

***REPORT ON THE ACHIEVEMENTS
OF THE FACULTY OF PHARMACY
FOR YEAR 2015***

Report on the Achievements of the Faculty of Pharmacy for 2015

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Cover image: A collection of drugs that contains 644 different plant and animal drugs and is indispensable in the teaching, research and professional work of the Chair of Pharmaceutical Biology. The oldest samples (eg. of a Spanish fly) were collected by Prof. Pavle Bohinc; the collection was most expanded in recent years by Assoc. Prof. Damjan Janeš.

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Scientific papers and professional publications

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A detailed bibliography according to the Cobiss system is accessible on the Faculty of Pharmacy's website.

FOREWORD

Dear readers,

I am glad you have decided to take a look at the Report on the Achievements of the Faculty of Pharmacy of the University of Ljubljana. 2015 was a very strenuous and in many ways an unpredictable year for the community of the Faculty. Despite the fact that we already had to integrate this unpredictability into our activities in recent years, it nonetheless also posed a great encumbrance in 2015.

At the beginning of the year, we received (as expected) the final report on the external evaluation of our institution from the German accreditation agency ASIIN. The evaluators took into account, to a certain extent, our reasoning and complements to the preliminary report provided at the end of 2014. Of 45 items, 17 matters and procedures are “established and controlled” (the second highest level of maturity) and 25 are “implemented”. In three cases, we were evaluated a level lower, namely “defined”, but the evaluators affirmed that we are carrying out activities for the next level of maturity that we have yet to achieve. This way, they have confirmed we are on the right path. We find the full evaluation satisfactory, since it shows a realistic picture of where suitable actions are being taken and controlled, where quality loops are completed and where we have yet to achieve this level after implementing the changes according to the Rules on the Faculty’s Organisation and Activity in 2013. The final report together with our self-evaluation represents an important reading material for employees and an important document for continued growth of the Faculty. Part of that growth also includes the workshops on organisational culture and effective management that have become a standard practice in recent years. Of course, we are realistic enough to be aware that achieving the fifth level of maturity (predictive and proactive) depends on factors for which the Faculty is not the sole competent entity (or which are not in its competence at all). This is not an excuse for why we are not even better. In a system where our activities have to be planned three years in advance, but where the information on the scope of funds arrives almost too late, there is simply too much unpredictability. When faculties as members of the University do not have constitutionally guaranteed stable financing, the predictions made for the current year, or the year ahead, are often akin to solving a system of three equations with six unknowns, i.e. guesswork. But the Faculty cannot afford to merely guess what the situation will be in three years. The students namely have the right to complete their studies under the same conditions that applied at the time of their enrolment, if they advance through the study programme at a regular schedule. For first cycle study programmes, this means 3-4 years; for the long-cycle master’s study programme of pharmacy, it means 5-6 years. How can the Faculty management plan for stable implementation of the programme for so many years in advance if finances, as one of the most important conditions for the operation, are an unknown? When we received the information on funds for implementing the public programme in May 2015 (for the current year, namely 2015), we were actually delighted, because in some previous years this information only became available in October for the rolling year. It is of no use that the constitution provides for stable financing of the universities; it is of no use that the constitutional court has decreed that the existing system of financing based on an annual decree, the competent body for which is the ministry(-ies), is unconstitutional and should be amended. We must operate within an unlawful framework that maintains unpredictable conditions and increases risks. I do not want to diminish the importance of the responsibility of working in an open market and the unpredictability of the industry. But as soon as the industry detects financial or other obstacles, it lowers the costs, and this also includes selling raw materials and individual parts of a company, changing the production

programme and dismissing employees. Painful, but regulated and legal. Analogous to this in higher education would be dismissing employees and “dismissing” students or closing a study programme even before the regularly enrolled students complete it. But students cannot be dismissed; not only that, when advancing through the programme regularly, as stated above, students have the right to complete the study programme they enrolled in. Depending on the conditions, the Faculty can lower the number of places for enrolment, and we did so after the start of the crisis. But the number of enrolment places is determined a great deal in advance: enrolment into the first year of the 2016/2017 academic year was determined during the summer of 2015. This means that the measure of limiting enrolment will only have an austerity effect in three, four, five years. The following question cannot be avoided: is it even sensible to lower the number of places for enrolment at the Faculty of Pharmacy? We know that the pharmaceutical industry in Slovenia contributes as much as 5% of gross national income and is even expanding its capacities in Slovenia. If one also takes into account the added value of pharmacists (in the public and private sectors) for supplying medicines and for their effective and safe use, then the answer to the above question becomes self-evident. Enrolment should be increased, but even for the existing scope of the programme, we are still short of an additional several thousand square meters of laboratory surfaces and lecture rooms. This is also one of the reasons why the working hours of the majority of the teaching staff are out of the ordinary, mainly in terms of the scope, which strongly exceeds 40 hours a week: if we were to strictly adhere to the prescribed norms, we would only be able to perform maybe half of each of the study programmes. This solution, which seems to be simple at first inspection, is definitely not in the interest of the community, which finances public higher education and expects qualified graduates for the challenges of the 21st century.

Successfully passing the accreditation procedures of the Slovenian Quality Assurance Agency for Higher Education in 2015 has shown that our Faculty is performing the study programmes correctly and with excellence; despite limitations - we have obtained a “licence” for three programmes, the accreditation of which had expired, for the next 7 years. There is always room for improvement in this area, so in 2015 we once again organised the workshop for pedagogical improvement, and instead of organising an extraordinary senate for pedagogical issues, we successfully organised the first pedagogical conference.

Last year's elections of the dean and pro-deans are not unpredictable, since they take place every two years. Last year, they were carried out for the first time according to new procedures with an open call and an unknown number of candidates until the call was concluded. We believe that with these procedures, our community of teaching staff and non-pedagogical workers and students has shown a maturity as a group that is capable of constructively tackling differences of opinion.

However, the departures of employees are unpredictable, and there were many in 2015. When the departures are for other positions of employment in the industry or the public sector, this is ordinary for a school that educates and trains people for the wider needs of the society - even though we would be happy to retain many of them, if we had the suitable mechanisms for providing stimulation. When the departures are due to the fact that the Faculty is not able to extend the employment relationship for a researcher because there are no project orders or calls for tenders, the feeling of disappointment is mutual. But when the departure is absolute and irreversible, the sadness is infinite. We lost Saša Baumgartner, professor and associate, whose death is an irreplaceable loss for our collective. Not only because of the teaching assignments every teacher is legally obliged to fulfil. In time, we will be able to substitute for that, but her contribution as a person is irreplaceable; a contribution that makes a teacher a true Teacher; a contribution that turns the administrative procedure (as sometimes seen in

the public) of working at the faculty into Teaching - a multifaceted process of creating and transferring knowledge.

At the Faculty of Pharmacy, we are aware that quality graduates can only develop at a school that not only transfers knowledge from textbooks to students but also creates new knowledge itself. This means own research work, which on the one hand requires people with brilliant ideas and commitment and on the other hand top quality equipment (for which there are less and less funds in calls for tenders) and executive resources obtained from national and European tenders. For creating and bilaterally transferring the knowledge, it is also important to engage in projects with the industry that are oriented towards solving the client's actual issues. Last year, we continued joining the Faculty's internal expertise for a more comprehensive support to industry partners, namely more effective linking with value chains from the idea to the product or service. As part of the strategy of smart specialisations, searching for, creating and strengthening the existing value chains left a significant mark last year. I could express my optimism regarding the Faculty's activities in the mentioned processes, but I would rather leave that estimate for the next report, when the results of calls for tenders within the framework of the 2016 smart specialisations become known. However, I do believe that we are demonstrating increased internal cohesiveness and external connections as well as comprehensive penetration of the Faculty with its added value into society, not only through graduates but also through activities that otherwise are not a part of the employees' regular work obligations but nonetheless are a part of the activities of modern and advanced faculties and universities.



