajgar, M.D., D.Sc. was awarded the Prize of the Rector of the University of Defence for his research work in 2007. The Scientific Council thus appreciated his extraordinarily large publishing and lecturing activities. In addition, Assoc. Prof. Bajgar, was awarded the prestigeous Astra Zeneca Award gained from the American Society of Toxicology. The prize winner significantly contributed to the clarification of the toxic effect mechanism of organo-phosphorous compounds and to the development of new prophylactic and therapeutic means against highly toxic nerve paralytic substances.

In May, two letters of appointment of new Czech Universities professors to two eminent workers of the Faculty presented by the President of the Republic to LTC Assoc. Prof. Jan Österreicher, M.D., PhD. and Assoc. Prof. Jiří Stulík, M.D., PhD.

The Faculty workers confirmed repeatedly both their research and organizational capabilities. They became the organizers of many traditional presentations of scientific work. Large community of epidemiologists gathered at the end of May among others to worship the memory of the nestor and military specialist in the field of epidemiology, Professor Bohumil Ticháček, M.D., D.Sc. (1924–2006) by their active participation at a conference "Ticháček's Days of Military Epidemiologists". Similarly, in September, the Faculty substantially participated in organizing the 4th Hradec Vaccinologists Days.

A number of talents has been revealed by presentation of students' research work. Periodic Faculty round of research conference of students, who work mostly as scientific and teaching staff at the the Faculty Departments, took place at the end of September. CW2 Veronika Mikusová and CW2 Pavel Novotný obtained this year's primacy. The postgraduate programme students presented their research results immediately afterwards. Works of authors CPT Karel Šmejkal, M.D., a student of postgraduate programme Military Surgery and LT Jiří Dresler, Doctor of Pharmacy, a student of postgraduate programme Molecular Pathology, were awarded the best.

The international cooperation of military medical schools has been among the traditional active forms of the school work. The visit of the delegation of the leadership of partnership school École du Service de Santé des Armées from Lyon, guided by GEN Francis Huet, School Deputy Commander, confirmed the trend of continuous cooperation.

At last but not least, the conference of the Association of Military Doctors, Pharmacists and Veterinary Doctors of the Czech Medical Society of Jan Evangelista Purkyně has become repeatedly much appraised specialist forums. This year's 8th Conference content concerned mostly Disaster Medicine, Traumatology Planning and Training.

The date of the Conference, the last days of November, seemed to conclude symbolically the year of noticeable presentation and at the same time extraordinary acknowledgements of the Faculty research results.

CPT. Zdeněk Šubrt, M.D., PhD. from the Department of Field Surgery, a graduate of doctoral study programme Military Surgery, was awarded the Prize of the Mayor of the Town Hradec Králové for student research work in 2009.

Prof. Aleš Macela, D.Sc. was awarded the Prize of the Rector of the University of Defence for scientific research in 2008, especially for excellent results in solving scientific projects in the sphere of protection against effects of extra dangerous biological agents.

In September 2009, the present Dean of the Faculty COL. Prof. Roman Prymula, M.D., PhD. was selected to serve as a director of the University Hospital in Hradec Králové. The Academic Senate elected LTC Assoc. Prof. Roman Chlíbek, M.D., PhD. a new Dean of the Faculty. The Rector of the University of Defence appointed him as dean on 15th October 2009.

In the year 2010, Prof. Prymula was awarded as the first author of one of the best Elsevier's publications in 2009 for the article: Prymula R., Siegrist C. A., Chlibek R., Zemlickova H., Vackova M., Smetana J., Lommel P., Kaliskova E., Borys D., Schuerman L.: Effect of prophylactic paracetamol administration at time of vaccination on febrile reactions and antibody

responses in children: two open-label, randomised controlled trials. Lancet. 2009, 374(9698):1339-50. Extraordinary high quality of this publication was also confirmed by many other awards during the year 2010: 2009 Kredba Award for original scientific work and the best publication from the Czech Medical Association of J. E. Purkyne, 2010 prof. Karel Raska's Award for the best scientific article published during 2009.

In the year 2011, Assoc. Prof. Kamil Kuca was awarded the Prize of the Rector of the University of Defence for scientific research in 2011, especially for excellent results in solving scientific projects in the area of protection against chemical warfare agents.

Prof Stulik's project entitled Identification of novel Francisella tularensis targets for subunit vaccine development was supported by the Defence Threat Reduction Agency, USA for the years 2011–2014. This project is aimed at the development of a subunit vaccine against tularemia. It focuses on (1) the identification of surface associated or secreted virulence factors from F. tularensis using immunoproteomic approaches (2) cloning and expression of these gene products, (3) confirming the role of the selected targets in virulence, and (4) assessing these proteins as protective antigens in animal models.

The Central Military Hospital in Prague became the faculty hospital for the Faculty of Military Health Sciences in 2012.

In January 2013, there was a change at the position of Vice-Dean for research. When Prof. Ing. Kamil Kuča, PhD. holding the position of Vice-Dean for research left the FMHS, Prof. MUDr. Pavel Boštík, PhD. replaced him.

In February 2013, scientists from the University of Defence, the Faculty of Military Health Sciences, from the University of Hradec Kralove and the Centre for Biomedical Research had the best poster presentation at 55th Czech-Slovak Psychopharmacological Conference held in Spa Jeseník. The project of authors Hroudová J., Fišar Z., Raboch J., Korábečný J., Kuča K., was entitled "In vitro effects of acetylcholinesterase inhibitors on monoaminooxidase and NADH-dehydrogenase activity".

In the beginning of May 2013, the Faculty hosted a visit of a Finnish group of CBRN experts and personnel from various branches involved in rapid response management of crises. Both sides presented their main interests during a seminar organized by our Faculty and the Finnish guests were given a tour of selected facilities. This was one of the examples of developing cooperation of European countries within the framework of the European Defence Agency.

In October 2013, the Rector-Commandant of the University of Defence Brigadier General Bohuslav Přikryl decorated LTC associate professor

Zuzana Kročová with the University Medal for her exceptional efforts and long-term results achieved in her research work.

The year 2013 was the election year for the Faculty and the Senate. After 4 years it was time for the academic faculty and students to cast a vote for the Dean. In election, which was held in June, Col. Assoc. Prof. Jiří Páral, MD, PhD. received the majority of votes and became the new Dean in October 2013. New management of the school was selected by the new Dean.

Year 2014 brought a major change in the structure and functioning of the Faculty. In both the anticipation of a new Service Law and need for optimalization, the academic part of the school was rearranged into 8 departments. Some of the new Heads of the Departments were also selected in order to always have military officers as the Head and the Deputy-Head of each department.

During the year 2015 some major reconstructions of the Faculty buildings were performed or initiated. As funds became available, plans to upgrade the main buildings started to materialize step by step. First the windows were exchanged for modern ones on the building housing our students and administrative offices. Subsequently, the top floor of the building was reconstructed from inside and work started also on refurbishing the already aging equipment of the main kitchen. We hope that this trend will continue into the following years, which will allow us to gradually improve our working and living environment.

Although our animal housing facility partly suffered from an accidental fire, through the enormous effort of the staff and construction company working together, it was possible to successfully pass the reigorous requirements of re-accreditation. Thus the Animal facility can continue to serve as a vital part for both research and education of our students.

The Faculty was visited by the Minister of Defence and the State Secretary of the MoD, who discussed with the Faculty leadership the future of our school. This was a very important moment, which allowed us to start planning the future development of the Faculty. Subsequent repeated visits by high ranking officials from the MoD focused on more detailed planning and solving individual issues.

All these important developments hopefully started a new era, when after years of merely "maintaining" the status quo of the school, it comes the time of serious reconstruction, upgrade and development.

## THE MAIN AIMS OF THE FACULTY IN 2015

The Faculty of Military Health Sciences (FMHS) of the University of Defence in Hradec Králové represents a centre of medical education, training and research of the Army of the Czech Republic. It covers entirely the needs of the troops concerning medical professional training in all specializations, medical informatics, science and research.

#### 1. Education

The main aims of the FMHS in the field of education were as follows:

• to provide university-level studies in the subjects of military general medicine (6 years), stomatology, pharmacy (5 years), and medical rescue (3 years)

• to provide postgraduate study for Ph.D. degree (4 years) in the following accredited disciplines:

Epidemiology	Military Hygiene
Field Internal Medicine	Military Radiobiology
Field Surgery	Molecular Pathology
Infectious Biology	Toxicology
Medical Microbiology	Preventive Medicine and Public Health Protection

According to the needs of the Surgeon General of the Czech Armed Forces and the Military Medical Service Administration, the Faculty provides specialized and lifelong education of doctors, pharmacists and other military medical service personnel in specified branches of the Act No. 95/2004 of the Code about conditions of receiving professional qualification and specialized qualification to perform a medical profession as a physicianr, stomatologist, and pharmacist. It unifies the system of their training with requirements of EU.

The faculty organizes and provides training for medical personnel in the active duty, physicians and nurses. The Faculty provides professional refresher courses for medical staff, non-medical staff and non-medical personnel serving field medical units and individual units of the military hospital base on select up-to-date topics. The school actively participates in continued training of physicians and health care personnel, who then serve

in missions abroad. However, the unique military know-how is also attractive for people, who work out of the military health care sphere. The FMHS provides courses on the advanced first aid in the field not only for Military Medical Service personnel but also for non-medical professionals of Military Police units, reconnaissance and special units within the frame of the Czech Armed Forces, Rapid Reaction Units of the Czech Republic Police and others.

All soldiers selected for foreign missions attend special courses of an advanced first aid. Training in emergency life support in field conditions is required for medical personnel. The courses BATLS (Battlefield Advanced Trauma Life Support) and BARTS (Battlefield Advanced Resuscitation Techniques and Skills) for physicians and nurses or health care personnel include the problems of NBC protection as well and became a standard not only for the entire military medical staff, but also for many other specialists, who are enrolled in foreign missions.

Other courses concentrate on teaching and training of a comprehensive knowledge necessary for providing medical care within the frame of Disaster Medicine. The FMHS also provides other teaching and training activities determined by "The Plan of Courses and Professional Residencies Training of the Czech Armed Forces Medical Service" and "Notification of Director of Personal Section of the Ministry of Defence – Teaching Activities at Military schools and Training Facilities in the Czech Republic and Abroad". It participates in medical personnel training of medical and non-medical specializations under the methodical and professional leadership, in providing instructors for training of advanced categories of medical personnel and in teaching instructors of lower medical specialists training.

#### 2. Scientific and research work

The FMHS of the University of Defence provides and solves research tasks for the Czech Armed Forces Medical Service. Well assembled scientific teams focus on individual research tasks using state-of-the-art technologies. Within the Faculty, complex laboratory technologies for scientific work are utilized for scientific advancements, which lead to the impromement of life force protection against NBC agents. The high scientific level and the achieved results in scientific and research activities of present teams have enabled to for scientific cooperation with foreign partners. The FMHS is a leading institution in the Czech Republic performing military research within the sphere of CBRNE issues in NATO and EU.

The high quality research capabilities and international recognition of the scientific teams form a solid base for scientific cooperation with partners in NATO countries, which is financed by the NATO and EU funds. Within the sphere of the science and research, the FMHS fulfilled strategic purposes of the Czech Armed Forces transformation by targeting the priorities of the

Army (biological agents, chemical agents, military health care). Furthermore, it joined the appropriate institutions and organizational structures of NATO and EU countries and obtained original results in these critical areas. From the point of view of specialization and direction of the Czech Armed Forces, the departments of the FMHS solve medical issues of biological, chemical and radiation protection. Previous and current scientific work focuses on medical aspects of the effects of NBC agents and several scientifically oriented departments within the FMHS work in collaboration in solving the specific tasks. This fully corresponds with set priorities in the field of scientific and research work of the Army of the Czech Republic. The military medical service organization and management, information systems, research activities of clinical and therapeutic preventive branches represent other important fields of scientific work.

Many invitations to international symposia and conferences as well as a number of publications prove that scientific knowledge is used in education. The FMHS personnel can publish achieved results of their research work, therapeutic preventive activities and educational activities in the journal Military Medical Science Letters - the oldest military specialized journal, which has been published since 1925. As of the last year, the journal is published fully in English. Together with professional scientific results the pedagogical activities are subject of an annual evaluation. Based on the results, the academic staff is successful in keeping a good level of publication activities in journals with impact factor and in other national and foreign journals. This, in turn, enables for relatively broad and successful training activities in the accredited doctoral study programmes.

During the year 2015 the Faculty participated in 4 projects of Internal Grant Agency of the Ministry of Health, 2 projects of the Agency for Medical research, 5 projects of the Grant Agency of the Czech Republic, 2 projects of the Ministry of the Interior of the Czech Republic and 2 foreign projects(DTRA and EDA).

Scientific, research and development activities in the field of medical support include the prevention, diagnosis and treatment of sick and wounded. An integral part of this work is to improve the system of the medical equipment administration and supply support.

Research and development is carried out at 8 departments – Epidemiology, Military Internal Medicine and Hygiene, Military Surgery, Emergency Medicine and Military General Medicine, Military Medical Service Organization and Management, Radiobiology, Toxicology and Military Pharmacology, Molecular Pathology and Biology.

In 2015, scientific work at the faculty departments focused on CBRNE protection research, projects on pathogenesis of infectious diseases and potential intervention means, prevention in the field of hygiene and epidemiology, topical problems of the field surgery and field internal

medicine, topical problems of the organization, management, education and information technology in the Military Medical Service.

The continuous accreditation for proceedings to achieve professorships in the areas of Epidemiology, Medical Microbiology, Toxicology, Field Internal Medicine, Infection Biology and Molecular Pathology and the accreditation for habilitation (associate professorship) in the branches of Hygiene, Preventive Medicine and Epidemiology, Medical Microbiology, Toxicology, Field Surgery, Military Radiobiology, Field Internal Medicine, Infection Biology and Molecular Pathology gives the evidence about the excellent level of achieved results in scientific and research activities of FMHS. In 2015, there were 12 professors (prof.), 14 associate professors (doc.), 3 doctors of science (DSc.) and 65 faculty members with research degrees (CSc., PhD.) who carried out teaching and research tasks.

## 3. Therapeutic activities

Special therapeutic activities were provided especially at the departments of Field Internal Medicine, Field Surgery and General and Emergency Medicine. Close cooperation between these subjects and the health service establishments in the region have been continuosly developed. Therapeutic medical care was provided especially in the fields of hematologic intensive care, traumatology, hepatobiliary surgery, plastic surgery at the Departments of internal medicine and surgery at the Teaching Hospital.

#### 4. International cooperation

The main aims of international cooperation of the FMHS were to exchange scientific, educational and therapeutic information and to develop working contacts between military medical, medical educational and research institutions of the NATO and EU countries as well as civilian medical institutions with educational, defence research and development programmes worldwide. Residency and exchange programmes for numerous students, doctors and research workers took place at those institutions.

As for study programmes, the Faculty keeps close relations with partner educational institutions above all in NATO and EU countries.

## 5. Expert activities

The membership in work groups for coordination and cooperation of military medical research and professional training at NATO (COMEDS, BIOMEDAC, RTA/RTO) and at EDA (European Defence Agency), in work groups of government experts for the Convention on the prohibition of biological, bacteriological, and chemical weapons and their destruction in Geneva and UNO, organizing scientific conferences with international participation, and solving foreign research projects under the cooperation of

the FMHS personnel are very important for the presentation of international cooperation results. The priority still remains in cooperation in the frame of the Human Factors Medicine of the NATO Research and Technology Organization and its work groups (TG, WG), CBRN and Human Factors cooperation within the frame of EDA and additional collaborative research projects with other foreign scientific institutions. Our aim is to intensify international cooperation in NATO focused on scientific support of the armed forces structure.

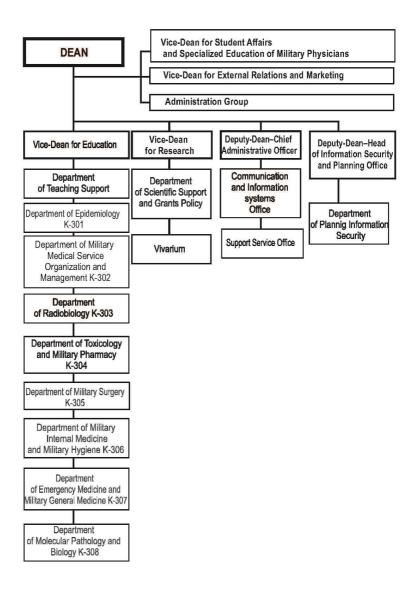
## 6. Scientific and educational information services

Scientific and educational information services that support the Medical Service of the Czech Republic Army were provided by the Department of Information and Communication Technologies. Numerous literature retrievals, courses, library and printing workshops and other information services support for students, teachers, scientists, postgraduates, doctors, nurses and other medical experts were carried out.

#### 7. Foreign missions

The FMHS performed the preparation of health personnel for humanitarian and peacekeeping missions and members of the FMHS staff participated in several foreign missions.

## THE STRUCTURE OF THE FMHS



24th Annual Report, 2015 - 23

# THE DEAN OF THE FACULTY AND HIS DEPUTIES

Dean:	PÁRAL Jiří	email: jiri.paral@unob.cz
Vice-Dean for Education:	HRSTKA Zdeněk	email: zdenek.hrstka@unob.cz
Vice-Dean for Research:	BOŠTÍK Pavel	email: pavel.bostik@unob.cz
Vice-Dean for External Relations and Marketing:	ZÁRYBNICKÁ Lenka	email:  enka.zarybnicka@unob.cz
Vice-Dean for Student Affairs and Specialized Education of Military Physicians:	PLODR Michal	email: michal.plodr@unob.cz
Deputy-Dean – Chief Administrative Officer:	TOMÁŠIK Marian (till 30 September 2015)	email: marian.tomasik@unob.cz
Deputy-Dean – Chief Administrative Officer:	ČÁSENSKÁ Eliška (since 01 October 2015) (till 31 December 2015)	email: eliska.casenska@unob.cz
Deputy-Dean – Head of Information Security and Planning Office:	FLÉGL Václav	email: vaclav.flegl@unob.cz

## MEMBERS OF THE SCIENTIFIC COUNCIL

ANZENBACHER Pavel

BUBENÍK Zoltán (since 15 September 2015)

**FILIP Stanislav** 

HERNYCHOVÁ Lenka

CHLÍBEK Roman

JURENKA Božetěch (till 14 September 2015)

KLEIN Leo

ÖSTERREICHER Jan

PELLANT Arnošt

SLABÝ Antonín

ŠPLIŇO Miroslav

VÁVROVÁ Jiřina (Prof. Emerit.) BOŠTÍK Pavel (Vice-chairman)

ČERVINKA Miroslav

FUSEK Josef

HLÚBIK Pavol (till 14 September 2015)

JEBAVÝ Ladislav

KASSA Jiří

KUČA Kamil

PÁRAL Jiří (Head of the Scientific Council)

**PRYMULA** Roman

STULÍK Jiří

ŠUBRT Zdeněk

VÁVROVÁ Kateřina (since 15 September 2015)

## MEMBERS OF THE ACADEMIC SENATE

#### Academic members

HORÁČEK Jan

JAKL Martin

JUN Daniel (Head of the Senate)

KUBELKOVÁ Klára

LOCHMAN Petr

PAVLÍK Vladimír

#### Student members

KOTEK Jiří

MÜLLER Petr

POLCAROVÁ Petra

PUDÍK Peter

STODOLA Petr

ŠINKOROVÁ Zuzana (Vice-chairman)

ZÁRYBNICKÁ Lenka

## MEMBERS OF THE EDUCATION COMMISSION

HRSTKA Zdeněk

KRAČMAROVÁ Alžběta

MÍŠKOVÁ Zdena

POTÁČ Michal

**ROHLENA Milan** 

STŘÍTECKÁ Hana

TICHÝ Aleš

**JAKL Martin** 

**KRUTIŠOVÁ Pavla** 

POHANKA Miroslav

PUDÍK Peter (Head of the Education Commission)

SMETANA Jan

ŠUBRT Zdeněk

VOPI ATKOVÁ Zdeňka

## MEMBERS OF THE EDITORIAL COMMISSION

FAJFROVÁ Jana

**POHANKA Miroslav** 

FIDRANSKÝ Miroslav TICHÝ Aleš

(Head of Editorial Commission)

VOPLATKOVÁ Zdeňka

ZÁRYBNICKÁ Lenka

## **DEPARTMENT OF EPIDEMIOLOGY K-301**

#### **Educational and Research Staff**

BOŠTÍK Pavel (Head of the Group)

BOŠTÍKOVÁ Vanda

FEJFAROVÁ Martina (till 16 July 2015)

HANOVCOVÁ Irena (Head of the Group)

CHLÍBEK Roman (Head of the Department)

KAISLEROVÁ Lenka (maternity leave)

MAREK Jan

PRYMULA Roman (till 30 April 2015)

SCHMIDT Monika

SLEHA Radek (since 01 December 2015)

SMETANA Jan (Deputy-Head)

ŠOŠOVIČKOVÁ Renáta

ŠPLIŇO Miroslav

Technicians

**BERNARDOVÁ Marta** 

KOŠŤÁLOVÁ Lenka

MALÍKOVÁ Martina

SOLÁROVÁ Alena (maternity leave)

VOŽENÍLKOVÁ Kristýna

pavel.bostik@unob.cz

vanda.bostikova@unob.cz

martina.fejfarova@unob.cz

irena.hanovcova@unob.cz

roman.chlibek@unob.cz

lenka.kaislerova@unob.cz

jan.marekj@unob.cz

roman.prymula@unob.cz

monika.schmidt@unob.cz

radek.sleha@unob.cz

jan.smetana@unob.cz

renata.sosovickova@unob.cz miroslav.splino@unob.cz

marta.bernardova@unob.cz lenka.kostalova@unob.cz martina.malikovam@unob.cz alena.solarova@unob.cz

kristyna.vozenilkova@unob.cz

Administrative, Secretarial and Other Staff	
LEGERSKÁ Kateřina	katerina.legerska@unob.cz
Postgraduate Students	
ANTAL Zdeněk	
BAREKOVÁ Lucie	
CIHELKOVÁ Šárka (since 01 October 2015)	
COUFALOVÁ Monika	
DÍTĚ Petr (till 24 July 2015)	
DYRHONOVÁ Markéta	
FEJFAROVÁ Martina (till 10 June 2015)	martina.fejfarova@unob.cz
FRYDRYCHOVÁ Simona	
HOBZOVÁ Lenka	
CHMELAŘ Josef (since 01 October 2015)	
KAISLEROVÁ Lenka (maternity leave)	lenka.kaislerova@unob.cz
MACHAČ Jan	
OLEFIRENKO Kateřina	
PASDIOROVÁ Markéta	
SLEHA Radek (till 12 November 2015)	radek.sleha@unob.cz
SZANYI Juraj	
ŠOŠOVIČKOVÁ Renáta	renata.sosovickova@unob.cz
VALENTA Zbyněk	
ZELENÁ Hana	

The Department of Epidemiology as the basic educational and research component of the Faculty of Military Health Sciences (FMHS) is divided into three groups: the epidemiology group; the microbiology, disinfection, disinsection and rodent control group; group of experimental biology.

The Department of Epidemiology has fulfilled the following main tasks:

It has provided undergraduate education at the FMHS and at the civilian Medical Faculty of Charles University in Hradec Králové, as well as postgraduate training and postgraduate doctoral studies. The teaching activities have been particularly aimed at general and special epidemiology with respect to the topical situation in the Czech Army and in the Czech Republic. The topics of "Emerging and Reemerging, Infectious Diseases", "Travel Medicine" and "Dangerous Pathogens" have also been emphasized. Two doctoral study programmes (Ph.D. – epidemiology and medical microbiology) are certified by the Czech Governmental Commission. Since 1990, more than 30 students have finished their Ph.D. studies in the department. The department has state accreditation for habilitation and for professorial appointment in two medical branches: Hygiene, Preventive Medicine and Epidemiology; and Medical Microbiology.

The Department of Epidemiology plays an important role in education, training and consultancy related to biological threats/weapons and preventive medicine.

The members of the department participate in training and education of medical and other personnel dispatched in military peacekeeping and humanitarian missions abroad. The aim is to inform them about any health risks during staying abroad, especially about prevention of infectious diseases, possibilities of vaccination or chemoprophylaxis. They also provide both consultancy service prior to the departure abroad and a practical realization of the respective measures. The Department of Epidemiology provides an epidemiological service for the Field Hospitals of the Czech Army.

Research activities have concerned clinical evaluation of the new vaccines like herpes zoster vaccines, pneumoccocal vaccines, Human Papiloma Virus vaccines, rotavirus vaccines, new adjuvanted vaccines against viral hepatitis B, Lyme disease vaccines, combined hepatitis B and typhoid fever vaccines, flu vaccines, meningoccoccal B vaccines or new vaccination schedules.

Members of the department are members of different Czech journals editorial boards (e. g. "Epidemiologie, mikrobiologie a imunologie" – prof. Splino, Military Medical Science Letters and Vakcinace – prof. Chlibek), and they work as reviewers of international journals (Vaccine, Lancet Infectious Disease). Some of them work in a number of committees and boards: Vice-chairman of Czech Immunization Committee of the Ministry of Health (Prof. Chlibek), or European Centre for Disease Control and Prevention (Prof. Chlibek), or Central European Vaccination Awareness Group-CEVAG (Prof.

Prymula, Prof. Chlibek). Prof. Splino and Ass. Prof. Bostikova had oportunity to serve as members for Advisory Board for the Investigation and Control of Influenuza and Other Epidemic Disease and Section for Control and Development of Diagnostics Laboratory Methods of CDC.

Members of the department are also members of NATO working groups and advisory committees for biological threats and weapons (BIOMEDAC – Biological Medical Advisory Committee – Prof. Chlibek) and NATO-Research&Technology Organisation (Prof. Chlibek).

Disinfection, disinsection and rodent control are very important parts of the medical practice in the Czech Army. This department is the only one of its kind in the Czech Army for the assessment of the antimicrobial efficacy of disinfectants or new antimicrobial agents.

## **RESEARCH PROJECTS**

A phase III, randomized, observer-blind, placebo controlled, multicentre, clinical vaccination trial to assess the prophylactic efficacy, safety and immunogenicity of GSK Biologicals' herpes zoster gE/AS01B vaccine when administered intramuscularly on a 0, 2- month schedule in adults aged 70 years and older

Chlíbek, R., Kalíšková, E., Smetana, J., Ditě, P., Gál, P., Vokurková, D.

Supported by the GlaxoSmithKline Biologicals co., 2010–2015 (Project No.: 113077 (ZOSTER-022))

A phase III, randomized, observer-blind, placebo controlled, multicentre, clinical vaccination trial to assess the prophylactic efficacy, safety and immunogenicity of GSK Biologicals' herpes zoster gE/AS01B vaccine when administered intramuscularly on a 0, 2- month schedule in adults aged 70 years and older. Chlíbek, R., Smetana, J., Gál, P., Dítě, P., Kalíšková, E., Vokurková, D. Supported by the GSK, 2010–2015 (Project No.: 113077 (ZOSTER-022) Study ZOSTER-022 will provide data on the vaccine efficacy in prevention of herpes zoster (HZ) and Postherpetic neuralgia (PHN) compared to placebo in adults  $\geq$  70 YOA. The ZOSTER-022 study will enrol subjects in the age ranges 70-79 YOA and  $\geq$  80 YOA in a 3:1 ratio.

A phase III, randomized, observer-blind, placebocontrolled, multicentre, clinical vaccination trial to assess the prophylactic efficacy, safety, and immunogenicity of GSK Biologicals' herpes zoster gE/AS01B vaccine when administered intramuscularly on a 0, 2-month schedule in adults aged 50 years and older

Chlíbek, R., Kalíšková, E., Smetana, J., Dítě, P., Gál, P., Vokurková, D.

Supported by the GlaxoSmithKline Biologicals co., 2010–2015 (Project No.: 110390 (ZOSTER-006))

Study ZOSTER-006 will provide pivotal data on the overall efficacy in prevention of herpes zoster (HZ) in subjects  $\geq$  50 YOA. The primary endpoint

of this study will be overall HZ vaccine efficacy (VE) across all age cohorts. To this end, ZOSTER-006 will evaluate VE of the gE/AS01B vaccine compared to placebo in reducing the risk of developing HZ in subjects  $\geq$  50 YOA. This study will enrol subjects in the age ranges 50-59 YOA, 60-69 YOA, 70-79 YOA and  $\geq$  80 YOA.

#### Humulus Lupulus L. – source of substances with antimicrobial effect

Boštík, P., Čermák, P., Olšovská, J., Kolář, M.

Supported by the Czech Republic Grant Agency, 2014–2016 (Project No.: GA14-10233S)

The increasing number of pathogenic strains of microorganisms resistant to different types of antibiotics has become a major current medical problem. Secondary metabolites of hops (Humulus lupulus) have been recently described in many studies as potent antimicrobial agents against a range of microorganisms. The aim of this project is to broaden the scope of biomedical applications of these compounds, especially prenylflavonoids. For this reason, a profiling method for highly detailed metabolomic study of many hops varieties using UHPLC-Q/Orbitrap method will be developed. The structures of unknown and little known metabolites will be elucidated. Antimicrobial effects of crude extract, separated fractions and purified metabolites will be studied on various strains of viruses, aerobic bacteria, facultative anaerobic bacteria, and anaerobic bacteria. State-of-the-art sample pre-treatment techniques (for example QuEChERS) will be used for sample purification and pre-concentration.

#### New technologies for identification and typing of biological agents

Kročová, Z., Boštík, P., Hanovcová, I., Jun, D., Macela, A.

Supported by the Czech Republic Ministry of Internal Affairs, 2012–2015 (Project No.: VF20122015024)

The aim of the project is to develop the methodological procedures for the isolation of bacterial and viral nucleic acids and protein and no-protein toxins from natural matrices, and the procedures for their identification and typing. In the case of bacteria and viruses are designed following the methodological procedures and specific technological and laboratory units: the acquisition and cultivation of biological agents, isolation of genome and plasmid DNA, or RNA in the case of a virus, the methodology and procedures for the preparation of samples of bacterial and viral nucleic acids from complex matrices, design of qPCR primers, probes and the reaction conditions and testing and validation of the proposed methods and procedures for the identification of biological agents. For the detection of low molecular weight toxins will be used high performance liquid chromatography coupled with tandem mass spectrometry and for detection and identification of protein toxins will be used mass spectrometric method SRM (Selected reaction monitoring).

## DEPARTMENT OF MILITARY MEDICAL SERVICE ORGANIZATION AND MANAGEMENT K-302

### **Educational and Research Staff**

BLANAŘ Roma (till 28 February 2015)

**BLAŽEK Pavel** 

FUSEK Josef

HRSTKA Zdeněk (Head of the Department)

HUMLÍČEK Vojtěch

JANOUCH Jindřich

JAREŠOVÁ Lucie

(till 15 January 2015)

POTÁČ Michal

RŮŽIČKA Milan (Head of the Group)

VRTIŠKOVÁ Petra

ŽĎÁRA Jaroslav (since 01 June 2015) roman.blanar@unob.cz

pavel.blazek@unob.cz

josef.fusek@unob.cz

zdenek.hrstka@unob.cz

vojtech.humlicek@unob.cz

jindrich.janouch@unob.cz

lucie.jaresova@unob.cz

michal.potac@unob.cz

milan.ruzicka@unob.cz

petra.vrtiskova@unob.cz

jaroslav.zdara@unob.cz

#### Administrative, Secretarial and Other Staff

MÍŠKOVÁ Leona

leona.miskova@unob.cz

The Department of Military Medical Service Organization and Management is the primary department which offers military and professional training for the students of the Faculty of Military Health Sciences, particularly in the field of military medical service support in operations, disaster medicine, crisis management, emergency planning and psychology. Other covered subject areas are military history, military tactics & logistics, military communication, topography and NBC defence.

## DEPARTMENT OF MILITARY MEDICAL SERVICE ORGANIZATION AND MANAGEMENT K-302

The Department organizes follow-up education for military doctors, stomatologists, pharmacists and bachelors in advanced courses. Likewise, it offers specialized training and refresher courses for paramedical personnel to the extent necessary to carry out required medical duties in military operations e.g. military medical service organization, medical evacuation and crisis intervention. It participates in preparation of non-medical personnel located within the HQ and staff of the military medical units and facilities. It carries out training in medical support planning, working with maps, deployment of field medical facilities, calculation of medical casualties and military medical units command, control and cooperation.

The subject "Organization and Tactics of the Medical Service" makes students acquainted with terms and conditions of the medical service during wartime and in foreign operations, identifies tasks and principles of medical support and medical C2 issues that are fundamental to comprehension and correct application of knowledge in terms of other military medical branches. It familiarizes students with the principles followed from NATO documents and standardization agreements.

The Department's primary aim is to pass the knowledge on to students, develop their habits and skills to fulfill basic tasks and duties arising from their planned command functions. It is involved in preparation of medical personnel prior to deployment. The Department provides knowledge and passes previous experience on to control authorities and executive facilities of the medical services in crisis, a war or other emergency situations as well as in humanitarian missions. It applies the knowledge of military subjects to specific environment of medical service, respecting both military principles and requirements as well as the principles of International Humanitarian Law.

The research work of the Department focuses on improving the quality and efficiency of organization and management of the medical service in accordance with military doctrine of the Czech Republic. It contributes in optimization process of the organizational structure of the medical units, departments and facilities, elaborating principles of their operations and methods of their control during a war. It develops materials and proposals from these areas for conceptual authorities of the ACR Medical Service, including NATO STANAG assessment reports in terms of their ratification and options of implementation.

The Department is an expert guarantor in the field of military medical service organization and management. It provides expert statements for the Ministry of Defence and Military Medical Agency and gives consultations to managers of all military medical service levels.

## **RESEARCH PROJECTS**

#### Prehospital emergency care efficiency

Procházka, M., Halajčuk, T., Hrstka, Z., Ježek, B., Vaněk, J., Mašek, J., Páral, J., Plodr, M.

Supported by the Internal Grant Agency of the Czech Republic Health Service, 2013–2015 (Project No.: NT14460)

The main research subject of the project is assessment of suitable criteria of Emergency Medical Services (EMS) efficiency evaluation. As a part of the project an analysis of the EMS of Kralovehradecky region will be performed aimed at the economic efficiency as seen by individual EMS stakeholders (health insurance companies, EMS, regional government, Ministry of Health Care), at the EMS medical effects and at the readiness of the EMS in conjunction with the plan of the region coverage by EMS bases. To assess the aptness of the economic efficiency criteria standard economic indicators used in medical facilities will be employed to determine the criteria suitable for EMS providers. The medical effects criteria will be established in a retrospective analysis of the EMS response data. The readiness of the EMS in the region of interest will be considered by criteria extracted from the data on EMS responses including GPS data processed in GIS.

## **DEPARTMENT OF RADIOBIOLOGY K-303**

#### **Educational and Research Staff**

**PEJCHAL Jaroslav** 

ŠINKOROVÁ Zuzana (Head of the Department)

TICHÝ Aleš (Deputy-Head)

VÁVROVÁ Jiřina (Prof. Emerit.)

ZÁRYBNICKÁ Lenka

#### Technicians

MERVARTOVÁ Lenka PRŮCHOVÁ Šárka TÓTHOVÁ lveta jaroslav.pejchal@unob.cz

zuzana.sinkorova@unob.cz

ales.tichy@unob.cz

jirina.vavrova@unob.cz

lenka.zarybnicka@unob.cz

lenka.mervartova@unob.cz sarka.pruchova@unob.cz iveta.tothova@unob.cz

#### **Postgraduate Students**

ČECHÁKOVÁ Lucie ĎURIŠOVÁ Kamila HLÁVKA Aleš JELIČOVÁ Marcela (till 01 October 2015) KMOCHOVÁ Adéla LIEROVÁ Anna NĚMCOVÁ Markéta

NOVOTNÁ Eva

**ONDREJ** Martin

lucie.cechakova@unob.cz kamila.durisova@unob.cz

adela.kmochova@unob.cz anna.lierova@unob.cz marketa.nemcova@unob.cz

mertin.ondrej@unob.cz

The Department of Radiobiology was established at Purkyně Military Medical Research and Postgraduate Institute on September the 1st 1963. The first chief of the department became Colonel Prof. MUDr. Josef Mráz, CSc., who was in 1968 appointed the first professor of military radiobiology of the Charles University. The main tasks of the department are teaching and research activities, which are closely connected.

In the field of research, the experimental work includes histology and cytology, in vitro methods, methods of proteomic analysis and methods of flow cytometry. Individual technological units allow in vitro and in vivo observation of post-radiation mechanisms on molecular, cellular, and organ levels.