*Prof. Borut Božič, PhD
Dean*

1 PRESENTATION OF THE FACULTY OF PHARMACY

The fundamental obligations of each university and its faculties involve creating, transferring and preserving knowledge. Besides innovation and research, this also includes efficient teaching as well as preserving historical memory related to the profession. The Faculty of Pharmacy was formally established in 1995, but not from scratch. The university study of pharmacy has been conducted comprehensively in Ljubljana since 1960. However, the first forms of the study of basic pharmaceutical knowledge already existed during the years from 1946 to 1949, and various forms of education for pharmacists in the Slovenian area are considerably older. The education of pharmacists and the introduction of the doctrine of good work in the pharmaceutical field developed in the 17th and 18th centuries in the territory of Slovenia, and the Pharmaceutical Code for the Duchy of Carniola was established in the year 1710. In the nineteenth century, the pharmacists who were working in the territory of present-day Slovenia studied at the universities in Vienna, Graz and Padua and later also at the University of Zagreb. The comprehensive study of pharmacy was formed at the Department of Pharmacy at the Faculty of Natural Sciences and Technology, from which the Faculty of Pharmacy was later established. All this history is an integral part of the present day Faculty of Pharmacy. Not because of any nostalgia for the past but rather because of our awareness of how deeply rooted our history is from which a huge tree with a vast canopy can grow. This is reflected in the diversity of our research work, where every leaf, every individual counts. At the same time, it represents our commitment to pedagogical work via internal connections, just as the crown of the tree is connected with twigs and branches and the flow of sap from the roots to the very last leaf.

The Faculty of Pharmacy has declared itself as a scientific and research oriented pedagogical institution. It is not a formal orientation, but it defines us on a day-to-day basis as the way we work. We rank at the very top of the University of Ljubljana in terms of the number of publications in scientific journals, the number of quotations and the number of projects in cooperation with the economy sector. This way of work and thinking is also an integral part of the study programmes. The central programme of Pharmacy is being constantly renewed and updated and was subject to some of the more significant changes: it was changed from a 4-year course into a 4.5-year course, then into a harmonised 5-year programme with additional practical training instead of an internship and lastly into a 5-year Bologna study programme. This way, the studies last for the period that was suggested as early as 1946, although without the half-year practical training. The studies continue with the doctoral programme of Biomedicine, which is performed as part of the University's Doctoral School and involves several faculties and associate institutes. All students of the Faculty can reach the doctoral degree through the study programmes – first and second cycle of Laboratory Medicine, Cosmetology and Industrial Pharmacy – but at the same time, they are employable according to the programme they have completed. The scientific approach during the time of the studies also develops critical thinking and flexibility, so that the graduates know their way around the atypical environments of their profession. This is of extreme importance nowadays due to the severe economic conditions on the one hand and the demands for constant flexibility and innovation on the other. The basic goal of the Faculty of Pharmacy is to provide quality education and professional and scientific training to graduates who are aware of the ethical principles and can perform demanding work independently at pharmacies as well as in the pharmaceutical industry in all four fundamental segments (R&D, production, analytics, marketing and sales), hospital dispensaries, clinical biochemical and other medical laboratories, control-analysis laboratories, research institutions, educational organisations, national and regulatory bodies and elsewhere where work and the presence of professionals from the wider field of pharmacy, laboratory medicine and medical and cosmetic product safety are necessary to increase safety and health care.

The mission of the Faculty of Pharmacy is built on people who are aware of our personal mission in the framework of the higher education institution:

1. The development, planning and carrying out of higher education in all three cycles; the education and training of staff for performing scientific, development and professional work in the wider fields of pharmacy and laboratory medicine.

2. Planning and performing scientific and research-based work in the wider scope of pharmacy, clinical biomedicine and broader natural science fields in association with Slovenian and foreign scientific institutions.

3. Taking care of professional activities in the field of health and healthcare services in the framework of pharmacy practice and laboratory activities; performing professional and developmental work for the requirements of the pharmaceutical and cosmetic industry, governmental institutions and the promotion of the pharmaceutical industry in the Republic of Slovenia and abroad.

4. Training and education of experts and managers for working in a globally competitive environment in pharmacy, laboratory medicine and cosmetology with a combination of scientific approaches and innovative teaching tools for the creation and spreading of knowledge to the global society with the purpose of human welfare and healthy aging.

As part of the University of Ljubljana, the Faculty of Pharmacy builds its reputation, integrity and development on the basis of excellence, effectiveness and the ethical stance of the students and teachers. We are building on the long-term tradition of pharmaceutical experience in Slovenia and beyond. However, our focus is directed towards the future.

The vision of the Faculty of Pharmacy is to contribute by helping to shape the future and at the same time remain an academic educational and research institution that is open to the world, responsive and responsible and recognisable among European faculties of pharmacy by creating and spreading scientific knowledge and acting for the welfare of Slovenian citizens and general development and thus strengthening the national identity.



HOW IS THE FACULTY OF PHARMACY ORGANISED?

Internally, the faculty is divided into the following organisational units: the management, 6 department chairs, the faculty registry and the institute of pharmacy. The chairs and the institute cover the following organisational subunits: the infrastructural centre, the authorised laboratory and specialised subunits or centres.

The department chairs form the core of the pedagogical, scientific and research, development and professional work of the faculty. At the same time, they also form a connecting element of the research work that is underway at the individual chairs as well as within research groups, research project groups and research programme groups. The latter forms of operation are not organisational units of the Faculty and depend on the needs and possibilities of obtaining resources for research work through tenders as well as the demands for establishing connections in interdisciplinary groups regarding individual research issues.

The Chair of Clinical Biochemistry

For the successful diagnosis of illness, it is crucial to know its causes, which are the subject of research at the Chair of Clinical Biochemistry. Treatment cannot be successful and safe until the cause of an illness and its symptoms are known. With clinical biochemistry, which is the widest area of laboratory medicine, it is possible to establish the causes and consequences of changed concentrations of or molecular changes to a substance in the body. Those substances that are urgently necessary for the correct functioning of the organism or substances that are degradation products define the organism state. Changes at the molecular level predict changes in the physiological state of the organism, which leads to illness in most cases. Clinical biochemistry studies the changes at the level of the genes – genomics, transcriptions – transcriptomics, proteins – proteomics and the metabolism products – metabolomics.

Pharmacogeonomics uses knowledge involving the genome in various segments of pharmaceutical science. Changes in the structure and expression of genes are studied, and it is established whether they cause the formation of different proteins or a change in the quantities of proteins that can lead to the development of illness. When the cause is known, the target search for new effective medicines can start and the most suitable can be chosen. Knowing the genes that take part in pathophysiological mechanisms is the basis for the development of potential gene medicines. Our research activity also goes in the opposite direction, thus from known medicine to the person. How a person will accept a medicine is predicted by analysis of the gene record.

In the field of tumorigenesis and apoptosis, answers to questions are sought using genetic technologies, and we want to know why a specific cell becomes malignant and which of the molecules in the process of transformation into a tumour cell could become the target for a new medicine.

The laboratory diagnostics of immunological disorders and hypersensitivity represent a link between the areas of clinical biochemistry and immunology, the lesson of which is performed within the Chair; the narrower research work in this field is directed towards the molecular grounds of autoimmunity. By studying autoimmunity mechanisms, we can establish why the immunological defence system makes the mistake and works against its own organism.

The Chair also contains the laboratory for molecular diagnostics – KKB. This is a medical laboratory with a work permit from the Ministry for Health of the Republic of Slovenia.

The Chair of Pharmaceutical Biology

The Chair of Pharmaceutical Biology deals with research into medicines of natural origin (herbal, biotechnological and cellular) and their targets.