Military research is focused on early diagnosis and therapy of postradiation damage as the main objective of the department. The aim of investigation in the medium-term horizon is discovery and practical introduction of bio-dosimetry markers, study of molecular mechanisms of radiation-induced DNA damage repair, development of radioprotection agents as well as continuous renewal of decontamination agents for the Army of CR. Mutual cooperation with other NBC research workplaces also remains an integral part of our research activities. Cooperation with civilian workplaces at the Faculty of Medicine and the University Hospital in Hradec Králové is focused on radiation oncology.

The Department of Radiobiology takes part in military medical-specialist education in the form of pre-gradual and post-gradual education mainly in doctoral studies. The main educational activity is lecturing military radiobiology. The main topics are: the nuclear weapons effects on the living organism, the possibilities of the protection and medical treatment of irradiated persons. Other specific military issues are disaster medicine, NBC protection etc., which are taught at the Faculty of Military Health Sciences, including the topics, which are presented by the instructors of our department.

# **RESEARCH PROJECTS**

# BIOMIT: Biodosimetry using human blood lymphocytes mitochondrial DNA alterations

Badie, C., Tichý, A., Cardiff, E.

Supported by National Institutes of Health, USA, 2014–2015 (Project No.: BIOMIT)

The aim of the BIOMIT study is to monitor accurately mtDNA alterations in human peripheral lymphocytes from patients receiving radiotherapy before, during and after treatment using a new specifically designed multiplex digital PCR assay; results will be compared with apoptosis and dicentric chromosomes' data, which will be obtained simultaneously. We will assess the specificity, sensitivity and persistence of mtDNA alterations to

potentially validate this minimally invasive method to rapidly provide individual dose estimates with high sample throughput. To achieve those goals, three different European partners (PHE Oxford, BRC Hradec Kralove and CREAL Barcelona) with complementary expertises (biology, clinical and epidemiological research and biostatistics) will collaborate in BIOMIT.

# Determination of apoptosis in the bioptic samples taken from the colon

Kohoutová, D., Pejchal, J., Šmajs, D.

Supported by the Internal Grant Agency of the Czech Republic Health Service, 2012–2015 (Project No.: NT13413)

Apoptosis of colonic epithelial cells is of a very low degree in healthy humans. Factors, which influence (increase) apoptosis, have not been satisfactory explained yet. Not only primary disease itself (inflammatory bowel disease, adenoma, carcinoma), but also luminal pH and pH of the mucosa, different expression of blood group antigens, alteration of mucosal prostaglandines and S100 proteins, microbial population, nutrition etc. may play a role in apoptosis. The project will use advanced endoscopic methods, most modern possibilities of apoptosis determination in the bioptic samples (taken during colonoscopy), direct measurement of mucosal pH and bacteriocinogenotypization.

## **Educational and Research Staff**

BAJGAR Jiří (till 31 August 2015)

CABAL Jiří (Head of the Group) (till 30 April 2015)

JOŠT Petr

JUN Daniel (Head of the Department)

KASSA Jiří

KORÁBEČNÝ Jan

KRAČMAROVÁ Alžběta

KŘENKOVÁ Zuzana

KUČA Kamil

MARTINCOVÁ Alena (since 01 September 2015)

MISÍK Jan

MUSÍLEK Kamil

SOUKUP Ondřej

SVOBODOVÁ Hana

ŠEPSOVÁ Vendula

ŽĎÁROVÁ KARASOVÁ Jana (Deputy-Head, Head of the Group) (maternity leave)

### Technicians

**HERMAN** David

jiri.bajgar@unob.cz

jiri.cabal@unob.cz

petr.jost@unob.cz

daniel.jun@unob.cz

jiri.kassa@unob.cz

jan.korabecny@unob.cz

alzbeta.kracmarova@unob.cz

zuzana.krenkova@unob.cz

kamil.kuca@unob.cz

alena.martincova@unob.cz

jan.misik@unob.cz

kamil.musilek@unob.cz

ondrej.soukup@unob.cz

hana.svobodova@unob.cz

vendula.sepsova@unob.cz

jana.zdarovakarasova@unob.cz

david.herman@unob.cz

HRABINOVÁ Martina RESLOVÁ Eva (till 30 June 2015) ŠKRANCOVÁ Věra UHLÍŘOVÁ Jana martina.hrabinova@unob.cz eva.reslova@unob.cz vera.skrancova@unob.cz

#### Administrative, Secretarial and Other Staff

MAZUROVÁ Iva (maternity leave)

#### **Postgraduate Students**

ANDRŠ Martin

BABKOVÁ Kateřina

**BENEK Ondřej** 

CAISBERGER Filip

GÓRECKI Lukáš (since 01 October 2015)

**HERMAN David** 

HRABINOVÁ Martina

KAŠPÁREK Aleš (till 25 September 2015)

KRAČMAROVÁ Alžběta

KŘENKOVÁ Zuzana

KUČERA Tomáš (since 01 October 2015)

MARTINKOVÁ Pavla

MATULA Marek (since 01 October 2015)

MÚČKOVÁ Lubica

NEPOVIMOVÁ Eugenie

caisbergerf@lfhk.cuni.cz

ondrej.benek@unob.cz

david.herman@unob.cz

martina.hrabinova@unob.cz

AKasparek@seznam.cz

alzbeta.kracmarova@unob.cz

zuzana.krenkova@unob.cz

eugenie.nepovimova@unob.cz

PAVLÍKOVÁ Růžena	ruzena.pavlikova@unob.cz
PROCHÁZKA Petr	petr.prochazka2@gmail.cz
SALAJKOVÁ Šárka	
ŠEPSOVÁ Vendula (till 16 June 2015)	vendula.sepsova@unob.cz
ŠPILOVSKÁ Katarína	katarina.spilovska@unob.cz
VÁŇOVÁ Nela	
VOBORNÍKOVÁ Irena	7irena@email.cz

ZEMEK Filip

The Department of Toxicology was established in 1951. Since then, as an integral part of the Faculty of Military Health Sciences, it has been involved in education and scientific research work on chemical warfare agents for defensive and protective purposes only.

Department of Toxicology and Military Pharmacy was established on the 1st September 2014 by integration of Department of Toxicology, Centre of Advanced Studies and Department of Public Health. It comprises two groups - a military pharmacy group (biochemical laboratory, laboratory of organic synthesis, analytical laboratory, decontamination laboratory) and a toxicology group (toxicological laboratory, pharmacological laboratory, neurophysiological laboratory, neurobehavioral laboratory, genotoxicological laboratory). This structure permits the complex study of highly toxic substances including chemical warfare agents with aims to determine their action on biochemical, neurobehavioral, histochemical, pharmacological and neurophysiological level, to study and develop antidotes, to analyze all types of samples with respect to the presence of known chemical warfare agents, to test decontamination effectiveness of developed and field decontamination kits.

Present scientific research projects are focused on therapeutic, prophylactic and protective measures against the most toxic chemical warfare agents. Special attention has been paid to the most recent and most dangerous nerve agents and mustards.

The main educational activity task was to give lectures for undergraduate and post-graduate studies dealing with problems of biological effects of real and potential chemical warfare agents, the possibilities of the medical and chemical protection against them and the approaches to medical care of persons intoxicated with chemical warfare agents, especially nerve agents.

The department provides and guarantees the teaching master's degree program military pharmacy and also participates in the teaching of toxicology in disaster medicine.

# **RESEARCH PROJECTS**

# Concept of non-quaternary reactivators AChE as the antidotes of organophsophorus poisoning - a new hope or a blind way?

Kuča, K., Jun, D.

Supported by the Czech Republic Grant Agency, 2015–2017 (Project No.: GA15-16701S)

Acetylcholinesterase (AChE) reactivators based on pyridinium aldoximes (obidoxime, HI-6) are used as causal antidotes in case of nerve agent or pesticide poisonings. Due to the presence of quaternary nitrogen, they have low blood-brain barrier (BBB) permeation and thus they are not capable to fully reactivate AChE in the central nervous system, where nerve agents or pesticides can be responsible for the chronic neural disorders. For this reason, development of novel centrally acting non-quaternary reactivators that can more efficiently cross BBB is one of the most promising strategies. However, from the practical point of view, several drawbacks of physico-chemical, pharmacological and toxicological origin are expected for these non-quaternary antidotes. In this project, all the benefits and negatives of non-quaternary AChE reactivators will be investigated to decide whether this new strategy is a really promising approach or just another blind way in the search for the new type of antidotal therapy.

#### Neurobehavioral evaluation of potential Alzhemier's disease drugs

Kassa, J., Misík, J., Kuča, K., Musílek, K., Žďárová Karasová, J.

Supported by the Czech Republic Grant Agency, 2012–2015 (Project No.: GAP303/12/0611)

The permanent increasing incidence of Alzheimer's disease represents a worldwide problem that can be partly solved by introducing more effective drugs. The aim of the stuidy is to characterize the effects of newly developed acetylcholinesterase inhibitors with better pharmacodynamic features derived from the model drug 7-methoxytacrine on nervous functions and especially cognitive functions. The effects of drugs will be evaluated in laboratory rats with the deficiency of cognitive functions induced by administration of 3-chinuclidinylbenzilate. The effects of newly developed drugs will be evaluated by functional observational battery and the potency to eliminate or reduce the deficiency of cognitive functions by special neurobehavioral methods oriented on memory and learning. The effects of new drugs on nervous functions and their potency to eliminate the deficiency of cognitive

functions will be compared to the effects of a model drug and standard therapeutics (tacrine, donepezil, rivastigmine). Proposed study can contribute to the increase of the effectiveness of the treatment of Alzheimer's disease.

#### New technologies for identification and typing of biological agents

Kročová, Z., Boštík, P., Hanovcová, I., Jun, D., Macela, A.

Supported by the Czech Republic Ministry of Internal Affairs, 2012–2015 (Project No.: VF20122015024)

The aim of the project is to develop the methodological procedures for the isolation of bacterial and viral nucleic acids and protein and no-protein toxins from natural matrices, and the procedures for their identification and typing. In the case of bacteria and viruses are designed following the methodological procedures and specific technological and laboratory units: the acquisition and cultivation of biological agents, isolation of genome and plasmid DNA, or RNA in the case of a virus, the methodology and procedures for the preparation of samples of bacterial and viral nucleic acids from complex matrices, design of qPCR primers, probes and the reaction conditions and testing and validation of the proposed methods and procedures for the identification of biological agents. For the detection of low molecular weight toxins will be used high performance liquid chromatography coupled with tandem mass spectrometry and for detection and identification of protein toxins will be used mass spectrometric method SRM (Selected reaction monitoring).

# Novel inhibitors of acetylcholinesterase derived from 7-MEOTA - potential Alzheimer's disease drugs

Kuča, K., Řípová, D.

Supported by the Czech Republic Grant Agency, 2011–2015 (Project No.: GAP303/11/1907)

Worldwide incidence of AD was evaluated to 35 million of people in 2009. The amount of AD patients in 2050 was estimated to 110 million. The most important factor influencing the increasing amount of AD patients is the age of population (particularly European is rapidly ageing). Thus, the AD is becoming a priority of public health care and there is demand for novel drugs suitable for its treatment. The main aim of this project consist in synthesis and evaluation of novel acetylcholinesterase (AChE) inhibitors derived from 7-MEOTA as potential AD drugs. Synthesized AChE inhibitors will be tested using experimental batery consisting of molecular modelling, biochemical evaluation of AChE inhibitors, antioxidant evaluation of novel drugs, Interactions with muscarinic/nicotinic receptors and choline transporters, in vitro prediction of blood-brain barrier penetration, determination of acute

toxicity of selected AChE inhibitors, evaluation of plasmatic levels after experimental administration, evaluation of novel AChE inhibitors in CNS. Based on the appropriately-managed testing system of novel AChE inhibitors, suaitable candidate will be selected and recommended for further preclinical trial.

## COOPERATION

In 2015, the Department of Toxicology and Military Pharmacy has continued in the cooperation, started by the Institute of Pharmacology and Toxicology of Federal Armed Forces Medical Academy in Munich (Germany), Swedish Defence Research Agency, in Umea (Sweden), Armed Forces Biomedical Research Institute in Brétigny-sur-Orge (France), Saint Louis Hospital in Paris (France). Universidade Federal de Santa Catarina in Florianopolis (Brazil), Pandit Ravishankar Shukla University in Raipur (India), Faculdade de Farmácia in Salvador (Brazil), DRDC in Suffield (United Kingdom), Health Protection Agency in Porton Down (United Kingdom), FFI in Kjeller (Norway), Gulhane Military Medical Academy in Ankara (Turkey), Military Medical Academy in Belgrade (Serbia), Institute for Medical Research and Occupational Health in Zagreb (Croatia), United Arab Emirates University in Al Ain (United Arab Emirates), Korea Research Institute of Chemical Technology in Daejeon (South Korea), Semmelweis University in Budapest (Hungary), Institute of Molecular Systems Biology in Zurich (Switzerland), M. V. Lomonosov Moscow State University in Moscow (Russia), Walter Reed Army Institute of Research in Silver Spring (United States of America), WIHE in Warsaw (Poland), Sahlgrenska Academy, University of Goteborg (Sweden) - on the field of development of prophylactic and therapeutic means against nerve adents and organophosphorus insecticides. The cooperation has been mostly characterized by the exchange of scientific information. Within the frame of the work dealing with the identification of the mechanisms of chemoprevention in the initial phases of mutagenesis and carcinogenesis, the Department of Toxicology has also continued in cooperation with the Institute Nutrition Research, Oslo - Norway) and the Institute of Experimental Oncology and the Slovak Health Care University in Bratislava (Slovak Republic). The cooperation with Department of Organic Chemistry, Institute of Chemistry, P. J. Šafárik University in Košice (Slovak Republic), Department of Biophysics, Institute of Experimental Physics, Slovak Academy of Sciences in Košice (Slovak Republic) and Faculty of Chemical and Food Technology. Slovak Technical University in Bratislava (Slovak Republic) and University of Bologna (Italy) is continuing in the field of the development of new potential therapeutic means against Alzheimer disease.

# DEPARTMENT OF MILITARY SURGERY K-305

#### **Educational and Research Staff**

DUŠEK Tomáš

KLEIN Leo

KOČÍ Jaromír

LOCHMAN Petr (Head of the Group)

MALÝ Ondřej (since 01 June 2015)

PÁRAL Jiř (Head of the Department)

ŠIMEK Jan

**ŠMEJKAL Karel** 

ŠUBRT Zdeněk (Head of the Group) tomas.dusek@unob.cz

leo.klein@unob.cz

jaromir.koci@fnhk.cz

petr.lochman@unob.cz

ondrej.maly@unob.cz

jiri.paral@unob.cz

jan.simek@unob.cz

karel.smejkal@unob.cz

zdenek.subrt2@unob.cz

tomas.dusek@unob.cz

jana.zahradnickova@unob.cz

#### Administrative, Secretarial and Other Staff

ZAHRADNÍČKOVÁ Jana

#### **Postgraduate Students**

DOLEŽEL Radek

DUŠEK Tomáš

FIBÍR Aleš (till 24 September 2015)

FLAŠAR Jan

KOVÁŘ Daniel

KRÁL Petr

MALÝ Ondřej (since 01 October 2015) ondrej.maly@unob.cz

MENCLOVÁ Kateřina (since 01 October 2015)

24th Annual Report, 2015 - 45

**OBERREITER Martin** 

POHNÁN Radek

SLANINKA Igor

ŠIMEK Jan

jan.simek@unob.cz

# Structure and main tasks of the department

- 1. Division of General Surgery Šubrt Zdeněk – Head of the Group
- 2. Division of Traumatology and Burns Treatment Lochman Petr – Head of the Group

# Main tasks

- Undergraduate education of medical students
- Postgraduate training of military surgeons and other medical specialists
- Expertise and referential work for needs of the Czech Armed Forces
- Research in Military Surgery
- Preparation of medical health-care personnel before foreign missions of the Army of the Czech Republic

At present the Department of Military Surgery consists of two groups - the Group of General Surgery and the Group of Traumatology and Burns Treatment. Besides working at each Division of the Department of Surgery of the Teaching Hospital in Hradec Králové, members of the Department perform both, undergraduate courses in field surgery for students of the Faculty of Military Health Sciences, and postgraduate training of military physicians for their specialization exams in surgery and general medicine. The Department also participates in teaching of the Battlefield Advanced Trauma Life Support (BATLS) courses, disaster medicine and the first aid courses, organized by the Faculty of Military Health Sciences for the Czech Army members. Members of the Department participate in several specialised NATO working groups according to their expertise. Moreover, they are consultans of Surgeon General of the Czech Armed Forces. In the last several years, the Department has played important role in education and training of personnel of field hospitals operating in foreign missions (Yuqoslavia, Bosnia-Herzegovina, Albania, Iraq, Afghanistan). Members of the Department also took part in those missions. Research and publication activities are also essential part of the Department members' work.

# Participation in a foreign mission

- J. Páral 11th Field Hospital, ISAF, Kabul, Afghanistan, 2002, 2011 (TSF)
- J. Páral British Field Hospital, Op TELIC, Shaibah, Iraq, 2004
- P. Lochman British Field Hospital, Op TELIC, Shaibah, Iraq, 2004
- J. Páral Czech Field Surgical Team, International Medical Treatment Facility (Role 3) KAIA, Kabul, Afghanistan 2012
- J. Šimek Czech Field Surgical Team, International Medical Treatment Facility (Role 3) KAIA, Kabul, Afghanistan 2012

# National textbooks

- Small atlas of dressing techniques (Páral), 1st ed. Prague: Grada Publishing, 2008. 240 p. ISBN 978-80-247-2255-9
- Acute mesenteric ischemia Modern diagnostics and treatment of acute bowel ischemia (Páral), 1st ed. Prague: Grada Publishing 2012. 112 p. ISBN 978-80-247-3996-0
- Handbook of surgery (Šubrt), 2nd ed. Prague: Grada Publishing 2015. 512 p. ISBN 978-80-247-1005-1

# International textbooks

 Gastrointestinal Stromal Tumors (Páral). In: Aperelho Digestivo (Coelho), Editora Atheneau, Sao Paulo, Brasilia, 2012, p. 325–336. ISBN 978-85-388-0296-9

# **RESEARCH PROJECTS**

### Nanofibrous biodegradable small-diameter vascular bypass graft

Páral, J., Lukáš, D.

Supported by the Internal Grant Agency of the Czech Republic Health Service, 2015–2018 (Project No.: NV15-29241A)

Materials that are currently used to fabricate vascular prostheses are nondegradable and thrombogenic. The aim of this project is to develop new tubular degradable scaffold made of nanofibers with three-dimensional double-layered structure. Biodegradable polymers will be electrospun to obtain nanofibrous vascular graft with desired properties. Inner layer will be made from thin fibers that will facilitate endothelial cell spreading from adjacent vessel. Outer layer will be composed of thicker fibers to enable smooth muscle cell infiltration into the 3D structure as in native vessel. These double-layered scaffolds will be tested mechanically to meet all requirements

# DEPARTMENT OF MILITARY SURGERY K-305

for vascular replacement in terms of tensile strength, elongation and sututre retention. The graft will be tested in vitro in static and dynamic conditions in bioreactor using endothelial and smooth muscle cells. The tissue remodeling process following the implantation will be predicted by macrophage polarization testing. Further in vivo tests will be carried out to investigate the patency of produced grafts.

# Parametric monitoring the quality of TME as a tool to reduce local recurrences after surgery for rectal cancer

Hoch, J., Páral, J.

Supported by the Internal Grant Agency of the Czech Republic Health Service, 2012–2015 (Project No.: NT13726)

The aim of the project is to establish and standardize the method of assessing the quality of surgery in the treatment of rectal cancer as a tool to reduce the incidence of local recurrence. The expected outcome will be improving preoperative staging, consistent implementation and improvement procedures TME on those sites, increasing the percentage of complete excision as a basic prerequisite for reducing the rate of local recurrence in rectal cancer.

#### Prehospital emergency care efficiency

Hrstka, Z., Procházka, M., Halajčuk, T Ježek, B., Vaněk, J., Mašek, J., Páral, J., Plodr, M.

Supported by the Internal Grant Agency of the Czech Republic Health Service, 2013–2015 (Project No.: NT14460)

The main research subject of the project is assessment of suitable criteria of Emergency Medical Services (EMS) efficiency evaluation. As a part of the project an analysis of the EMS of Kralovehradecky region will be performed aimed at the economic efficiency as seen by individual EMS stakeholders (health insurance companies, EMS, regional government, Ministry of Health Care), at the EMS medical effects and at the readiness of the EMS in conjunction with the plan of the region coverage by EMS bases. To assess the aptness of the economic efficiency criteria standard economic indicators used in medical facilities will be employed to determine the criteria suitable for EMS providers. The medical effects criteria will be established in a retrospective analysis of the EMS response data. The readiness of the EMS in the region of interest will be considered by criteria extracted from the data on EMS responses including GPS data processed in GIS.

Quality evaluation of multimodal treatment in patients with colorectal liver metastatic disease: Multicentric study within Czech complex oncology centres

Ryska, M., Ferko, A., Šubrt, Z.

Supported by the Internal Grant Agency of the Czech Republic Health Service, 2012–2015 (Project No.: NT13660)

The aim of this project is to verify the benefits of a multidisciplinary team approach to comprehensive treatment and evaluation of results for groups of patients defined by selected parameters, compare nationwide data with those of selected comprehensive cancer centers, while respecting the customized approach, to evaluate the cost / benefit and quality of life in patients treated for colorectal cancer liver metastases.

# DEPARTMENT OF MILITARY INTERNAL MEDICINE AND MILITARY HYGIENE K-306

# **Educational and Research Staff**

BRNDIAR Miroslav	miroslav.brndiar@unob.cz
FAJFROVÁ Jana	jana.fajfrova@unob.cz
HORÁČEK Jan (Head of the Department)	jan.horacek@unob.cz
HUSÁROVÁ Michaela (maternity leave)	michaela.husarova@unob.cz
JAKL Martin	martin.jakl@unob.cz
JEBAVÝ Ladislav	ladislav.jebavy@unob.cz
KUPSA Tomáš	tomas.kupsa@unob.cz
PAVLÍK Vladimír (Deputy-Head)	vladimir.pavlik@unob.cz
STŘÍTECKÁ Hana	hana.stritecka@unob.cz
Technicians	
PEREGRINOVÁ Jitka	jitka.peregrinova@unob.cz
Administrative, Secretarial and Other Staff	F
MACHAČOVÁ Iva	iva.machacova@unob.cz
Postgraduate Students	
BLAŽKOVÁ Šárka	
BROULÍKOVÁ Karolina	
ČMEDLOVÁ Pavlína (maternity leave)	pavlina.cmedlova@unob.cz
DOHNALOVÁ Lucie	dohnalova.luca@gmail.com
DUŠKOVÁ Klára (maternity leave)	klara.duskova@unob.cz
GREGA Tomáš (since 01 October 2015)	tomas.grega@uvn.cz
HAJŠL Martin	martin.hajsl@uvn.cz

24th Annual Report, 2015 - 50

# DEPARTMENT OF MILITARY INTERNAL MEDICINE AND MILITARY HYGIENE K-306

HUSÁROVÁ M 25 September		(till	michaela.husarova@unob.cz
HYŠPLER Pa	vel		
JAKL Martin	(till 21 January 2015)		martin.jakl@unob.cz
JARKOVSKÝ	Patrik		jarkopata@gmail.com
KRUTIŠOVÁ	Pavla		pavla.krutisova@unob.cz
KUPSA Tomá	Š		tomas.kupsa@unob.cz
LASTIČ Miros (till 15 April 20	-		lastic@seznam.cz
MALIŠOVÁ Zu (till 09 January			zuzana.malisova1@gmail.com
NOVOTNÝ Pa (till 23 June 20			
OSLADIL Ton (till 30 Septem			tomas.osladil@volny.cz
PILŇÁČKOVÁ	Jana		
PSUTKA Jan (till 30 Septem	nber 2015)		
RUČKA David	I		david.rucka@vfn.cz
SEDLOŇ Pav	el		pavel.sedlon@uvn.cz
SKOŘEPA Pa	avel		skorepa.p@gmail.cz
URBAN Miros	lav		urbanmiro@seznam.cz
VAŠINA Libor			nnch@seznam.cz
VOLDŘICH M (till 23 June 20			
VOŠKA Micha	al		michal.voska@gmail.com
VYMLÁTILOV (since 01 Octo			lenka.vymlatilova@seznam.cz
ZMRZLÁ Han	а		hanka zmrzla@seznam.cz

#### DEPARTMENT OF MILITARY INTERNAL MEDICINE AND MILITARY HYGIENE K-306

The department is divided into group of Military Internal Medicine and group of Military Hygiene.

#### **Military Internal Medicine**

The group of Military Internal Medicine is the clinical part of the department, systematically focused on specialized part of Internal Medicine – Military Internal Medicine. The Military Internal Medicine as a subspeciality of Internal Medicine has been progressively developed into a recent shape and purpose. In accordance with latest trends of military health supply and modern therapeutic approaches, the Military Internal Medicine provides knowledge and practical experience in treatment of life-threatening non-surgical impairment in specific conditions of the military, especially during the armed conflicts. Nowadays Internal Medicine is also of increasing importance in postoperative care, where multidisciplinary approach leads to improved prognosis of the most severe surgical affections. Furthermore, knowledge and practical experience in Military Internal Medicine are also useful during peacetime, especially in large-scale disasters – catastrophes. In fact, most of the skills obtained in Military Internal Medicine training are useful in a novel and progressive branch of medical specialization – **Disaster Medicine**.

Military Internal Medicine is focused on three basic areas of activities: therapeutic and preventive, educational and teaching and scientific and research.

**Therapeutic and preventive activities** are essential for Military Internal Medicine. They provide specialized knowledge and experience in treatment of the most severe medical affections. The group of Military Internal Medicine cooperates with Internal Departments of the University Hospital in Hradec Kralove, which serves as a therapeutic and educational background.

#### Military Hygiene

The branch of Military Hygiene follows the living and working conditions of troops with the aim to develop, propose and assert measures for health protection and promotion of military professionals in order to maintain a good health state of troops and combat capability of the Army of the Czech Republic personnel in difficult conditions of military environment. In accordance with this function, the activity of the group of Military Hygiene is aimed at monitoring the impact of environmental factors on the organism, at evaluating their risk in working and living environment and at setting effective preventive measures to protect and promote health of soldiers.

Currently, the group of Military Hygiene complexly covers the basic issues of the relation of life and job environment and health of the individual.

The group can provides the analysis of selected physical and chemical factors of external environment in the conditions of the Army of the Czech Republic. It studies the possibilities of use of chemical substances for disinfection effects. The group is focused above all on response of the organism to work in protective clothing and severe climatic conditions and on evaluation of the degree of risk connected with environment contamination.

In the area of group of Military Hygiene, attention is paid namely to the incidence and prevalence of risk factors of non-infectious diseases of mass incidence, rational food, catering of troops in peacetime and wartime conditions – emergency food rations, assessment of the properly received and consumed energy.

# Cooperation

- Charles University, Faculty of Medicine in Hradec Kralove
- University Hospital Hradec Kralove
- Military University Hospital Prague
- Health Institute in Hradec Kralove
- Hygienic Station in Liberec
- Military Health Institute in Prague
- Main hygienist of the Ministry of Defence
- Agricultural University in Nitra, Slovakia

# TEACHING

### **Military Internal Medicine**

**Educational and teaching activities** of the group of Military Internal Medicine are closely related to therapeutic and preventive care. The department provides comprehensive education of Internal Medicine and Military Internal Medicine in both undergraduate and postgraduate degree programmes. Almost all military medical specialists in Internal Medicine, including both Czechoslovak and Czech Army members, completed their postgraduate education of Internal Medicine in our department and gained specialization degree in Internal Medicine. We are proud to announce that during the history of our department, we assisted more than 1500 physicians with gaining the specialization degree in Internal Medicine.

Nowadays, the educational process involves undergraduate education in Military Internal Medicine, Military Dentistry, Military Pharmacy and Military Health Assistant. The group of Military Internal Medicine participates actively in teaching in specialized courses, such as BATLS (Battlefield Advanced

#### DEPARTMENT OF MILITARY INTERNAL MEDICINE AND MILITARY HYGIENE K-306

Trauma Life Support) and also provides medical support during specialized training operations of various units of the Army of the Czech Republic. In cooperation with Internal Department of Military University Hospital, Prague and Internal Departments of other military hospitals, the department provides necessary background for physicians in the military to gain the medical postgraduate certification in Internal Medicine.

Important and highly demanding assignment of the department is management and support of doctoral study programme Military Internal Medicine. This study programme has been accredited since 1993. The department is also accredited for associate professor and professor degrees proceedings in the field of Military Internal Medicine.

#### Military Hygiene

The group of Military Hygiene takes part in undergraduate education of military hygiene and preventive medicine for all military students of the Faculty of Military Health Sciences including civilian students of the Faculty of Health Sciences in Pardubice. The group members participate in teaching at Charles University, the Faculty of Medicine in Hradec Kralove and covering the final exam in hygiene, military hygiene and epidemiology.

The group can provide education of hygiene and preventive medicine in the doctoral study programme Preventive medicine and health care.

The group takes part in education of hygiene and preventive medicine for civilian and military doctors and nurses, as well as the members of NATO missions.

The group cooperates with the Military Academy in Vyskov and covers education and special attachments for the employees of Ministry of Defence in the field of hygiene of work, occupational medicine and risk prevention.

### RESEARCH

#### **MILITARY INTERNAL MEDICINE**

Scientific and research activities represent the third main area of the group of Military Internal Medicine. In general, the department is focused on clinical research in internal medicine and its implementation in specific military practice. The research is aimed at meeting requirements of the Army of the Czech Republic including field and foreign military operations.

The shape of our recent research activities was formed together with the development of organization structure of the department. The long history and development of our department was connected with the development of

public society, the Army and both schools in Hradec Kralove: University of Defence, the Faculty of Military Health Sciences and Charles University, the Faculty of Medicine.

# Main topics are:

- New trends in transplantation of hematopoietic stem cells and supportive care
- Optimization and individualization of treatment of disorders involving bone marrow and hematopoiesis, especially research in acute leukemias as a "model disease"
- Monitoring of side effects during treatment of hematologic disorders using various novel biochemical markers, especially for evaluation cardiac toxicity
- Cardiovascular research with focus on acute coronary syndromes, heart failure and valve disorders
- The role of enteral and parenteral nutrition in intensive care
- Participation in international clinical trials, especially in fields of hematology and cardiology

# Cooperation in clinical research

- Hematopoietic stem cell transplantation (HSCT), transplant-related complications and supportive care, the role of cytokines, cytokine receptors and adhesion molecules in HSCT and acute leukemia – the project has continued.
- 2. Complex monitoring of cardiotoxicity of antitumorous treatment, mainly cardiac biomarkers the research project has continued.
- New biochemical markers of cardiac injury (natriuretic peptides, cardiac troponins, heart-type fatty acid binding protein, glycogen phosphorylase BB) – clinical and laboratory evaluation has continued.
- Analysis of transplantation activities, indications and results in the Czech Republic – National Stem Cell Transplantation Registry – the project has continued.
- 5. A study on application of enteral and parenteral nutrition in intensive metabolic care has been initiated.
- Double blind, randomized, placebo-controlled multicentre phase III clinical study followed by open-label phase on the efficacy and tolerability of Budesonide 3 mg effervescent tablet in patients with resistant oral chronic GvHD.
- A phase III, double-blind, randomized, placebo-controlled, multicenter clinical trial to study the safety, tolerability, efficacy, and immunogenicity of V212/heat-treated varicella-zoster virus (VZV) vaccine in recipients of autologous hematopoietic cell transplants (HCTs).

#### DEPARTMENT OF MILITARY INTERNAL MEDICINE AND MILITARY HYGIENE K-306

- 8. An open-label, randomized phase 3 study of Inotuzumab Ozogamicin compared to a defined investigator's choice in adult patients with relapsed or refractory CD22-positive acute lymphoblastic leukemia (ALL). (Protocol number: B1931022)
- A phase 3, randomized, open label study investigating the efficacy of the BiTE antibody Blinatumomab versus standard of care chemotherapy in adult subjects with relapsed/refractory B-precursor acute lymphoblastic leukemia (ALL). (Protocol number: AMG 103 00103311, TOWER)

# MILITARY HYGIENE

Scientific research is focused on primary prevention of chronic diseases and relation of life and job environment and life style. Realization of intervention study and project focused on healthy status of professional soldiers.

# Main topics are:

- Epidemiological studies of non infectious diseases
- Evaluation of nutritional and healthy
- Evaluation of energetic and metabolic requirements
- Combat rations in different climatic conditions
- Evaluation of response of the organism to work in unfavourable environmental and working conditions
- Evaluation of working energy expenditure
- Evaluation of physiological function in protective suits
- Elaboration of proposals for the working and rest regimes, energy, fluids and minerals as a prevention of diseases

# Cooperation in research

- The project of intervention and prevention of overweight and obesity in soldiers of the Army of the Czech Republic. Main researcher – the Department of Military Medicine of Ministry of Defence, co-investigator – Vladimir Pavlik, MD
- The proposal of the new combat rations for the tropical climatic condition.
   Main researcher – Ludek Novak Ing., MEDIAP company, co-

Main researcher – Ludek Novak Ing., MEDIAP company, coinvestigator Vladimir Pavlik, M.D.

# **RESEARCH PROJECTS**

Quality of life measurement and its influence to overall survival in hematopoietic stem cell transplantation in CZ

Trněný, M., Novák, J., Válková, V., Jebavý, L., Sedláček, P.

Supported by the Internal Grant Agency of the Czech Republic Health Service, 2010–2015 (Project No.: NT11299)

The aim of our project is to document quality of life in transplanted patients using standardised QOL questionnaires. Based on this monitoring, we would like to propose a supportive psychological and social program for individual institutions so that the monitoring of QOL will become an integral part of standard medical practice.

# DEPARTMENT OF EMERGENCY MEDICINE AND MILITARY GENERAL MEDICINE K-307

#### **Educational and Research Staff**

DUŠKOVÁ Klára klara.duskova@unob.cz (maternity leave) GRÖGER Tomáš tomas.groger@unob.cz (till 31 August 2015) HOMOLA Ambrož (till 31 August 2015) KONŠTACKÝ Stanislav (till 31 August 2015) **KRUTIŠOVÁ Pavla** pavla.krutisova@unob.cz MATOUŠEK Radovan radovan.matousek@unob.cz PLODR Michal michal.plodr@unob.cz (Head of the Department) PÚDELKA L'udovít ludovit.pudelka@unob.cz ŠTĚTINA Jan jan.stetina@unob.cz Technicians DOLEŽELOVÁ Miroslava miroslava.dolezalova@unob.cz (maternity leave) KRUTIŠ Jan jan.krutis@unob.cz ŠÍSTKOVÁ Jitka jitka.sistkova@unob.cz

History of the Department started in 1983 at the J. E. Purkyně Military Medical Research and Postgraduate Institute. First as a Group of Military Medical Service Organization in Peacetime which was a part of the Department of Military Medical Service Organization. With increasing demands on training of the military health personnel, the Department of General Medicine was established. First Specialization Exams in this new basic specialization branch were held in February 1985. 525 military doctors

#### DEPARTMENT OF EMERGENCY MEDICINE AND MILITARY GENERAL MEDICINE K-307

passed the Specialization Exam in General Medicine at the Department of General Medicine till 31st December 2004. Now the Department collaborates in Specialization Exam with the Institute of Postgraduate Medical Education in Prague, the Chamber of Medicine, professional medical societies and associations in postgraduate training and specialized activities. It participates in establishing standards for special therapeutic care.

Since 1997, the work at this Department has focused more on prehospital emergency care and teaching the First Aid and Emergency Medicine. At the same time a significant modernization and a proper subdivision of teaching premises according to the type of courses were carried out there. Now the Department is equipped with modern teaching models and simulators for teaching pre-hospital care, including the possibility of interactive teaching aids. Current innovations of medical material and equipment are applied in teaching process.

The Military Medical Service after the entry into NATO was one of the main contributers of the Czech Armed Forces to this international military organization. The Department of General Medicine and Emergency Medicine has been charged with specialization training of the military health personnel deployed on foreign mission. The extension of teaching activities in this new field called for changes in table posts at the Department. In 2001, the Healthcare Education and Training Group was established and other workers were engaged to teach the first aid. Since 2003, regarding the extension of teaching, the Department has had a new name – the Department of General and Emergency Medicine.

A new period of the Department started in 2014. After restructuring of the University of Defence and the Faculty of Military Health Science together with prevailing teaching topics in urgent medicine, the Department was renamed on the Department of Emergency Medicine and Military General Medicine. It consists of two groups – the Group of Emergency Medicine and the Group of General Medicine.

The main mission of the Department is education and training of medical officers in casualty medical care in both combat and disaster situations. For this purpose, the principles and procedures of emergency care in field conditions are taught at the Department through BATLS/BARTS (Battlefield Advanced Trauma Life Support/Battlefield Advanced Resuscitation Techniques and Skills) courses. In the same area, the Department participates in training of medical personnel before their departure to foreign missions. The next important mission of the department is education and training of non-medical personnel in first-aid care. The most of the soldiers are trained in the Battlefield First-Aid Courses, some of them are trained in consequential Combat Life Saver Courses. This course offers a lot of useful knowledge and skills, e.g. control life-threatening external hemorrhage, airway management and decompress the chest.