It develops the analysis methods for checking the identity and quality of herbs, and it establishes how to get the most qualitative medical herbs. It identifies the biological active substances in the herbs and researches the biological effectiveness of the healthy substances in herbs and fungi that haven't yet been used for medical treatment, and in this way it is searching for promising new medicines.

With the development of genetic engineering, the possibility of acquiring new healthy effects from a recombinant origin has spread. For these purposes, we use the modern techniques of pharmaceutical biotechnology to research medical plants and recombinant medicines, and thus proteins that are identical to human ones but produced in fermenters. Using special molecular biological techniques (transplanting the biological combinatorial libraries), peptides and proteins of the completely new structures with the desired biological effect are developed.

Using the methods of molecular and cellular biology, we also research the molecular mechanisms of the formation and progression of cancer, antitumor response, arteriosclerosis, obesity, neurodegenerative and other illnesses, with the purpose of defining the most important targets for therapeutic and diagnostic functionality.

The Chair of Pharmaceutical Chemistry

At the Chair of Pharmaceutical Chemistry, we prepare molecules with new beneficial effects on the basis of validated targets. We plan the new molecules using modern computer methods according to the structure of their binding place or on the grounds of 3D similarity with known biologically active molecules. Further chemical synthesis follows and the result is the desired compounds. At the moment, we are preparing new enzyme blockers, which take part in the process of blood clotting; compounds that block the biosynthesis of the bacterial cell wall, compounds with antitumor functionality and compounds with an effect on the immune system. The molecules are evaluated biologically and toxicologically and are optimised on the basis of the relationship between the structure and their characteristics. In collaboration with the pharmaceutical industry, we also develop new synthesis methods and patent independent procedures of medically effective synthesis.

The Chair of Pharmaceutical Technology

The Chair of Pharmaceutical Technology performs pedagogical and research work in the field of designing, preparing and evaluating traditional pharmaceutical forms and progressive delivery systems. It is directed towards the challenges of how a synthesised drug, which can be a traditional low-molecular compound or biomacromolecular with known physical and chemical and pharmacodynamical characteristics, can be integrated into a pharmaceutical form suitable for a definite method of application. Through the choice of the corresponding helper substances and technological procedures, a pharmaceutical form with the desired characteristics is produced and is evaluated using the most developed techniques, among which are atomic force microscopy, nanoindentation, rheometry, inverse gas chromatography, photon correlation spectroscopy, dynamic differential calorimetry and methods based on the biological evaluation of the resulting formulations in vitro, i.e. by the use of cell cultures.

The chair covers the following research areas: preformulating research into drugs and helper substances, approaches for increasing the solubility and the speed of dissolving of medical substances (cocrystals, solid dispersions, nanosuspensions, lipid-based systems...), the development of solid pharmaceutical forms (granules, pellets, pills, minipills, microcapsules), semi-solid and liquid dispersal systems (micro and nano emulsions, liquid crystals, hydrogels) and modern (nano) delivery systems for controlled or directed release (liposomes, nanoparts, nanocapsules and nanofibre). The essential novelty at this Chair is the nanotechnological approaches and the production of nanomedicines both for academic use and for use in industry as well as nano-delivery systems and solid pharmaceutical forms with modified releasing.

The Chair of Biopharmacy and Pharmacokinetics

When a biologically active molecule (substance) is created, that doesn't mean that we have a medicine. The substance must be delivered in the corresponding amount and speed to the place of action (into the tissue, organ or organ system) in the body where, after contact with the enzyme or receptor, it initiates the effect (for example decreasing the blood pressure, decreasing the cholesterol level, preventing an asthma attack). For this purpose, we incorporate the substance into a delivery system by which the speed of the processes is controlled and responsible for performance, strength and effect duration. If we have a pill for oral administration with adopted releasing, we must assure, that after its ingestion, the process of release in the digestive system will take place so that suitable absorption into the central blood circulation will be assured. The substance should be disintegrated as little as possible at this stage and most of it should arrive where it is needed and eliminated from there as slowly as possible. For this purpose, we have developed laboratory methods with which we:

- integrate drugs into delivery systems (microcapsules, microspheres),
- research the release of substances from delivery systems,
- research the absorption of substances from the digestive system and
- research the distribution and degradation of substances in the body.

Research at the level of laboratory tests are urgently needed, because only in this way can we define the influence of biological and technological factors on the mentioned processes.

When enough data is collected, the mentioned processes are mathematically described, and we predict the concentrations of the substances in the different organs and their effects using computer-supported methods. The latter depend on the dose, the type of the delivery system, the method of delivery (for example dosing, injection into a vein, inhalation into the lungs), genetic predispositions and the functioning of the organs of secretion (kidneys, liver). In this way, we put less stress on animal and human test subjects in the various phases of the development and testing of medicines, we arrive at the final results faster and we also get instructions for the performance of new laboratory tests.

Our research is essential for transforming a substance into a medicine, which must have the best functionality with the least possible undesired effects.

The Chair of Social Pharmacy

At the Chair of Social Pharmacy, we study the effects of medicinal products on modern man and the society. We deal first of all with control of the arrival of medicinal products onto the market and into patients' hands. We use natural-science methods of research in our work, but they are very often interwoven with sociological methods. Within pharmacoepidemiology, we monitor the security and

effectiveness of medicines on a greater number of people - at the level of the population; through pharmacoeconomics, we lighten the cost aspects of medicine use. We are especially interested in research into pharmaceutical activities at the pharmacy level. With the programmes involving so called pharmaceutical care, which are firstly evaluated through our research, we try to improve the quality of life of the patient. For this purpose, we use modern information and communication methods. In the framework of the Chair of Social Pharmacy, we research the characteristics of Slovenian and international regulations that regulate the area of medicine and pharmaceuticals. In this way, we contribute to the formation of new legislation and introducing the highest standards into daily practice.

Registry

The Faculty Registry is an organisational unit that takes care of the organisational, legal and management issues and processes, performs professional administrative work in the areas of finance, accounting, human resources, studies and research and is in charge of informatics, the library and maintaining real estate, the surroundings and the equipment used in the performance of the national programme of higher education and the national programme of scientific research activities. The Faculty Registry performs management and administration work and financial and economics tasks in connection with the market activity of the Faculty.

As well as the described formal organisation, the organisation culture of all employees is also important. With such a comprehensive approach, the Faculty of Pharmacy of the University of Ljubljana has been able to sufficiently adapt to the challenges of the area of research work and become stable enough to perform its teaching assignments. Thus, we combine modern approaches of pedagogical and scientific-research work in providing education to contemporary experts in the fields of pharmacy work, the pharmacy industry, laboratory medicine, cosmetology in the regulatory systems and distribution systems and also in basic and applicative research and education.

The Institute of Pharmacy

The Institute of Pharmacy is a central connecting organisational unit of the Faculty that follows the research trends in the wider pharmaceutical and biomedical field, gives proposals regarding the direction of research and performs fundamental scientific-research, development and application projects as well as professional projects and tasks (mainly those that exceed the activities of individual chairs). The Institute can operate without any employees as a project or work liaison of workers from various chairs or with their own employed workers.

(Chapter 1 prepared by: B. Božič, D. Černe, S. Kreft, S. Gobec, M. Gašperlin, A. Kristl, M. Kos)

2 THE FACULTY OF PHARMACY IN 2015

The Faculty of Pharmacy cultivates experts that are qualified to work and manage sustainable development in the fields of pharmacy, cosmetology and clinical biochemistry. The Faculty's activities are:

- education at the undergraduate and postgraduate levels,
- basic, applied and development research in the field of natural science and technology,
- professional participation, technical testing, analysing, advising, etc.

Its seat is in Ljubljana, at the address Aškerčeva cesta 7, telephone number: 01 47 69 500, fax number: 01 42 58 031, e-mail: tajnistvo@ffa.uni-lj.si, ID number: 1626973, tax ID number: SI 11690682, website: <http://www.ffa.uni-lj.si>

MANAGEMENT AND FACULTY REGISTRY - CONTACT DETAILS

/at the time of compiling the report/

Faculty Dean:

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phone: 01 47 69 501, e-mail: dekan@ffa.uni-lj.si

Vice Dean for Education:

Prof. Aleš Obreza, PhD, MSc Pharm.
phone: 01 47 69 677, e-mail: ales.obreza@ffa.uni-lj.si

Vice Dean for Scientific Research:

Prof. Irena Mlinarič Raščan, PhD, MSc Pharm.
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Vice Dean for International Cooperation:

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Faculty Management Secretary:

Lidija Ribič, administ. sec.
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Financial Accounting Department:

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Personnel Department:

Head: Zdenka Gantar, snr. admist. work.
phone: 01 47 69 505, e-mail: ks@ffa.uni-lj.si

Student Affairs Office:

Head: Tanja Kadunc, BSc (Tourism)
phone: 01 47 69 506, e-mail: referat@ffa.uni-lj.si

Research Office:

Judita Merjasec, BSc (Administrative Sciences)
phone: 01 47 69 641, e-mail: r-r@ffa.uni-lj.si

Library:

Head: Borut Toth, Prof. Phil. and Social.
phone: 01 47 69 548, e-mail: knjiznica@ffa.uni-lj.si

IT Service

Head: Tanja Gregorič, BSc (Organisational Informatics)
phone: 01 47 69 613, e-mail: rc@ffa.uni-lj.si

Technical Maintenance Service:

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CHAIRS OF THE FACULTY OF PHARMACY - CONTACT DETAILS**The Chair of Biopharmacy and Pharmacokinetics:**

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The Chair of Pharmaceutical Biology:

Head: prof. Samo Kreft, PhD, MSc Pharm.
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The Chair of Pharmaceutical Chemistry:

Head: Prof. Stanislav Gobec, PhD, MSc Pharm.
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The Chair of Pharmaceutical Technology:

Head: Prof. Mirjana Gašperlin, PhD, MSc Pharm.
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The Chair of Clinical Biochemistry:

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phone: 01 47 69 644, e-mail: darko.cerne@ffa.uni-lj.si

Head of the molecular diagnostics laboratory: Prof. Janja Marc PhD, MSc Pharm., EurClinChem

The Chair of Social Pharmacy:

Head: Assoc. Prof. Mitja Kos, PhD, MSc Pharm.
phone: 01 47 69 686, e-mail: mitja.kos@ffa.uni-lj.si

FACULTY BODIES

| | | |
|---|-----------|----------------------------------|
| Senate | Chairman: | Prof. Borut Božič, PhD |
| Academic assembly | Chairman: | Prof. Marija Sollner Dolenc, PhD |
| Administrative board | Chairman: | Prof. Julijana Kristl, PhD |
| Student council | Chairman: | Anže Vasle |
| Committees: | | |
| Habilitation committee | Chairman: | Prof. Marija Bogataj, PhD |
| Awards committee | Chairman: | Prof. Albin Kristl, PhD |
| Committee for Study Affairs | Chairman: | Prof. Aleš Obreza, PhD |
| Doctoral study committee | Chairman: | Prof. Aleš Obreza, PhD |
| R&D committee | Chairman: | Prof. Irena Mlinarič Raščan, PhD |
| Quality and accreditation committee | Chairman: | Assist. Prof. Bojan Doljak, PhD |
| Professional issues committee | Chairman: | Assoc. Prof. Mitja Kos, PhD |
| Foreign education recognition committee | Chairman: | Prof. Aleš Obreza, PhD |
| IT committee | Chairman: | Tanja Gregorič |

STUDY PROGRAMMES

The education activity at the Faculty of Pharmacy is based on more than 50 years of constant development of the pedagogical competences of teachers, which cultivates highly scientifically and research-qualified graduates in the fields of pharmacy, laboratory biomedicine and cosmetology.

Undergraduate and Postgraduate Study Programmes of the Faculty of Pharmacy in 2015

Pharmacy, long-cycle master's study programme (EMFAR);
Cosmetology, university study programme (S1KOZ);
Laboratory Biomedicine, university study programme (S1LBM);
Industrial Pharmacy, postgraduate master's degree study programme (S2INF);
Laboratory Biomedicine, postgraduate master's degree study programme (S2LBM);
Biomedicine, interdisciplinary doctoral study programme (field: Pharmacy S3BMF, field: Clinical Biochemistry and Laboratory Biomedicine S3BML, field: Toxicology S3BMT);
EMFAR, S1KOZ, S1LBM, S2LBM and S2INF studies and the interdisciplinary doctoral study programme of Biomedicine are studies in accordance with the Bologna process. All the courses are full time. The number of places for enrolment is limited for all the study programmes.



Lecture room of the Faculty of Pharmacy

Specialisation Postgraduate Study:

Pharmacy (theoretical content is provided by the Faculty, the entity in charge of the activity is the Chamber of Pharmacy of Slovenia). Areas: Formation of Medicines, Analysis of Medicines, Clinical Pharmacy, Pharmacognosy and Dispensary Pharmacy and international specialisation in Radiopharmacy (collaborating: Faculty of Pharmacy of the University of Ljubljana, Swiss Federal Institute of Technology, Zürich and University of Leipzig).

Medical Biochemistry (theoretical content is provided by the Faculty, the entity in charge is the Chamber of Laboratory Medicine).

Lifelong Learning:

Laboratory Biomedicine: accredited parts of the S2LBM programme. Three parts are accredited (30 ECTS each): Basic Natural Science Biomedicine Content, General Professional Content of Laboratory Biomedicine and Directed Professional Content of Laboratory Biomedicine.

Lifelong learning in the areas of pharmaceutical sciences: Scientifically critical view of complementary and alternative medicine

Collaborating institution at the international course on radiopharmacy: Postgraduate European Radiopharmaceutical Chemistry/Radiopharmacy Course (PERC)

Collaborating institution in teaching the medicine development course: CEMDC - Cooperative European Medicine Development Course

Collaborating institution for the Marie Skłodowska-Curie European Training Network INTEGRATE project

Number of Students:

1398 students in all the programmes of undergraduate and postgraduate study. Until 2010/11, the number of students increased by approximately 100 a year, mainly due to double generations of pharmacists (transition from the old to the new programme) and due to the opening of new study programmes (S2LBM, S2INF, SIKOZ).

In 2015, the number of students decreased by approximately 130 due to the transition to the Bologna programmes and a lower number of enrolment places for the EMFAR programme in academic years 2011/12 and 2012/13 (lack of available space, savings measures in the field of higher education and science). Lowering the number of enrolment places is not in accordance with the vision of the Faculty and the needs of the market. We expect that in following academic years, the number of students will stabilise at around 1400.

Table 2.1: The number of students by individual cycles in the 2014/2015 academic year in comparison with 2013/2014.

| <i>Type of Study Programme</i> | <i>2013/14</i> | <i>2014/15</i> |
|--|-----------------------|-----------------------|
| <i>1st Cycle</i> | 270 | 266 |
| <i>2nd Cycle</i> | 171 | 162 |
| <i>EMFAR + UPF</i> | 993 | 890 |
| <i>3rd Cycle</i> | 74 | 59 |
| <i>Specialisation studies of the Chamber of Pharmacy</i> | 19 | 19 |
| <i>Specialisation studies of Medical Biochemistry</i> | 1 | 2 |
| <i>Total</i> | 1528 | 1398 |

Table 2.2: Trend of total number of students in the years 2008-2015.

| Academic Year | Number of Students | Growth Index* |
|---------------|--------------------|---------------|
| 2008/2009 | 1282 | 1.00 |
| 2009/2010 | 1395 | 1.09 |
| 2010/2011 | 1479 | 1.17 |
| 2011/2012 | 1540 | 1.20 |
| 2012/2013 | 1516 | 1.18 |
| 2013/2014 | 1528 | 1.19 |
| 2014/2015 | 1398 | 1.09 |

Growth index is shown according to the total number of students (1282) in the academic year 2008/09.