#### DEPARTMENT OF EMERGENCY MEDICINE AND MILITARY GENERAL MEDICINE K-307

The Department of Emergency Medicine and Military General Medicine is the main department providing military-professional training in the subject called Military Medical Service Organization in Peacetime for students of the Master's Study Programme in branches of General Medicine and Military Pharmacy, and for students of the Bachelor's Study Programme in the branch of Military Medical Management and in various types of training and courses. It also provides further education for military doctors, pharmacists and other personnel of the Military Medical Service through refresher courses and specialization courses.

The subject called Disaster Medicine makes students acquainted with principles of emergency medicine and operation of individual parts of integrated rescue system in conditions of serious accidents, natural disasters and catastrophes. In connection with this training, the Department provides its participants with knowledge and experience of the operation of the Military Medical Service institutions and facilities in crisis, in combat or other extraordinary situations. It applies the knowledge of military and militaryprofessional subjects into specific conditions of operation of the Military Medical Service respecting both military principles and requirements as well as the principles of humanity, law and especially Geneva Conventions.

The Department is a co-ordinating centre in the branch of Military Medical Service Organization in Peacetime, Social Medicine, Emergency Medicine and Disaster Medicine. It participates in increasing the quality of organisational structure of medical units, formations and facilities, It elaborates their operation procedures and principles of their management in peacetime as well as in emergency situations. The Department provides expert activities and elaborates data and proposals from these areas for concept-making bodies of the Czech Army Medical Service. The Department analyzes NATO regulations and directives and recommends their introduction in practice as well as in teaching process. It provides consultations for field leading officers of the Military Medical Service. The Department cooperates with civilian institutions, namely, with the bodies of the Ministry of Health of the Czech Republic in the issues concerning the cooperation between civilian and military medical services in extraordinary situations. It ensures publication activities focused on educational work requirements and on presenting scientific information. The Department is in charge of the education of talented students within the framework of students' scientific and professional activities. It participates in the solution of assignments within the organizational structure of the military health care in peacetime. It is the consultation and expert workplace in the branch of General and Emergency Medicine for the Army of the Czech Republic.

# **RESEARCH PROJECTS**

#### Prehospital emergency care efficiency

Hrstka, Z., Procházka, M., Halajčuk, T Ježek, B., Vaněk, J., Mašek, J., Páral, J., Plodr, M.

Supported by the Internal Grant Agency of the Czech Republic Health Service, 2013–2015 (Project No.: NT14460)

The main research subject of the project is assessment of suitable criteria of Emergency Medical Services (EMS) efficiency evaluation. As a part of the project an analysis of the EMS of Kralovehradecky region will be performed aimed at the economic efficiency as seen by individual EMS stakeholders (health insurance companies, EMS, regional government, Ministry of Health Care), at the EMS medical effects and at the readiness of the EMS in conjunction with the plan of the region coverage by EMS bases. To assess the aptness of the economic efficiency criteria standard economic indicators used in medical facilities will be employed to determine the criteria suitable for EMS providers. The medical effects criteria will be established in a retrospective analysis of the EMS response data. The readiness of the EMS in the region of interest will be considered by criteria extracted from the data on EMS responses including GPS data processed in GIS.

# DEPARTMENT OF MOLECULAR PATHOLOGY AND BIOLOGY K-308

## **Educational and Research Staff**

**BALONOVÁ** Lucie

KLIMENTOVÁ Jana

KROČOVÁ Zuzana (Head of the Department)

KUBELKOVÁ Klára

LENČO Juraj

LINK Marek

MACELA Aleš (Prof. Emerit.)

PÁVKOVÁ Ivona

POHANKA Miroslav (Deputy-Head)

PORKERTOVÁ Stanislava (since 01 October 2015)

ŘEHULKA Pavel (Head of the Group)

SHESHKO Valeria

STULÍK Jiří

ŠPIDLOVÁ Petra

### Technicians

LUKŠÍKOVÁ Lenka (maternity leave)

ŽÁKOVÁ Jitka

lucie.balonova@unob.cz

jana.klimentova@unob.cz zuzana.krocova@unob.cz

202010.000000000000000

klara.kubelkova@unob.cz juraj.lenco@unob.cz

marek.link@unob.cz

ales.macela@unob.cz

ivona.pavkova@unob.cz

miroslav.pohanka@unob.cz

stanislava.porkertova@unob.cz

pavel.rehulka@unob.cz

valeria.sheshko@unob.cz

jiri.stulik@unob.cz

petra.spidlova@unob.cz

lenka.luksikova@unob.cz

jitka.zakova@unob.cz

### Administrative, Secretarial and Other Staff

FORETOVÁ Zdenka

zdena.foretova@unob.cz

24th Annual Report, 2015 - 62

# DEPARTMENT OF MOLECULAR PATHOLOGY AND BIOLOGY K-308

#### **Postgraduate Students**

ĎURÁČOVÁ Miloslava (since 01 October 2015)	miloslava.duracova@unob.cz
FABRIK Ivo	ivo.fabrik@unob.cz
HOSTÝNKOVÁ Veronika (till 31 August 2015)	veronika.hostynkova@unob.cz
KOPEČKOVÁ Monika (since 01 October 2015)	
PLZÁKOVÁ Lenka	lenka.plzakova@unob.cz
PROKŠOVÁ Magdalena	magdalena.proksova@unob.cz
PUTZOVÁ Daniela	
SHESHKO Valeria	valeria.sheshko@unob.cz
STOJKOVÁ Pavla (since 01 October 2015)	
ŠENITKOVÁ Iva	iva.senitkova@unob.cz
VAJRYCHOVÁ Marie	marie.vajrychova@unob.cz

The Department of Molecular Pathology and Biology is a research and educational center focused on the application of advanced technologies of functional genomics to bio-medical defense research. Scientific work is preferably aimed at the studies of the host-pathogen interactions at the molecular level. The objectives of this research splits in three main topics: biomolecular signatures of biological agents potentially abused for the military, terroristic or bio-crime acts, intracellular fate of ingested microbes and finally the modulation of host cell signaling and gene expression by ongoing infection. The favorite microbial model is live vaccine strain of Francisella tularensis, a gram-negative facultative intracellular bacterial pathogen from the gamma subdivision of Proteobacteriae. The second branch of the research involves the clinical studies utilizing the post-genomic approaches for identification of new biomarkers of different pathological processes. Laboratories of the Institute are currently equipped for realization of complete classical and shotgun proteomic analyses. The materials for analyses are prepared in the Institute's tissue culture and microbiological labs. In parallel, the basic search for gene expression can be performed using quantitative real-time PCR technology. The established technologies enable researchers, PhD. students, and under-graduate students to realize complex studies oriented on the analyses of living system response to

external (and internal, modulatory) signals encompassing the chemicals, biologically active bio-molecules, physical influences (temperature, radiation, etc.), and microorganisms.

The Department traditionally cooperates with the research facility in Sweden (Dept of Clinical Bacteriology and laboratory for Molecular Infection Medicine, University of Umea) on identification of new factors of virulence of Francisella tularensis, molecular mechanisms of suppression of interferon beta production in host cells infected by Francisella tularensis and on the analysis of possible interaction between host and bacterial proteins. Further important collaborations concern U.S. Army Medical Research Institute of Infectious Disease (Fort Detrick, USA) – preparation and testing of bacterial proteins with immunostimulatory potential, Department of Microbiology and Parasitology, University of Rijeka – microscopical analysis of microbial intracellular trafficking, proteome analysis of phgosomes isolated from infected host cells, and, finally, Aquila Bioscience Ltd, National University of Ireland in Galway – identification of glycan or lectin structures recognizing bacterial carbohydrate structures with the aim of new decontamination tools development.

Within the frame of the Czech Republic, the Institute has useful contacts with the Institute of Microbiology and Institute of Molecular Genetics, Czech Academy of Science, Prague, the Faculty of Science, Charles University, Prague, the Faculty of Medicine and Faculty of Pharmacy Charles University, Hradec Králové, the University Hospital in Hradec Králové, Department of Pharmacology of Medical Faculty in Hradec Králové, Department of Oncological and Experimental Pathology Masaryk Memorial Cancer Institute, Brno and Veterinary Research Institute in Brno.

The financial support for research activities performed in the collaboration with above-mentioned Institutes comes from the programmes and projects of Czech Grant Agencies, Ministry of Education and Youth and Sports and Ministry of the Interior. Currently, the Department for Molecular Pathology and Biology has 16 full-time permanent employees, 14 scientists, 2 technicians and 1 administrative worker. The Department has currently 10 PhD students and, furthermore, several undergraduates have been working on their diploma thesis in the Institute.

# **RESEARCH PROJECTS**

# Database of typing of biological agens - EBLN (European biodefence laboratory network)

Dresler, J., Kročová, Z., Dřevínek, M.

Supported by the Czech Republic Ministry of Internal Affairs, 2015–2016 (Project No.: VF20142015039)

The aim of this public contact is development and application of the modern bioanalytical techniques leading to the detailed characterization of

the biological agents and toxins as well. The outcomes will be implemented into the database and will lead to the formation of the certified procedures for the precise typing of the biological agents in the case of need: a) precise identification of the biological agents or toxins b) differentiation between environmental occurrence and deliberate misuse c) help in the process of the revelation of the criminals of biological attacks

## Decontamination by carbohydrate lectin affinity wipes

Stulík, J.

Supported by the European Defence Agency, 2015–2017 (Project No.: A-1152-RT-GP)

The DCLAW strategy will fill the need for a highly man-portable, broadlyspecific and high throughput decontamination method that is safe, and presents minimal risk to military and defence equipment and personnel. We will deliver a novel, environmentally-friendly system based on known sugarbased capture mechanisms used by many types of biotoxins and microbes. The DCLAW system will utilize this innovative strategy to decontaminate physical and biological surfaces and capture the pathogens and toxins using sugar-protein coated self-contained applicator cloth or wipes.

# Characterization of the diagnostic potential of native polypeptides in amniotic fluid

Lenčo, J., Kacerovský, J., Tambor, V., Žďárová Karasová, J.

Supported by the Internal Grant Agency of the Czech Republic Health Service, 2012–2015 (Project No.: NT13599)

Preterm premature rupture of membranes (PPROM) is a principal cause of preterm births and considerably increases perinatal morbidity and mortality. The main reason is the causal link with intraamniotic infection (IAI), which occurs in 40-60% of PPROM patients. The most serious cases of IAI may result in fetal inflammatory response (FIRS) and cause permanent health consequences for the newborn or end up by the death of the fetus. FIRS is very often subclinical and thus frequently remains undetected. Currently, there is no tool for its precise prenatal diagnostics available. The project is focused on characterization of the diagnostic potential of native amniotic fluid polypeptides with regard to detection of IAI and FIRS.

# New technologies for identification and typing of biological agents

Kročová, Z., Boštík, P., Hanovcová, I., Jun, D., Macela, A.

Supported by the Czech Republic Ministry of Internal Affairs, 2012–2015 (Project No.: VF20122015024)

The aim of the project is to develop the methodological procedures for the isolation of bacterial and viral nucleic acids and protein and no-protein toxins from natural matrices, and the procedures for their identification and typing.

24th Annual Report, 2015 - 65

# DEPARTMENT OF MOLECULAR PATHOLOGY AND BIOLOGY K-308

In the case of bacteria and viruses are designed following the methodological procedures and specific technological and laboratory units: the acquisition and cultivation of biological agents, isolation of genome and plasmid DNA, or RNA in the case of a virus, the methodology and procedures for the preparation of samples of bacterial and viral nucleic acids from complex matrices, design of qPCR primers, probes and the reaction conditions and testing and validation of the proposed methods and procedures for the identification of biological agents. For the detection of low molecular weight toxins will be used high performance liquid chromatography coupled with tandem mass spectrometry and for detection and identification of protein toxins will be used mass spectrometric method SRM (Selected reaction monitoring).

#### Targeted proteomic analysis in hypertrophic cardiomyopathy

Stulík, J., Fučíková, A.

Supported by the Internal Grant Agency of the Czech Republic Health Service, 2012–2015 (Project No.: NT13721)

The basic objective of the proposed project is to verify the analytical potential of selected biomarkers of peripheral blood for diagnostics of hypertrophic cardiomyopathy. In our previous study, we used quantitative proteomics to identify 40 proteins in plasma. The plasma concentrations of these proteins were significantly different compare to control group. The scope of the proposed project is the verification and validation of the concentration of these proteins in peripheral blood of patients with hypertrophic cardiomyopathy; the comparison of the results with the healthy population and other diseases that are accompanied by structural changes in the myocardium (dilated cardiomyopathy, ischemic heart disease, arterial hypertension and aortic stenosis). The project will use commercially available kits based on the detection and quantification using antibodies and antibody-independent method for proteomic SRM (Selected Reaction Monitoring).

# The study of interaction of dendritic cells with intracellular pathogen Francisella tularensis

Fabrik, I., Řehulka, P., Stulík, J., Pávková, I., Sheshko, V., Kročová, Z.

Supported by the Czech Republic Grant Agency, 2015–2017 (Project No.: GA15-02584S)

Tularemia represents renewed health problem due to its re-emergence in geographic areas with no previous tularemia experience and because of its bioterrorism threat. Disease is caused by a facultative intracellular pathogen Francisella tularensis that enters phagocytic cells or nonphagocytic cells in which successfully survive and multiply. However, the molecular mechanisms important for F. tularensis virulence are mostly unknown. Our goal is to employ the high-throughput "omics" techniques to identify host factors whose expression and posttranslational modification reflect re-

programming process of dendritic cells by tularemic infection. The biological importance of identified components in host cell defense response will be verified using RNAi gene silencing. The acquired results should contribute to development of new strategies for diagnostics and therapeutics of tularemia.

# VIVARIUM

#### **Educational and Research Staff**

PAVLÍK Michal (Head of the Department) (till 31 March 2015)

RADOCHOVÁ Věra (Head of the Department) (since 01 April 2015)

#### Technicians

BOCKOVÁ Irena (Head of the Group) (till 31 August 2015)

ETFLAIŠOVÁ Petra

JOZÍFOVÁ HOLUBOVÁ Lenka (Head of the Group) (since 01 July 2015)

JUNKOVÁ Irena (till 31 August 2015)

PUDÍKOVÁ Margita

SLAVÍK Jaroslav

The Vivarium at the Faculty of Military Health Sciences of the University of Defence fulfils science, research and teaching tasks of the departments and specialized workplaces of the Faculty of Military Health Sciences. The vivarium is subordinated to the Vice-Dean for Research.

The separate vivarium for mice and sewer-rats is a part of the Department of Toxicology and Military Pharmacy.

From the point of view of the capacity the Faculty of Military Health Sciences is able to carry out experiments, place and take care of laboratory mice, sewer-rats, guinea-pigs, rabbits, pigs or mini pigs. In the area of the vivarium there are also laboratory workplaces and operating theatres, which are equipped for experiments on laboratory animals. All studies have to be allowed by the Ethical Board of the Faculty of the Military Health Sciences fully in compliance with the legal standards of the protection against cruelty to animals.

michal.pavlik@unob.cz

vera.radochova@unob.cz

irenea.bockova@unob.cz

lenka.holubova@unob.cz

The Vivarium with the operating block is intesively used above all for experiments on large experimental animals. The courses BATLS and BARTS are held there. During the courses different model situations and cases of emergency medicine are performed for military doctors and participants of foreign mission including war injuries on dead and live experimental animals.

On December 2015, the Vivarium was accredited for use again for 5 years (till January 2021) by the Central Board for Animal Protection.

The above-mentioned range of the activities shows that it is necessary to time work and also co-ordinate it personally including permanent presence of a veterinary surgeon, veterinary technicians and breeders of laboratory animals.

# COMMUNICATION AND INFORMATION SYSTEMS OFFICE

### **Educational and Research Staff**

KRUPÁR Jan

VOPLATKOVÁ Zdeňka

ZEDNÍČEK Jiří (Head of the Department) jan.krupar@unob.cz zdenka.voplatkova@unob.cz jiri.zednicek@unob.cz

## Technicians

KOMÁREK Vladimír

RYDRYCH Jiří

vladimir.komarek@unob.cz

jiri.rydrych@unob.cz

#### Administrative, Secretarial and Other Staff

VÍCHOVÁ Eva ZETOCHOVÁ Dita

ZIKOVÁ Jitka

eva.vichova@unob.cz dita.zetochova@unob.cz

jitka.zikova@unob.cz

The Communication and Information Systems Office provides the top quality information service to ensure efficient scientific, research and teaching activities for teaching and research staff as well as under- and postgraduate students of our faculty.

The Communication and Information Systems Office provides the operation of the faculty network, enables access to army, specialized and public information systems and supplies the needs of the Faculty with modern information technologies. Main activity is ensuring the access to INTERNET and to specialized information systems. Management of data network, central management of software, servicing as well as specialized support of users is also provided.

Part of the Communication and Information Systems Office are also graphic services that create graphic documents and posters for presentations, make arrangements and changes of drafts for printing, make digital pictures and do other associated work. It also provides the operating and updating of the web site of the Faculty (http://fvz.unob.cz).

The printing-office of the Communication and Information Systems Office is able to cover reprographic and printing needs of the Faculty by its own sources in limited extent.

The library provides students, research and teaching staff of the Faculty of Military Health Sciences and members of the Czech Army Medical Service with scientific and information services. The main information services are provided by the library with 80 000 library units concerning medicine as well as associated branches.

Information sources in the field of military medicine, emergency medicine and disaster medicine are specificity of this library. The library enables access to various information databases (WoK, ScienceDirect, SCOPUS, SpringerLink, BiblioMedica, etc.) and provides systematic help when being used.

The library participates in teaching activities in the doctoral study programmes and scientific education (PhD.) by giving lectures in Basics of Informatics focused on retrievals, processing and publication of scientific information.

# VISITORS TO THE FACULTY OF MILITARY HEALTH SCIENCES

#### Jordan

 GEN Ahmad Falah Ahmad ABU ZEID, COL Mohamed Ali Mahmoud AL KHAWALDE, COL Nasser Awwad Moh'd KHREISAT, MAJ Mohammad Subhi Mahmoud Al JAZZAZI (Amman) - Talks on possible cooperation in the area of military healthcare particularly in healthcare personnel training, 25 November 2015

# VISITS ABROAD

### Austria

- Horáček, J. (20th Congress of the European Hematology Association (EHA), Vienna, 10 June 2015–14 June 2015)
- Chlíbek, R. (22nd Central European vaccination Awareness Group Meeting, Vienna, 16 April 2015–17 April 2015)
- Jakl, M. (Cardiac CT Hands on Workshop, Vienna, 13 September 2015–15 September 2015)
- Jebavý, L. (20th Congress of the European Hematology Association (EHA), Vienna, 10 June 2015–14 June 2015)

# Belgium

- Kassa, J. (36th NATO CBRN Medical Working Group Meeting, Brussels, 22 March 2015–27 March 2015)
- Kassa, J. (37th NATO CBRN Medical Working Group Meeting, Brussels, 26 October 2015–30 October 2015)
- Pejchal, J. (36th NATO CBRN Medical Working Group Meeting, Brussels, 24 March 2015–27 March 2015)
- Pejchal, J. (37th NATO CBRN Medical Working Group Meeting, Brussels, 26 October 2015–30 October 2015)

# Croatia

- Klimentová, J. (8th International Conference on Tularemia, Opatija, 28 September 2015–01 October 2015)
- Kubelková, K. (8th International Conference on Tularemia, Opatija, 28 September 2015–01 October 2015)
- Pávková, I. (8th International Conference on Tularemia, Opatija, 28 September 2015–01 October 2015)
- Stulík, J. (8th International Conference on Tularemia, Opatija, 28 September 2015–01 October 2015)

### France

- Kuča, K. (AD/PD 2015, Nice, 18 March 2015–22 January 2016)
- Kuča, K. (CBRN Research and Innovation 2015, Antibes, 15 March 2015–18 March 2015)

### Germany

- Kassa, J. (15th International Medical Chemical Defence Conference, Munich, 22 April 2015–23 April 2015)
- Klein, L. (16th European Burns Association Congress, Hannover, 15 September 2015–19 September 2015)
- Pejchal, J. (NATO HFM-222, Munich, 07 March 2015–07 March 2015)

### Hungary

• Klein, L. (Task Force on Quality Control of Disaster Management Meeting, Budapest, 14 June 2015–19 June 2015)

### China

- Boštík, P. (BIT WCVI 2015 Congress, Shanghai, 29 July 2015–04 August 2015)
- Boštíková, V. (BIT WCVI 2015 Congress, Shanghai, 29 July 2015– 04 August 2015)

### Ireland

- Dušek, T. (ESCP Dublin 2015 European Society of Coloproctology, Dublin, 22 September 2015–26 September 2015)
- Kubelková, K. (Presentation of the Department of Molecular Pathology and Biology, Galway, 15 October 2015–17 October 2015)
- Šepsová, V. (English language course, Cork, 30 August 2015–25 September 2015)

### Israel

 Klein, L. (11th Mission of the Czech Healthcare Specialists to Israel, Tel Aviv, 10 May 2015–14 May 2015)

### Italy

- Páral, J. (1st World Conference on Abdominal Wall Hernia Surgery, Milan, 24 April 2015–28 April 2015)
- Plodr, M. (1st World Conference on Abdominal Wall Hernia Surgery, Milan, 24 April 2015–28 April 2015)

### Japan

• Pejchal, J. (15th International Congress of Radiation Research, Tokyo, 25 May 2015–29 May 2015)

# Poland

• Boštík, P. (Bridges in Life Sciences 10th Annual Scientific Conference, Wroclaw, 16 April 2015–19 April 2015)

# **Republic of Korea**

 Lochman, P. (Study Intership, Soul, 28 November 2015–14 December 2015)

# Slovakia

- Horáček, J. (17th Congress of Slovak-Czech Society of Hematology and Transfusion Medicine, Bratislava, 23 September 2015–27 September 2015)
- Chlíbek, R. (6th Slovak Immunisation Congress, Strbske Pleso, 15 January 2015–17 January 2015)

- Kubelková, K. (Research internship Institute of Virology, SAV, Bratislava, 24 August 2015–26 August 2015)
- Pavlík, V. (Erasmus programme, Faculty of Agrobiology, Nitra, 12 October 2015–16 October 2015)
- Pavlík, V. (Study stay, Medical Faculty, Bratislava, 07 December 2015–09 December 2015)
- Pavlík, V. (Interantional Conference of Medical Students, Košice, 26 November 2015–29 November 2015)
- Střítecká, H. (Laboratory Medicine 2015, Martin, 27 November 2015–28 November 2015)

# Spain

- Blažek, P. (7th International Conference on Computational Collective Intelligence Technologies and Applications, Madrid, 21 September 2015–23 September 2015)
- Kassa, J. (12th International Meeting on Cholinesterases, Alicante, 27 September 2015–02 October 2015)
- Klimentová, J. (BSL3/BSL4 Training School, Barcelona, 24 March 2015–27 March 2015)
- Kuča, K. (12th International Meeting on Cholinesterases, Alicante, 27 September 2015–02 October 2015)
- Soukup, O. (12th International Meeting on Cholinesterases, Alicante, 27 September 2015–02 October 2015)
- Šepsová, V. (12th International Meeting on Cholinesterases, Alicante, 27 September 2015–02 October 2015)
- Tichý, A. (CREAL Final meeting of NIH project BioMIT, Barcelona, 24 June 2015–27 June 2015)

# Sweden

- Chlíbek, R. (Second Expert Panel Meeting ECDC, Stockholm, 05 May 2015–06 May 2015)
- Soukup, O. (Postdoc stay, Gtenburgh, 01 March 2015–30 April 2015)

# Switzerland

 Tichý, A. (ETH – SCIEX project Home Mentor Visit, Zurych, 22 September 2015–24 September 2015)

# Thailand

- Dušek, T. (The Second Colorectal Disease Symposium, Phuket, 04 December 2015–08 December 2015)
- Páral, J. (The Second Colorectal Disease Symposium, Phuket, 04 December 2015–08 December 2015)
- Plodr, M. (The Second Colorectal Disease Symposium, Phuket, 04 December 2015–08 December 2015)

### The Netherlands

 Kassa, J. (28th ECNP Congress, Amsterdam, 30 August 2015–01 September 2015)

### Turkey

- Fajfrová, J. (Erasmus+ teaching staff mobility Nuh Naci Yazgan University, Kayser, 09 November 2015–13 November 2015)
- Jebavý, L. (41st Annual Meeting of the European Group for Blood and Marrow Transplantation (EBMT), Istanbul, 21 March 2015–25 March 2015)
- Kupsa, T. (5th International Congress on Leukemia Lymphoma and Myeloma (ICLLM), Istanbul, 19 May 2015–24 May 2015)

# United Kingdom

- Ďurišová, K. (The practical use of qRT-PCR in Biodosimetry, Public Health of England, Chilton, 01 May 2015–30 September 2015)
- Jakl, M. (Congress ESC 2015, London, 28 August 2015–02 September 2015)
- Kubelková, K. (2015 Innate Immunity Summit, London, 17 November 2015–19 November 2015)
- Páral, J. (Study Visit, Margate, 10 May 2015–06 June 2015)

# **United States**

- Boštík, P. (5th OMNIC World Virology Congress, Atlanta, Georgia, USA, 05 December 2015–10 December 2015)
- Horáček, J. (57th Annual Meeting of American Society of Hematology (ASH), Orlando, FL, 03 December 2015–09 December 2015)
- Kassa, J. (2015 Chemical and Biological Defense Science and Technology (CBD S&T) Conference, St.Louis, MO, 12 May 2015– 14 May 2015)
- Misík, J. (Society for Neuroscience meeting 2015, Chicago, Illinois, 16 October 2015–21 December 2015)
- Šepsová, V. (2015 Chemical and Biological Defense Science and Technology (CBD S&T) Conference, St. Louis, MO, 12 May 2015– 14 May 2015)
- Zárybnická, L. (Radiation Epidemiology and Dosimetry Course, Rockville, MD, 18 May 2015–22 May 2015)

# WORKSHOPS, COURSES, RESIDENCIES AT THE FACULTY IN 2015

# Military Hygiene

- Specialized basic course Teaching on foodstuff I, 07 April 2015– 08 April 2015
- Specialised course in nutrition state assessment, 12 January 2015– 13 January 2015
- Specialised course in overweight and obesity, diagnosis, prevention and therapy, 02 April 2015–03 April 2015, 19 November 2015–20 November 2015
- Seminar Health protection at work with risk factors of microclimatic conditions, 05 March 2015–05 March 2015
- Specialized follow-up course Teaching on foodstuff II, 29 September 2015–30 September 2015
- Specialized course Evaluation of workload and health protection at work, 02 November 2015–03 November 2015
- Specialised course in health support programme possibilities, prevention, 02 February 2015–03 February 2015

# Radiobiology

• Specialized course – Radiation accident – protection and measures, 18 May 2015–19 May 2015

# Language Courses

- Combined language courses English (STANAG 3), 07 September 2015–27 May 2016, 08 September 2014–22 May 2015
- Medical English conversation course, 09 February 2015–20 March 2015, 05 October 2015–16 October 2015
- Combined language courses English (STANAG 2), 07 September 2015–27 May 2016, 08 September 2014–22 May 2015

# Military Medical Service Organization

- Specialized warrent officer's course for non-medical personnel, 13 April 2015–19 June 2015
- Specialized course psychology and crisis psychological interventions, management of patients with behavioral difficulties, 09 March 2015–11 March 2015, 12 October 2015–14 October 2015
- Specialized course MS Excel, 16 March 2015–18 March 2015
- MEDEVAC specialized course use of helicopter, 05 October 2015–09 October 2015

24th Annual Report, 2015 - 77

- Refresher course of aeromedical evacuation, 13 April 2015–15 April 2015
- Senior staff officer course military health service organization and management, 01 September 2014–13 June 2015
- Specialised course in casualty evacuation technique in rocky terrain, 22 June 2015–26 June 2015

# Military Epidemiology

- Specialized course Vaccination in adulthood, 23 March 2015–24 March 2015
- Specialized course Infectious diseases prevention, 09 November 2015–11 November 2015
- Specialised course in highly dangerous infections, new infectious diseases, 19 January 2015–21 January 2015
- Specialised course in health risks while staying abroad, 02 November 2015–04 November 2015

# General Medicine

- Specialized course Battlefield Advanced Trauma Life Support (BATLS), 25 May 2015–27 May 2015, 07 December 2015–09 December 2015
- Specialized course Teaching methodology of health training, 18 May 2015–22 May 2015
- Special course Repetitory of extended first aid in field conditions (R-CLS Course) for Police of the Czech Republic, 19 October 2015–23 October 2015
- Specialized course Battlefield Advanced Resuscitation Techniques and Skills (R-BARTS), 29 September 2015–01 October 2015
- Specialized course of first aid in field conditions for military paramedics, 08 June 2015–10 June 2015, 29 June 2015–01 July 2015
- Specialized course Battlefield Advanced Resuscitation Techniques and Skills (BARTS), 25 May 2015–27 May 2015, 07 December 2015–09 December 2015
- Specialized course of first aid in field conditions, 05 January 2015– 09 January 2015, 16 March 2015–20 March 2015, 23 March 2015– 27 March 2015, 31 August 2015–04 September 2015, 05 October 2015–09 October 2015, 02 November 2015–06 November 2015
- Special course of health training for Military High School Moravska Trebova, 11 May 2015–14 May 2015, 01 June 2015–04 June 2015, 15 June 2015–18 June 2015, 22 June 2015–25 June 2015

- Specialized course Defibrilators and their operation, 18 February 2015–18 February 2015, 04 March 2015–04 March 2015, 28 May 2015–28 May 2015, 02 October 2015–02 October 2015
- Specialized course in first aid in the field for Police of the Czech Republic, 07 September 2015–11 September 2015
- Special course in extended first aid in the field (CLS Course), 02 February 2015–13 February 2015, 13 April 2015–24 April 2015, 23 November 2015–04 December 2015
- Refresher course in extended first aid in the field for Military Police of the Czech Republic (CLS Course), 10 August 2015–10 August 2015
- Special course in extended first aid in the field for the Police of the Czech Republic (CLS Course), 14 September 2015–25 September 2015

# Military Toxicology

 Specialized course – Dealing with extremely dangerous poisons, drugs and psychotropic substances, 02 March 2015–05 March 2015, 05 October 2015–08 October 2015, 19 October 2015–22 October 2015

# **Multidisciplinary Studies**

- Preparatory course for entrance examination, 15 June 2015–20 June 2015
- Specialized course Prevention of burn-out syndrom, 09 February 2015–11 February 2015

# **Military Pharmacy**

• Special course – Basis of pharmacology and self-treatment, 16 February 2015–19 February 2015

# INTERNATIONAL COOPERATION

# Cooperation at the military medical facility level

Brazil

- Faculdade de Farmácia, Salvador
- Universidade Federal de Santa Catarina, Florianopolis

# France

• Armed Forces Biomedical Research Institute, Brétigny-sur-Orge

# Germany

- Institute of Microbiology of Federal Armed Forces Medical Academy, Munich
- Institute of Pharmacology and Toxicology of Federal Armed Forces Medical Academy, Munich

# India

• Pandit Ravishankar Shukla University, Raipur

### Italy

• University of Bologna, Bologna

### Norway

FFI, Kjeller

### Serbia

 National Poison Control Centre of Military Medical Academy, Belgrade

# Slovakia

- Air Forces Hospital, Košice
- Central Military Hospital, Ružomberok
- Military Institute of Hygiene and Epidemiology, Bratislava

# Sweden

• Swedish Defence Research Agency, Dr. Artursson - Department of Threat Assessment, Division of NBC Defence, Umea

# The Netherlands

• Division of Toxicology, TNO Prins Maurits Laboratory, Rijswijk

# Turkey

• Gulhane Military Medical Academy, Ankara

# **United Kingdom**

- Defence Medical Services Training Centre Keogh Barracks in Aldershot, Ash Vale
- DRDC, Suffield

# Scientific cooperation with civilian institutions abroad (on the basis of individual agreements and joint projects)

# Austria

- Baxter, Vienna
- Institute of Chemical Technologies and Analytics, Vienna University of Technology, Vienna

# Belgium

• GlaxoSmithKline Biologicals, Rixensart

# Croatia

- Department of Microbiology and Parasitology, University of Rijeka, Rijeka
- Institute for Medical Research and Occupational Health, Zagreb

# France

- Aventis Pasteur MSD, Lyon
- Saint Louis Hospital, Paris

# Germany

- Department of Solid States Nuclear Physics, University of Leipzig, Leipzig
- German Cancer Research Center, Heidelberg

# Hungary

• Semmelweis University, Budapest

# Mongolia

• National Research Center for Infectious Diseases, Ministry of Health, Ulaanbaatar

# Norway

Department of Nutrition, Medical Faculty, University of Oslo, Oslo

# Poland

• WIHE, Dr Zdanowski - Zakład Farmakologii i Toksykologii, Warsaw

# Republic of Korea

• Korea Research Institute of Chemical Technology, Daejeon

# **Russian Federation**

M. V. Lomonosov Moscow State University, Moskva

24th Annual Report, 2015 - 81

### Slovakia

- Chemical Institute, Slovak Academy of Sciences, Bratislava
- Institute of Experimental Oncology, Bratislava
- P. J. Šafárik University, Košice
- Slovak Medical University, Bratislava

### Sweden

- Sahlgrenska Academy, University of Goteborg, Goteborg
- University of Umea, Umea

### Switzerland

• Institute of Molecular Systems Biology, Zurich

### **United Arab Emirates**

• United Arab Emirates University, Prof. Lorke - Faculty of Medicine and Health Sciences - Department of Anatomy, Al-Ain

# United Kingdom

- Health Protection Agency, Porton Down
- University of St. Andrews, St. Andrews, Scotland

# **United States**

- Emory University, Atlanta
- Gilead, Foster City
- Merck & Co., Inc, Whitehouse Station
- MMRHVLB/CCID/CDC, Atlanta
- Walter Reed Army Institute of Research, Silver Spring

# Participation in international projects and networks

Ireland	European Defence Agency, Galway		
Sweden	European Programme for Intervention Epidemiology Training, European Centre for Disease Prevention and Control, Stockholm		
Switzerland	European Study Group on Nosocomial Infection		
United States	U.S. Army Medical Research Institute of Infectious Disease, Fort Detrick		

# Other expert commissions

- P. Boštík national coordinator for CBRN in Cap Tech ESM04 EDA
- P. Boštík member of Regional Cooperation for Health Science and Technology
- P. Boštík member of Editorial board of *"the Open Infectious Diseases Journal"*
- P. Boštík member of the Association of UICC Fellows
- P. Boštík member of the American Association of Immunologists (AAI)
- P. Boštík member of the Federation of American Societies for Experimental Biology
- P. Boštík member of the American Society of Microbiology
- V. Boštíková International Board for the Investigation and Control of Influenza and Other Epidemic Diseases
- V. Boštíková member of Editorial board of *"Journal of Clinical Virology"*
- R. Chlíbek European Centre for Disease Control (ECDC) member of Potential shortages of Vaccines and treatment for rare communicable diseases in Europe Group
- R. Chlíbek European Centre for Disease Control (ECDC) member of Expert Panel Hepatitis A
- R. Chlíbek member of GPI Global Pertussis Initiative
- R. Chlíbek. member of NATO Biological Medical Advisory Committee
- R. Chlíbek member of NATO HFMP (Human Factor Medicine Panel)
- R. Chlíbek supervisor of CEVAG (Central European Vaccination Awareness Group)
- R. Chlíbek member of Central and Eastern Europe Pertussis Awareness Group
- R. Chlíbek. member of C.O.P.E. Consensus on Pertussis Booster Vaccination in Europe
- L. Jebavý member of European Group for Blood and Marrow Transplantation
- L. Jebavý member of Multinational Association of Supportive Care in Cancer
- L. Jebavý member of European Study Group on Nosocomial Infections
- J. Kassa member of NATO CBRN Medical Working Group
- J. Kassa member of Editorial board of *"Journal of Medical Chemical, Biological and Radiological Defence"*

- J. Kassa member of Editorial board of *"Challenge Medical CBRN Defense International"*
- L. Klein member of Editorial board of "Annals of Burns and Fire Disasters"
- L. Klein member of NATO HFMP
- K. Kuča member of Editorial board of *"Jacobs Journal of Medicine Chemistry"*
- K. Kuča member of Editorial board of *"Jacobs Journal of Drug Metabolism and Toxicology"*
- K. Kuča member of Editorial board of *"Proteomics & Bioinformatics"*
- K. Kuča member of Editorial board of "Surgical Sciences"
- K. Kuča member of Editorial board of "Research in Pharmaceutical Biotechnology"
- K. Kuča member of Editorial board of "ISRN Pharmaceutics"
- K. Kuča member of Editorial board of *"World Journal of Methodology"*
- K. Kuča member of Editorial board of "World Journal of Translational Medicine"
- K. Kuča member of Editorial board of *"the Open Enzyme Inhibition Journal"*
- K. Kuča consultant of Research Network Management Working Group; Cedar-Sinai RECOOP HST Consorcium
- K. Kuča consultant of Guidepoint Global Advisors
- K. Kuča member of Editorial board of "Advances in Economics"
- K. Kuča member of Editorial board of "Advances in Materials Science and Applications"
- K. Kuča member of Editorial board of "Biochemistry & Physiology"
- K. Kuča member of Editorial board of "Journal of Biosafety"
- K. Kuča member of Editorial board of *"Journal of Biowar & Defence"*
- K. Kuča member of Editorial board of *"Journal of Business Administration and Education"*
- K. Kuča member of Editorial board of *"Journal of Environment and Human"*
- K. Kuča member of Editorial board of *"Journal of Molecular Biomarkers & Diagnosis"*
- K. Kuča member of Editorial board of *"Gavin Journal of Addiction* Research and Therapy"
- K. Kuča member of Editorial board of *"Journal of Biomedical Engineering"*
- K. Kuča member of Editorial board of "Journals of Toxins"
- K. Kuča member of Editorial board of *"Letters in Organic Chemistry"*

- K. Kuča member of Editorial board of "Medicinal Chemistry"
- K. Kuča member of Editorial board of "Open Journal of Environmental Biology"
- J. Pejchal member of NATO CBRN Medical Working Group
- J. Pejchal member of NATO RTO HFM 222
- M. Pohanka member of Editorial board of "Journal of Biosafety"
- M. Pohanka member of Editorial board of *"Journal of Biosensors* and Bioelectronics"
- M. Pohanka member of Editorial board of *"Journal of Bioterrorism and Biodefense"*
- M. Pohanka member of Editorial board of *"Journal of Obesity & Weight loss Therapy"*
- M. Pohanka member of Editorial board of *"BioMed Research International"*
- M. Pohanka member of Editorial board of *"International Journal of Drug Discovery"*
- M. Pohanka member of Editorial board of International "Journal of Health, Safety and Environments"
- M. Pohanka member of Editorial board of *"Journal of Clinical Trials"*
- M. Pohanka member of Editorial board of *"Microbial and Biochemical Technology"*
- M. Pohanka member of Editorial board of *"Journal of Pharmaceutics and Drug Development"*
- M. Pohanka member of Editorial board of "MOJ Proteomics and Bioinformatics"
- M. Pohanka member of Editorial board of *"Journal of Mellomics and Nanotechnologies"*
- M. Pohanka member of Editorial board of "American Journal of Bioterrorism, Biosecurity and Biodefense"
- M. Pohanka member of Editorial board of "International Journal of Bioweapons, Biocrimes and Bioterrorism"
- M. Pohanka member of Editorial board of "Machines Review"
- M. Pohanka member of Editorial board of *"JSM Enzymology and Protein Science"*
- M. Pohanka member of Editorial board of *"Austin Journal of Bioorganic and Organic Chemistry"*
- M. Pohanka member of Editorial board of *"Journal of Immune Research"*
- M. Pohanka member of Editorial board of "Symbiosis Journal of Veterinary Sciences"
- M. Pohanka member of Editorial board of "Austin Biomarkers and Diagnosis"
- M. Pohanka member of Editorial board of "Global Journal of Allergy"

- M. Pohanka member of Editorial board of *"Austin Journal of Biosensors and Bioelectronics"*
- M. Pohanka member of Editorial board of "Jacobs Journal of Enzymology and Enzyme Engineering"
- M. Pohanka member of Editorial board of *"Journal of Clinical Microbiology and Case Reports"*
- R. Prymula member of ESWI (European Scientific Working Group on Influenza)
- R. Prymula member of Global Awarenness Board on Pneumoccocal Vaccines
- R. Prymula chairman of CEVAG (Central European Vaccine Advisory Group)
- R. Prymula member of Management Board of ECDC
- R. Prymula member of European Rotavirus Speakers' Bureau
- R. Prymula member of Steering Committee ECDC
- R. Prymula member of CEEPAG
- H. Střítecká member of Editorial board of *"Journal of Obesity & Weight loss Therapy"*
- H. Střítecká member of Editorial board "Journal of Food Security"
- J. Stulík member of Editorial board of *"Frontiers in Cellular and Infection Microbiology"*
- M. Špliňo International Board for the Investigation and Control of Influenza and Other Epidemic Diseases
- M. Špliňo European Study Group on Nosocomial Infection

# SCIENTIFIC AND RESEARCH ACTIVITIES

# Completed associate professorships

### Smetana Jan

- Department of Epidemiology, Faculty of Military Health Sciences, University of Defence, Hradec Králové
- area of specialization: Hygiene, Preventive Medicine and Epidemiology
- habilitation thesis: Current possibilities of vaccination against herpes zoster
- habilitation lecture: Highly virulent infections, risk of import causes and conditions of spread

# **Pejchal Jaroslav**

- Department of Radiobiology, Faculty of Military Health Sciences, University of Defence, Hradec Králové
- area of specialization: Military Radiobiology
- habilitation thesis: Use of epidermal growth factor in therapy of radiation disease
- habilitation lecture: Health care support and evacuation in radiation incidents

# **Dissertation defences**

### Jakl Martin

• Department of Military Internal Medicine and Military Hygiene, Faculty of Military Health Sciences, University of Defence, Hradec Králové

study programmes: Military Internal Medicine

dissertation: The impact of QRS complex morphology and response to antiplatelet treatment on prognosis of patients with acute myocardial infarction

# Šepsová Vendula

• Department of Toxicology and Military Pharmacy, Faculty of Military Health Sciences, University of Defence, Hradec Králové

study programmes: Toxicology

*dissertation:* Evaluation of acetylcholinesterase modulators effect on cholinergic receptors

### Sleha Radek

• Department of Epidemiology, Faculty of Military Health Sciences, University of Defence, Hradec Králové

study programmes: Medical Microbiology

dissertation:

The incidence of Mycoplasma hominis and Ureaplasma urealyticum in patients from the assisted reproduction

# Fibír Aleš

• Department of Surgery, University Hospital Hradec Králové

study programmes:	Military Surgery

dissertation: Preoperative and postoperative biomechanics of the median nerve in patients with carpal tunnel syndrome and their impressibility

### Voldřich Martin

• Department of Internal Medicine, Central Military Hospital – Military University Hospital, Prague

study programmes:	Preventive Medicine and Public Health
	Protection

dissertation: The importance of the input screening of MRSA in critically ill patients in the ICU, the impact of MRSA positivity input on patient morbidity, resulting influence of treatment options and prevention

### Novotný Pavel

• Department of Internal Medicine, Central Military Hospital – Military University Hospital, Prague

study programmes: Preventive Medicine and Public Health Protection

*dissertation:* Ventilator-associated pneumonia. Risk factors with special interest in proton pump inhibitors, preventive strategies

# THE REVIEW OF RESEARCH PROJECTS CARRIED OUT AT THE FACULTY OF MILITARY HEALTH SCIENCES IN 2015

# THE INTERNAL GRANT AGENCY OF THE CZECH REPUBLIC HEALTH SERVICE

# Principal investigators

# Jiří Stulík

(NT13721) Targeted proteomic analysis in hypertrophic cardiomyopathy

# Juraj Lenčo

(NT13599) Characterization of the diagnostic potential of native polypeptides in amniotic fluid

# Zdeněk Hrstka

(NT14460) Prehospital emergency care efficiency

# **Co-investigators**

# Alena Fučíková

(NT13721) Targeted proteomic analysis in hypertrophic cardiomyopathy

# Jiří Páral

(NT13726) Parametric monitoring the quality of TME as a tool to reduce local recurrences after surgery for rectal cancer

# Ladislav Jebavý

(NT11299) Quality of life measurement and its influence to overall survival in hematopoietic stem cell transplantation in CZ

# Miroslav Procházka

(NT14460) Prehospital emergency care efficiency

# Tomáš Halajčuk

(NT14460) Prehospital emergency care efficiency

# THE REVIEW OF RESEARCH PROJECTS CARRIED OUT AT THE FMHS

# Bruno Ježek

(NT14460) Prehospital emergency care efficiency

# Jan Vaněk

(NT14460) Prehospital emergency care efficiency

# Jaroslav Pejchal

 $(\mathsf{NT13413})$  Determination of apoptosis in the bioptic samples taken from the colon

# Jiří Páral

(NV15-29241A) Nanofibrous biodegradable small-diameter vascular bypass graft

# Jiří Páral

(NT14460) Prehospital emergency care efficiency

# **Michal Plodr**

(NT14460) Prehospital emergency care efficiency

# Zdeněk Šubrt

(NT13660) Quality evaluation of multimodal treatment in patients with colorectal liver metastatic disease: Multicentric study within Czech complex oncology centres

# THE GLAXOSMITHKLINE BIOLOGICALS CO.

# Principal investigators

# Roman Chlíbek

(110390 (ZOSTER-006)) A phase III, randomized, observer-blind, placebocontrolled, multicentre, clinical vaccination trial to assess the prophylactic efficacy, safety, and immunogenicity of GSK Biologicals' herpes zoster gE/AS01B vaccine when administered intramuscularly on a 0, 2-month schedule in adults aged 50 years and older

# Roman Chlíbek

(113077 (ZOSTER-022)) A phase III, randomized, observer-blind, placebo controlled, multicentre, clinical vaccination trial to assess the prophylactic efficacy, safety and immunogenicity of GSK Biologicals' herpes zoster gE/AS01B vaccine when administered intramuscularly on a 0, 2- month schedule in adults aged 70 years and older

# **Co-investigators**

### Jan Smetana

(110390 (ZOSTER-006)) A phase III, randomized, observer-blind, placebocontrolled, multicentre, clinical vaccination trial to assess the prophylactic efficacy, safety, and immunogenicity of GSK Biologicals' herpes zoster gE/AS01B vaccine when administered intramuscularly on a 0, 2-month schedule in adults aged 50 years and older

### Jan Smetana

(113077 (ZOSTER-022)) A phase III, randomized, observer-blind, placebo controlled, multicentre, clinical vaccination trial to assess the prophylactic efficacy, safety and immunogenicity of GSK Biologicals' herpes zoster gE/AS01B vaccine when administered intramuscularly on a 0, 2- month schedule in adults aged 70 years and older

# THE CZECH REPUBLIC MINISTRY OF INTERNAL AFFAIRS

# Principal investigators

# Zuzana Kročová

(VF20122015024) New technologies for identification and typing of biological agents

# Zuzana Kročová

(VF20142015039) Database of typing of biological agens - EBLN (European biodefence laboratory network)

# THE REVIEW OF RESEARCH PROJECTS CARRIED OUT AT THE FMHS

# **Co-investigators**

### Pavel Boštík

(VF20122015024) New technologies for identification and typing of biological agents

#### Irena Hanovcová

(VF20122015024) New technologies for identification and typing of biological agents

#### **Daniel Jun**

(VF20122015024) New technologies for identification and typing of biological agents

### Aleš Macela

(VF20122015024) New technologies for identification and typing of biological agents

# NATIONAL INSTITUTES OF HEALTH, USA

# Principal investigators

### Aleš Tichý

(BIOMIT) BIOMIT: Biodosimetry using human blood lymphocytes mitochondrial DNA alterations

# THE EUROPEAN DEFENCE AGENCY

# Principal investigators

### Jiří Stulík

(A-1152-RT-GP) Decontamination by carbohydrate lectin affinity wipes

# THE CZECH REPUBLIC GRANT AGENCY

# Principal investigators

# Kamil Kuča

(GAP303/11/1907) Novel inhibitors of acetylcholinesterase derived from 7-MEOTA - potential Alzheimer's disease drugs

# Jiří Kassa

(GAP303/12/0611) Neurobehavioral evaluation of potential Alzhemier's disease drugs

# Jiří Stulík

(GA15-02584S) The study of interaction of dendritic cells with intracellular pathogen Francisella tularensis

# **Co-investigators**

### Jan Misík

(GAP303/12/0611) Neurobehavioral evaluation of potential Alzhemier's disease drugs

# Kamil Kuča

(GAP303/12/0611) Neurobehavioral evaluation of potential Alzhemier's disease drugs

# Kamil Musílek

(GAP303/12/0611) Neurobehavioral evaluation of potential Alzhemier's disease drugs

# Jana Žďárová Karasová

(GAP303/12/0611) Neurobehavioral evaluation of potential Alzhemier's disease drugs

# Ivo Fabrik

(GA15-02584S) The study of interaction of dendritic cells with intracellular pathogen Francisella tularensis

# Pavel Řehulka

(GA15-02584S) The study of interaction of dendritic cells with intracellular pathogen Francisella tularensis

### Zuzana Kročová

(GA15-02584S) The study of interaction of dendritic cells with intracellular pathogen Francisella tularensis

### Ivona Pávková

(GA15-02584S) The study of interaction of dendritic cells with intracellular pathogen Francisella tularensis

### Valeria Sheshko

(GA15-02584S) The study of interaction of dendritic cells with intracellular pathogen Francisella tularensis

### Daniel Jun

(GA15-16701S) Concept of non-quaternary reactivators AChE as the antidotes of organophsophorus poisoning – a new hope or a blind way?

### Pavel Boštík

(GA14-10233S) Humulus Lupulus L. - source of substances with antimicrobial effect

# **RESEARCH AIMS**

### Jiří Kassa

A long-term organization development plan 1011 – Health problems of the weapons of mass destruction

# Jiří Páral

A long-term organization development plan 1011 – Clinical fields

# ARTICLES IN JOURNALS WITH IMPACT FACTOR

- ANDRŠ, M., KORÁBEČNÝ, J., JUN, D., HODNÝ, Z., BARTEK, J., KUČA, K. Phosphatidylinositol 3-kinase (PI3K) and phosphatidylinositol 3-kinase-related kinase (PIKK) inhibitors: importance of the morpholine ring. *Journal of Medicinal Chemistry*. 2015, **58**(1), 41–71. ISSN 0022-2623. IF **5.447**
- ANDRÝS, R., ZEMANOVÁ, L., LENČO, J., BÍLKOVÁ, Z., WSÓL, V. Carbonyl-reducing enzymes as targets of a drug-immobilised affinity carrier. *Chemico-Biological Interactions*. 2015, 234(SI), 169–177. ISSN 0009-2797. IF 2.577
- BAUSCH-FLUCK, D., HOFMANN, A., BOCK, T., FREI, AP., CERCIELLO, F., JACOBS, A., MOEST, H., OMASIT, U., GUNDRY, RL., YOON, C., SCHIESS, R., SCHMIDT, A., MIRKOWSKA, P., HÄRTLOVÁ, A., VAN EYK, J., BOURQUIN, J., AEBERSOLD, R., BOHELER, KR., ZANDSTRA, P., WOLLSCHEID, B. A mass spectrometric-derived cell surface protein atlas. *PLoS One*. 2015, **10**(4), Article Number: UNSP e0121314. ISSN 1932-6203. IF **3.234**
- BENEK, O., AITKEN, L., HROCH, L., KUČA, K., GUNN-MOORE, F., MUSÍLEK, K. A direct interaction between mitochondrial proteins and amyloid-beta peptide and its significance for the progression and treatment of Alzheimer's disease. *Current Medicinal Chemistry*. 2015, 22(9), 1056–1085. ISSN 0929-8673. IF 3.853
- BENEK, O., MUSÍLEK, K., HOROVÁ, A., DOHNAL, V., DOLEZAL, R., KUČA, K. Preparation, in vitro screening and molecular modelling of monoquaternary compounds related to the selective acetylcholinesterase inhibitor BW284c51. *Medicinal Chemistry*. 2015, 11(1), 21–29. ISSN 1573-4064. IF 1.363
- BUREŠ, J., KVĚTINA, J., TACHECÍ, I., PAVLÍK, M., KUNEŠ, M., REJCHRT, S., KUČA, K., KOPÁČOVÁ, M. The effect of different doses of atropine on gastric myoelectrical activity in fasting experimental pigs. *Journal of Applied Biomedicine*. 2015, **13**(4), 273–277. ISSN 1214-021X. IF **1.302**
- CAHLÍKOVÁ, L., HULOVÁ, L., HRABINOVÁ, M., CHLEBEK, J., HOŠŤÁLKOVÁ, A., ADAMCOVÁ, M., ŠAFRATOVÁ, M., JUN, D., OPLETAL, L., LOČÁREK, M., MACÁKOVÁ, K. Isoquinoline alkaloids as prolyl oligopeptidase inhibitors. *Fitoterapia*. 2015, **103**(June), 192–196. ISSN 0367-326X. IF **2.345**
- 8. CICCOCIOPPO, R., KRUZLIAK, P., CANGEMI, G., POHANKA, M., BETTI, E., LAURET, E., RODRIGO, L. The spectrum of differences

between childhood and adulthood celiac disease. *Nutrients.* 2015, **7**(10), 8733–8751. ISSN 2072-6643. IF **3.270** 

- CMIELOVÁ, J., HAVELEK, R., VÁVROVÁ, J., ŘEZÁČOVÁ, M. Changes in the response of MCF-7 cells to ionizing radiation after the combination of ATM and DNA-PK inhibition. *Medical Oncology*. 2015, 32(5), Article Number: 138. ISSN 1357-0560. IF 2.634
- ČEČKA, F., LOVEČEK, M., JON, B., SKALICKÝ, P., ŠUBRT, Z., FERKO, A. DRAPA trial – closed-suction drains versus closed gravity drains in pancreatic surgery: study protocol for a randomized controlled trial. *Trials.* 2015, **16**(May), Article Number: 207. ISSN 1745-6215. IF **1.731**
- ČEČKA, F., LOVEČEK, M., JON, B., SKALICKÝ, P., ŠUBRT, Z., NEORAL, Č., FERKO, A. Intra-abdominal drainage following pancreatic resection: a systematic review. *World Journal of Gastroenterology*. 2015, **21**(40), 11458–11468. ISSN 1007-9327. IF **2.369**
- 12. DOHNALOVÁ, L., DOHNAL, V. Nanoparticles and their toxicity. *Chemické listy*. 2015, **109**(6), 444–450. ISSN 0009-2770. IF **0.272**
- DOLEŽAL, R., KORÁBEČNÝ, J., MALIŇÁK, D., HONEGR, J., MUSÍLEK, K., KUČA, K. Ligand-based 3D QSAR analysis of reactivation potency of mono- and bis-pyridinium aldoximes toward VXinhibited rat acetylcholinesterase. *Journal of Molecular Graphics & Modelling*. 2015, **56**(March), 113–129. ISSN 1093-3263. IF **1.722**
- DOSTÁL, P., SCHREIBEROVÁ, J., DOSTÁLOVÁ, V., DOSTÁLOVÁ, V. Jr., TYLL, T., PÁRAL, J., ABDO, I., CIHLO, M., ASTAPENKO, D., TUREK, Z. Effects of hypertonic saline and mannitol on cortical cerebral microcirculation in a rabbit craniotomy model. *BMC Anesthesiology*. 2015, **15**(June), Article Number: 88. ISSN 1471-2253. IF **1.375**
- DYCKA, F., FRANC, V., FRYCAK, P., RAUS, M., ŘEHULKA, P., LENOBEL, R., ALLMAIER, G., MARCHETTI-DESCHMANN, M., SEBELA, M. Evaluation of pseudotrypsin cleavage specificity towards proteins by MALDI-TOF mass spectrometry. *Protein and Peptide Letters*. 2015, **22**(12), 1123–1132. ISSN 0929-8665. IF **1.068**
- EFREMOVA, Y., ŠINKOROVÁ, Z., NAVRÁTIL, L. Protective effect of 940 nm laser on gamma-irradiated mice. *Photomedicine and Laser Surgery*. 2015, **33**(2), 82–91. ISSN 1549-5418. IF **1.672**
- FERKO, A., ÖRHALMI, J., DUŠEK, T., CHOBOLA, M., HOVORKOVÁ, E., HADŽI NIKOLOV, D., DOLEJŠ, J. Small carcinomas involving less than 1/4 of the rectal circumference: local excision is still associated with a high risk of nodal positivity. *Colorectal Disease*. 2015, **17**(10), 876–881. ISSN 1462-8910. IF **2.351**
- 18. FILIPOVÁ, A., DIAZ-GARCIA, D., BEZROUK, A., ČĺŽKOVÁ, D., HAVELEK, R., VÁVROVÁ, J., DAYANITHI, G., ŘEZÁČOVÁ, M. Ionizing

24th Annual Report, 2015 - 97

radiation increases primary cilia incidence and induces multiciliation in C2C12 myoblasts. *Cell Biology International.* 2015, **39**(8), 943–953. ISSN 1065-6995. IF **1.933** 

- GROLICH, T., CRHA, M., NOVOTNÝ, L., KALA, Z., HEP, A., NEČAS, A., HLAVSA, J., MITÁŠ, L., MISÍK, J. Self-expandable biodegradable biliary stents in porcine model. *Journal of Surgical Research*. 2015, 193(2), 606–612. ISSN 0022-4804. IF 1.936
- HORÁČEK, J., KUPSA, T., VAŠATOVÁ, M., JEBAVÝ, L., ŽÁK, P. Serum cytokine and adhesion molecule profile differs in newly diagnosed acute myeloid and lymphoblastic leukemia. *Biomedical Papers*. 2015, **159**(2), 299–301. ISSN 1213-8118. IF **1.200**
- HORN, G., WILLE, T., MUSÍLEK, K., KUČA, K., THIERMANN, H., WOREK, F. Reactivation kinetics of 31 structurally different bispyridinium oximes with organophosphate-inhibited human butyrylcholinesterase. *Archives of Toxicology*. 2015, **89**(3), 405–414. ISSN 0340-5761. IF **5.980**
- HOŠŤÁLKOVÁ, A., OPLETAL, L., KUNEŠ, J., NOVÁK, Z., HRABINOVÁ, M., CHLEBEK, J., CEGAN, L., CAHLIKOVÁ, L. Alkaloids from Peumus boldus and their acetylcholinesterase, butyrylcholinesterase and prolyl oligopeptidase inhibition activity. *Natural Product Communications*. 2015, **10**(4), 577–580. ISSN 1934-578X. IF **0.906**
- HROCH, L., AITKEN, L., BENEK, O., DOLEŽAL, M., KUČA, K., GUNN-MOORE, F., MUSÍLEK, K. Benzothiazoles – scaffold of interest for CNS targeted drugs. *Current Medicinal Chemistry*. 2015, 22(6), 730–747. ISSN 0929-8673. IF 3.853
- JAKL, M., MALY, J. Prognostic value of mean platelet volume in patients after acute coronary syndrome. *Anadolu Kardiyoloji Dergisi-The Anatolian Journal of Cardiology*. 2015, **15**(1), 31–32. ISSN 1302-8723. IF **0.927**
- JOŠT, P., SVOBODOVÁ, H., ŠTĚTINA, R. Induction and repair of DNA cross-links induced by sulfur mustard in the A-549 cell line followed by a comet assay. *Chemico-Biological Interactions*. 2015, **237**(July), 31–37. ISSN 0009-2797. IF **2.577**
- KARABANOVICH, G., ROH, J., SOUKUP, O., PÁVKOVÁ, I., PASDIOROVÁ, M., TAMBOR, V., STOLAŘÍKOVÁ, J., VEJSOVÁ, M., VÁVROVÁ, K., KLIMEŠOVÁ, V., HRABÁLEK, A. Tetrazole regioisomers in the development of nitro group-containing antitubercular agents. *MedChemComm.* 2015, 6(1), 174–181. ISSN 2040-2503. IF 2.495
- 27. KASSA, J., MISÍK, J., ŽĎÁROVÁ KARASOVÁ, J. Neuroprotective efficacy of newly developed oximes in comparison with currently

available oximes in tabun-poisoned rats. *Journal of Applied Biomedicine*. 2015, **13**(1), 39–46. ISSN 1214-021X. IF **1.302** 

- KASSA, J., ŠEPSOVÁ, V., HOROVÁ, A., MUSÍLEK, K. A comparison of the reactivating and therapeutic efficacy of two novel bispyridinium oximes (K920, K923) with the oxime K203 and trimedoxime in tabunpoisoned rats and mice. *Journal of Applied Biomedicine*. 2015, **13**(4), 299–304. ISSN 1214-021X. IF **1.302**
- KASSA, J., ŠEPSOVÁ, V., MATOUŠKOVÁ, L., HOROVÁ, A., MUSÍLEK, K. A comparison of the reactivating and therapeutic efficacy of two novel bispyridinium oximes (K727, K733) with the oxime HI-6 and obidoxime in sarin-poisoned rats and mice. *Toxicology Mechanisms and Methods*. 2015, **25**(3), 229–233. ISSN 1537-6516. IF **1.517**
- KASSA, J., ŠEPSOVÁ, V., TŮMOVÁ, M., HOROVÁ, A., MUSÍLEK, K. A comparison of the reactivating and therapeutic efficacy of two newly developed oximes (K727 and K733) with oxime K203 and trimedoxime in tabun-poisoned rats and mice. *Basic & Clinical Pharmacology & Toxicology*. 2015, **116**(4), 367–371. ISSN 1742-7835. IF **2.377**
- KATALINIĆ, M., MAČEK HRVAT, N., ŽĎÁROVÁ KARASOVÁ, J., MISÍK, J., KOVARIK, Z. Translation of in vitro to in vivo pyridinium oxime potential in tabun poisoning. *Arhiv za Higijenu Rada i Toksikologiju-Archives of Industrial Hygiene and Toxicology*. 2015, 66(4), 285–292. ISSN 0004-1254. IF 0.932
- KENSOVÁ, R., BLAŽKOVÁ, I., VACULOVIČOVÁ, M., MILOSAVLJEVIC, V., BLAŽKOVÁ, L., HYNEK, D., KOPEL, P., NOVOTNÁ, M., ZEHNÁLEK, J., POHANKA, M., TRNKOVÁ, L., ADAM, V., KIZEK, R. The effect of cadmium ions and cadmium nanoparticles on chicek enbryos and evaluation of organ accumulation. *International Journal of Electrochemical Science*. 2015, **10**(4), 3623–3634. ISSN 1452-3981. IF **1.500**
- KLIMENTOVÁ, J., STULÍK, J. Methods of isolation and purification of outer membrane vesicles from gram-negative bacteria. *Microbiological Research*. 2015, **170**(January), 1–9. ISSN 0944-5013. IF **2.561**
- KOMÍNKOVÁ, M., HORKÝ, P., CERNEI, N., TMEJOVÁ, K., RUTTKAY-NEDECKY, B., GURAN, R., POHANKA, M., ZÍTKA, O., ADAM, V., KIZEK, R. Optimization of the glutathione detection by high performance liquid chromatography with electrochemical detection in the brain and liver of rats fed with taurine. *International Journal of Electrochemical Science*. 2015, **10**(December), 1716–1727. ISSN 1452-3981. IF **1.500**
- KORÁBEČNÝ, J., ANDRŠ, M., NEPOVIMOVÁ, E., DOLEŽAL, R., BABKOVÁ, K., HOROVÁ, A., MALIŇÁK, D., MEZEIOVÁ, E., GÓRECKI, L., ŠEPSOVÁ, V., HRABINOVÁ, M., SOUKUP, O., JUN, D., KUČA, K. 77-methoxytacrine-p-anisidine hybrids as novel dual binding site

acetylcholinesterase inhibitors for Alzheimer's disease treatment. *Molecules*. 2015, **20**(12), 22084–22101. ISSN 1420-3049. IF **2.416** 

- KUBELKOVÁ, K., MACELA, A. Putting the jigsaw together a brief insight into the tularemia. Open Life Sciences. 2015, 10(1), 195–216. ISSN 2391-5412. IF 0.710
- KUČA, K., HRABINOVÁ, M., JUN, D., MUSÍLEK, K., PENHAKER, M., KREJCAR, O., SOUKUP, O. Universality of oxime K203 for reactivation of nerve agent-inhibited AChE. *Medicinal Chemistry*. 2015, **11**(7), 683– 686. ISSN 1573-4064. IF **1.363**
- KUNZE, U., AHCAN, J., ANDREASSEN, A., ASPOCK, H., BERGLUND, J., CHITIMIA-DOBLER, L., CHLÍBEK, R., CHRISTIANSEN, CB., PRYMULA, R. Tick-borne encephalitis as a notifiable disease – Status quo and the way forward. Report of the 17th annual meeting of the International Scientific Working Group on Tick-Borne Encephalitis (ISW-TBE). *Ticks and Tick-Borne Diseases*. 2015, 6(5), 545–548. ISSN 1877-959X. IF 2.718
- KUPSA, T., HORÁČEK, J., JEBAVÝ, L. The role of adhesion molecules in acute myeloid leukemia and (hemato)oncology: A systematic review. *Biomedical Papers*. 2015, **159**(1), 1–11. ISSN 1213-8118. IF **1.661**
- KUPSA, T., VANEK, J., VASATOVA, M., KARESOVA, I., ZAK, P., JEBAVÝ, L., HORÁČEK, J. Evaluation of cytokines and soluble adhesion molecules in patients with newly diagnosed acute myeloid leukemia: the role of TNF-alpha and FLT3-ITD. *Biomedical Papers*. 2015, **159**(September), Article Number: 159. ISSN 1213-8118. IF **1.200**
- LAL, H., CUNNINGHAM, AL., GODEAUX, O., CHLÍBEK, R., DIEZ-DOMINGO, J., HWANG, S., LEVIN, MJ., MCELHANEY, JE., PODER, A., PUIG-BARBERA, J., VESIKARI, T., WATANABE, D., WECKX, L., ZAHAF, T., HEINEMAN, TC., SMETANA, J. Efficacy of an adjuvanted herpes zoster subunit vaccine in older adults. *New England Journal of Medicine*. 2015, **372**(22), 2087–2096. ISSN 0028-4793. IF **55.873**
- LEE, S., PARK, M., JHANG, H., YI, J., NAHM, K., CHO, D., RA, C., MUSÍLEK, K., HOROVÁ, A., KORÁBEČNÝ, J., DOLEZAL, R., JUN, D., KUČA, K. Preparation of 7-methoxy tacrine dimer analogs and their in vitro/In silico evaluation as potential cholinesterase inhibitors. *Bulletin of the Korean Chemical Society*. 2015, **36**(6), 1654–1660. ISSN 0253-2964. IF **0.797**
- LENČO, J., LENČOVÁ-POPELOVÁ, O., LINK, M., JIRKOVSKÁ, A., TAMBOR, V., POTŮČKOVÁ, E., STULÍK, J., ŠIMŮNEK, T., ŠTĚRBA, M. Proteomic investigation of embryonic rat heart-derived H9c2 cell line sheds new light on the molecular phenotype of the popular cell model. *Experimental Cell Research*. 2015, **339**(2), 174–186. ISSN 0014-4827. IF **3.246**

- LENOBEL, R., ŘEHULKOVÁ, H., ŠEBELA, M., FRANC, V., KAHLE, V., MORAVCOVÁ, D., ŘEHULKA, P. Analysis of peptide mixtures for proteomics research using LC-ESI-MS with a simple microgradient device. *LC GC North America*. 2015, **33**(6), 420-+. ISSN 1527–5949. IF **0.519**
- MAREK, J., MALIŇÁK, D., DOLEŽAL, R., SOUKUP, O., PASDIOROVÁ, M., DOLEŽAL, M., KUČA, K. Synthesis and disinfection effect of the pyridine-4-aldoxime based salts. *Molecules*. 2015, **20**(3), 3681–3696. ISSN 1420-3049. IF **2.416**
- MARTINKOVÁ, P., POHANKA, M. Determination of peroxidase-like activity of magnetic particles: basic platforms for peroxidase biosensors. *International Journal of Electrochemical Science*. 2015, **10**(July), 7033– 7048. ISSN 1452-3981. IF **1.500**
- MARTINKOVÁ, P., POHANKA, M. Biosensors for blood glucose and diabetes diagnosis: evolution, construction, and current status. *Analytical Letters*. 2015, 48(16), 2509–2532. ISSN 0003-2719. IF 1.030
- MAZUROVÁ, J., KUKLA, R., ROZKOT, M., LUSTYKOVÁ, A., SLEHOVÁ, E., SLEHA, R., LIPENSKY, J., OPLETAL, L. Use of natural substances for boar semen decontamination. *Veterinární medicína*. 2015, **60**(5), 235–247. ISSN 0375-8427. IF **0.639**
- 49. MISÍK, J., KORÁBEČNÝ, J., NEPOVIMOVÁ, E., ČÁBELOVÁ, P., KASSA, J. The effects of novel 7-MEOTA-donepezil like hybrids and Nalkylated tacrine analogues in the treatment of quinuclidinyl benzilateinduced behavioural deficits in rats performing the multiple T-maze test. *Biomedical Papers*. 2015, **159**(4), 547–553. ISSN 1213-8118. IF **1.200**
- MISÍK, J., PAVLÍKOVÁ, R., CABAL, J., KUČA, K. Acute toxicity of some nerve agents and pesticides in rats. *Drug and Chemical Toxicology*. 2015, 38(1), 32–36. ISSN 0148-0545. IF 1.233
- NEPOVIMOVÁ, E., KORÁBEČNÝ, J., DOLEŽAL, R., BABKOVÁ, K., ONDREJÍČEK, A., JUN, D., ŠEPSOVÁ, V., HOROVA, A., HRABINOVÁ, M., SOUKUP, O., BUKUM, N., JOŠT, P., MÚČKOVÁ, L., KASSA, J., MALIŇÁK, D., ANDRŠ, M., KUČA, K. Tacrine-trolox hybrids: a novel class of centrally active, nonhepatotoxic multi-target-directed ligands exerting anticholinesterase and antioxidant activities with low in vivo toxicity. *Journal of Medicinal Chemistry*. 2015, **58**(22), 8985–9003. ISSN 0022-2623. IF **5.447**
- NOVÁK, Z., HOŠŤÁLKOVÁ, A., OPLETAL, L., NOVÁKOVÁ, L., HRABINOVÁ, M., KUNEŠ, J., CAHLÍKOVÁ, L. (+)-Chenabinol (revised NMR data) and two new alkaloids from Berberis vulgaris and their biological activity. *Natural Product Communications*. 2015, **10**(10), 1695–1697. ISSN 1934-578X. IF **0.906**
- 53. ONDRÁČEK, K., BANĎOUCHOVÁ, H., HILSCHEROVÁ, K., KOVÁČOVÁ, V., LINHART, P., MIROSLAVA, M., MLČÁKOVÁ, V.,

OSIČKOVÁ, J., POHANKA, M., SKOCHOVÁ, H., PIKULA, J. Mixture toxicity of microcystin-LR, paraoxon and bromadiolone in Xenopus laevis embryos. *Neuroendocrinology Letters*. 2015, **36**(S1), 101–106. ISSN 0172-780X. IF **0.799** 

- OPÁLKA, L., KOVÁČIK, A., SOCHOROVÁ, M., ROH, J., KUNEŠ, J., LENČO, J., VÁVROVÁ, K. Scalable synthesis of human ultralong chain ceramides. *Organic Letters*. 2015, **17**(21), 5456–5459. ISSN 1523-7060. IF **6.364**
- PATOČKA, J., HONEGR, J., SOUKUP, O. Gulf war syndrome a syndrome or not? *Toxin Reviews*. 2015, **34**(1), 43–52. ISSN 1556-9543. IF **0.647**
- 56. PEJCHAL, J., ŠINKOROVÁ, Z., TICHÝ, A., KMOCHOVÁ, A., ĎURIŠOVÁ, K., KUBELKOVÁ, K., POHANKA, M., BUREŠ, J., TACHECÍ, I., KUČA, K., VÁVROVÁ, J. Attenuation of radiation-induced gastrointestinal damage by epidermal growth factor and bone marrow transplantation in mice. *International Journal of Radiation Biology*. 2015, **91**(9), 703–714. ISSN 0955-3002. IF **1.687**
- PETROIANU, GA., NURULAIN, SM., HASAN, MY., KUČA, K., LORKE, DE. Reversible cholinesterase inhibitors as pretreatment for exposure to organophosphates: assessment using azinphos-methyl. *Journal of Applied Toxicology*. 2015, **35**(5), 493–499. ISSN 0260-437X. IF **2.982**
- PITTENAUER, E., ŘEHULKA, P., WINKLER, W., ALLMAIER, G. Collision-induced dissociation of aminophospholipids (PE, MMPE, DMPE, PS): an apparently known fragmentation process revisited. *Analytical and Bioanalytical Chemistry.* 2015, **407**(17), 5079–5089. ISSN 1618-2642. IF **3.436**
- PLZÁKOVÁ, L., KROČOVÁ, Z., KUBELKOVÁ, K., MACELA, A. Entry of Francisella tularensis into murine B cells: the role of B cell receptors and complement receptors. *PLoS One.* 2015, **10**(7), Article Number: e0132571. ISSN 1932-6203. IF **3.234**
- POHANKA, M. Biosensors containing acetylcholinesterase and butyrylcholinesterase as recognition tools for detection of various compounds. *Chemical Papers-Chemicke Zvesti.* 2015, **69**(1), 4–16. ISSN 0366-6352. IF **1.468**
- POHANKA, M. Caffeine downregulates antibody production in a mouse model. *Journal of Applied Biomedicine*. 2015, **13**(1), 1–6. ISSN 1214-021X. IF **1.302**
- 62. POHANKA, M. Copper, aluminum, iron and calcium inhibit human acetylcholinesterase in vitro. *Environmental Toxicology and Pharmacology*. 2014, **37**(1), 455-459. ISSN 1382-6689. **IF 2.084**
- 63. POHANKA, M. Determination of acetylcholinesterase and butyrylcholinesterase activity without dilution of biological samples.