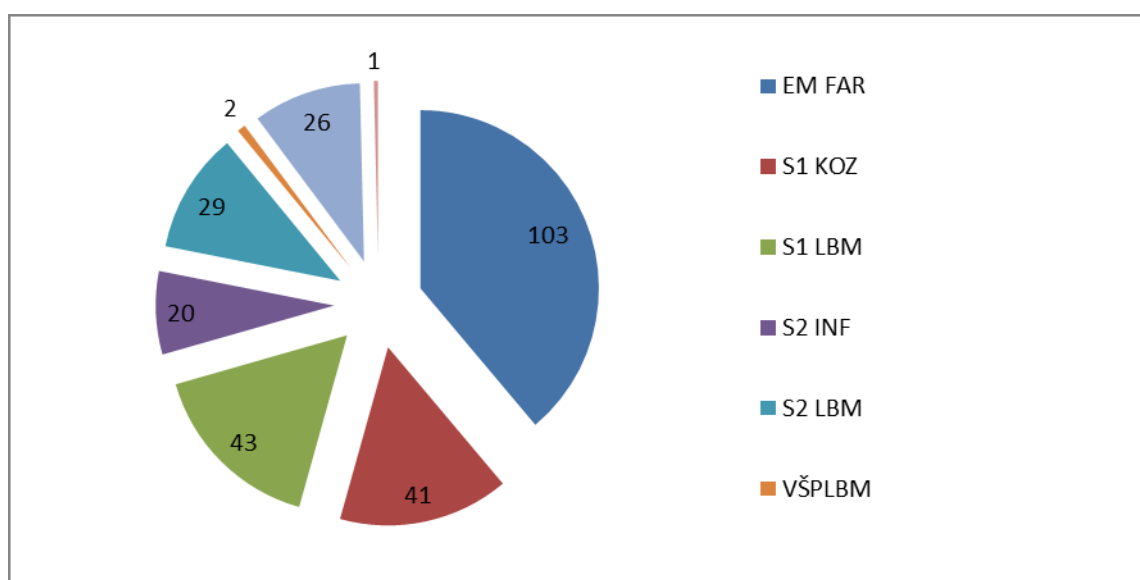


Chart 2.1: No. of students in the Faculty's study programmes in 2014/15.

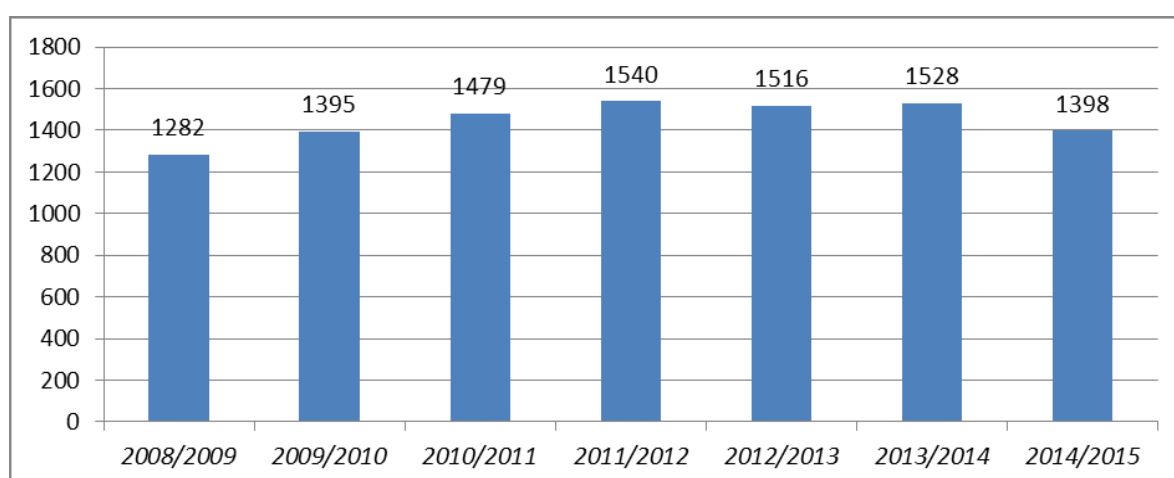


Chart 2.2: Growth in number of students at the Faculty from 2008 to 2015

Presentations of the Study Programmes and Enrolment:

The interest for studying in all the study programmes of the Faculty of Pharmacy is extremely high. The study programme is presented at open days, at informative visits, at the "Informativa" fair and at the interested secondary schools. Also taking part in presenting the programme and printing of the materials are students of the Faculty of Pharmacy.

Upon first enrolment, foreign citizens must demonstrate knowledge of the Slovenian language (the Faculty senate's decision FFA 2013, decision UL 2014). All the study programmes are in Slovenian, therefore knowledge of the Slovenian language is a fundamental condition for performing the study requirements and for successful progress according to the programme. In particular, students from other language regions have problems with the transition from the 1st to 2nd study year in all study programmes. Besides the different cultural environment, possible social issues and demanding study programmes, not speaking the language is the reason that more than 50% of such candidates fail to progress and consequently repeat the year or even lose their student status.

The condition to enrol in EMFAR in the 2015/2016 academic year is still passing the natural science course in the "Matura" exam (required for the first time in the 2012/2013 study year). Students who have passed a course in natural science have a significantly easier transition from the 1st to the 2nd year of study.

The number of open positions for enrolment in EMFAR and both 1st cycle programmes for the 2015/16 academic year stayed the same as in the 2014/2015 academic year; there are 40 positions open for both 2nd cycle study programmes, which is 10 more than in the 2014/15 academic year. With this, we are back to the number of open positions envisaged in the accreditation materials. One of the reasons for increasing the number of positions for enrolment is the higher number of graduated cosmetologists whose most reasonable continuation of their studies is the S2INF study programme, since it is wise for the students to expand their knowledge and competences and thus increase their possibility of employment.

Student Transition Rate:

The transition of students in all the study programmes is very good, and it differs from the average of the University of Ljubljana.

- In the EMFAR programme, the transition of the generation from the 1st to the 2nd year has been 90% on average in the last few years, and the cumulative transition from the first to the fifth year is 70% on average.
- In the master's study programmes, the transition rate was somewhat lower in the past; last year, it improved for the S2 LBM study programme, but the transition rate for S2 INF is still an issue. The reason for this is on one hand the candidates' lack of foreknowledge when enrolling into the first year and on the other the strict conditions for enrolling into the second year (completing all the fundamental 1st year courses of the study programme).
- It is interesting and unexpected that in 2015 the transition rate from the 1st to the 2nd year of the S1 KOZ study programme decreased.

The reason for the high rate of transitions is the commitment of students and the teaching staff. An important contribution towards this also comes from non-teaching staff, who assure good working conditions (students emphasised the kindness of the employees at the students' office and the transition to digital management of the timetable).

Table 2.3: Transition between the study years in the last three school years.

| Study Programme | 2013/14 | 2014/15 | 2015/16 |
|----------------------|----------|---------|---------|
| EMFAR | | | |
| from 1st to 2nd year | 88.4% | 91.2% | 90.9% |
| from 2nd to 3rd year | 99.3% | 111%** | 91.9% |
| from 3rd to 4th year | 97.1% | 96% | 107%** |
| from 4th to 5th year | 92.0% | 88.8% | 84.6% |
| S1LBM | | | |
| from 1st to 2nd year | 110%** | 97.5% | 86.0% |
| from 2nd to 3rd year | 65.8% | 73% | 77.5% |
| S1KOZ | | | |
| from 1st to 2nd year | 87.0% | 76.0% | 63.6% |
| from 2nd to 3rd year | 106.7%** | 98% | 91.1% |
| S2INF | | | |
| from 1st to 2nd year | 56.5% | 84% | 50% |
| S2LBM | | | |
| from 1st to 2nd year | 89.7% | 69% | 84.4% |

* Data valid on 1 October 2015

** Over 100% transition due to the transition of students from the old to the Bologna study programmes or the sporadic enrolment of students who went on a study break after performing their study requirements.