Chemical Papers-Chemicke Zvesti. 2015, **69**(8), 1044–1049. ISSN 0366-6352. IF **1.468** 

- POHANKA, M. Photography by cameras integrated in smartphones as a tool for analytical chemistry represented by an butyrylcholinesterase activity assay. *Sensors*. 2015, **15**(6), 13752–13762. ISSN 1424-8220. IF **2.245**
- POHANKA, M. The perspective of caffeine and caffeine derived compounds in therapy. *Bratislava Medical Journal-Bratislavske Lekarske Listy.* 2015, **116**(9), 520–530. ISSN 0006-9248. IF **0.439**
- POHANKA, M. Toxicology and the biological role of methanol and ethanol: current view. *Biomedical Papers*. 2015, **159**(May), 1–10. ISSN 1213-8118. IF **1.200**
- POHANKA, M., HOLAS, O. Evaluation of 2,6-dichlorophenolindophenol acetate as a substrate for acetylcholinesterase activity assay. *Journal of Enzyme Inhibition and Medicinal Chemistry*. 2015, **30**(5), 796–799. ISSN 1475-6366. IF **2.332**
- PUDIL, R., VAŠATOVÁ, M., FUČÍKOVÁ, A., ŘEHULKOVÁ, H., ŘEHULKA, P., PALIČKA, V., STULÍK, J. Vascular endothelial growth factor Is associated with the morphologic and functional parameters in patients with hypertrophic cardiomyopathy. *Biomed Research International.* 2015, 2015(December), Article Number: 762950. ISSN 2314-6133. IF 1.579
- STRAŠKOVÁ, A., ŠPIDLOVÁ, P., MOU, S., WORSHAM, P., PUTZOVÁ, D., PÁVKOVÁ, I., STULÍK, J. Francisella tularensis type B Delta dsbA mutant protects against type A strain and induces strong inflammatory cytokine and Th1-like antibody response in vivo. *Pathogens and Disease*. 2015, **73**(8), Article Number: UNSP ftv058. ISSN 2049-632X. IF **2.403**
- STŘÍTECKÁ, H., ZMRZLÁ, H., DRAHOKOUPILOVÁ, E. Eating patterns and obesity in children – Czech study. *Sylwan*. 2015, **159**(6), 288–310. ISSN 0039-7660. IF **0.322**
- ŠEBESTOVÁ, L., HAVELEK, R., ŘEZÁČOVÁ, M., HONZÍČEK, J., KROČOVÁ, Z., VINKLÁREK, J. Study of antitumor effect of selected vanadium and molybdenum organometallic complexes in human leukemic T-cells. *Chemico-Biological Interactions*. 2015, 242(December), 61–70. ISSN 0009-2797. IF 2.577
- 72. ŠENITKOVÁ, I., ŠPIDLOVÁ, P., STULÍK, J. Cooperation of both, the FKBP N-like and the DSBA-like, domains is necessary for the correct function of FTS 1067 protein involved in Francisella tularensis virulence and pathogenesis. *Pathogens and Disease*. 2015, **73**(6), Article Number: UNSP ftv030. ISSN 2049-632X. IF **2.403**

- ŠEPSOVÁ, V., ŽĎÁROVÁ KARASOVÁ, J., TOBIN, G., JUN, D., KORÁBEČNÝ, J., CABELOVÁ, P., JANSKÁ, K., KRUSEK, J., SKRENKOVÁ, K., KUČA, K., VALKO, M., SOUKUP, O. Cholinergic properties of new 7-methoxytacrine-donepezil derivatives. *General Physiology and Biophysics*. 2015, **34**(2), 189–200. ISSN 0231-5882. IF **1.173**
- 74. ŠMEJKAL, K., LOCHMAN, P., TRLICA, J., NOVOTNÝ, P., ŠIMEK, J., DĚDEK, T. Poruchy hojení po operační léčbě zlomenin stehenní kosti. Impaired healing after surgery for femoral fractures. Acta chirurgiae orthopaedicae et traumatologiae čechoslovaca. 2015, 82(5), 358–363. ISSN 0001-5415. IF 0.388
- 75. ŠPILOVSKÁ, K., KORÁBEČNÝ, J., HOROVÁ, A., MUSÍLEK, K., NEPOVIMOVÁ, E., DRTINOVÁ, L., GAZOVA, Z., SIPOSOVA, K., DOLEŽAL, R., JUN, D., KUČA, K. Design, synthesis and in vitro testing of 7-methoxytacrine-amantadine analogues: a novel cholinesterase inhibitors for the treatment of Alzheimer's disease. *Medicinal Chemistry Research*. 2015, **24**(6), 2645–2655. ISSN 1054-2523. IF **1.402**
- 76. TAMBOR, V., VAJRYCHOVÁ, M., KACEROVSKÝ, M., LINK, M., DOMAŠINSKÁ, P., MENON, R., LENČO, J. Potential peripartum markers of infectious-inflammatory complications in spontaneous preterm birth. *Biomed Research International*. 2015, **2015**(July), Article Number: 343501. ISSN 2314-6133. IF **1.579**
- 77. TMEJOVÁ, K., HYNEK, D., KENSOVÁ, R., BLAŽKOVÁ, I., VYSLOUŽILOVÁ, L., ŠTEPÁNKOVÁ, O., POHANKA, M., ZEHNÁLEK, J., VACULOVIČOVÁ, M., ADAM, V., KIZEK, R. Electrochemical analysis of metallothionein in chicken exposed to cadmium ions. *International Journal of Electrochemical Science*. 2015, **10**(March), 3923–3934. ISSN 1452-3981. IF **1.500**

# **ARTICLES IN OTHERS JOURNALS**

- BAJGAR, J., KASSA, J. Department of Toxicology and Military Pharmacy – important part of the Faculty of Military Health Sciences of the University of Defence. *Military Medical Science Letters*. 2015, 84(2), 57–66. ISSN 0372-7025.
- 2. BENCKO, V., CHLÍBEK, R. Present refusal of vaccination in the Czech Republic. *Pediatrie pro praxi.* 2015, **16**(2), 86–88. ISSN 1213-0494.
- BLAŽEJ, S., PÁRAL, J., KAŠKA, M. Development of structures of intestinal anastomosis and the actual state of their options. *Rozhledy v chirurgii*. 2015, **94**(8), 316–321. ISSN 0035-9351.
- BLAŽEK, P., KUČA, K., JUN, D., KREJCAR, O. Development of information and management system for laboratory based on open source licensed software. *Computational Collective Intelligence (CCCI* 2015), PT II. 2015, 9330, 377–387. ISSN 0302-9743.
- BOŠTÍKOVÁ, V. Joint Scientific Conference of Mayo Clinic and Charles University, Faculty Medicine in Hradec Kralove. *Vakcinologie*. 2015, 9(1), 45–45. ISSN 1802-3150.
- BOŠTÍKOVÁ, V., BOŠTÍK, P. BIT'5th Annual World Congress of Microbes (WCM-2015), Shanghai, China. Vakcinologie. 2015, 9(4), 219–220. ISSN 1802-3150.
- BOŠTÍKOVÁ, V., BOŠTÍK, P. Consequences Ebola epidemic in West Africa. Zdravotnické noviny - Lékařské listy. 2015, 2015(1), 42–43. ISSN 0044-1996.
- 8. BOŠTÍKOVÁ, V., BOŠTÍK, P. Ebola epidemics in West Africa. *i-med*. 2015, **5**(3), 1–17. ISSN 1338-4392.
- BOŠTÍKOVÁ, V., BOŠTÍK, P. News in vaccinology. Vakcinologie. 2015, 9(1), 39–40. ISSN 1802-3150.
- BOŠTÍKOVÁ, V., OLŠOVSKÁ, J., DUŠEK, M., SLEHA, R., KUKLA, R. News in vaccinology – vaccines from plants, plants with antimicrobial effects. *Vakcinologie*. 2015, **9**(4), 213-215. ISSN 1802-3150.
- 11. BOŠTÍKOVÁ, V., PRÁŠIL, P., BOŠTÍK, P. News in vaccinology. *Vakcinologie*. 2015, **9**(2), 94–96. ISSN 1802-3150.
- 12. BOŠTÍKOVÁ, V., PRÁŠIL, P., BOŠTÍK, P. News in vaccinology. *Vakcinologie*. 2015, **9**(3), 153–155. ISSN 1802-3150.
- BOŠTÍKOVÁ, V., PRÁŠIL, P., MILOSLAV, S., BOŠTÍK, P. Selecte viral and bacterial infections transmitted perinatally – sexually transmitted infections. *Pediatrie pro praxi*. 2015, **16**(1), 37–39. ISSN 1213-0494.

- BOŠTÍKOVÁ, V., PRÁŠIL, P., SALAVEC, M., BOŠTÍK, P. Selected viral and bacterial infections transmitted perinatally – part two, herpetic viruses. *Pediatrie pro praxi.* 2015, **16**(4), 227–230. ISSN 1213-0494.
- DUŠEK, T., FERKO, A., BLAHA, M., DUŠEK, L., MALÚŠKOVÁ, D., ÖRHALMI, J., DOLEJŠ, J., VOŠMIK, M. Current status in the treatment of rectal cancer in the Czech republic regarding to the appearance of complete pathologic response after neoadjuvant therapy – PATOD C20 study. *Rozhledy v chirurgii*. 2015, **94**(7), 276–282. ISSN 0035-9351.
- HONEGR, J., SOUKUP, O., MAREŠOVÁ, P., MALIŇÁK, D., PATOČKA, J., KUČA, K. Immunotherapy in Alzheimer's disease. *Vakcinologie*. 2015, 9(4), 172–182. ISSN 1802-3150.
- HRABOVSKÝ, Š., FOLBER, F., ŠÁLEK, C., HORÁČEK, J., MAYER, J., DOUBEK, M. Advancements in the treatment of adult acute lymphoblastic leukaemia. *Transfuze a hematologie dnes.* 2015, **21**(2), 84–91. ISSN 1213-5763.
- HYTYCH, V., TAŠKOVÁ, A., POHNÁN, R., KONOPA, Z., BLAŽKOVÁ, Š., HORAŽĎOVSKÝ, P., PÁRAL, J. VATS lobectomy, hostory, indication, contraindication and general technique. *Kazuistiky v* alergologii, pneumologii a ORL. 2015, **12**(3), 31–35. ISSN 1802-0518.
- HYTYCH, V., TAŠKOVÁ, A., POHNÁN, R., KONOPA, Z., BLAŽKOVÁ, Š., HORAŽĎOVSKÝ, P., PÁRAL, J. Pulmonary fungal infections and tuberculosis – surgical treatment of inflammatory lung diseases. *Kazuistiky v alergologii, pneumologii a ORL*. 2015, **12**(3), 26–30. ISSN 1802-0518.
- HYTYCH, V., TAŠKOVÁ, a., POHNÁN, R., KONOPA, Z., BLAŽKOVÁ, Š., HORAŽĎOVSKÝ, P., PÁRAL, J. Thoracic empyema, lung abscess, bronchiectasis and acute mediastinitis – surgical treatment of inflammatory diseases. *Kazuistiky v alergologii, pneumologii a ORL*. 2015, **12**(3), 21–25. ISSN 1802-0518.
- HYTYCH, V., TAŠKOVÁ, A., POHNÁN, R., KONOPA, Z., KOPECKÁ, E., BLAŽKOVÁ, Š., HRICÍKOVÁ, I., HORAŽĎOVSKÝ, P., ŽÁČKOVÁ, P., PÁRAL, J. Multiresistant tuberculosis. *Kazuistiky v alergologii,* pneumologii a ORL. 2015, **12**(3), 3–6. ISSN 1802-0518.
- HYTYCH, V., TAŠKOVÁ, A., POHNÁN, R., PRCHLÍK, M., KONOPA, Z., BLAŽKOVÁ, Š., HORAŽĎOVSKÝ, P., ŽÁČKOVÁ, P., PÁRAL, J. Traumatic rupture of the bronchus. *Kazuistiky v alergologii, pneumologii* a ORL. 2015, **12**(3), 10–13. ISSN 1802-0518.
- CHLÍBEK, R. The resulst of elections into the committee and revison commission of the Czech Society of Vaccinology CLS JEP for the 2014–2018 term. Vakcinologie. 2015, 9(2), 102–102. ISSN 1802-3150.
- 24. CHLÍBEK, R. Vaccinologist's commentary. Vakcinologie. 2015, **9**(3), 156–157. ISSN 1802-3150.

- CHLÍBEK, R., CABRNOCHOVÁ, H., AMBROŽOVÁ, H., DVOŘÁKOVÁ, J., MAREŠOVÁ, V., KOZDERKA, C., PAZDIORA, P., PRYMULA, R., ŠEBKOVÁ, A., VANČÍKOVÁ, Z. Recommendation for vaccination against rotaviral infections in the Czech republic. *Vakcinologie*. 2015, 9(2), 97–98. ISSN 1802-3150.
- KLEIN, L. Military doctors were awarded honorary membership. *Military* Medical Science Letters. 2015, 84(1), 48. ISSN 0372-7025.
- KLEIN, L. Professor Michele Masellis of Palermo celebrates his 80th birthday. *Military Medical Science Letters*. 2015, 84(2), 80–81. ISSN 0372-7025.
- KLEIN, L. S. William A. Gunn: Dictionary of disaster medicine and humanitarian relief. *Acta Chirurgiae Plasticae*. 2015, 57(1–2), 27-28. ISSN 0001-5423.
- 29. KLEIN, L. S. William A. Gunn: Dictionary of disaster medicine and humanitarian relief. *Urgentní medicína*. 2015, **18**(3), 44. ISSN 1212-1924.
- KLEIN, L., MICHAELSON, M., HYAMS, G. NATO advanced research workshop: Hospitals under fire – planning and operating a hospital under fire and extreme circumstances. *Military Medical Science Letters*. 2015, 84(2), 82–92. ISSN 0372-7025.
- KLEIN, L., MICHAELSON, M., HYAMS, G. NATO Advanced Research Workshop: Hospitals under fire – planning and operating a hospital under fire and extreme circumstances. *Urgentní medicína*. 2015, **17**(1), 13–18. ISSN 1212-1924.
- KRAČMAROVÁ, A., DRTINOVÁ, L., POHANKA, M. Possibility of acetylcholinesterase overexpression in Alzheimer disease patients after therapy with acetylcholinesterase inhibitors. *Acta Medica (Hradec Králové)*. 2015, **58**(2), 37–42. ISSN 1211-4286.
- KUBELKOVÁ, K. Glance back at the 8th International Conference on Tularemia. *Military Medical Science Letters*. 2015, 84(4), 186–188. ISSN 0372-7025.
- KUKLA, R., KOSINA, P., SLEHA, R., HOBZOVÁ, L., BOŠTÍKOVÁ, V. Measles, mumps and rubella vaccination. *Vakcinologie*. 2015, 9(4), 201–209. ISSN 1802-3150.
- MAREŠOVÁ, P., KUČA, K. Analysis of terrorist attacks in european countries – injuries, casualties and weapons. *Military Medical Science Letters*. 2015, 84(2), 50–56. ISSN 0372-7025.
- MARINOV, Z., MARINOVÁ, C., PASTUCHA, D., STŘÍTECKÁ, H., PTÁČEK, R. With Children against obesity. *Časopis lékařů českých*. 2015, **154**(1), 19–21. ISSN 0008-7335.

- MARINOV, Z., STŘÍTECKÁ, H., RIEDLOVÁ, J., Impriting of energy homeostasis. *Diabetologie, Metabolismus, Endokrinologie, Výživa*. 2015, **18**(2), 24–29. ISSN 1211-9326.
- PATOČKA, J., KUČA, K. Irritant compounds: military respiratory irritants. Part I. Lacrimators. *Military Medical Science Letters*. 2015, 84(3), 128–139. ISSN 0372-7025.
- PILŇÁČKOVÁ, J., PILNÁČEK, M., RÁŽOVÁ, J., STŘÍTECKÁ, H. Monitoring of food offer in primary schools and school canteens in 2011. *Hygiena*. 2015, **60**(2), 71–75. ISSN 1802-6281.
- PLODR, M., PRAUNOVÁ, M., ŠVÁBA, V., KRENČÍKOVÁ, J., BEJROVÁ, D., HRSTKA, Z., SENETA, L., MAŠEK, J., PÁRAL, J. Telephone assisted resuscitation: evaluation of its effectivity and event analysis in Hradec Králové Region in the year 2014. *Urgentní medicína*. 2015, **18**(3), 22–25. ISSN 1212-1924.
- POHANKA, M. Next effort in cholinesterases biosensors. Journal of Biosensors and Bioelectronics. 2015, 5(4), 1000161–1000161. ISSN 2155-6210.
- POHANKA, M., PAVLIS, O. Impact of caffeine on tularemia progression in a mouse model. *Journal of Pure and Applied Microbiology*. 2015, 9(2), 913–918. ISSN 0973-7510.
- POHANKA, M., RUTTKAY-NEDECKY, B., FUSEK, J., ADAM, V., KIZEK, R. Melatonin regulates oxidative stress initiated by Freund's complete adjuvant. *Acta Medica (Hradec Králové)*. 2015, **58**(1), 21. ISSN 1211-4286.
- 44. PSUTKA, J., PAVLÍK, V., FAJFROVÁ, J., URBAN, M., HALAJČUK, T. Monitoring of anthropometric changes in the Armed Forces of the Czech Republic personel during the deployment in Afghanistan. *Military Medical Science Letters*. 2015, **84**(4), 166–169. ISSN 0372-7025.
- SINGH, N., SOUKUP, O., DOLEŽAL, R., FIŠAR, Z., GUPTA, B., GHOSH, KK., KUČA, K. Acid dissociation constants and molecular descriptors of some xylene linked bispyridinium oximes. *Military Medical Science Letters*. 2015, 84(3), 94–103. ISSN 0372-7025.
- SLANINKA, I., KLEIN, L., ČÁP, R., HOŠEK, F., GUŇKA, I., ŠEDIVÝ, O., JIŠKA, S., KAŠKA, M. Optimizing the treatment procedure in crural ulcers – a pilot study of the surgical method. *Rozhledy v chirurgii*. 2015, 94(2), 69–73. ISSN 0035-9351.
- SLEHA, R., BOŠTÍKOVÁ, V., JANOVSKÁ, S., HOBZOVÁ, L., KUKLA, R. From Jenner to medrn vaccines. *Vakcinologie*. 2015, 9(3), 139–143. ISSN 1802-3150.
- 48. SMETANA, J. The 11th Symposium of Vaccinology in Hradec Králové. *Vakcinologie*. 2015, **9**(4), 221–222. ISSN 1802-3150.

- 49. SMETANA, J., CHLÍBEK, R. Vaccination in the general practitioner's surgery: interdisciplinary approach as a new trend in approaching vaccination. *Medicína pro praxi*. 2015, **12**(2), 62–63. ISSN 1214-8687.
- SMETANA, J., ŠOŠOVIČKOVÁ, R., BOŠTÍKOVÁ, V., HANOVCOVÁ, I., ŠPLIŇO, M., CHLÍBEK, R. Herpes zoster vaccination. *Vakcinologie*. 2015, 9(3), 127–134. ISSN 1802-3150.
- 51. STŘÍTECKÁ, H. Butter versus margarine. *Bio&Life*. 2015, **2**(3–4), 70– 71. ISSN 1338-9890.
- 52. STŘÍTECKÁ, H. How to choose a good quality bread. *Bio&Life*. 2015, **2**(1–2), 72–73. ISSN 1338-9890.
- 53. ŠOŠOVIČKOVÁ, R., SMETANA, J., CHLÍBEK, R., GÁL, P., DÍTĚ, P., HANOVCOVÁ, I., BOŠTÍKOVÁ, V., ŠPLIŇO, M. Awarenness about preventive care and voluntary vaccination among the adults. *Vakcinologie*. 2015, 9(2), 58-62. ISSN 1802-3150.
- ŠPLIŇO, M., CHLÍBEK, R., Circulation of reasortants avian influenza viruses in the world – 2014/2015. *Vakcinologie*. 2015, **9**(3), 149–152. ISSN 1802-3150.
- 55. ŠPLIŇO, M., CHLÍBEK, R. Current threat of Ebola possible import to EU. Vakcinologie. 2015, **9**(1), 34–38. ISSN 1802-3150.
- ŠPLIŇO, M., CHLÍBEK, R. Human enterovirus D-68 the incidence of acute flaccid paresis – USA. Vakcinologie. 2015, 9(2), 92–93. ISSN 1802-3150.
- ŠPLIŇO, M., CHLÍBEK, R. Import MERS. Imprt MERS CoV to South Korea – May 2015. Vakcinologie. 2015, 9(4), 210–212. ISSN 1802-3150.
- TAŠKOVÁ, A., POHNÁN, R., KONOPA, Z., BLAŽKOVÁ, Š., HORAŽĎOVSKÝ, P., ŽÁČKOVÁ, P., TYLL, T., PÁRAL, J. Pericardial injury caused by chest drain. *Kazuistiky v alergologii, pneumologii a* ORL. 2015, **12**(3), 43–45. ISSN 1802-0518.
- 59. TAŠKOVÁ, A., POHNÁN, R., KONOPA, Z., BLAŽKOVÁ, Š., HORAŽĎOVSKÝ, P., ŽÁČKOVÁ, P., TYLL, T., PÁRAL, J. Acute mediastinitis and deep cervical space phlegmon. *Kazuistiky v* alergologii, pneumologii a ORL. 2015, **12**(3), 14–16. ISSN 1802-0518.
- TAŠKOVÁ, A., POHNÁN, R., KONOPA, Z., KOPECKÁ, E., BLAŽKOVÁ, Š., HRICÍKOVÁ, I., HORAŽĎOVSKÝ, P., ŽÁČKOVÁ, P., PÁRAL, J. Tuberculosis mimicking malignancy. *Kazuistiky v alergologii,* pneumologii a ORL. 2015, **12**(3), 7–9. ISSN 1802-0518.
- TAŠKOVÁ, A., POHNÁN, R., KONOPA, Z., KOPECKÁ, E., BLAŽKOVÁ, Š., HRICÍKOVÁ, I., HORAŽĎOVSKÝ, P., ŽÁČKOVÁ, P., PÁRAL, J. Aspergilloma. *Kazuistiky v alergologii, pneumologii a ORL*. 2015, **12**(3), 36–38. ISSN 1802-0518.

- TAŠKOVÁ, A., POHNÁN, R., PRCHLÍK, M., KONOPA, Z., BLAŽKOVÁ, Š., HORAŽĎOVSKÝ, P., ŽÁČKOVÁ, P., PÁRAL, J. Rupture of the diaphragm. *Kazuistiky v alergologii, pneumologii a ORL*. 2015, **12**(3), 46–49. ISSN 1802-0518.
- TAŠKOVÁ, A., POHNÁN, R., PRCHLÍK, M., KONOPA, Z., BLAŽKOVÁ, Š., HORAŽĎOVSKÝ, P., ŽÁČKOVÁ, P., PÁRAL, J. Bilateral lung laceration. *Kazuistiky v alergologii, pneumologii a ORL*. 2015, **12**(3), 39–42. ISSN 1802-0518.
- VLČEK, V., POHANKA, M. Environmental aspects of excessive exposure copper. Studia Oecologica. 2015, 9(1), 68-77. ISSN 1802-212X.
- VLČEK, V., POHANKA, M. Toxicity of cyanobacterial secondary metabolites: treating for water supplies. *Reviews in Medical Microbiology*. 2015, 26(2), 59–64. ISSN 0954-139X.
- ŽĎÁRA, J., HRSTKA, Z. The rate of mental stress of field hospital nurses in forreigen military missions. *Military Medical Science Letters*. 2015, 84(1), 42–47. ISSN 0372-7025.

## TEXTBOOKS, MONOGRAPHS, ARTICLES IN MONOGRAPHS AND PROCEEDINGS

- BAJGAR, J., FUSEK, J., KASSA, J., KUČA, K., JUN, D. Global impact of chemical warfare agents used before and after 1945. In *Handbook of Toxicology of Chemical Warfare Agents*. GUPTA, RC. (Ed.) 2nd ed. London: Elsevier, 2015, p. 17–25. ISBN 978-0-12-800159-2.
- BAJGAR, J., FUSEK, J., KASSA, J., KUČA, K., JUN, D. Pharmacological prophylaxis against nerve agent poisoning: experimental studies and practical implications. In *Handbook of Toxicology of Chemical Warfare Agents*. GUPTA, RC. (Ed.) 2nd ed. London: Elsevier, 2015, p. 979–987. ISBN 978-0-12-800159-2.
- BAJGAR, J., KASSA, J., FUSEK, J., KUČA, K., JUN, D. Other toxic chemicals as potential chemical warfare agents. In *Handbook of Toxicology of Chemical Warfare Agents*. GUPTA, RC. (Ed.) 2nd ed. London: Elsevier, 2015, p. 337–345. ISBN 978-0-12-800159-2.
- BLAŽEK, P., KŘENEK, J., KUČA, K., KREJCAR, O., JUN, D. The biomedical data collecting system. In *Radioelektronika* (*RADIOELEKTRONIKA*), 2015 25th International Conference. New York: IEEE, 2015, p. 419–422. ISBN 978-1-4799-8117-5.
- BLAŽEK, P., KUČA, K., JUN, D., KREJCAR, O. Development of information and management system for laboratory based on open source licensed software. *Computational Collective Intelligence (ICCCI)*. 2015, **9330**(October), 377–387. ISSN 0302-9743.
- BOŠTÍKOVÁ, V., SALAVEC, M., PRÁŠIL, P., BOŠTÍK, P. Selected viral hemorrhagic fevers: a lof of questions, few answers. In *Hemorrhagic Fever: Epidemiology, Clinical Manifestations and Diagnosis.* EDWARDS, SR. (Ed.) 1st ed. New York: Nova Science Publishers–NY, 2015, p. 9– 22. ISBN 978-1-63482-791-1.
- BOŠTÍKOVÁ, V., SALAVEC, M., SLEHA, R., BOŠTÍKOVÁ, N., BOŠTÍK, P., SLEHOVÁ, E., KUKLA, R., STŘÍTECKÁ, H., PRÁŠIL, P. Viral hemorrhagic fevers: yesterday and today (Consequences of Ebola outbreak in West Africa). In *Hemorrhagic Fever: Epidemiology, Clinical Manifestations and Diagnosis*. EDWARDS, SR. (Ed.) 1st ed. New York: Nova Science Publishers–NY, 2015, p. 1–8. ISBN 978-1-63482-791-1.
- BOŠTÍKOVÁ, V., SALAVEC, M., SLEHA, R., BOŠTÍKOVÁ, N., SLEHOVÁ, E., KUKLA, R., PRÁŠIL, P. The characteristics of bats and fruit bats as reservoirs of selected infectious diseases with emphasis on viral hemorrhagic fevers. In *Hemorrhagic Fever: Epidemiology, Clinical Manifestations and Diagnosis*. EDWARDS, SR. (Ed.) 1st ed. New York:

## TEXTBOOKS, MONOGRAPHS, ARTICLES IN MONOGRAPHS AND PROCEEDINGS

Nova Science Publishers-NY, 2015, p. 23-35. ISBN 978-1-63482-791-1.

- BOŠTÍKOVÁ, V., SALAVEC, M., SLEHA, R., SLEHOVÁ, E., KUKLA, R., PRÁŠIL, P. Japenese encephalitis: problem of Asia only? In *Hemorrhagic Fever: Epidemiology, Clinical Manifestations and Diagnosis.* EDWARDS, SR. (Ed.) 1st ed. New York: Nova Science Publishers–NY, 2015, p. 63–76. ISBN 978-1-63482-791-1.
- BOŠTÍKOVÁ, V., SLEHA, R., KUKLA, R., SALAVEC, M., PRÁŠIL, P. Measles problems currently. In *Advances in Medicine and Biology – Volume 91*. New York: Nova Science Publishers–NY, 2015, p. 121–125. ISBN 978-1-63483-785-9.
- BOŠTÍKOVÁ, V., SLEHA, R., SALAVEC, M., BOŠTÍK, P. Acute gastroenteritis of viral etiology. In *Advances in Medicine and Biology*. Vol. 83. New York: Nova Science Publishers–NY, 2015, p. 71–83. ISBN 978-1-63463-647-6.
- ČÁP, R., SLANINKA, I. Hand injury. In *Chirurgie v kostce*. FERKO, A. (Ed.), ŠUBRT, Z. (Ed.), DĚDEK, T. (Ed.). 2nd ed. Praha: Grada, 2015, p. 450–460. ISBN 978-80-247-1005-1.
- ČEČKA, F., JON, B., ŠUBRT, Z. Biliary tract disease. In *Chirurgie v kostce*. FERKO, A. (Ed.), ŠUBRT, Z. (Ed.), DĚDEK, T. (Ed.). 2nd ed. Praha: Grada, 2015, p. 311–316. ISBN 978-80-247-1005-1.
- FUSEK, J., BAJGAR, J., KASSA, J., KUČA, K., JUN, D. Psychotomimetic agent BZ (3-quinuclidiny benzilate). In *Handbook of Toxicology of Chemical Warfare Agents*. GUPTA, RC. (Ed.) 2nd ed. London: Elsevier, 2015, p. 151–158. ISBN 978-0-12-800159-2.
- HAVEL, E., MAŇÁK, J., PÁRAL, J. Surgical patient nutrition. In *Chirurgie v kostce*. FERKO, A. (Ed.), ŠUBRT, Z. (Ed.), DĚDEK, T. (Ed.). 2nd ed. Praha: Grada, 2015, p. 100–108. ISBN 978-80-247-1005-1.
- CHLÍBEK, R. (Ed) Book of Abstracts 11th Hradec Immunisation Days. *11. Hradecké vakcinologické dny.* Praha: Česká vakcinologická společnost JEP, 2015. 80 p. ISBN 978-80-260-8725-0
- 17. CHOBOLA, M., ŠUBRT, Z. Basic surgical procedures. In *Chirurgie v* kostce. FERKO, A. (Ed.), ŠUBRT, Z. (Ed.), DĚDEK, T. (Ed.). 2nd ed. Praha: Grada, 2015, p. 179–187. ISBN 978-80-247-1005-1.
- JUN, D., BAJGAR, J., KUČA, K., KASSA, J. Monitoring of blood cholinesterase activity in workers exposed to nerve agents. In: *Handbook of Toxicology of Chemical Warfare Agents*. GUPTA, RC. (Ed.) London: Elsevier, 2015, s. 967-976. ISBN 978-0-12-800159-2.
- 19. KASSA, J., BAJGAR, J., KUČA, K., JUN, D. Behavioral toxicity of nerve agents. In Handbook of Toxicology of Chemical Warfare Agents.

GUPTA, RC. (Ed.) 2nd ed. London: Elsevier, 2015, p. 477–487. ISBN 978-0-12-800159-2.

- KLEIN, L., ČÁP, R. Thermal injury. In *Chirurgie v kostce* FERKO, A. (Ed.), ŠUBRT, Z. (Ed.), DĚDEK, T. (Ed.). 2nd ed. Praha: Grada, 2015, p. 461–466. ISBN 978-80-247-1005-1.
- KOČÍ, J., FERKO, A. Infection in surgery. In *Chirurgie v kostce*. FERKO, A. (Ed.), ŠUBRT, Z. (Ed.), DĚDEK, T. (Ed.).2nd ed. Praha: Grada, 2015, p. 39–48. ISBN 978-80-247-1005-1.
- LOCHMAN, P. Diseases of the esophagus. In *Chirurgie v kostce*. FERKO, A. (Ed.), ŠUBRT, Z. (Ed.), DĚDEK, T. (Ed.). 2nd ed. Praha: Grada, 2015, p. 224–238. ISBN 978-80-247-1005-1.
- LOCHMAN, P. Diseases of the stomach and duodenum. In *Chirurgie v* kostce. FERKO, A. (Ed.), ŠUBRT, Z. (Ed.), DĚDEK, T. (Ed.). 2nd ed. Praha: Grada, 2015, p. 239–254. ISBN 978-80-247-1005-1.
- MUSÍLEK, K., KORÁBEČNÝ, J., JUN, D., KASSA, J., KUČA, K. Novel cholinesterase reactivators. In *Handbook of Toxicology of Chemical Warfare Agents*. GUPTA, RC. (Ed.) 2nd ed. London: Elsevier, 2015, p. 1071–1087. ISBN 978-0-12-800159-2.
- POHANKA, M. Overview by biochemistry Učební texty Fakulty vojenského zdravotnictví Univerzity obrany v Hradci Králové. Vol. 373. 1st ed. Brno: Univerzita obrany, 2015. 64 s. ISBN 978-80-7231-358-7.
- POHANKA, M. Overview by biochemistry Učební texty Fakulty vojenského zdravotnictví Univerzity obrany v Hradci Králové. Vol. 373.
   vyd. Brno: Univerzita obrany, 2015. 64 s. ISBN 978-80-7231-358-7.
- RŮŽIČKA, M., POTÁČ, M. Selected chapters from the tactics for members of the military health service – Učební texty Fakulty vojenského zdravotnictví Univerzity obrany v Hradci Králové. Sv. 372. Brno: Univerzita obrany, 2015. 153 s. ISBN 978-80-7231-357-0
- 28. RŮŽIČKA, M., POTÁČ, M., STŘÍTECKÁ, H. *Plan of exercise in VPCHV Tisa*. Hradec Králové: FVZ UO, 2015. 50 p.
- 29. RŮŽIČKA, M., POTÁČ, M., ŽĎÁRA, J. *Plan of exercise in VVP Březina*. Hradec Králové: FVZ UO, 2015. 137 p.
- SLANINKA, I., ŠMEJKAL, K. Examination of the surgical patient. In Chirurgie v kostce. FERKO, A. (Ed.), ŠUBRT, Z. (Ed.), DĚDEK, T. (Ed.). 2nd ed. Praha: Grada, 2015, p. 26–28. ISBN 978-80-247-1005-1.
- SLEHA, R., BOŠTÍKOVÁ, V., SALAVEC, M., BOŠTÍK, P., SLEHOVÁ, E., KUKLA, R., JANOVSKÁ, S. Epidemiology, clinical manifestations and treatment of Neisseria gonorrhoeae infection. In *Gonorrhea and Viral Hepatitis: Clinical Management and Potential Complications*. SULLIVAN, LH. (Ed.) 1 ed. New York: Nova Science Publishers–NY, 2014, p. 67–84. ISBN 978-1-63463-008-5.

# TEXTBOOKS, MONOGRAPHS, ARTICLES IN MONOGRAPHS AND PROCEEDINGS

- 32. FERKO, A. (Ed.), ŠUBRT, Z. (Ed.), DĚDEK, T. (Ed.). Surgery in a Nutshell. 2nd ed. Praha: Grada, 2015. 511 p. ISBN 978-80-247-1005-1.
- ŠUBRT, Z. Oncosurgery. In *Chirurgie v kostce*. FERKO, A. (Ed.),
   ŠUBRT, Z. (Ed.), DĚDEK, T. (Ed.). 2nd ed. Praha: Grada, 2015, p. 174– 178. ISBN 978-80-247-1005-1.
- ŠUBRT, Z. Preoperative care of the surgical patient. In *Chirurgie v* kostce. FERKO, A. (Ed.), ŠUBRT, Z. (Ed.), DĚDEK, T. (Ed.). 2nd ed. Praha: Grada, 2015, p. 134–142. ISBN 978-80-247-1005-1.
- ŠUBRT, Z., ČEČKA, F. Acute abdomen. In *Chirurgie v kostce*. FERKO, A. (Ed.), ŠUBRT, Z. (Ed.), DĚDEK, T. (Ed.). 2nd ed. Praha: Grada, 2015, p. 196–204. ISBN 978-80-247-1005-1.
- 36. ŠUBRT, Z., ČEČKA, F. Ileus acute abdomen. In *Chirurgie v kostce*. FERKO, A. (Ed.), ŠUBRT, Z. (Ed.), DĚDEK, T. (Ed.). 2nd ed. Praha: Grada, 2015, p. 212–215. ISBN 978-80-247-1005-1.
- ŠUBRT, Z., FERKO, A. Liver disease. In *Chirurgie v kostce*. FERKO, A. (Ed.), ŠUBRT, Z. (Ed.), DĚDEK, T. (Ed.). 2nd ed. Praha: Grada, 2015, p. 298–310. ISBN 978-80-247-1005-1.
- ŠUBRT, Z., LOCHMAN, P. Inflammatory acute abdomen. In *Chirurgie v kostce*. FERKO, A. (Ed.), ŠUBRT, Z. (Ed.), DĚDEK, T. (Ed.). 2nd ed. Praha: Grada, 2015, p. 205–211. ISBN 978-80-247-1005-1.
- 39. ŽĎÁRA, J., RŮŽIČKA, M., POTÁČ, M. Hybrid War the phenomen of this days. In Ochrana obyvatelstva v případě krizových situací a mimořádných událostí nevojenského charakteru III. Praha: Infopharm, 2015, vol. 5, p. 254–262. ISBN 978-80-87727-11-9.

### ABSTRACTS IN JOURNALS WITH IMPACT FACTOR

- ANDRÝS, R., ZEMANOVÁ, L., LENČO, J., WSOL, V. Membrane-bound carbonyl reducing enzymes as targets of an oracin immobilised affinity carrier. *FEBS Journal*. 2015, 282(S1), 152. ISSN 1742-464X. IF 4.001
- ASTRUP, A., KRISTENSEN, M., GNESSI, L., WATANABE, M., SVACINA, Š., MATOULEK, M., HLÚBIK, P., STŘÍTECKÁ, H., CONTALDO, F., PASANISI, F., HESHMATI, H., ZOHAR, Y., RON, E., URBAN, L., SANNINO, A., DEMITRI, C. Gelesis 100 significantly decreases carbohydrate intake in overweight and obese subject with high fasting glucose. *Obesity Facts.* 2015, 8(S1), 77. ISSN 1662-4025. IF 2.245
- BLAŽEK, O., FAJFROVÁ, J., VACKOVÁ, M., PAVLÍK, V. Monitoring of nutritional state and metabolic rate among Czech military and civilian medical students. *Obesity Facts*. 2015, 8(S1), 87. ISSN 1662-4025. IF 2.245
- ČERVINKA, P., KALA, P., JAKL, M., KANOVSKÝ, J., KUPEC, A., ŠPAČEK, R., KVASNAK, M., ČERVINKOVÁ, M., BEZERRA, H., TANAKA, K. Randomised comparison of 9-month stent strut coverage of biolimus and everolimus drug-eluting stents assessed by OCT in patients with STEMI. *European Heart Journal.* 2015, **36**, 726. ISSN 0195-668X. IF **15.203**
- FAJFROVÁ, J., PAVLÍK, V., VACKOVÁ, M., BLAŽEK, O. BMI, it itself, is not sufficient parameter for evaluation of nutritional state of professional soldiers in the Armed Forces of the Czech Republic. *Obesity Facts*. 2015, 8(S1), 242. ISSN 1662-4025. IF 2.245
- HOŠŤÁLKOVÁ, A., NOVÁK, Z., HRABINOVÁ, M., ŠTĚPÁNKOVÁ, H., PERÉZ, D., KUNEŠ, J., CAHLÍKOVÁ, L., OPLETAL, Alkaloids from Berberis vulgaris and their biological activity connected to Alzheimer's disease. *Planta Medica*. 2015, **81**(16), PW/126. ISSN 0032-0943. IF 2.152
- JAKL, M., ČERVINKA, P., KALA, P., KANOVSKÝ, J., KUPEC, A., VANĚK, J., TANAKA, K., NISHINO, S., SCHNELL, A., BEZERRA, H. Natural history of stent malapposition in patients treated by primary percutaneous coronary intervention: Subanalysis of ROBUST trial. *European Heart Journal.* 2015, **36**(S1), 826. ISSN 0195-668X. IF **15.203**

- JAKL, M., ŠEVČÍK, R., FÁTOROVÁ, I., HORÁČEK, J. Impact of high on-treatment platelet reactivity on 5-year mortality in patients after myocardial infarction. *Haematologica*. 2015, **100**(S1), 144. ISSN 0390-6078. IF **5.868**
- MARINOV, Z., MARINOVÁ, C., PASTUCHA, D., STŘÍTECKÁ, H., PTÁČEK, R. Preventive and educative project "with children against obesity". Obesity Facts 2015, 8(S1), 147. ISSN 1662-4025. IF 2.245
- POHANKA, M., FUSEK, J., MARTINKOVÁ, P., VOBORNÍKOVÁ, I. Arrangement of a simple colorimetric test for the determination of cholinesterase aktivity in presence of reversible inhibitor. *Toxicology Letters*. 2015, 238(S), 58. ISSN 0378-4274. IF 3.262
- POHANKA, M., PAVLIŠ, O. Caffeine can influence tularemia pathogenesis in a mouse model. *Toxicology Letters*. 2015, 238(S), 218. ISSN 0378-4274. IF 3.262
- SKOŘEPA, P., VISEK, J., BLAHA, V., FORTUNATO, J., SOBOTKA, L. Retrospective study of two antiseptic regiment for catheter-associated bloodstream infection (CBSI) treatment in home parenteral nutrition patiens. *Clinical Nutrition*. 2015, 34(S1), 130. ISSN 0261-5614. IF 4.476
- STŘÍTECKÁ, H., ZMRZLÁ, H., MARINOV, Z. Prevalence of overweight and obesity at children and adolescents – data from electronic databases GPCY. *Obesity Facts*. 2015, 8(S1), 122. ISSN 1662-4025. IF 2.245
- VACKOVÁ, M., FAJFROVÁ, J., BLAŽEK, O., PAVLÍK, V. Nutritional state and lifestyle of Czech military medical students. *Obesity Facts* (print). 2015, 8(S1), 87. ISSN 1662-4025. IF 2.245
- VOBORNÍKOVÁ, I., KRAČMAROVÁ, A., POHANKA, M. Voltammetry of low molecular weight anioxidants in biological samples. *Toxicology Letters*. 2015, 238(S), 58. ISSN 0378-4274. IF 3.262
- VOŠMIK, M., LACO, J., SIRÁK, I., LEŠKO, M., REPÁK, R., DVOŘÁK, J., MELICHAR, B., LOCHMAN, P., HODEK, M., PETERA, J. Long-term results of preoperative chemoradiation in clinically resectable gastroesophageal cancer: A single institution experience. *European Journal of Cancer.* 2015, **51**(3), S412-S413. ISSN 0959-8049. IF **5.417**

### ABSTRACTS

- ASTER, V., SNOPKOVÁ, S., POLÁKOVÁ, A., CHLÍBEK, R., MALÝ, M., NĚMEČEK, V., KONIG, J. HIV/hepatitis co-infection: the current situation in the Czech Republic. In: *Sborník abstrakt: Kongres klinické mikrobiologie, infekčních nemocí a epidemiologie*. Špindlerův Mlýn: KMINE, 2015, p. 25. ISBN 978-80-906155-3-3.
- BAREKOVÁ, L., HALAMÍČKOVÁ, Z., MELTER, O., STEHLÍKOVÁ, Z., ZÁLABSKÁ, E., BUREŠ, I., HANOVCOVÁ, I. Molecular typing of methicillin-resistant Staphylococcus aureus strains isolated in geriatric center. In: *Sborník abstrakt: 11. odborná konference RANK 2015*. Brno: Výzkumný ústav veterinárního lékařství, 2015, p. 31. ISBN 978-80-86895-44-4.
- BAREKOVÁ, L., SVOBODOVÁ, M., HALAMÍČKOVÁ, Z., ZACHARA, M., ZÁLABSKÁ, E., SÁKRA, L., KNÍŽEK, P., HANOVCOVÁ, I. Infection of surgical site in Pardubice Hospital. In: *Sborník abstrakt: Kongres klinické mikrobiologie, infekčních nemocí a epidemiologie.* Špindlerův Mlýn: KMINE, 2015, p. 54. ISBN 978-80-906155-3-3.
- FAJFROVÁ, J., KRUTIŠOVÁ, P., PAVLÍK, V., HORÁČEK, J. The most frequent causes of occupational injuries at official staff of the Faculty of Military Health Sciences, University of Defence – analysis of accident in years 2010–2014. In: *Sborník abstrakt: 32. Kongres pracovního lékařství*. Jihlava: Společnost pracovního lékařství ČLS JEP, 2015, p. s. 11. ISBN 978-80-260-8784-7.
- FAJFROVÁ, J., PAVLÍK, V., BLAŽEK, O., VACKOVÁ, M. Nutritional state and physical fitness among civilian and military medical studensts. *Obesitologia Hungarica*. 2015, 2(14), 27. ISSN 1586-7935.
- FAJFROVÁ, J., PAVLÍK, V., VACKOVÁ, M., BLAŽEK, O. Only BMI is not enough for evaluation of nutritional state of professional soldiers in the Armed Forces of the Czech Republic. *Obesitologia Hungarica*. 2015, 2(14), 27. ISSN 1586-7935.
- HALAMÍČKOVÁ, Z., KNÍŽEK, P., VÍŠKOVÁ, A., BAREKOVÁ, L., KRŮTOVÁ, M. Nosocomial infections Clostridium difficile and fecal bacteriotherapy hospital in Pardubice. In: *Sborník abstrakt: 29. slovensko-český kongres o infekčných chorobách*. Trnava: Fakulta zdravotníctva a sociálnej práce TU, 2015, p. 42. ISBN 978-80-8082-844-8.
- HANOVCOVÁ, I., SMETANA, J., GÁL, P., DÍTĚ, P., ŠPLIŇO, M., ŠOŠOVIČKOVÁ, R., BOŠTÍKOVÁ, V., CHLÍBEK, R. Seroprevalence of measles and mumps in the adult population in the Czech Republic. Správy klinickej mikrobiológie. 2015, 15(SA 2015), 31. ISSN 1335-8219.

- HORÁČEK, J., KUPSA, T., KARESOVA, I., JEBAVÝ, L., ZAK, P. Serum levels of selected cytokines and cytokine receptors in patients with newly diagnosed acute lymphoblastic leukemia. In: *Proceedings and Abstract Book of the 5th International Congress on Leukemia Lymphoma Myeloma*. Istanbul: Turkish Society of Hematology, 2015, 121-122.
- HORÁČEK, J., KUPSA, T., KARESOVA, I., ZAK, p. Evaluation of serum levels of selected cytokines and cytokine receptors in patients with newly diagnosed acute lymphoblastic leukemia. In: *Sborník abstrakt: 17. Slovensko-český hematologický a transfuziologický zjazd s medzinárodnou účasťou*. Bratislava: A-medi management, 2015, p. 170–108. ISBN 978-80-89797-02-8.
- HORÁČEK, J., KUPSA, T., KAREŠOVÁ, I., ČÁPKOVÁ, H., JEBAVÝ, L., ŽÁK, P. Serum concentrations of selected cytokines and cytokine receptors in patients with acute lymphoblastic leukemia. *Klinická* onkologie. 2015, **28**(S1), S158–S159. ISSN 0862-495X.
- HORÁČEK, J., KUPSA, T., KAREŠOVÁ, I., JEBAVÝ, L., ŽÁK, P. Serum cytokine and adhesion molecule profile differs in newly diagnosed acute myeloid and lymphoblastic leukemia. In: *Sborník abstrakt: 29. Olomoucké hematologické dny s mezinárodní účastí*. Olomouc: UP Olomouc, 2015, p. 24. ISBN 978-80-244-4697-4.
- HORÁČEK, J., KUPSA, T., KAREŠOVÁ, I., VAŠATOVÁ, M., SKOŘEPA, P., JEBAVÝ, L., ŽÁK, P. Evaluation of serum concentrations of cytokines and adhesion molecules in acute leukemia patients and in healthy subjects. *Klinická onkologie*. 2015, 28(S1), S161. ISSN 0862-495X.
- HORÁČEK, J., KUPSA, T., VASATOVA, M., KARESOVA, I., JEBAVÝ, L., ZAK, P. Evaluation of serum cytokine and adhesion molecule profile in newly diagnosed acute leukemias using biochip array technology. In: Abstract book of the Proceedings and Abstract Book of the 5th International Congress on Leukemia Lymphoma Myeloma. Istanbul: Turkish Society of Hematology, 2015, 182–183.
- HORÁČEK, J., PUDIL, R., VAŠATOVÁ, M., TICHÝ, M., JEBAVÝ, L., MALÝ, J., ŽÁK, P. Cardiac biomarkers in the diagnostics of cardiotoxicity of oncology treatment – review and own experience. In: *Sborník abstrakt:* 17. *Slovensko-český hematologický a transfuziologický zjazd s medzinárodnou účasťou*. Bratislava: A-medi management, 2015, p. 70. ISBN 978-80-89797-02-8.
- HORÁČEK, J., VAŠATOVÁ, M., TICHÝ, M., PUDIL, R. Cardiomarkers in the diagnostics of cardiotoxicity of oncology treatment – review and own experience. *Klinická biochemie a metabolismus*. 2015, **23**(3), 133. ISSN 1210-7921.

- HOŠŤÁLKOVÁ, A., KUNEŠ, J., MACÁKOVÁ, K., HRABINOVÁ, M., OPLETAL, L. Alkaloids from hydrastidis canadensis and their cholinesterase and prolyl oligopeptidase inhibitory. *Česká a slovenská farmacie*. 2015, **64**(1–2), 41–43. ISSN 1210-7816.
- CHLÍBEK, R. Advantages and disadvantages of vaccination against tuberculosis. In: *Sborník abstrakt: 11. Hradecké vakcinologické dny*. Praha: Česká vakcinologická společnost ČLS JEP, 2015, p. 34–35. ISBN 978-80-260-8725-0.
- 19. CHLÍBEK, R. Non-standard situations in vaccination of adults examples. *Vakcinologie*. 2015, **9**(1), 33. ISSN 1802-3150.
- CHLÍBEK, R. Pneumococcal vaccination from children to adults. In: Sborník abstrakt: 11. Hradecké vakcinologické dny. Praha: Česká vakcinologická společnost ČLS JEP, 2015, p. 22. ISBN 978-80-260-8725-0.
- CHLÍBEK, R. Role of Czech Vaccination Society in the implementation of vaccination in the Czech Republic. *Vakcinologie*. 2015, 9(1), 12–13. ISSN 1802-3150.
- 22. CHLÍBEK, R. The importance of vaccination in adulthood. *Vakcinologie*. 2015, **9**(1), 28. ISSN 1802-3150.
- 23. CHLÍBEK, R. Two-dose regimen of HPV vaccines and other development. *Vakcinologie*. 2015, **9**(1), 23–24. ISSN 1802-3150.
- 24. CHLÍBEK, R. Vaccination in dialysis patients. *Aktuality v nefrologii*. 2015, **21**(1), P30–P33. ISSN 1213-3248.
- 25. CHLÍBEK, R. Why vaccinate children and adult population against pneumococcus. *Vakcinologie*. 2015, **9**(1), 19–20. ISSN 1802-3150.
- CHLÍBEK, R., ČEČETKOVÁ, B., SMETANA, J. Prevalence study of nosocomial infections in University hospitals in the Czech Republic – pediatric sub-study. In: *Abstract book of the 9th World Congress of the World Society for Pediatric Infectious Diseases (WSPID 2015)*. Rio de Janeiro: WSPID, 2015, p. 311.
- CHLÍBEK, R., PRYMULA, R., SMETANA, J., ŠOŠOVIČKOVÁ, R. Vaccination diabetics and patients with rheumatic disease. In: *Zborník abstraktov:* 6. *slovenský vakcinologický kongres*. SR: A-medi management, 2015, p. 11. ISBN 978-80-971836-3-9.
- CHLÍBEK, R., SMETANA, J. Unresolved issues in vaccination of adult. In: Sborník abstrakt: Kongres klinické mikrobiologie, infekčních nemocí a epidemiologie. Špindlerův Mlýn: KMINE. 2015, p. 34–35. ISBN 978-80-906155-3-3.
- CHLÍBEK, R., SMETANA, J., HANOVCOVÁ, I., ŠOŠOVIČKOVÁ, R., GÁL, P., DÍTĚ, P. Mumps seroprevalence in adults in the Czech Republic – relationship to the children vaccination program. In: Abstract

Book of the 9th World Congress of the World Society for Pediatric Infectious Diseases (WSPID 2015). Rio de Janeiro: WSPID, 2015, p. 495.

- CHLÍBEK, R., SMETANA, J., ŠOŠOVIČKOVÁ, R. Present vaccination of adult in the Czech Republic. In: *Sborník abstrakt: 11. Hradecké* vakcinologické dny. Praha: Česká vakcinologická společnost ČLS JEP, 2015, p. 69–70. ISBN 978-80-260-8725-0.
- KUPSA, T., VANEK, J., VASATOVA, M., KARESOVA, I., JEBAVÝ, L., ZAK, P., HORÁČEK, J. Evaluation of cytokines and soluble adhesion molecules in patients with newly diagnosed acute myeliod leukemia: the role of TNF-alpha and FLT3-ITD. In: *Proceedings and Abstract Book of the 5th International Congress on Leukemia Lymphoma Myeloma*. Istanbul: Turkish Society of Hematology, 2015, 180–181.
- KUPSA, T., VANĚK, J., VAŠATOVÁ, M., KAREŠOVÁ, I., JEBAVÝ, L., ŽÁK, P., HORÁČEK, J. The levels of cytokines and soluble adhesion molecules in patients with newly diagnosed acute myeloid leukemia: the role of TNF-alpha and FLT3-ITD. *Klinická onkologie*. 2015, **28**(S1), 160. ISSN 0862-495X.
- 33. KUPSA, T., VANĚK, J., VAŠATOVÁ, M., KAREŠOVÁ, I., JEBAVÝ, L., ŽÁK, P., HORÁČEK, J. Serum levels of cytokines and soluble adhesion molecules correlate in patients with newly diagnosed acute myeloid leukemia: the role of TNF-aplha and FLT3-ITD. In: *Sborník abstrakt: 29. Olomoucké hematologické dny s mezinárodní účastí*. Olomouc: UP Olomouc, 2015, **29**, 25–26. ISSN 978-80-244-4697-4.
- KUPSA, T., VAŠATOVÁ, M., KAREŠOVÁ, I., JEBAVÝ, L., ŽÁK, P., HORÁČEK, J. Influence of cytogenetic and molecular-genetic aberrations on levels of multiple cytokines and soluble adhesion molecules in patients with acute myeloid leukemia. *Klinická onkologie*. 2015, **28**(S1), 159. ISSN 0862-495X.
- MACHAČ, J., PLÍŠEK, S., CHLÍBEK, R., BUNČEKOVÁ, S. Acute viral hepatitis E in patients hospitalized at the Clinic of Infectious Diseases University Hospital in Hradec Kralove. *Vakcinologie*. 2015, **9**(1), 26–27. ISSN 1802-3150.
- MACHAČ, J., PLÍŠEK, S., CHLÍBEK, R., BUNČEKOVÁ, S., PLÍŠKOVÁ, L. Acute viral hepatitis E in patients hospitalized at the Clinic for Infectious Diseases Hospital in Hradec Kralove in the years 2009–2015. In: *Sborník abstrakt: Kongres klinické mikrobiologie, infekčních nemocí a epidemiologie.* Špindlerův Mlýn: KMINE, 2015, p. 66. ISBN 978-80-906155-3-3.
- MARTINKOVÁ, P., POHANKA, M. Coloriemtric and voltammetric assay of magnetic particles' peroxidase activity. *Klinická biochemie a metabolismus*. 2015, 23(3), 150. ISSN 1210-7921.

- PALÍKOVÁ, M., PAPEŽÍKOVÁ, I., MAREŠ, J., KOPP, R., NAVRÁTIL, S., PIKULA, J., POHANKA, M. Combined exposure of rainbow trout (Oncorhynchus mykiss) to cyanotoxins and arsenic: oxidative stress responses. In: *Sborník abstrakt: 20. Mezioborová Česko-slovenská koference Toxcon 2015.* Brno: Tribun EU, 2015, p. 100.
- PATOČKA, J., JUN, D., KORÁBEČNÝ, J., NEPOVIMOVÁ, E., KUČA, K. Influence of hydroxymetabolites of tacrine in the pharmacology and toxicology of Alzheimer's disease. *Psychiatrie*. 2015, **19**(S1), 55. ISSN 1211-7579.
- PAVLÍK, V., FAJFROVÁ, J., VACKOVÁ, M., BLAŽEK, O. Nutritional habits, physical activity and nutritional state of Czech military medical students. *Obesitologia Hungarica*. 2015, 2(14), 28. ISSN 1586-7935.
- POHANKA, M., ROMÁNEK, J., FUSEK, J., PIKULA, J. Sarin has impact on oxidative homeostasis and standard biochemical blood markers. In: *Sborník abstrakt: 20. Mezioborová Česko-slovenská koference Toxcon* 2015. Brno: Tribun EU, 2015, p. 106. ISBN 978-80-263-0933-8.
- 42. PRYMULA, R. Current possibilities of vaccination from a global point of view. *Vakcinologie*. 2015, **9**(1), 12. ISSN 1802-3150.
- PRYMULA, R. Current vaccination controversy. Vakcinologie. 2015, 9(1), 19. ISSN 1802-3150.
- 44. PRYMULA, R. Why not vaccinate pediatric and adult populations against pneumococcus. *Vakcinologie*. 2015, **9**(1), 20. ISSN 1802-3150.
- 45. PRYMULA, R., CHLÍBEK, R. Controversies in vaccination: Why vaccinate or not vaccinate against varicella and herpes zoster. In: *Sborník abstrakt: 11. Hradecké vakcinologické dny.* Praha: Česká vakcinologická společnost ČLS JEP, 2015, p. 40. ISBN 978-80-260-8725-0.
- SALAVEC, M., SLEHA, R., PRÁŠIL, P., BOŠTÍKOVÁ, V., SMETANA, J., BOŠTÍK, P. Herpes zoster and possible complications. In: *Sborník abstrakt:* 11. Hradecké vakcinologické dny. Praha: Česká vakcinologická společnost ČLS JEP, 2015, p. 51. ISBN 978-80-260-8725-0.
- SMETANA, J. New possibilities of vaccination in adults. In: Sborník abstrakt: 11. Hradecké vakcinologické dny. Praha: Česká vakcinologická společnost ČLS JEP, 2015, p. 71. ISBN 978-80-260-8725-0.
- SMETANA, J. Present vaccination against herpes zoster. In: Sborník abstrakt: 11. Hradecké vakcinologické dny. Praha: Česká vakcinologická společnost ČLS JEP, 2015, p. 53. ISBN 978-80-260-8725-0.

- SMETANA, J. Security vaccination the current issue of the day. In: Sborník abstrakt: Kongres primární péče. Praha: Sdružení praktických lékařů, 2015, p. 37.
- 50. SMETANA, J. Vaccination against tick-borne encephalitis in the summer and after a tick bite. *Vakcinologie*. 2015, **9**(1), 31–32. ISSN 1802-3150.
- SMETANA, J., HANOVCOVÁ, I., GÁL, P., DÍTĚ, P., ŠPLIŇO, M., CHLÍBEK, R. Seroepidemiology measles and mumps in adults. *Vakcinologie*. 2015, 9(1), 30–31. ISSN 1802-3150.
- 52. SMETANA, J., CHLÍBEK, R., HANOVCOVÁ, I., ŠOŠOVIČKOVÁ, R., GÁL, P., DÍTĚ, P. Measles seroprevalence in adults in the Czech Republic - relationship to the children vaccination program. In: Abstract book of the 9th World Congress of the World Society for Pediatric Infectious diseases (WSPID 2015). Rio de Janeiro: WSPID, 2015, p. 494.
- STŘÍTECKÁ, H., JAN, K., PAVOL, H. Availability and understanding of nutritional recommendations for patients with CVD. *Hypertenze*. 2015, (S), 32. ISSN 1211-9679.
- 54. ŠOŠOVIČKOVÁ, R., SMETANA, J., BERANOVÁ, E., KUČEROVÁ, K., CHLÍBEK, R. The incidence of viral hepatitis A in Hradec Kralove region in 2014. In: *Sborník abstrakt: 11. Hradecké vakcinologické dny.* Praha: Česká vakcinologická společnost ČLS JEP, 2015, p. 63. ISBN 978-80-260-8725-0.
- ŠOŠOVIČKOVÁ, R., SMETANA, J., CHLÍBEK, R. Current risks and possibilities for prevention of viral hepatitis A. In: *Sborník abstrakt: 11. Hradecké vakcinologické dny*. Praha: Česká vakcinologická společnost, 2015, p. 72. ISBN 978-80-260-8725-0.
- ŠOŠOVIČKOVÁ, R., SMETANA, J., CHLÍBEK, R., HANOVCOVÁ, I., BOŠTÍKOVÁ, V., ŠPLIŇO, M. Awareness of preventive care and voluntary vaccination in adults. *Vakcinologie*. 2015, **9**(1), 27. ISSN 1802-3150.

### PRESENTATIONS AND POSTERS

- ASTER, V., SNOPKOVÁ, S., POLÁKOVÁ, A., CHLÍBEK, R., MALÝ, M., NĚMEČEK, V., KONIG, J. *HIV/hepatitis co-infection: The current situation in the Czech Republic*. Špindlerův Mlýn: Kongres klinické mikrobiologie, infekčních nemocí a epidemiologie. 23.09.2015–25.09.2015.
- ASTRUP, A., KRISTENSEN, M., GNESSI, L., WATANABE, M., SVACINA, Š., MATOULEK, M., HLÚBIK, P., STŘÍTECKÁ, H., CONTALDO, F., PASANISI, F., HESHMATI, H., ZOHAR, Y., RON, E., URBAN, L., SANNINO, A., DEMITRI, C. Gelesis 100 significantly decreases carbohydrate intake in overweight and obese subject with high fasting glucose. Praha: ECO2015 – 22nd European Congress on Obesity. 06.05.2015–09.05.2015. /POSTER/
- BAJGAR, J., FUSEK, J. Antidotal therapy of poisonings with nerve agents. Uherské Hradiště: Historie a současnost chemických zbraní. 27.05.2015–28.05.2015.
- BALONOVÁ, L. Bacterial glycoproteomics: Protein glycosylation in Francisella tularensis. České Budějovice: Interní seminář Jihočeské univerzity. 08.12.2015–08.12.2015.
- BALONOVÁ, L. Protein glycan coupling technology: Francisella tularensis recombinant proteins? Bílá Třemešná: Výroční zasedání KMBP 2015. 03.12.2015–04.12.2015.
- BALONOVÁ, L., DAŇKOVÁ, V., LINK, M., STULÍK, J. Analysis of Francisella tularensis protein O-glycosylation pathway. Opatija, Croatia: 8th International Conference on Tularemia. 27.09.2015–02.09.2015. /POSTER/
- BAREKOVÁ, L., HALAMÍČKOVÁ, Z., MELTER, O., STEHLÍKOVÁ, Z., ZÁLABSKÁ, E., BUREŠ, I., HANOVCOVÁ, I. Molecular typing of methicillin-resistant Staphylococcus aureus strains isolated in geriatric center. Pardubice: 11. odborná konference RANK 2015. 04.02.2015– 05.02.2015. /POSTER/
- BAREKOVÁ, L., SVOBODOVÁ, M., HALAMÍČKOVÁ, Z., ZACHARA, M., ZÁLABSKÁ, E., SÁKRA, L., KNÍŽEK, P., HANOVCOVÁ, I. *Infection* of surgical site in Pardubice Hospital. Špindlerův Mlýn: Kongres klinické mikrobiologie, infekčních nemocí a epidemiologie. 23.09.2015– 25.09.2015. /POSTER/
- BERKOVÁ, J., LOCHMAN, P., TRLICA, J., DĚDEK, T., KOČÍ, J. The impact of the hemostatic resuscitation on the cumulative fluid balance in trauma patients. Observational study. Nagoya, Japan: 115th Annual Congress of Japan Surgical Society. 16.04.2015–18.04.2015.

- BLAŽEK, O., FAJFROVÁ, J., VACKOVÁ, M., PAVLÍK, V. Monitoring of nutritional state and metabolic turnover among civilian and military medical students over time. Praha: Obezitologie a bariatrie 2015. 05.05.2015–05.05.2015. /POSTER/
- BLAŽEK, O., FAJFROVÁ, J., VACKOVÁ, M., PAVLÍK, V. Monitoring of nutritional state and metabolic rate among Czech military and civilian medical students. Praha: 22nd European Congress on Obesity. 06.05.2015–09.05.2015. /POSTER/
- BLAŽEK, P., KŘENEK, J., KUČA, K., JUN, D., K. The biomedical data collecting system. Pardubice: The Microwave and Radio Electronics Week 2015 – MAREW2015. 21.04.2015–23.04.2015. /POSTER/
- BLAŽEK, P., KUČA, K., JUN, D., KREJCAR, O. Development of information and management system for laboratory based on open source licensed software. Madrid, Spain: 7th International Conference on Computational Collective Intelligence Technologies and Applications. 21.09.2015–23.09.2015.
- 14. CUNNINGHAM, AL., CHLÍBEK, R., DIEZ-DOMINGO, J., ATHAN, E., BARBA-GOMEZ, JF., GHESQUIERE, W., HWANG, S., LEUNG, E., LEVIN, MJ., PODER, A., PUIG-BARBERA, J., SMETANA, J., VESIKARI, T., VOLPI, A., GODEAUX, O., ZAHAF, T., LAL, H., HEINEMAN, TC. *Efficacy of an adjuvanted herpes zoster subunit* vaccine in older adults by region: results of the phase 3 zoe-50 trial. San Diego, CA, USA: IDWeek congress. 07.10.2015–11.10.2015. /POSTER/
- ČEČKA, F., LOVEČEK, M., JON, B., SKALICKÝ, P., ŠUBRT, Z., FERKO, A., NEORAL, Č. Type drain may affect postoperative complications after resection of the pancreas? Preliminary results of a prospective randomized study. Plzeň: 7. kongres chirurgie jater, žlučových cest a pankreatu. 15.06.2015–16.06.2015.
- ČECHÁKOVÁ, L. Radiosensibilization of cancer cells: Importance of autophagy modulation. Hradec Králové: Seminář katedry radiobiologie. 08.12.2015–08.12.2015.
- ČERVINKA, P., KALA, P., JAKL, M., KANOVSKÝ, J., KUPEC, A., ŠPAČEK, R., KVASNAK, M., ČERVINKOVÁ, M., BEZERRA, H., TANAKA, K. Randomised comparison of 9-month stent strut coverage of biolimus and everolimus drug-eluting stents assessed by OCT in patients with STEMI. London, Great Britain: ESC Congress 2015. 29.08.2015–02.09.2015. /POSTER/
- DOUBEK, M., FOLBER, F., HORÁČEK, J., HRABOVSKÝ, Š., ŠÁLEK, C. Advancements in the diagnostics and treatment of adult acute lymphoblastic leukemia. Olomouc: 29. Olomoucké hematologické dny s mezinárodní účastí. 31.05.2015–02.06.2015.

- DOUBEK, M., FOLBER, F., HORÁČEK, J., ŠÁLEK, C. ALL issues. Praha: Výroční valná hromada České leukemické skupiny – pro život (CELL). 16.12.2015–16.12.2015.
- DRESLER, J., FUČÍKOVÁ, A., PAJER, P., JUN, D., KROČOVÁ, Z., PÍŠA, L., MACELA, A., STULÍK, J. SRM method for detection and identification of highly dangerous protein toxins in environmental samples. Saint Louis, USA: 63rd ASMS Conference on Mass Spectrometry and Allied Topics. 31.05.2015–04.06.2015. /POSTER/
- DRESLER, J., KRŮTOVÁ, M., FUČÍKOVÁ, A., KLIMENTOVÁ, J., HRŮZOVÁ, V., MATĚJKOVÁ, J., PAJER, P., NYČ, O. Targeted mass spectrometry in the analysis of historical samples and protein toxins. Komorní Hrádek: Mezioborový seminář technik a postupů využitelných v problematice biologické ochrany. 15.07.2015–16.07.2015.
- DRESLER, J., KRŮTOVÁ, M., FUČÍKOVÁ, A., KLIMENTOVÁ, J., HRŮZOVÁ, V., MATĚJKOVÁ, J., PAJER, P., NYČ, O. Comparative proteomic analysis of C. difficile clinically relevant ribotypes. Vancouver, Canada: 14th Human Proteome Organization World Congress. 27.09.2015–30.09.2015. /POSTER/
- ĎURÁČOVÁ, M. Production of recombinant beta 2 protein Clostridium perfringens. Praha: Neformální proteomické setkání. 26.11.2015– 27.11.2015.
- 24. ĎURÁČOVÁ, M. *Production of recombinant beta 2 protein Clostridium perfringens*. Bílá Třemešná: Výroční zasedání KMBP 2015. 03.12.2015–04.12.2015.
- 25. ĎURIŠOVÁ, K. *The practical use of qRT-PCR in Biodosimetry*. Hradec Králové: Seminář katedry radiobiologie. 08.12.2015–08.12.2015.
- 26. ĎURIŠOVÁ, K., TICHÝ, A., PEJCHAL, J., ZÁRYBNICKÁ, L., ŠINKOROVÁ, Z., KMOCHOVÁ, A. Comparison of dna repair kinases inhibitors in normal and tumor cells. Hradec Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.2015–22.10.2015. /POSTER/
- DUŠEK, T., FERKO, A., ÖRHALMI, J., CHOBOLA, M., HADŽI NIKOLOV, D., HOVORKOVÁ, E. Analysis of small cancers occupying 1/4 of the circumference of the rectum with a focus on nodal involvement in mesorectum. Hradec Králové: 15. Bedrnův den. 15.04.2015–17.04.2015.
- DUŠEK, T., CHOBOLA, M., SOTONA, O., ÖRHALMI, J. Surgical treatment of abdominal catastrophes. Čejkovice: Chirurgické sympozium. 18.09.2015–18.09.2015.

- DUŠEK, T., PÁRAL, J., PLODR, M. Current status in the treatment of rectal cancer in the Czech Republic regarding the rate of complete pathological response after neoadjuvant therapy - PATOD C20 study 2011-2012. Phuket, Thailand: The 2nd Phuket International Symposium in Colorectal Disease 2015. 05.12.2015–07.12.2015. /POSTER/
- 30. FABRIK, I. *Phosphoproteome of dendritic cells infected by F. tularensis*. Bílá Třemešná: Výroční zasedání KMBP 2015. 03.12.2015–04.12.2015.
- FABRIK, I., LINK, M., PUTZOVÁ, D., ŘEHULKA, P., STULÍK, J. Proteomic mapping of cell signaling in dendritic cells during early iInteractions with Francisella tularensis. Opatija, Croatia: 8th International Conference on Tularemia. 28.09.2015–01.10.2015.
- FABRIK, I., LINK, M., ŘEHULKA, P., STULÍK, J. Mapping of dendritic cell signaling events during the first hour of infection by Francisella tularensis. Hradec Králové: 12th International Medical Postgraduate Conference. 26.11.2015–27.11.2015.
- 33. FAJFROVÁ, J. *Cold strain*. Hradec Králové: Seminář OSD SDK MO. 05.03.2015–05.03.2015.
- 34. FAJFROVÁ, J. *Criteria for providing of protective beverages*. Hradec Králové: Seminář OSD SDK MO. 05.03.2015–05.03.2015.
- 35. FAJFROVÁ, J. *Heat strain.* Hradec Králové: Seminář OSD SDK MO. 05.03.2015–05.03.2015.
- FAJFROVÁ, J. Inclusion condition for work categorization, limit values; criteria for work categorization. Hradec Králové: Seminář OSD SDK MO. 17.06.2015–17.06.2015.
- 37. FAJFROVÁ, J. Legislation and regulations for occupational health practice providers. Hradec Králové: Školení nelékařského personálu CZdrS v pracovnělékařských službách a souvisejících prováděných činnostech v resortu AČR. 09.09.2015–09.09.2015.
- FAJFROVÁ, J. Long and short term allowable work time, work schedules and safety breaks. Hradec Králové: Seminář OSD SDK MO. 05.03.2015–05.03.2015.
- FAJFROVÁ, J. Medical examinations of employees carry out hazardous work. Hradec Králové: Seminář OSD SDK MO. 17.06.2015–17.06.2015.
- 40. FAJFROVÁ, J. Occupational health practice in the Armed Forces of the Czech Republic. Hradec Králové: Školení nelékařského personálu CZdrS v pracovnělékařských službách a souvisejících prováděných činnostech v resortu AČR. 09.09.2015–09.09.2015.
- 41. FAJFROVÁ, J. *Precautions to protect health of workers*. Hradec Králové: Seminář OSD SDK MO. 05.03.2015–05.03.2015.