Finished Diplomas in the 2014/2015 Academic Year:

Finished diplomas in the 2014/2015 academic year:

- 273 graduates in 1st and 2nd cycle (35 the Pharmacy university programme (UFP) - old programme, 103 EMFAR, 41 S1KOZ, 43 S1LBM, 20 S2INF, 29 S2LBM, 2 VŠPLBM).
- 27 graduates in 3rd cycle (1 master of science and 26 doctors of science)

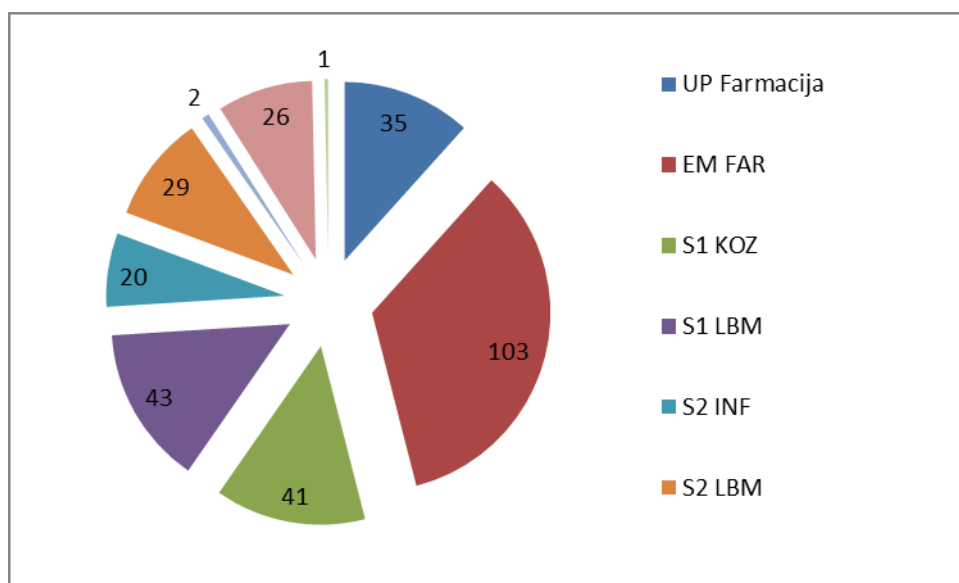


Chart 2.3: The number of graduates according to individual programmes in the 2014/15 academic year.

Table 2.4: Comparison of completed diplomas in 2014 (from 1 January to 31 December, 2013) and in 2014/15 academic year (from 1 January to 31 December 2015).

| <i>Study Programme</i> | <i>2013/2014</i> | <i>2014/2015</i> |
|--|------------------|------------------|
| EMFAR | 90 | 103 |
| UPF | 87 | 35 |
| S1KOZ | 19 | 41 |
| S1LBM | 32 | 43 |
| VSPLBM | 2 | 2 |
| S2INF | 17 | 20 |
| S2LBM | 39 | 29 |
| Biomedicine - former Master of Science (MSc) | 1 | 1 |
| Biomedicine - former programme (Dr) | 6 | 4 |
| Biomedicine - new programme (Dr) | 19 | 22 |
| TOTAL: | 312 | 300 |

The Performance of Teaching Activities:

The timetables are formed so that the students can take part in all the obligatory study content and the majority of optional courses they are interested in and not just those they have selected. Due to the shortage of teaching rooms and the large burden on the teaching staff, some changes have been implemented in the 2015/2016 academic year to alleviate these issues, such as simultaneous teaching of two optional courses in the 3rd and 4th year of EMFAR. Because the number of optional courses at the S2 INF programme was too high, only some optional courses are being taught in the 2015/16 academic year. The list of the above mentioned courses was prepared based on how the subjects were taught during the last three years.

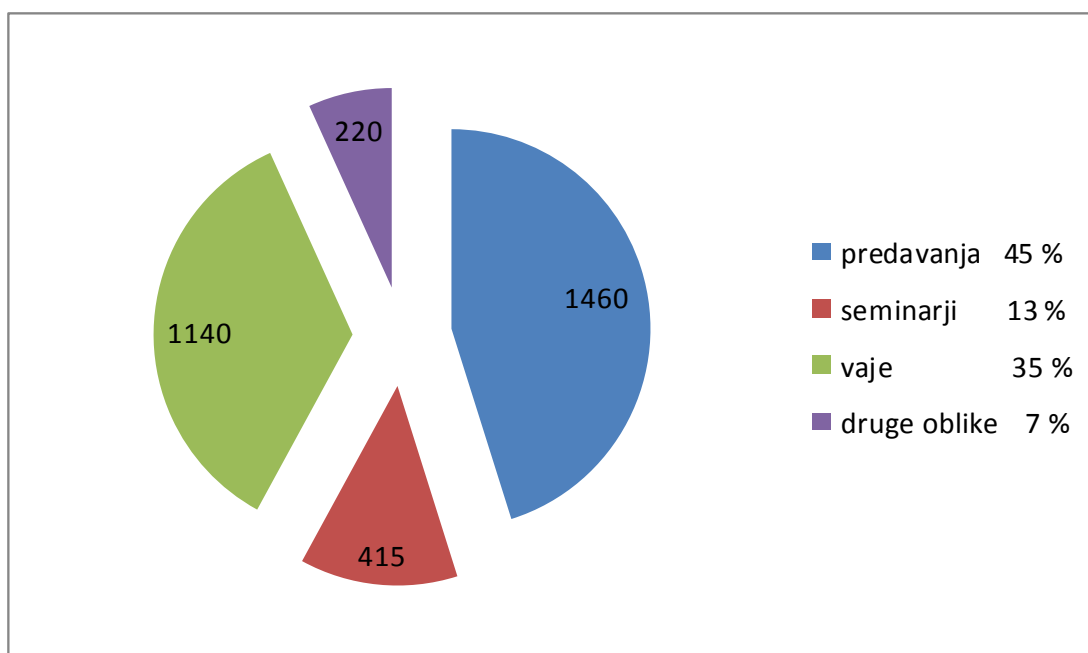


Chart 2.4: Arrangement of contact hours of the EMFAR study programme. It is also similar to the other study programmes of the 1st and 2nd cycle.

The students are especially supportive of writing seminar papers for the optional courses, since they cover the subjects they are interested in and with which they can develop their presentation skills. The number of outside personnel and demonstrators at the exercises remained low and limited to volunteering due to austerity measures implemented at the Faculty of Pharmacy.

Presentation of Study Programmes at the Faculty of Pharmacy



LONG-CYCLE MASTER'S Study Programme of Pharmacy

The long-cycle master's study programme Pharmacy (300 ECTS, 10 semesters), in accordance with the demands of Directive 2005/36/EC on professional qualifications, which suitably covers pharmaceutical, natural science, medical and other content, qualifies the student for performing professional work and tasks anywhere in the pharmaceutical field and also provides the basis for continuing the study at a doctoral level and is open to continued lifelong professional training. The study lasts 5 years and includes the obligatory half year practical training in teaching institutions (public, private and hospital dispensaries) and the preparation of the master's thesis and its defence.

The possibility of choice is included in the course at three levels: alternative courses, optional courses offered by the Faculty, including choosing the field the student's master's thesis will discuss, and the general possibility of selecting courses within the University. The optional content is offered in such a spectrum that we cover all the standard areas of narrower fields and we follow the developments in the profession. But we also take care to avoid too much choice so that the quality of teaching does not decrease due to an excessive dispersion of students. Greater possibility of choice is also limited by restrictions of time and space.

UNIVERSITY Study Programme of Cosmetology

The first cycle study programme Cosmetology is a study programme that lasts 3 years, includes 180 ECTS and is the first of its kind in Slovenia. Its main purpose is to train professionals in the field of cosmetology science. Beside basic knowledge of natural sciences, the programme also offers deeper knowledge of the professional sciences of cosmetology. This means knowledge of natural and synthetic materials as ingredients of cosmetic products, cosmetic active substances, their desired, harmful and toxic effects, the types of cosmetic products, their designing, formation and production, approaches to estimating security and effectiveness, the use of the suitable analytical methods, control and the marketing and advertising of cosmetic products. Through a great number of optional courses, the programme deepens the knowledge of natural science and cosmetic sciences and provides additional knowledge about service activities in the sense of care and maintaining the body in good condition, way of life and nutrition as is dictated by cosmetic science, and it additionally offers the social skills that follow cosmetic science like communication science, foreign languages, the psychology of perceptions, aspects of marketing and advertising, etc. This programme trains professionals that are competent for employment in the cosmetic industry, regulative and inspection service, representation offices with cosmetic products and in advising on and marketing cosmetic products in various institutions.



UNIVERSITY Study Programme Laboratory Biomedicine

The renewed first cycle study programme Laboratory Biomedicine (180 ECTS, 6 semesters) is on the one hand highly focused on practical, technical and technological skills and knowledge and on the other hand also provides biomedical science and research content through which we want to

increase the possibility of employment of the graduates in research institutions that perform biomedical research. There is a lot of research of this kind and, considering the care for human health and improved quality of life, even more can be expected in the future. At the same time, we want to help our better students to continue their education in the second and third cycles and in specialisation. The possibility of choice is planned for the third year, when students are already familiar with not only natural science but also wider areas of laboratory biomedicine. The possibility of choice is provided in three ways: via courses offered by the Faculty's programme, via the list of other studies at the Faculty or within the University of Ljubljana and the general possibility of selecting courses.



MASTER'S Study Programme of Laboratory Biomedicine

The 2nd cycle master's study programme Laboratory Biomedicine is a study programme that lasts for 2 years and covers 120 ECTS. The fundamental goal of the programme is education of highly skilled professionals (Masters of Laboratory Biomedicine) for various narrow fields of laboratory medicine that will be able to quickly adapt to numerous changes and new challenges in the field of medical diagnostics of human biological materials. Upon finishing

their studies, the Masters of Laboratory Biomedicine will be able to conduct independent professional work in medical laboratories and will thus fill the gap that exists in the professions of the healthcare system provided by the present University education. At the same time, they will be able to perform the basic research approaches and therefore more easily and critically monitor the transfer of new technologies into practice.

MASTER'S Study Programme of Industrial Pharmacy

The master's study (2nd cycle) of Industrial Pharmacy is a study programme that lasts 2 years and includes a total of 120 ECTS. The professional title achieved by the graduate is Master of Industrial Pharmacy. The Faculty's guiding principle in preparing the new study programme was that after a completed Bologna degree the graduates in natural science (chemistry, biotechnical, biotechnological and other) and technical programmes (machine science, electrical engineering and other) can obtain the necessary pharmaceutical skills and the corresponding education for a second degree that allows them to work in the pharmaceutical industry in the field of production and medicine analyses.

This postgraduate master's study programme and the curriculum of the planned programme were created based on domestic and international experience and the expected development of the domestic and foreign pharmaceutical industry. During the programme, lectures are performed by Slovenian and foreign professors and industry experts, theoretical knowledge is consolidated interactively in the industrial environment, examples from practice are discussed and the programme also involves individual and group work and innovative solutions to presented examples.

DOCTORAL Study Programme of Biomedicine

The postgraduate study programme Biomedicine was overhauled in accordance with the Bologna directives three years ago. Now it lasts 3 years, includes 180 ECTS and only involves doctoral study. The third cycle doctoral study programme Biomedicine first began with enrolment into the first year in the 2007/08 academic year. It is performed within the UL FFA, and it covers the scientific areas of Pharmacy, Clinical Biochemistry, Laboratory Biomedicine and Toxicology.

Systemic and Long-Term Study Issue Management

The system of contact between students and the teaching staff involving different topics:

Introductory meeting of the first year students from all programmes with the vice dean for education, at which they learn about the study particularities, student rights and about the ways of obtaining information during the studies. The last meeting was organised at a more suitable hour so that more students could take part. The Student Council of the Faculty of Pharmacy printed a student booklet (Spatula) for all students that contains basic information about the studies and the study rules.

The meeting of students of the 4th year of EMFAR with the coordinator before the beginning of the practical training.

Regular meetings at the beginning of the academic year between the professors in charge of courses for S1LBM and S2LBM and between the coordinators of the programme and the student representatives.

Regular meetings of the vice dean for education and professors in charge of the course with the representatives of students for each year if there is any confusion concerning performing the study programmes (the conditions for promotion, exam rules, handouts for lectures).

Meetings with the vice dean for international cooperation, the coordinator of the SEP (Student Exchange Program) and the IMP (Individual Mobility Project).

Regular discussions regarding pedagogical issues at the Committee for Study Affairs and also at regular and extraordinary meetings of the Faculty's Senate and the pedagogical conference of the Faculty of Pharmacy.

Due to the procedures of reaccreditation of first cycle and second cycle study programmes, in the 2014/2015 academic year only minor changes of study programmes were performed in accordance with the instructions from the Committee for First-Cycle and Second-Cycle Study Programmes of the University of Ljubljana. Syllabuses of some study programme courses have been supplemented and amended and are currently in the reaccreditation procedure. We have arranged the status of two teachers outside the Faculty of Pharmacy who did not have the suitable habilitation at the University of Ljubljana.

To avoid irregularities in assessing the knowledge with preliminary exams and exams, the teachers and assistants received detailed written instructions regarding the 4th, 5th and 6th attempt to pass the exam, the timeliness of publishing the results and the implementation of oral exams. In the future, new teachers will also receive instructions on how to perform the knowledge assessments.

The maximum number of students per optional course has been reduced to 25 students per course in order to ensure greater dispersion and better coverage of all provided optional courses and quality performance of the courses, especially in terms of seminar papers. The management has the right to, at its own discretion, enable the performance of even those courses that have less than 10 students. The transition to the electronic system enables the arrangement of students via an online classroom and depending on the average in previous years. Students are very pleased with the system, which will thus continue to be used and improved in the future.

| Key Achievements, Advantages and Good practice | Reasoning for the Impact on the Quality |
|--|---|
| Preparation of materials for reaccreditation of S1KOZ and S2LBM for the Slovenian Quality Assurance Agency for Higher Education (SQAA) | Consolidation of quality indicators for both of these study programmes. |
| Organising the first pedagogical conference of the Faculty of Pharmacy. | A more comprehensive flow of information between the stakeholders in individual study programmes. Faster and more effective exchange of good practice between study programmes. |
| Organising pedagogical training for employees at the Faculty of Pharmacy. | Approximately 50 teaching staff and researchers at the Faculty of Pharmacy received theoretical and practical instructions for holding lectures, seminars and exercises with an emphasis on correct and suitable use of the Slovenian language. |

| Opportunities for Improvements | Proposed Measures for Improvement |
|---|---|
| Student participation in completing the student survey was too low. | Announcement of re-implementing the grading from 1 to 5, instead of -3-1+1+1 +3 at the level of the University of Ljubljana |

REACCREDITATIONS OF STUDY PROGRAMMES

2015 was the third year in a row during which the procedures of the reaccreditation of the study programmes were being performed. In 2015, the accreditation for EMFAR, S1LBM and S2INF was carried out, and next year S1KOZ and S2LBM will be reaccredited.