- FAJFROVÁ, J. The employer's duties in the field of work categorization; documentation of hazardous work. Hradec Králové: Seminář OSD SDK MO. 17.06.2015–17.06.2015.
- 43. FAJFROVÁ, J. *The legal framework of work categorization*. Hradec Králové: Seminář OSD SDK MO. 17.06.2015–17.06.2015.
- FAJFROVÁ, J., KRUTIŠOVÁ, P., PAVLÍK, V., HORÁČEK, J. The most frequented causes of military duty and workplace injuries of employees of Faculty of Military Health Sciences UoD – injury analysis from 2010– 2014. Jihlava: 32. Kongres pracovního lékařství. 15.10.2015– 16.10.2015. /POSTER/
- 45. FAJFROVÁ, J., PAVLÍK, V. The first experiences with the using a telemedicine system for lifestyle change. Hradec Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.2015–22.10.2015. /POSTER/
- FAJFROVÁ, J., PAVLÍK, V., BLAŽEK, O., VACKOVÁ, M. Nutritional state and physical fitness among civilian and military medical students. Nový Smokovec, Slovakia: 23. vedecko-odborná konferencia Životné podmienky a zdravie. 21.09.2015–23.09.2015. /POSTER/
- FAJFROVÁ, J., PAVLÍK, V., BLAŽEK, O., VACKOVÁ, M. Nutritional state and physical fitness among civilian and military medical students. Budapest, Hungary: 5th Central European Congress on Obesity. 01.10.2015–03.10.2015. /POSTER/
- FAJFROVÁ, J., PAVLÍK, V., VACKOVÁ, M., BLAŽEK, O. Nutritional state and lifestyle of Czech military medical students. Nový Smokovec, Slovakia: 23. vedecko-odborná konferencia Životné podmienky a zdravie. 21.09.2015–23.09.2015. /POSTER/
- FAJFROVÁ, J., PAVLÍK, V., VACKOVÁ, M., BLAŽEK, O. BMI, it itself, is not sufficient parameter for evaluation of nutritional state of professional soldiers in the Armed Forces of the Czech Republic. Praha: 22nd European Congress on Obesity. 06.05.2015–09.05.2015. /POSTER/
- FAJFROVÁ, J., PAVLÍK, V., VACKOVÁ, M., BLAŽEK, O. Nutritional state and lifestyle of Czech military medical students. Hradec Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.2015–22.10.2015. /POSTER/
- FAJFROVÁ, J., PAVLÍK, V., VACKOVÁ, M., BLAŽEK, O. Only BMI is not enough for evaluation of nutritional state of professional soldiers in the Armed Forces of the Czech Republic. Budapest, Hungary: 5th Central European Congress on Obesity. 01.10.2015–03.10.2015. /POSTER/
- 52. FUČÍKOVÁ, A. Cardiomyopathy and toxins detection, identification, quantification. Bílá Třemešná: Výroční zasedání KMBP 2015. 03.12.2015–04.12.2015.

- FUČÍKOVÁ, A. *iTRAQ comparison of human plasma proteins in HCM and selected cardiovascular disorders*. Vancouver, Canada: HUPO 2015. 27.09.2015–30.09.2015.
- 54. FUČÍKOVÁ, A. *Targeted proteomic analysis of highly dangerous toxins*. Praha: Neformální proteomické setkání. 26.11.2015–27.11.2015.
- 55. FUČÍKOVÁ, A., ŘEHULKOVÁ, H., HORÁKOVÁ, L., ŘEHULKA, P., ŘEHÁČEK, V., PUDIL, R., STULÍK, J. *iTRAQ comparison of human plasma proteins in HCM and selected cardiovascular disorders*. Vancouver, Canada: HUPO 2015. 27.09.2015–30.09.2015. /POSTER/
- FUSEK, J., BAJGAR, J. Approaches to the testing of effects of chemical warfare agents (CWA) and their antidotes in clinical experiment. Uherské Hradiště: Historie a současnost chemických zbraní. 27.05.2015–28.05.2015.
- HALAMÍČKOVÁ, Z., KNÍŽEK, P., VÍŠKOVÁ, A., BAREKOVÁ, L., KRŮTOVÁ, M. Nosocomial infections Clostridium difficile and fecal bacteriotherapy hospital in Pardubice. Trnava, Slovakia: 24. slovenskočeský kongres o infekčných chorobách. 10.06.2015–12.06.2015.
- HANOVCOVÁ, I., SMETANA, J., GÁL, P., DÍTĚ, P., ŠPLIŇO, M., ŠOŠOVIČKOVÁ, R., BOŠTÍKOVÁ, V., CHLÍBEK, R. Seroprevalence of measles and mumps in the adult population in the Czech Republic. Nový Smokovec, Slovakia: 23. Moravsko-slovenské mikrobiologické dni. 01.06.2015–03.06.2015.
- HATLAPATKOVÁ, J., MISÍK, J., KASSA, J. Behavioral effects of psychically incapacitating agent BZ. Hradec Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.2015–22.10.2015. /POSTER/
- HORÁČEK, J. Acute leukamias on ASH 2014. Hradec Králové: Seminář
   interní hematologické kliniky FN Hradec Králové. 21.01.2015– 21.01.2015.
- HORÁČEK, J. Acute leukamias on EHA 2015. Hradec Králové: Seminář
   interní hematologické kliniky FN Hradec Králové. 16.09.2015– 16.09.2015.
- HORÁČEK, J., KUPSA, T., JEBAVÝ, L. Acute situations in hematooncology. Olomouc: 61. konference vojenských internistů s mezinárodní účastí. 15.10.2015–16.10.2015.
- 63. HORÁČEK, J., KUPSA, T., JEBAVÝ, L., ŽÁK, P. Evaluation of serum cytokine and adhesion molecule profile in patients with newly diagnosed acute myeloid and lymphoblastic leukemia. Hradec Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.2015–22.10.2015. /POSTER/

- HORÁČEK, J., KUPSA, T., KARESOVA, I., JEBAVÝ, L., ZAK, P. Serum levels of selected cytokines and cytokine receptors in patients with newly diagnosed acute lymphoblastic leukemia. Istanbul, Turkey: 5th International Congress on Leukemia Lymphoma Myeloma. 21.05.2015– 23.05.2015. /POSTER/
- HORÁČEK, J., KUPSA, T., KARESOVA, I., ZAK, P. Evaluation of serum levels of selected cytokines and cytokine receptors in patients with newly diagnosed acute lymphoblastic leukemia. Bratislava, Slovensko: 17. Slovensko-český hematologický a transfuziologický zjazd s medzinárodnou účasťou. 24.09.2015–27.09.2015. /POSTER/
- 66. HORÁČEK, J., KUPSA, T., KAREŠOVÁ, I., ČÁPKOVÁ, H., JEBAVÝ, L., ŽÁK, P. Serum concentrations of selected cytokines and cytokine receptors in patients with acute lymphoblastic leukemia. Brno: 39. Brněnské onkologické dny a 29. konference pro nelékařské zdravotnické pracovníky. 08.04.2015–10.04.2015. /POSTER/
- HORÁČEK, J., KUPSA, T., KAREŠOVÁ, I., JEBAVÝ, L., ŽÁK, P. Serum cytokine and adhesion molecule profile differs in newly diagnosed acute myeloid and lymphoblastic leukemia. Olomouc: 29. Olomoucké hematologické dny s mezinárodní účastí. 31.05.2015–02.06.2015.
- HORÁČEK, J., KUPSA, T., KAREŠOVÁ, I., VAŠATOVÁ, M., SKOŘEPA, P., JEBAVÝ, L., ŽÁK, P. Evaluation of serum concentrations of cytokines and adhesion molecules in acute leukemia patients and in healthy subjects. Brno: 39. Brněnské onkologické dny a 29. konference pro nelékařské zdravotnické pracovníky. 08.04.2015– 10.04.2015. /POSTER/
- HORÁČEK, J., KUPSA, T., VASATOVA, M., KARESOVA, I., JEBAVÝ, L., ZAK, P. Evaluation of serum cytokine and adhesion molecule profile in newly diagnosed acute leukemias using biochip array technology. Istanbul, Turkey: 5th International Congress on Leukemia Lymphoma Myeloma. 21.05.2015–23.05.2015. /POSTER/
- 70. HORÁČEK, J., PUDIL, R., VAŠATOVÁ, M., TICHÝ, M., JEBAVÝ, L., MALÝ, J., ŽÁK, P. Cardiac biomarkers in the diagnostics of cardiotoxicity of oncology treatment – review and own experience. Bratislava, Slovakia: 17. Slovensko-český hematologický a transfuziologický zjazd s medzinárodnou účasťou. 24.09.2015– 27.09.2015.
- HORÁČEK, J., VAŠATOVÁ, M., TICHÝ, M., PUDIL, R. Cardiomarkers in the diagnostics of cardiotoxicity of oncology treatment – review and own experience. Brno: 12. celostátní sjezd České společnosti klinické biochemie s mezinárodní účastí. 20.09.2015–22.09.2015.

- 72. HORÁČEK, J., ŽÁK, P. Innovations in the treatment of ALL with focus on the use of monoclonal antibodies. Sychrov: Regionální hematologický seminář východočeského a libereckého regionu. 27.11.2015–27.11.2015.
- 73. HOŠŤÁLKOVÁ, A., NOVÁK, Z., HRABINOVÁ, M., ŠTĚPÁNKOVÁ, Š., PERÉZ, D., KUNEŠ, J., CAHLÍKOVÁ, L., OPLETAL, L. Alkaloids from Berberis vulgaris and their biological activity connected to Alzheimer's disease. Budapest, Hungary: 63rd International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research (GA2015). 23.08.2015–27.08.2015. /POSTER/
- HRSTKA, Z. Acute leukaemia in adults: their needs and possibilities of psychotherapy. Olomouc: Celostátní konference FN Olomouc. 02.07.2015–02.07.2015.
- 75. HRSTKA, Z. Affection of pain with psychological means. Olomouc: Psychologie bolesti u onkologických pacientů. 16.12.2015–16.11.2015.
- 76. HRSTKA, Z. Behavioral difficulties among patients. Hradec Králové: Regionální seminář FN HK. 18.02.2015–18.02.2015.
- 77. HRSTKA, Z. Burnout syndrome in healthcare staff. Olomouc: Regionální seminář FN HOK. 28.01.2015–28.01.2015.
- HRSTKA, Z. Coping and communication with geriatric patients and their families. Headec Králové: Regionální seminář FN HK. 05.02.2015– 05.02.2015.
- 79. HRSTKA, Z. *Coping with acute stress in emergency situations*. Praha: Celostátní seminář HZS. 10.04.2015–10.04.2015.
- 80. HRSTKA, Z. *Critical incident stress management*. Jablonec nad Nisou: Celostátní seminář psychologů. 14.05.2015–14.05.2015.
- HRSTKA, Z. Differences in male and female communication styles. Kunětická hora: Celostátní pracovní konference s mezinárodní účastí Sekce 38 ČAS. 21.05.2015–21.05.2015.
- HRSTKA, Z. Different experience for men and women, potential conflicts. Hradec Králové: Regionální seminář FN HK. 11.02.2015– 11.02.2015.
- HRSTKA, Z. Impact of a stressed nurses on her interpersonal relationships. Ostrava: Regionální seminář FN Ostrava. 29.05.2015– 29.05.2015.
- HRSTKA, Z. Psychological aspect of alcoholism and other drug addictions. Rychnov nad Kněžnou: Celostátní seminář. 03.03.2015– 03.03.2015.
- HRSTKA, Z. Psychologist in the care of female medical staff, the rarity of Czech oncology. Olomouc: 6. Psychoonkologické sympozium. 09.09.2015–09.09.2015.

- HRSTKA, Z. Stresses and coping in ICU: how to help others and not to harm themselves. Hradec Králové: Regionální seminář FN HK. 12.05.2015–12.05.2015.
- 87. HUMLÍČEK, V. *Medevac Training in the ACR*. Dusseldorf, Germany: International Conference on Disaster and Military Medicine. 17.11.2015–18.11.2015. /POSTER/
- HUMLÍČEK, V., ŽĎÁRA, J. MEDEVAC. Hradec Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.2015–22.10.2015. /POSTER/
- CHLÍBEK, R. Advantages and disadvantages of vaccination against tuberculosis. Hradec Králové: 11. Hradecké vakcinologické dny. 01.10.2015–03.10.2015.
- 90. CHLÍBEK, R. *Be afraid of hepatitis C?* Zlín: 34. Výroční konference Společnosti všeobecného lékařství ČLS JEP. 11.11.2015–14.11.2015.
- CHLÍBEK, R. Development and current epidemiological situation of HBV and HCV in the Czech Republic. Praha: Odborné symposium Nová éra léčby virových hepatitid. 21.03.2015–21.03.2015.
- CHLÍBEK, R. Change in susceptibility of the Czech Republic population to HAV infection. Stockholm, Sweden: Second Expert Panel Meeting ECDC. 05.05.2015–06.05.2015.
- CHLÍBEK, R. Immunization of adults. Vienna, Austria: 23rd Central European Vaccination Awareness Group Meeting. 05.11.2015– 06.11.2015.
- 94. CHLÍBEK, R. *Importance of cross-protection by vaccination*. Doksy: Vakcinační akademie Pneumokoky. 13.11.2015–14.11.2015.
- 95. CHLÍBEK, R. Importance of cross-protection by vaccination. Kurdějov: Vakcinační akademie Pneumokoky. 23.10.2015–24.10.2015.
- CHLÍBEK, R. Individual country reports on Adult Immunization Calendars and Vaccination of migrants in the Czech Republic. Vienna, Austria: 23rd Central European Vaccination Awareness Group Meeting. 05.11.2015–06.11.2015.
- CHLÍBEK, R. News in vaccinology (not only legislative). Mělník: Odborná vzdělávací akce na téma Vybrané kapitoly z infekce a vakcinologie. 15.10.2015–15.10.2015.
- CHLÍBEK, R. News of vaccination for general practitioners. Zlín: 34. Výroční konference Společnosti všeobecného lékařství ČLS JEP. 11.11.2015–14.11.2015.
- CHLÍBEK, R. Pertussis immunization inf pregnant women. Víenna, Austria: 22nd Central European Vaccination Awareness Group Meeting. 16.04.2015–17.04.2015.

- 100.CHLÍBEK, R. Pneumococcal vaccination from children to adults, or What has brough the studie CAPITA. Praha: Odborné sympozium "Lze předcházet pneummokokovým pneumoniím?" 19.05.2015–19.05.2015.
- 101.CHLÍBEK, R. Pneumococcal vaccination from children to adults. Hradec Králové: 11. Hradecké vakcinologické dny. 01.10.2015– 03.10.2015.
- 102.CHLÍBEK, R. Tuberculosis, vaccinations for and against, the current situation in the Czech Republic. Mělník: Odborná vzdělávací akce na téma Vybrané kapitoly z infekce a vakcinologie. 15.10.2015– 15.10.2015.
- 103.CHLÍBEK, R. *Vaccination in adults*. Praha: Health Ministers Meeting between China and CEEC. 15.06.2015–17.06.2015.
- 104.CHLÍBEK, R. Vaccination in dialysis patients. Ostrava: Brodovy dny 6. edukační symposium České nefrologické společnosti. 22.04.2015– 23.04.2015.
- 105.CHLÍBEK, R. *Why vaccinate against herpes zoster*. Hradec Králové: 11. Hradecké vakcinologické dny. 01.10.2015–03.10.2015.
- 106.CHLÍBEK, R. *Why vaccinate against TB*. Třeboň: Mezioborový seminář Třeboň 2015. 12.01.2015–14.01.2015.
- 107.CHLÍBEK, R. *Why vaccinate against varicella*. Hradec Králové: 11. Hradecké vakcinologické dny. 01.10.2015–03.10.2015.
- 108.CHLÍBEK, R. *Why vaccinate just in adulthood*. Mariánské Lázně: 8. kongres české lékařské akademie. 26.11.2015–26.11.2015.
- 109.CHLÍBEK, R., CUNNINGHAM, AL., HEINEMAN, TC., LAL, H., LEVIN, MJ., WATANABE, D., ZAHAF, T. Immunogenicity of an adjuvanted investigational herpes zoster subunit vaccine is independent of age in older adults. Boise, Idaho, USA: 40th Annual International Herpesviruses Workshop. 25.07.2015–29.07.2015. /POSTER/
- 110.CHLÍBEK, R., ČEČETKOVÁ, B., SMETANA, J. Prevalence study of nosocomial infections in University hospitals in the Czech Republic – pediatric sub-study. Rio de Janeiro, Brazilia: 9th World Congress of the World Society for Pediatric Infectious Diseases (WSPID 2015). 18.11.2015–21.11.2015. /POSTER/
- 111.CHLÍBEK, R., PRYMULA, R., SMETANA, J., ŠOŠOVIČKOVÁ, R. Vaccination diabetics and patients with rheumatic disease. Štrbské Pleso,Slovakia: 6. slovenský vakcinologický kongres. 15.01.2015– 17.01.2015.
- 112.CHLÍBEK, R., SMETANA, J. Unresolved issues in vaccination of adult. Špindlerův Mlýn: Kongres klinické mikrobiologie, infekčních nemocí a epidemiologie. 23.09.2015–25.09.2015.

- 113.CHLÍBEK, R., SMETANA, J., GÁL, P., DÍTĚ, P., HEINEMAN, T., HIMAL, L. Adjuvanted subunit vaccine efficacy against herpes belt in older adults – the results of a placebo-controlled study. Trnava, Slovakia: 29. Slovensko-český kongres o infekčných chorobách. 10.06.2015–12.06.2015.
- 114.CHLÍBEK, R., SMETANA, J., HANOVCOVÁ, I., ŠOŠOVIČKOVÁ, R., GÁL, P., DÍTĚ, P. Mumps seroprevalence in adults in the Czech Republic – relationship to the children vaccination program. Rio de Janeiro, Brazil: 9th World Congress of the World Society for Pediatric Infectious Diseases (WSPID 2015). 18.11.2015–21.11.2015. /POSTER/
- 115.CHLÍBEK, R., SMETANA, J., ŠOŠOVIČKOVÁ, R. Changes in the vaccination calendar 2015/2016. Černý Důl: Mezikrajský seminář epidemiologů 2015. 20.05.2015–22.05.2015.
- 116.CHLÍBEK, R., SMETANA, J., ŠOŠOVIČKOVÁ, R. *Present vaccination of adult in the Czech Republic*. Hradec Králové: 11. Hradecké vakcinologické dny. 01.10.2015–03.10.2015.
- 117.CHLÍBEK, R., SMETANA, J., ŠOŠOVIČKOVÁ, R., ŠPLIŇO, M. *The epidemiological situation for detained migrants and the health risk of introducing infectious diseases*. Hradec Králové: Medicína katastrof zkušenosti, příprava, praxe. 26.11.2015–26.11.2015.
- 118.CHLÍBEK, R., ŠKOVRÁNKOVÁ, J. *Current issues and trends in vaccination*. Černý Důl: 17. setkání přednostů a primářů infekčních klinik a oddělení. 08.04.2015–10.04.2015.
- 119.JAKL, M. Cardiac magnetic resonance. Olomouc: 61. konference vojenských internistů. 15.10.2015–16.10.2015.
- 120.JAKL, M. Tachycardia. Karlovy Vary: 13. konference Pracovní skupiny Akutní kardiologie České kardiologické společnosti. 06.12.2015– 08.12.2015.
- 121.JAKL, M., ČERVINKA, P., KALA, P., KANOVSKÝ, J., KUPEC, A., VANĚK, J., TANAKA, K., NISHINO, S., SCHNELL, A., BEZERRA, H. Natural history of stent malapposition in patients treated by primary percutaneous coronary intervention: Subanalysis of ROBUST trial. London, Great Britain: ESC Congress 2015. 29.08.2015–02.09.2015. /POSTER/
- 122.JAKL, M., DVOŘÁK, R., ŠŤÁSEK, J., NOVÝ, J., HORÁČEK, J. Telemetric Evaluation of Electrocardiogram with Suspected Myocardial Infarction in Hradec Králové Region. Brno: 23. výroční sjezd České kardiologické společnosti. 24.05.2015–27.05.2015. /POSTER/
- 123.JAKL, M., HORÁČEK, J. Treatment of Selected Cardivascular Diseases in Evacuation System. Hradec Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.2015–22.10.2015.

- 124.JAKL, M., SEVCIK, R., FATOROVA, I., HORÁČEK, J. Impact of high on-treatment platelet reactivity on 5-year mortality in patients after myocardial infarction. Vienna, Austria: Cardiac CT Hands on Workshop. 11.06.2015–15.06.2015. /POSTER/
- 125.JAREŠOVÁ, L., KLEIN, L. Archibald McIndoe pioneer of plastic surgery at the service of the Royal Air Force. Hradec Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.2015–22.10.2015.
- 126.JEBAVÝ, L., HORÁČEK, J., ZAVORAL, M., HALATA, P., HŘÍBEK, M., BRABEC, T., NAVRÁTIL, K. Summary of activity in the field of internal medicine in the medical service of the ACR for the year 2014. Olomouc: 61. konference vojenských internistů. 15.10.2015–16.10.2015.
- 127.JOŠT, P., MÚČKOVÁ, L., JUN, D. The employment of microcapillary flow cytomemetry in time-course study of cytotoxicity and genotoxicity of chemical warfare agent sulfur mustard. Olomouc: V4 International Conference Analytical Cytometry VIII. 03.10.2015–06.10.2015. /POSTER/
- 128.JOŠT, P., MÚČKOVÁ, L., JUN, D., ŠTĚTINA, R. Time-course study of cytotoxicity and genotoxicity of chemical warfare agent sulfur mustard using microcapilary flow cytometry. Hradec Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.2015–22.10.2015. /POSTER/
- 129.KASSA, J., KORÁBEČNÝ, J., KRAČMAROVÁ, A., MISÍK, J. Effect of novel tacrine-related cholinesterase inhibitors on cognitive deficit induced by 3-quinuclidinyl benzilate in rats. Amsterdam, Netherlands: 28th ECNP Congress. 30.08.2015–01.09.2015. /POSTER/
- 130.KASSA, J., KORÁBEČNÝ, J., NEPOVIMOVÁ, E., MISÍK, J. Therapeutic effect of novel 7-Meota-donepezil like hybrids on cognitive deficit in rats – a potentiality for Alzheimer`s diesase treatment. Amsterdam, Netherlands: 28th ECNP Congress. 30.08.2015–01.09.2015. /POSTER/
- 131.KASSA, J., MISÍK, J., ŽĎÁROVÁ KARASOVÁ, J. A comparison of the neuroprotective efficacy of newly developed oximes K361 and K378 with the oxime K203 and trimedoxime in tabun-poisoned rats. Lázně Jeseník: 57. česko-slovenská psychofarmakologická konference. 09.01.2015–09.01.2015. /POSTER/
- 132.KASSA, J., ŠEPSOVÁ, V., BAJGAR, J., MUSÍLEK, K., KUČA, K. The ability of the oxime K203 to reactivate acetycholinesterase inhibited by highly toxic organophosphorus compounds called nerve agents – a comparison with currently available oximes in rats. Alicante, Spain: 12th International Meeting on Cholinesterases. 27.09.2015–02.10.2015. /POSTER/

- 133.KASSA, J., ŠEPSOVÁ, V., MATOUŠKOVÁ, L., HOROVÁ, A., MUSÍLEK, K. A comparison of the reactivating and therapeutic efficacy of two novel bispyridinium oximes (K727, K733) with the oxime HI-6 and obidoxime in sarin-poisoned rats and mice. Brno: 20th Interdisciplinary Czech-Slovak Toxicology Conference (TOXCON 2015). 27.11.2015– 29.11.2015. /POSTER/
- 134.KASSA, J., ŠEPSOVÁ, V., TŮMOVÁ, M., HOROVÁ, A., MUSÍLEK, K. The evaluation of the reactivating and therapeutic efficacy of two novel oximes (K727, K733) in comparison with the oxime K203 and trimedoxime in tabun-poisoned rats. Munich, Germany: 15th International Medical Chemical Defence Conference. 22.04.2015– 23.04.2015. /POSTER/
- 135.KASSA, J., ŽĎÁROVÁ KARASOVÁ, J., ŠEPSOVÁ, V., MUSÍLEK, K., BAJGAR, J. The ability of oxime mixtures to increase the reactivating efficacy of antidotal treatment of nerve agent poisoning in rats. St. Louis, USA: 2015 Chemical and Biological Defense Science and Technology (CBD S&T) Conference. 12.05.2015–14.05.2015. /POSTER/
- 136.KLEIN, L. Measures of hospitals in exceptional circumstances. Praha: 6. kongres Anestézie a intenzivní péče za mimořádných podmínek. 15.10.2015–16.10.2015.
- 137.KLEIN, L. The role of biological skin covers/substitutes in burns treatment. Hannover, Germany: 16th European Burns Association Congress. 16.09.2015–19.09.2015.
- 138.KLIMENTOVÁ, J. Outer membrane vesicles of Francisella tularensis. Bílá Třemešná: Výroční zasedání KMBP 2015. 03.12.2015–04.12.2015.
- 139.KLIMENTOVÁ, J., STULÍK, J. Francisella tularensis subsp. holarctica (strain FSC200) outer membrane nanotubes – proteomic characterization. Opatija, Croatia: 8th International Conference of Tularemia. 28.09.2015–01.10.2015. /POSTER/
- 140.KMOCHOVÁ, A. Evaluation of therapeutical modulation of ionizing radiation-induced epithelial tissue damage. Hradec Králové: Seminář katedry radiobiologie. 08.12.2015–08.12.2015.
- 141.KOČÍ, J. *Treatment of coagulopathy in ŽOK*. Praha: 6. kongres Anestézie a intenzivní péče za mimořádných podmínek. 15.10.2015– 16.10.2015.
- 142.KRAČMAROVÁ, A., POHANKA, M. Immunomodulation ability of selective drugs via cholinergic antiinflammatory pathway. Hraderc Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 18.10.2011–19.10.2011. /POSTER/

- 143.KUBELKOVÁ, K. Overview of work for 2015. Bílá Třemešná, Česká Republika: Výroční zasedání 2015. 03.12.2015–04.12.2015.
- 144.KUBELKOVÁ, K., PLZÁKOVÁ, L., KROČOVÁ, Z., MACELA, A. Entry of Francisella tularensis into B cells. London, Great Britain: 2015 Innate Immunity Summit. 17.11.2015–19.11.2015. /POSTER/
- 145.KUPSA, T., VANĚK, J., VAŠATOVÁ, M., KAREŠOVÁ, I., JEBAVÝ, L., ŽÁK, P., HORÁČEK, J. Evaluation of cytokines and soluble adhesion molecules in patients with newly diagnosed acute myeliod leukemia: the role of TNF-alpha and FLT3-ITD. Istanbul, Turkey: 5th International congress on Leukemia, Lympthoma and Myeloma. 21.05.2015– 23.05.2015. /POSTER/
- 146.KUPSA, T., VANĚK, J., VAŠATOVÁ, M., KAREŠOVÁ, I., JEBAVÝ, L., ŽÁK, P., HORÁČEK, J. Prognostic signifikance of serum cytokine and soluble adhesion molecule levels in patients with acute myeloid leukemia. Olomouc: 61. konference vojenských internistů. 15.10.2015– 16.10.2015.
- 147.KUPSA, T., VANĚK, J., VAŠATOVÁ, M., KAREŠOVÁ, I., JEBAVÝ, L., ŽÁK, P., HORÁČEK, J. Baseline serum levels of multiple cytokines and soluble adhesion molecules in patients with acute myeloid leukemia the influence of TNFa and FLT3-. Hradec Králové: 9. fakultní konference studentů doktorských studijních programů FVZ UO. 06.10.2015–06.10.2015.
- 148.KUPSA, T., VANĚK, J., VAŠATOVÁ, M., KAREŠOVÁ, I., JEBAVÝ, L., ŽÁK, P., HORÁČEK, J. The levels of cytokines and soluble adhesion molecules in patients with newly diagnosed acute myeloid leukemia: the role of TNF-alpha and FLT3-ITD. Brno: 39. Brněnské onkologické dny a 29. konference pro nelékařské zdravotnické pracovníky. 08.04.2015– 10.04.2015. /POSTER/
- 149.KUPSA, T., VANĚK, J., VAŠATOVÁ, M., KAREŠOVÁ, I., JEBAVÝ, L., ŽÁK, P., HORÁČEK, J. Evaluation of cytokines and soluble adhesion molecules in patients with newly diagnosed acute myeloid leukemia – role of TNF-alpha and FLT3-ITD. Hradec Králové: 15. konference Odborné společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.2015. /POSTER/
- 150.KUPSA, T., VANĚK, J., VAŠATOVÁ, M., KAREŠOVÁ, I., JEBAVÝ, L., ŽÁK, P., HORÁČEK, J. Serum levels of cytokines and soluble adhesion molecules correlate in patients with newly diagnosed acute myeloid leukemia: the role of TNF-aplha and FLT3-ITD. Olomouc: 29. Olomoucké hematologické dny s mezinárodní účastí. 31.05.2015– 02.06.2015.

- 151.KUPSA, T., VAŠATOVÁ, M., KAREŠOVÁ, I., JEBAVÝ, L., ŽÁK, P., HORÁČEK, J. Influence of cytogenetic and molecular-genetic aberrations on levels of multiple cytokines and soluble adhesion molecules in patients with acute myeloid leukemia. Brno: 39. Brněnské onkologické dny a 29. konference pro nelékařské zdravotnické pracovníky. 08.04.2015–10.04.2015. /POSTER/
- 152.LAL, H., CHLÍBEK, R., PAUKSENS, K., SCHWARTZ, TF., RICHARDUS, JH., VAN RIJCKEVORSEL, GGC., HEINEMAN, TC., CATTEAU, G. Persistence of the immune response to an adjuvanted herpes zoster subunit vaccine in healthy older adults: modeling of vaccine-induced immune response, dta from a 6-year follow-up study. San Diego, CA, USA: IDWeek congress. 07.10.2015–11.10.2015. /POSTER/
- 153.LENČO, J. *Do we need nanospray? Chromatography matters!*. Bílá Třemešná: Výroční zasedání KMBP 2015. 03.12.2015–04.12.2015.
- 154.LENČO, J. Do we need nanospray? Praha: 4. Neformální proteomické setkání. 26.11.2015–27.11.2015.
- 155.LENČO, J. Do we still need nanospray to do proteomics. Klosterneuburg, Austria: Late Summer Austrian Proteomics Seminar 2015. 26.08.2015–28.08.2015.
- 156.LIEROVÁ, A. Changes in cell subpopulations and cytokine's profile after whole body irradiation of mice. Hradec Králové: Seminář katedry radiobiologie. 08.12.2015–08.12.2015.
- 157.LIEROVÁ, A., ŠINKOROVÁ, Z., ZÁRYBNICKÁ, L., PEJCHAL, J., NĚMCOVÁ, M., ŠINKORA, J. *Early changes in cytokine profile after total body irradiation in mice*. Olomouc: V4 International Conference Analytical Cytometry VIII. 03.10.2015–06.10.2015. /POSTER/
- 158.LIEROVÁ, A., ŠINKOROVÁ, Z., ZÁRYBNICKÁ, L., PEJCHAL, J., NĚMCOVÁ, M., ŠINKORA, J. *Early changes in cytokine profile after total body irradiation in mice*. Hradec Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.2015–22.10.2015. /POSTER/
- 159.LINK, M. *MHC-II self immunopeptidome of dendritic cells*. Bílá Třemešná: Výroční zasedání KMBP 2015. 03.12.2015–04.12.2015.
- 160.LOCHMAN, P. Gastroduodenal ulcer disease, diagnosis and therapy. Hradec Králové: Předatestační kurz "Novinky z chirurgie". 25.03.2015– 25.03.2015.
- 161.LOCHMAN, P. Surgical treatment of gastric cancer. Hradec Králové: Meziklinický seminář. 18.06.2015–18.06.2015.
- 162.MACHAČ, J., PLÍŠEK, S., CHLÍBEK, R., BUNČEKOVÁ, S., PLÍŠKOVÁ, L. Acute viral hepatitis E in patients hospitalized at the Clinic for Infectious Diseases Hospital in Hradec Kralove in the years 2009–2015.

Špindlerův Mlýn: Kongres klinické mikrobiologie, infekčních nemocí a epidemiologie. 23.09.2015–25.09.2015. /POSTER/

- 163.MALÝ, O., FERKO, A., ÖRHALMI, J. CT and MRI pelvimetry as a predictor of quality of total mesorectal excision for rectal cancer. Hradec Králové: 15. Bedrnův den. 15.04.2015–17.04.2015.
- 164.MALÝ, O., FERKO, A., ÖRHALMI, J., DOLEJŠ, J. CT/MRI as a predictor of quality pelvimetry mezorectální total excision for rectal carcinoma. Mikulov: 9. Podlahovy chirurgické dny, 9. interaktivní kongres hojení ran. 07.10.2015–08.10.2015.
- 165.MARINOV, Z., MARINOVÁ, C., PASTUCHA, D., STŘÍTECKÁ, H., PTÁČEK, R. Preventive and educative project "with children against obesity". Praha: ECO2015 - 22nd European Congress on Obesity. 06.05.2015–09.05.2015. /POSTER/
- 166.MARINOV, Z., PASTUCHA, D., FINKOVÁ, M., LETÁKOVÁ, H., KARBANOVÁ, D., RIEDLOVÁ, J., SLÁMOVÁ, B., STŘÍTECKÁ, H., SZITÁNYI, N., MARINOVÁ, C., OBDRŽÁLKOVÁ, Z., TROJANOVÁ, A. Overweight and obesity prevention in infancy. Praha: Obezitologie a bariatrie 2015. 05.05.2015–05.05.2015. /POSTER/
- 167.MARTINKOVÁ, P., POHANKA, M. Colorimetric and voltammetric prove of peroxidase activity by magnetic particles. Brno: 11. Celostástní sjezd České společnosti klinické biochemie. 20.09.2015–22.09.2015. /POSTER/
- 168.MISÍK, J., HRABINOVÁ, M., KORÁBEČNÝ, J., NEPOVÍMOVÁ, E., SOUKUP, O., KUČA, K., KASSA, J. Therapeutic effect of novel cholinesterase inhibitor 6-chlortacrine on cognitive deficit induced by 3quinuclidinyl benzilate in rats performing the water maze task. Chicago, Illinois, USA: Neuroscience 2015. 16.10.2015–21.10.2015. /POSTER/
- 169.NĚMCOVÁ, M., LIEROVÁ, A., ZÁRYBNICKÁ, L., ŠINKOROVÁ, Z. Preliminary study of mice thymocytes after whole body gamma irradiation. Olomouc: V4 International Conference Analytical Cytometry VIII. 03.10.2015–06.10.2015. /POSTER/
- 170.PALÍKOVÁ, M., PAPEŽÍKOVÁ, I., MAREŠ, J., KOPP, R., NAVRÁTIL, S., PIKULA, J., POHANKA, M. Combined exposure of rainbow trout (Oncorhynchus mykiss) to cyanotoxins and arsenic: oxidative stress responses. Brno: Toxcon 2015. 27.05.2015–29.05.2015. /POSTER/
- 171.PÁRAL, J. *DCS in field conditions.* Praha: 6. kongres Anestézie a intenzivní péče za mmořádných podmínek. 15.10.2015–16.10.2015.
- 172.PÁVKOVÁ, I. Glyceraldehyde-3-phosphate dehydrogenase in F. tularensis. Bílá Třemešná, Česká republika: Výroční zasedání KMPB 2015. 03.12.2015–04.12.2015.

- 173.PÁVKOVÁ, I., KLIMENTOVÁ, J., SCHMIDT, M., SHESHKO, V., STULÍK, J. The changes in F. tularensis proteome in response to the deletion of dsbA-like gene determined by SILAC approach. Opatija, Croatia: 8th International Conference on Tularemia. 28.09.2015– 01.10.2015. /POSTER/
- 174.PAVLÍK, V., FAJFROVÁ, J. *Military hygiene in the Faculty of Military Health Sciences*. Olomouc: Seminář Hygiena a preventivní lékařství v praxi. 01.12.2015–01.12.2015.
- 175.PAVLÍK, V., FAJFROVÁ, J. *Physical activity as an integral part of primary prevention in the Armed Forces of the Czech Republic.* Hradec Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.2015–22.10.2015.
- 176.PAVLÍK, V., FAJFROVÁ, J. *Physical activity in the Czech forces*. Trnava, Slovakia: Slovenské obezitologické dni. 13.11.2015– 14.11.2015.
- 177.PAVLÍK, V., FAJFROVÁ, J. *Pseudocereals and nutrition*. Teplice: Výživa a zdraví. 15.09.2015–17.09.2015.
- 178.PAVLÍK, V., FAJFROVÁ, J. *Regular physical activity in the Czech forces*. Nový Smokovec, Slovakia: 23. vedecko-odborná konferencia Životné podmienky a zdravie. 21.09.2015–23.09.2015.
- 179.PAVLÍK, V., FAJFROVÁ, J., VACKOVÁ, M., BLAŽEK, O. Nutritional habits, physical activity and nutritional state of Czech military medical students. Budapest, Hungary: 5th Central European Congress on Obesity. 01.10.2015–03.10.2015. /POSTER/
- 180.PEJCHAL, J. *Effects of EGF and bone marrow transplantation in wholebody irradiated mice (Long-term follow up).* Tokyo, Japan: 15th International Congress of Radiation Research. 25.05.2015–29.05.2015.
- 181.PEJCHAL, J., ŠINKOROVÁ, Z., TICHÝ, A., KMOCHOVÁ, A., KUBELKOVÁ, K., VÁVROVÁ, J. Combination of cell therapy and growth factors in the treatment of acute radiation syndrome. Vyškov: CBRN PROTECT 2015. 22.04.2015–23.04.2015.
- 182.PETÁK, T., JAKL, M. *ROBUST study*. Hradec Králové: 10. fakultní vědecká konference studentské tvůrčí činnosti. 09.06.2015–09.06.2015.
- 183.PILŇÁČKOVÁ, J., PILNÁČEK, M., RÁŽOVÁ, J., STŘÍTECKÁ, H. Evaluation of the monitoring of food supply in selected schools and school canteens in 2014. Hradec Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.2015–22.10.2015. /POSTER/
- 184.PLÍŠEK, S., CHLÍBEK, R. *Epidemiology of hepatitis C virus*. Praha: Odborný seminář na téma Virové hepatitidy. 03.11.2015–03.11.2015.

- 185.PLODR, M., PRAUNOVÁ, M., KRENČÍKOVÁ, J., ŠVÁBA, V., BEJROVÁ, D., MAŠEK, J., SENETA, L., HRSTKA, Z., PÁRAL, J. Effectiveness of the dispatcher-assisted cardiopulmonary resuscitation; an analysis of the emergency medical services of the Czech Republic in 2014 (Hradec Kralove region). Roma, Italy: 7th Mediterranean Emergency Medicine Congress. 05.09.2015–09.09.2015. /POSTER/
- 186.PLZÁKOVÁ, L., KROČOVÁ, Z. The role of B cells in the early phase of the immune response against the intracellular pathogen Mycobacterium bovis BCG. Bílá Třemešná: Výroční zasedání KMBP 2015. 03.12.2015– 04.12.2015.
- 187.PLZÁKOVÁ, L., KROČOVÁ, Z., KUBELKOVÁ, K., MACELA, A. The role of B cells in the early phase of the immune response against the intracellular pathogen Francisella tularensis. Hradec Králové: 9. fakultní konference studentů doktorských programů. 06.10.2015.
- 188.PLZÁKOVÁ, L., KUBELKOVÁ, K., KROČOVÁ, Z., MACELA, A. *Entry of Francisella tularensis into B cells*. Opatia, Croatia: 8th International Conference of Tularemia. 28.09.2015–01.10.2015. /POSTER/
- 189.POHANKA, M. Caffeine affects cytokine secretion after immunity stimulation by Freund's complete adjuvant. Amsterdam: 28th ECNP Congress. 29.08.2015–01.09.2015. /POSTER/
- 190.POHANKA, M., FUSEK, J., MARTINKOVÁ, P., VOBORNÍKOVÁ, I. Arrangement of a simple colorimetric test for the determination of cholinesterase activity in presence of reversible inhibitor. Porto, Portugal: Eurotox 2015. 13.09.2015–16.09.2015. /POSTER/
- 191.POHANKA, M., PAVLIŠ, O. Caffeine can influence tularemia pathogenesis in a mouse model. Porto, Portugal: Eurotox 2015. 13.09.2015–16.09.2015. /POSTER/
- 192.POHANKA, M., ROMÁNEK, J., FUSEK, J., PIKULA, J. Sarin has impact on oxidative homeostasis and standard biochemical blood markers. Brno: 20th Interdisciplinary Czech-Slovak Toxicology Conference (TOXCON 2015). 27.05.2015–29.05.2015. /POSTER/
- 193.PORKERTOVÁ, S. Preparation of dendritic cells from mouse bone marrow. Bílá Třemešná: Výroční zasedání KMBP 2015. 03.12.2015– 04.12.2015.
- 194.PRYMULA, R., CHLÍBEK, R. *Current situation of Varicella-herpes zoster in the Czech republic.* Vienna, Austria: 22nd Central European Vaccination Awareness Group Meeting. 16.04.2015–17.04.2015.
- 195.RŮŽIČKA, M., POTÁČ, M., HUMLÍČEK, V. Analysis of the training in the study programmes at the Faculty of Military Health Sciences, University of Defence. Hradec Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.2015–22.10.2015. /POSTER/

- 196.RŮŽIČKA, M., POTÁČ, M., ŽĎÁRA, J., HRSTKA, Z. The link of a military and medical issues in the training of students. Hradec Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.1015–22.10.1015.
- 197.ŘEHULKOVÁ, H. Identification of markers of selected cardiovascular diseases using proteomic analysis. Bílá Třemešná: Výroční zasedání KMBP 2015. 03.12.2015–04.12.2015.
- 198.ŘEHULKOVÁ, H. *iTRAQ* analysis in comparison of selected cardiovascular diseases. Praha: 4. Neformální proteomické setkání. 26.11.2015–27.11.2015.
- 199.ŘEHULKOVÁ, H., FUČÍKOVÁ, A., HORÁKOVÁ, L., ŘEHULKA, P., ŘEHÁČEK, V., PUDIL, R., STULÍK, J. Comparison of protein abundance in human plasma in patients with hypertrophic cardiomyopathy and other cardiovascular diseases using iTRAQ analysis. Brno: 23. výroční sjezd České kardiologické společnosti. 24.05.2015–27.05.2015. /POSTER/
- 200.ŘEHULKOVÁ, H., FUČÍKOVÁ, A., ŘEHULKA, P., ŘEHÁČEK, V., PUDIL, R., STULÍK, J. Application of proteomic tools for identification of cardiovascular disease markers. Brno: 12. celostátní sjezd České společnosti klinické biochemie. 20.09.2015–22.09.2015.
- 201.SALAVEC, M., SLEHA, R., PRÁŠIL, P., BOŠTÍKOVÁ, V., SMETANA, J., BOŠTÍK, P. *Herpes zoster and possible complications*. Hradec Králové: 11. Hradecké vakcinologické dny. 01.10.2015–03.10.2015.
- 202.SCHMIDT, M., LIEROVÁ, A., FRYDRYCHOVÁ, S., ŠINKOROVÁ, Z., BOŠTÍK, P. *The role of varicella-zoster virus in virus induced apoptosis of human CD4 T lymphocytes*. Olomouc: V4 International Conference Analytical Cytometry VIII. 03.10.2015–06.10.2015. /POSTER/
- 203.SKOŘEPA, P., BLÁHA, V., SOBOTKA, L., HORÁČEK, J. Parenteral nutrition in critical ill patients in the Army of the Czech Republic. Olomouc: 61. konference vojenských internistů. 15.10.2015– 16.10.2015.
- 204.SKOŘEPA, P., BLÁHA, V., SOBOTKA, L., HORÁČEK, J. Parenteral nutrition in intensive care unit – role of glucose, methods and the plan of the research. Hřradec Králové: Vnitřní seminář JIP III. interní gerontometabolické kliniky FN HK. 12. 03. 2015.
- 205.SKOŘEPA, P., BLÁHA, V., SOBOTKA, L., HORÁČEK, J. Retrospective study of two antiseptic regiment for catheter-associated bloodstream infection (CBSI) treatment in home parenteral nutrition patiens. Hradec Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.2015–22.10.2015. /POSTER/

- 206.SKOŘEPA, P., SOBOTKA, L. *Role of glucose and insulin resistance in clinical nutrition.* Hradec Králové: Seminář III. interní gerontometabolické kliniky FN HK. 12. 11. 2014.
- 207.SKOŘEPA, P., VÍŠEK, J., BLÁHA, v., FORTUNATO, J., SOBOTKA, L. Retrospective study of two antiseptic regiment for catheter-associated bloodstream infection (CBSI) treatment in home parenteral nutrition patiens. Lisbon, Portugal: 37th ESPEN Congress. 05.09.2015– 08.09.2015. /POSTER/
- 208.SLANINKA, I., FIBÍR, A., ČÁP, R., KLEIN, L., HOŠEK, F., HASENÖHRLOVÁ, L., ŠEDIVÝ, O., BAJUS, A. Reconstruction of traumatic defects of the distal third of the tibia fasciocutan sural lobe – our experience. České Budějovice: 36. národní kongres České společnosti plastické chirurgie. 24.09.2015–26.09.2015.
- 209.SLANINKA, I., KLEIN, L., PÁRAL, J., FIBÍR, A., HOŠEK, F., BAJUS, A. *Evidence of wound healing acceleration by using platelet-rich plasma*. Hannover, Germany: 16th European Burns Association Congress. 16.09.2015–19.09.2015. /POSTER/
- 210.SMETANA, J. *Health protection, medical prevention.* Brno: Kurz Force protection 2015. 02.12.2015–02.12.2015.
- 211.SMETANA, J. *Highly dangerous infection, incidence, and risk spreading.* Hradec Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.2015–22.10.2015.
- 212.SMETANA, J. *New possibilities of vaccination in adults*. Hradec Králové: 11. Hradecké vakcinologické dny. 01.10.2015–03.10.2015.
- 213.SMETANA, J. *News of vaccination in 2015.* Brno: Cyklus vzdělávacích seminářů pro PLDD na téma Očkování a výživa. 09.04.2015–09.04.2015.
- 214.SMETANA, J. *News of vaccination in 2015.* Hradec Králové: Cyklus vzdělávacích seminářů pro PLDD na téma Očkování a výživa. 23.04.2015–23.04.2015.
- 215.SMETANA, J. *News of vaccination in 2015.* Jihlava: Cyklus vzdělávacích seminářů pro PLDD na téma Očkování a výživa. 14.04.2015–14.04.2015.
- 216.SMETANA, J. *News of vaccination in 2015.* Ostrava: Cyklus vzdělávacích seminářů pro PLDD na téma Očkování a výživa. 19.03.2015–19.03.2015.
- 217.SMETANA, J. *News of vaccination in 2015.* Plzeň: Cyklus vzdělávacích seminářů pro PLDD na téma Očkování a výživa. 31.03.2015–31.03.2015.

- 218.SMETANA, J. *News of vaccination in 2015.* Praha: Cyklus vzdělávacích seminářů pro PLDD na téma Očkování a výživa. 17.03.2015–17.03.2015.
- 219.SMETANA, J. *News of vaccination in 2015.* Ústí nad Labem: Cyklus vzdělávacích seminářů pro PLDD na téma Očkování a výživa. 26.03.2015–26.03.2015.
- 220.SMETANA, J. News on vaccination and immunization schedule for adults. Praha: Školení lékařů spádu. 27.05.2015–27.05.2015.
- 221.SMETANA, J. *Present vaccination against herpes zoster*. Hradec Králové: 11. Hradecké vakcinologické dny. 01.10.2015–03.10.2015.
- 222.SMETANA, J. Safety of vaccination still current issue. Praha: 9. kongres primární péče. 27.02.2015–28.02.2015.
- 223.SMETANA, J. Selected chapters from preventable infections. Planá nad Lužnicí: Volební konference jihočeského regionu SPLDD ČR. 27.03.2015–28.03.2015.
- 224.SMETANA, J. Vaccination questions and answers. Brno: Cyklus vzdělávacích seminářů pro PLDD na téma Očkování a výživa. 09.04.2015–09.04.2015.
- 225.SMETANA, J. *Vaccination questions and answers*. Hradec Králové: Cyklus vzdělávacích seminářů pro PLDD na téma Očkování a výživa. 23.04.2015–23.04.2015.
- 226.SMETANA, J. Vaccination questions and answers. Jihlava: Cyklus vzdělávacích seminářů pro PLDD na téma Očkování a výživa. 14.04.2015–14.04.2015.
- 227.SMETANA, J. Vaccination questions and answers. Ostrava: Cyklus vzdělávacích seminářů pro PLDD na téma Očkování a výživa. 19.03.2015–19.03.2015.
- 228.SMETANA, J. Vaccination questions and answers. Plzeň: Cyklus vzdělávacích seminářů pro PLDD na téma Očkování a výživa. 31.03.2015–31.03.2015.
- 229.SMETANA, J. Vaccination questions and answers. Praha: Cyklus vzdělávacích seminářů pro PLDD na téma Očkování a výživa. 17.03.2015–17.03.2015.
- 230.SMETANA, J. *Vaccination questions and answers*. Ústí nad Labem: Cyklus vzdělávacích seminářů pro PLDD na téma Očkování a výživa. 26.03.2015–26.03.2015.
- 231.SMETANA, J. Vaccinations in general practitioner for children and adolescents in 2015. Kunětická hora Dříteč: 23. volební konference SPLDD Východočeského regionu. 11.04.2015–11.04.2015.
- 232.SMETANA, J., CHLÍBEK, R., HANOVCOVÁ, I., ŠOŠOVIČKOVÁ, R., GÁL, P., DÍTĚ, P. Measles seroprevalence in adults in the Czech

*Republic - relationship to the children vaccination program.* Rio de Janeiro, Brazil: 9th World Congress of the World Society for Pediatric Infectious Diseases (WSPID 2015). 18.11.2015–21.11.2015. /POSTER/

- 233.SMETANA, J., CHLÍBEK, R., ŠOŠOVIČKOVÁ, R., HANOVCOVÁ, I. The seroprevalence of antibodies against measles in adults in the Czech Republic. Černý Důl: Mezikrajský seminář epidemiologů 2015. 20.05.2015–22.05.2015.
- 234.SMETANA, J., CHLÍBEK, R., ŠOŠOVIČKOVÁ, R., ŠPLIŇO, M. *Ebola one year later*. Hradec Králové: Medicína katastrof zkušenosti, příprava, praxe. 26.11.2015–26.11.2015.
- 235.SOUKUP, O., KORÁBEČNÝ, J., ŠPILOVSKÁ, K., MUSÍLEK, K., JUN, D., HORÁK, M., KANIAKOVÁ, M., SIPOSOVA, K., KUČA, K. 7-Methoxytacrine-memantine hybrids as Candidates for Alzheimer Disease Treatment. Elche, Spain: The 12th International Meeting on Cholinesterases and Sixth International Conference on Paraoxonases. 27.09.2015–02.10.2015. /POSTER/
- 236.STŘÍTECKÁ, H. Diet food therapeutic nutrition in the Czech health care system. Praha: Jednodenní zdokonalovací kurz Nutris. 11.04.2015–11.04.2015.
- 237.STŘÍTECKÁ, H. Effect of dietary habits of mothers on the composition of the diet at young children. Křetín: 6. Obezita dětí a dospívajících v praxi. 27.05.2015–27.05.2015.
- 238.STŘÍTECKÁ, H. *Fat in prevention of CVD*. Praha: Aktreditovaný rekvalifikační základní kurz Poradce pro výživu. 19.04.2015– 19.04.2015.
- 239.STŘÍTECKÁ, H. General principles for the construction of children's diets. Praha: Výživa dětí Nutris. 17.10.2015–18.10.2015.
- 240.STŘÍTECKÁ, H. *How safe food we eat.* Praha: Fórum ČZU. 14.10.2015–14.10.2015.
- 241.STŘÍTECKÁ, H. Child nutrition the specifics of nutrition, composition and choices of food. Praha: Nástavbové vzdělávání nutričních specialistů. 24.04.2015–26.04.2015.
- 242.STŘÍTECKÁ, H. *Nutrition for children*. Praha: Nástavbový kurz Dexter Academy. 28.02.2015–28.02.2015.
- 243.STŘÍTECKÁ, H. *Nutrition for children*. Praha: Nástavbový kurz Dexter Academy. 19.07.2015–19.07.2015.
- 244.STŘÍTECKÁ, H. *Nutrition of pregnant and breastfeeding*. Praha: Nástavbový seminář Dexter Academy. 18.07.2015–18.07.2015.
- 245.STŘÍTECKÁ, H. *Nutrition of pregnant and breastfeeding*. Praha: Nástavbový seminář Dexter Academy. 01.03.2015–01.03.2015.

- 246.STŘÍTECKÁ, H. Question of supplements and meal replacement at sport - active children. Praha: Kurz ČLK 44/15 – Praktická dětská obezitologie v ambulantní praxi. 23.05.2015–23.05.2015.
- 247.STŘÍTECKÁ, H. *The impact of current trends in catering to the children nutrition*. Ráby: Konference sekce nutričních terapeutů ČAS nutriční terapeut 21. století. 11.06.2015–13.06.2015.
- 248.STŘÍTECKÁ, H. *The trickiness of nutrition*. Ždár nad Sázavou: Celostátní sjezd České asociace Sport pro všechny. 20.11.2015– 22.11.2015.
- 249.STŘÍTECKÁ, H., HLÚBIK, P. Vitamin C importance in the human body. Martin, Slovakia: Laboratórna medicína 2015. 27.11.2015–28.11.2015.
- 250.STŘÍTECKÁ, H., JAN, K., PAVOL, H. Availability and understanding of nutritional recommendations for patients with CVD. Špindlerův Mlýn: 19. kongres o ateroskleróze. 03.12.2015–05.12.2015. /POSTER/
- 251.STŘÍTECKÁ, H., MACHAROVÁ, K., BEDNARČÍK, P. Verification of the efficiency of the defined herbal blend PD007 in acceleration of ethanol metabolism. Hradec Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.2015–22.10.2015. /POSTER/
- 252.STŘÍTECKÁ, H., ZMRZLÁ, H., MARINOV, Z. Prevalence of overweight and obesity at children and adolescents – data from electronic databases GPCY. Praha: ECO2015 – 22nd European Congress on Obesity. 06.05.2015–09.05.2015. /POSTER/
- 253.ŠALOVSKÁ, B., BENSIMON, A., TICHÝ, A., AEBERSOLD, R. Interactome analysis of key protein complexes responsive to DNA damage and replication stress. Hradec Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.2015–22.10.2015. /POSTER/
- 254.ŠEPSOVÁ, V., JUN, D., MATOUŠKOVÁ, L., KORÁBEČNÝ, J., KASSA, J., BAJGAR, J., SOUKUP, O. *Pharmacological evaluation of potential Alzheimer's disease drugs*. Alicante, Spain: 12th International Meeting on Cholinesterases. 27.09.2015–02.10.2015. /POSTER/
- 255.ŠIMEK, J., ŠMEJKAL, K., SEDLÁČEK, Z., TRLICA, J., HOLEČEK, T. Hemodynamically significant retroperitoneal bleeding patiens who died of traumatic-hemorrhagic shock. Hradec Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.2015–22.10.2015.

- 256.ŠINKOROVÁ, Z., KUČEROVÁ, P., ČÍŽKOVÁ, J., HORÁK, V., PLANSKÁ, D., KŘÍŽAN, J., ČERVINKOVÁ, M., ŠINKORA, M., ŠINKORA, J. *Melanoma regression in MeLiM Pigs is associated with expansion of CD4 CD8 T-cells*. Olomouc: V4 International Conference Analytical Cytometry VIII. 03.10.2015–06.10.2015.
- 257.ŠINKOROVÁ, Z., ZÁRYBNICKÁ, L., LIEROVÁ, A. New methods in biodosimetry. Vyškov: CBRN PROTECT 2015. 22.04.2015–23.04.2015.
- 258.ŠMEJKAL, K. *Femoral shaft non-union*. Plzeň: Bohemian Bavarian AO Symposium 2015. 12.06.2015–12.06.2015.
- 259.ŠOŠOVIČKOVÁ, R., SMETANA, J., BERANOVÁ, E., KUČEROVÁ, K., CHLÍBEK, R. The incidence of viral hepatitis A in Hradec Kralove region in 2014. Hradec Králové: 11. Hradecké vakcinologické dny. 01.10.2015–03.10.2015. /POSTER/
- 260.ŠOŠOVIČKOVÁ, R., SMETANA, J., CHLÍBEK, R. *Current risks and possibilities for prevention of viral hepatitis A.* Hradec Králové: 11. Hradecké vakcinologické dny. 01.10.2015–03.10.2015.
- 261.ŠOŠOVIČKOVÁ, R., SMETANA, J., CHLÍBEK, R. *The seroprevalence* of antibodies to mumps in Czech Republic. Černý Důl: Mezikrajský seminář epidemiologů 2015. 20.05.2015–22.05.2015.
- 262.ŠUBRT, Z. ALPPS a new method in liver surgery. Hradec Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.2015–22.10.2015.
- 263.ŠUBRT, Z., ČERNÝ, V., TUREK, Z., FERKO, A., ASTAPENKO, D., VOLÁK, Š., ČEČKA, F. Possibilities of influencing ischemia-reperfusion damage to the liver using levosimendan - experimental study. Plzeň: 7. kongres chirurgie jater, žlučových cest a pankreatu. 15.06.2015– 16.06.2015.
- 264.ŠUBRT, Z., FERKO, A., ČEČKA, F., JON, B. *Liver PEComs*. Plzeň: 7. kongres chirurgie jater, žlučových cest a pankreatu. 15.06.2015–16.06.2015.
- 265.ŠUBRT, Z., FERKO, A., ČEČKA, F., JON, B. Videoassisted retroperitoneal necrectomy in acute pancreatitis. Hradec Králové: 15. Bedrnův den. 15.04.2015–17.04.2015.
- 266.ŠUBRT, Z., FERKO, A., CHOVANEC, V., JON, B., ČEČKA, F. *ALPPS failure PVE Case Report.* Plzeň: 7. kongres chirurgie jater, žlučových cest a pankreatu. 15.06.2015–16.06.2015.
- 267.ŠUBRT, Z., FERKO, A., JON, B., ČEČKA, F., ASQAR, A. Azygoportální dekonexe - a deserted method?. Pardubice: 9. pracovní den Sekce mladých chirurgů České chirurgické společnosti ČLS JEP. 26.11.2015– 26.11.2015.

- 268.TICHÝ, A. The future of mitochondrial DNA in biological dosimetry: outcomes of BioMIT project. Hradec Králové: Seminář katedry radiobiologie. 08.12.2015–08.12.2015.
- 269.TICHÝ, A., ŠALOVSKÁ, B., ONDREJ, M., FABRIK, I., ČECHÁKOVÁ, L. Application of techniques of molecular biology and proteomics in radiobiology: utilizing knowledge of molecular mechanisms of DNA repair. Vyškov: CBRN PROTECT 2015. 22.04.2015–23.04.2015.
- 270.TOMEŠOVÁ, J., STŘÍTECKÁ, H., STARNOVSKÁ, T. Current dietary recommendations as part of cardiovascular prevention. Poděbrady: 28. celostátní seminář Prevence ischemické choroby srdeční od dětského věku. 08.01.2015–10.01.2015.
- 271.VACKOVÁ, M., FAJFROVÁ, J., BLAŽEK, O., PAVLÍK, V. Nutritional state and lifestyle of Czech military medical students. Praha: 22nd European Congress on Obesity. 06.05.2015–09.05.2015. /POSTER/
- 272.VACKOVÁ, M., FAJFROVÁ, J., BLAŽEK, O., PAVLÍK, V. *Nutritional state and lifestyle of Czech military medical students*. Praha: Obezitologie a bariatrie 2015. 05.05.2015–05.05.2015. /POSTER/
- 273.VESIKARI, T., CUNNINGHAM, AL., GODEAUX, O., AHONEN, J., CAMPORA, E., CHLÍBEK, R., FORFINKEL, I., HWANG, S., KOVAC, M., KORHONEN, T., LEVIN, MJ., MCELHANEY, JE., MCNEIL, SA., ROMBO, L., VOLPI, A., WATANABE, D., YEO, W., ZAHAF, T., LAL, H., HEINEMAN, TC. *Reactogenicity of an adjuvanted herpes zoster subunit vaccine in older adults: results of the phase 3 zoe-50 trial.* San Diego, CA, USA: IDWeek Congress. 07.10.2015–11.10.2015. /POSTER/
- 274.VOBORNÍKOVÁ, I., KRAČMAROVÁ, A., POHANKA, M. Voltammetry of low molecular weight antioxidants in biolgoical samples. Porto, Portugal: Eurotox 2015. 13.09.2015–16.09.2015. /POSTER/
- 275.VOŠMIK, M., LACO, J., SIRÁK, I., LEŠKO, M., REPÁK, R., DVOŘÁK, J., MELICHAR, B., LOCHMAN, P., HODEK, M., PETERA, J. Long-term results of preoperative chemoradiation in clinically resectable gastroesophageal cancer: A single institution experience. Vienna, Austria: 18th ECCO – 40th ESMO European Cancer Congress. 25.09.2015–29.09.2015. /POSTER/
- 276.VRTIŠKOVÁ, P., BLAŽEK, P. Department of Military Medical Service Organisation and Management. Hradec Králové: 15. konference odborné Společnosti vojenských lékařů, farmaceutů a veterinárních lékařů ČLS JEP. 22.10.2015–22.10.2015. /POSTER/
- 277.ZÁRYBNICKÁ, L., ŠINKOROVÁ, Z., LIEROVÁ, A. *Ex vivo experimental model in biodosimetry*. Olomouc: V4 International Conference Analytical Cytometry VIII. 03.10.2015–06.10.2015. /POSTER/

- 278.ŽÁK, P., HORÁČEK, J. Studies in acute leukamias. Hradec Králové: Seminář 4. interní hematologické kliniky FN Hradec Králové. 30.09.2015–30.09.2015.
- 279.ŽĎÁRA, J. Hybrid war the phenomen of this days. Praha: AWHP. 02.10.2015–02.10.2015.

### INDEX

#### В

BAJGAR, J., 14, 39, 105, 111, 112, 123, 128, 134, 135, 145 BALONOVÁ, L., 62, 123 BERNARDOVÁ, M., 28 BLANAŘ, R., 33 BLAŽEK, P., 33, 75, 105, 111, 115, 116, 117, 121, 124, 127, 139, 147 BOCKOVÁ, I., 68 BOŠTÍK, P., 3, 16, 24, 25, 28, 32, 43, 65, 74, 76, 83, 93, 95, 105, 106, 111, 112, 113, 121, 141 BOŠTÍKOVÁ. V., 28, 74, 83, 105, 106, 107, 108, 109, 111, 112, 113, 117, 121, 122, 128, 141 BRNDIAR, M., 50 С CABAL, J., 39, 101 Č ČÁSENSKÁ, E., 24 D DOLEŽELOVÁ. M., 58 DUŠEK, T., 45, 74, 75, 97, 106, 125, 126 DUŠKOVÁ, K., 50, 58 Е ETFLAIŠOVÁ, P., 68 F FAJFROVA, J., 27, 50, 76, 108, 115, 116, 117, 121, 124, 126, 127, 139, 147 FEJFAROVÁ. M., 28, 29

FIBIR, A., 45, 89, 142 FLÉGL, V., 24 FORETOVÁ, Z., 62 FUSEK, J., 25, 33, 108, 111, 112, 116, 121, 123, 128, 140 G GRÖGER, T., 58 н HALAJČUK, T., 35, 108 HANOVCOVÁ, I., 28, 32, 43, 65, 93, 109, 117, 119, 122, 123, 128, 133, 143, 144 HERMAN, D., 39, 40 HOMOLA, A., 58 HORÁČEK, J., 25, 50, 73, 74, 76, 98, 100, 106, 116, 117, 118, 120, 124, 125, 127, 128, 129, 130, 133, 134, 136, 137, 141, 148 HRABINOVÁ, M., 40, 96, 98, 99, 100, 101, 115, 119, 130, 138 HRSTKA, Z., 24, 27, 33, 35, 48, 61, 90, 108, 110, 130, 131. 140. 141 HUMLÍČEK, V., 33, 131, 140 HUSÁROVÁ, M., 50, 51 CH CHLÍBEK, R., 15, 25, 28, 30, 31, 73, 74, 75, 83, 91, 92, 100, 105, 106, 107, 109, 112, 117, 119, 120, 121, 122, 123, 124, 128, 131, 132, 133, 137, 139, 140, 143, 144, 146, 147

#### J

JAKL, M., 25, 27, 50, 51, 73, 76, 88, 98, 115, 116, 124, 133, 134, 139 JANOUCH, J., 33 JAREŠOVÁ, L., 33 JEBAVÝ, L., 25, 50, 57, 73, 76, 83, 90, 98, 100, 118, 120, 128, 129, 134, 136, 137 JOŠT, P., 39, 98, 101, 134 JOZÍFOVÁ HOLUBOVÁ, L., 68 JUN, D., 42 JUN, D., 25, 32, 39, 43, 65, 93, 95, 96, 99, 100, 101, 104, 105, 111, 112, 113, 121, 124, 125, 134, 144, 145 JUNKOVÁ, I., 68 Κ KAISLEROVÁ, L., 28, 29 KASSA, J., 13, 25, 39, 42, 73, 75, 76, 83, 84, 94, 95, 98, 99, 101, 105, 111, 112, 113, 128, 134, 135, 138, 145 KLEIN, L., 11, 25, 45, 73, 74, 84, 107, 108, 113, 134, 135, 142 KLIMENTOVÁ, J, 73, 75 KLIMENTOVÁ, J., 62, 99, 125, 135, 139 KOČÍ, J., 45, 113, 123, 135 KOMÁREK, V., 70 KONŠTACKÝ, S., 58 KORÁBEČNÝ, J., 16, 39, 96, 97. 99, 100, 101, 104, 113, 121, 134, 138, 144, 145 KOŠŤÁLOVÁ, L., 28

KRAČMAROVÁ, A., 27, 39, 40, 107, 116, 134, 135, 147 KROČOVÁ, Z., 17, 32, 43, 62, 64, 65, 66, 92, 95, 102, 103, 125, 136, 140 KRUPÁR, J., 70 KRUTIŠ, J., 58 KRUTIŠOVÁ, P., 27, 51, 58, 117, 127 KŘENKOVÁ, Z., 39, 40 KUBELKOVÁ, K., 25, 62, 73, 74, 75, 76, 100, 102, 107, 136, 139, 140 KUČA, K., 16, 25, 39, 42, 43, 73, 75, 84, 85, 94, 96, 97, 98, 99, 100, 101, 102, 104, 105, 106, 107, 108, 111, 112, 113, 121, 124, 134, 138.144 KUPSA, T., 50, 51, 76, 98, 100, 118, 120, 128, 129, 136, 137 L LEGERSKÁ, K., 29 LENČO, J., 62, 65, 90, 96, 100, 102, 104, 115, 137 LINK, M., 62, 100, 104, 123, 126, 137 LOCHMAN, P., 25, 45, 46, 47, 74, 104, 113, 114, 116, 123, 137, 147 LUKŠÍKOVÁ, L., 62 м MACELA, A., 15, 32, 43, 62, 65, 93, 100, 102, 125, 136, 140 MACHAČOVÁ, I., 50

MALÍKOVÁ, M., 28 MALÝ, O., 45, 117, 118, 123, 129, 138

- MAREK, J., 28, 101 MARTINCOVÁ, A., 39 MATOUŠEK, R., 58
- MAZUROVÁ, I, 40,
- MERVARTOVÁ, L., 36
- MISÍK, J., 39, 42, 76, 94, 98, 99, 101, 128, 134, 138
- MÍŠKOVÁ, L., 33
- MÍŠKOVÁ, Z., 27
- MUSÍLEK, K., 39, 42, 94, 96, 97, 98, 99, 100, 104, 113, 134, 135, 144

#### Ν

NOVOTNÝ, P., 15, 51, 89, 104 P

#### Ρ

PÁRAL, J., 8, 17, 24, 25, 35, 45, 47, 48, 61, 74, 75, 76, 90, 91, 95, 97, 105, 106, 108, 109, 110, 112, 126, 138, 140, 142

- PÁVKOVÁ, I., 62, 66, 73, 95, 98, 103, 138, 139
- PAVLÍK, M., 68, 96
- PAVLÍK, V., 25, 50, 75, 108, 115, 116, 117, 121, 124, 127, 139, 147
- PEJCHAL, J., 36, 38, 73, 74, 85, 87, 91, 102, 125, 137, 139
- PEREGRINOVÁ, J., 50
- PLODR, M., 13, 24, 35, 48, 58, 61, 74, 75, 91, 108, 126, 140
- POHANKA, M., 27, 62, 85, 86, 96, 99, 101, 102, 103, 104, 107, 108, 110, 113, 116, 120, 121, 135, 138, 140, 147
- PORKERTOVÁ, S., 62, 140

POTÁČ, M., 27, 33, 113, 114, 140, 141 PRŮCHOVÁ, Š., 36 PRYMULA, R., 11, 12, 14, 15, 25, 28, 31, 86, 100, 107, 119, 121, 132, 140 PÚDELKA, L., 58 PUDÍKOVÁ, M., 68 R RADOCHOVÁ, V., 68 RESLOVÁ, E., 40 RŮŽIČKA, M., 33, 113, 114, 140, 141 RYDRYCH, J., 70 Ř ŘEHULKA, P., 62, 66, 95, 97, 101, 102, 103, 126, 128, 141 S SHESHKO, V., 62, 63, 66, 95, 139 SCHMIDT, M., 28, 96, 139, 141 SLAVÍK, J., 68 SLEHA, R., 28, 29, 88, 101, 105, 107, 108, 111, 112, 113, 121, 141 SMETANA, J., 15, 27, 28, 31, 87, 92, 100, 108, 109, 117, 119, 120, 121, 122, 124, 128, 132, 133, 141, 142, 143, 144, 146 SOLÁROVÁ, A., 28 SOUKUP, O., 39, 75, 98, 99, 100, 101, 102, 104, 106, 108, 138, 144, 145

STŘÍTECKÁ, H., 27, 50, 75, 86, 103, 107, 108, 109, 111, 113, 115, 116, 122, 123, 138, 139, 144, 145, 147 STULÍK, J., 14, 16, 25, 62, 65, 66, 73, 86, 90, 93, 94, 99, 100, 103, 123, 125, 126, 128, 135, 139, 141 SVOBODOVÁ, H., 39, 98, 117, 123 Š ŠEPSOVÁ, V., 39, 41, 74, 75, 76, 88, 99, 101, 104, 134, 135, 145 ŠIMEK, J., 45, 46, 47, 104, 145 ŠINKOROVÁ, Z., 25, 36, 97, 102, 125, 137, 138, 139, 141. 146. 147 ŠÍSTKOVÁ, J., 58 ŠKRANCOVÁ. V., 40 ŠMEJKAL, K., 15, 45, 104, 113, 145, 146 ŠOŠOVIČKOVÁ, R., 28, 29, 109, 117, 119, 120, 122, 128, 132, 133, 143, 144, 146 ŠPIDLOVÁ, P., 62, 103 ŠPLIŇO, M., 25, 28, 30, 86, 109, 117, 122, 128, 133, 144 ŠTĚTINA, J., 58 ŠUBRT, Z., 15, 25, 27, 45, 46, 47, 49, 91, 97, 112, 113, 114, 124, 146

#### Т

TICHÝ, A., 27, 36, 37, 75, 93, 102, 118, 125, 129, 139, 145.147 TOMÁŠIK. M., 24 TÓTHOVÁ, I., 36 U UHLÍŘOVÁ, J, 40 ν VANĚK, J., 115, 120, 133, 136 VÁVROVÁ, J., 25, 36, 97, 98, 102, 139 VÍCHOVÁ, E., 70 VOLDŘICH, M., 51, 89 VOPLATKOVÁ. Z., 27, 70 VOŽENÍLKOVÁ. K., 28 VRTIŠKOVÁ, P., 33, 147 Ζ ZAHRADNÍČKOVÁ, J., 45 ZÁRYBNICKÁ, L., 24, 25, 27, 36, 76, 125, 137, 138, 146, 147 ZEDNÍČEK, J., 70 ZETOCHOVÁ, D., 70 ZIKOVÁ. J., 70 Ž ŽÁKOVÁ. J., 62 ŽĎÁRA, J., 33, 110, 113, 114, 131, 141, 148 ŽĎÁROVÁ KARASOVÁ, J., 39, 42, 65, 94, 98, 99, 104, 134, 135

2015 Annual Report was edited and published by the Faculty of Military Health Sciences, University of Defence, Hradec Králové, Czech Republic

Editor: Mgr. Hana Hlaváčková

Computer work: Dita Zetochová, Mgr. Hana Hlaváčková (using the OBD 3 and the VERSO programs)

Printing: 250 Printed: University of Defence

Contact address: Fakulta vojenského zdravotnictví Třebešská 1575 CZ-500 01 Hradec Králové Tel.: +420 973 253 101 Fax: +420 973 253 100 E-mail: jiri.paral@unob.cz E-mail: ivana.komarkova@unob

© Univerzita obrany, Brno, CZ

#### ISBN 978-80-7231-359-4