The extensive documents for reaccrediting S1KOZ and S2LBM were reviewed at the University of Ljubljana and sent to the Slovenian Quality Assurance Agency for Higher Education (SQAA). The EMFAR, S1LBM and S2INF study programmes were successfully evaluated at the University and thus had their accreditation extended for seven years and were as such entered into the registry of study programmes at the Ministry of Education, Science and Sport.

After the difficult transition from the old to the new programme or after the first implementation, the study programmes at the Faculty were found to be stable. During the years while reaccreditation is in progress, we are planning on following it up and identifying possible deficiencies and implementing the suitable measures for improvement. It is expected that in the next calendar year, we shall obtain the remaining two accreditations, and then based on the decision of the Senate of the Faculty of Pharmacy, a procedure for any eventual larger amendments to some study programmes, especially 2nd cycle, will be initiated.

WHAT IS NEW IN THE PEDAGOGIC FIELD

University of Ljubljana's Repository

The Senate of the Faculty of Pharmacy has confirmed the Instructions for Preparing the Theses at the University of Ljubljana's Repository. The Faculty of Pharmacy temporarily solved the past issues of copying larger sections of theses by using the Turnitin anti-plagiarism software. In cooperation with the vice-rector of the University, we have proven that the proposed second software for checking similar content is not suitable, because it did not find any matches in sections that Turnitin marked as (very) problematic. Finished diploma and master's theses are thus being regularly sent to the University's repository, while for doctoral theses there are still three fundamental issues (copyrights of publishing houses in the event of reproduction of works in any form, the statutory option of retaining an online version of theses, patenting or publishing of unpublished discoveries in theses).

Performance of Courses in English

In 2015, we published a list of optional courses that will be taught exclusively in English in the 2015/16 academic year: One course from each chair belongs in this group:

- Cosmetology,
- Food Supplements,
- Psychotropic Substances and Misuse of Medicines,
- Research Methods in Social Pharmacy,
- Biopharmaceutical Assessment of Pharmaceutical Forms,
- Biomedicinal Genetics.

The following starting points were adopted at the Senate of the Faculty of Pharmacy:

- the call for enrolment for the course shall only be in English and Slovenian students shall be informed of this;
- obligatory performance in English, in accordance with the announcement, except for guest lecturers who give lectures in Slovenian based on a template in English;
- the coordinator shall make sure that as many students here on exchange as possible enrol in these optional courses;
- recognition of additional direct teaching assignment points (NPO) (30% or 18 hours for an individual optional course); if the course is not being taught (because Slovenian students did not enrol), 60 NPO shall nonetheless be awarded for the course;
- prepare or repair the syllabus (so that it is taught in English or Slovenian).

The First Pedagogical Conference

In 2015, the Faculty of Pharmacy organised, for the entire employed teaching staff, researchers and student representatives, a pedagogical conference that took place in two parts due to the breadth of the topic and the in-depth discussion. The proposed agenda included three areas: grading, rational implementation of study programmes and informative data about the evaluation of direct teaching assignments (NPO):

- criteria for evaluating the assessment of knowledge:
 - grading preliminary exams and regular exams (uniform scale within the Faculty)
 - diploma and master's theses
 - differences between different study programmes and cycles
- study calendar, contact hours

- performance of 15 weeks of contact hours
- performance of preliminary exams, exams during contact hours
- poor attendance at lectures, seminars; obligatory presence at exercises
- evaluation of the teaching work
 - announcements (lectures, exercises, seminars, other forms of work)
 - presence of several teachers at exercises and seminars
 - implementation of modern forms of teaching work and their evaluation

The following decisions were adopted that will be used in the 2015/16 academic year:

- A uniform grading scale has been adopted:
 10 = 90 – 100%; 9 = 80 – 89.9%; 8 = 70 – 79.9%; 7 = 60 – 69.9%; 6 = 55 – 59.9%; 5 = 50 – 54.9%
- The syllabus for Practical Training and the content that is obtained by 5th year students of EM FAR to pass the professional certification exam shall be published online.
- All members of the commission for the defence of the diploma/master's thesis also receive the instructions for the defence.
- For defences of diploma theses from the S1 KOZ and VSSŠ LB study programmes, the members shall take into account the level of difficulty of the 1st cycle diploma theses. The candidates shall be asked questions from the diploma thesis and from the content of the study programme.
- Study calendar: for the 14th and 15th week, we recommend that the teacher, at their own discretion, instead of traditional contact hours implement obligatory consultation hours, meeting with students to consolidate the subject matter. There should be no assessments of knowledge (preliminary exams, exams) during the first 13 weeks of the semester, since otherwise the study process is interrupted due to the low participation of students at lectures. Consequently, the results of the knowledge assessments are often also weaker than otherwise.
- At the beginning of the exercises, the head of the course shall state how many times a student can be absent from exercises.
- The head of the course at the start of the seminars shall state that participation at the seminar is obligatory.

STAFFING CONDITIONS AND AVAILABLE SPACE

Staff

On 31 December 2015, the Faculty of Pharmacy employed 108 permanent teaching staff (4 persons with 20% employment and 1 with 10% employment) and professional administrative and technical staff, 19 early stage researchers employed during the time of training or education for obtaining a doctorate degree and performing assistance work with part-time employment and 23 researchers temporarily employed in research projects (1 with 5% employment, 2 with 20% employment).

Of the permanent employees (Table 8):

- 36 are university teachers (18 full professors, 9 associate professors and 9 assistant professors),
- 4 university teachers (full professors) with 20% employment,
- 33 assistants, of which 7 are assistant professors and 5 associate professors,
- 1 assistant with 10% employment,
- 1 lecturer/teacher of sports,
- 15 technical associates,
- 1 librarian,
- 13 professional and administrative workers and
- 4 technical staff (maintenance staff, receptionists, cleaners).

In terms of the number of students per teacher, the Faculty of Pharmacy is still at a disadvantage when compared to the ratio at other members of the University, especially when compared to the natural sciences and engineering faculties.

The Faculty of Pharmacy particularly ensures the quality of the habilitation procedures, consistent implementation of criteria and the training of employees for managing projects and units.

The teaching staff and researchers also perform professional work that supports the profession in Slovenia as well as in the EU but simultaneously represents an additional burden for the staff and the Faculty.

The Faculty also ensures the professional development of university teachers and associates by providing postdoctoral education and research work at foreign institutions and participation or cooperation at conferences and seminars in Slovenia and abroad.

The Faculty of Pharmacy also ensures development and training to the management/administrative and technical staff by involving them in management training or specific further training courses outside of the Faculty.

Training for planning one's personal development and professional career was provided to the management structures (heads of services, principals, management), which is a prerequisite for a creative environment that ensures successful performance.

We continued with the implementation of the principles of good practice for staffing new employees - candidates testing, professional interviews. Forming a selection committee for staffing for all positions of employment is an even more transparent method for new employees.

The connection between the Faculty's employees is strengthened with traditional events such as: sports days, picnics, gatherings before the New Year.

Table 8: Overview of the number of duly appointed teachers and assistants, researchers, early stage researchers, associates/technicians and Faculty Registry employees (data on 31 December) in the last thirteen years and the calculation of the teacher/student ratio and assistant/student ratio. The number of enrolled students on 1 October.

| Year | FP | AP | DOC | Total number of teachers | Number of students | Students and teachers ratio | Number of assistants | Students and assistants ratio | researchers (full-time and part-time) | Early stage researchers/interns | Associates/technicians | Registry employees |
|------|----|----|-----|--------------------------|--------------------|-----------------------------|----------------------|-------------------------------|---------------------------------------|---------------------------------|------------------------|--------------------|
| 2001 | 6 | 4 | 6 | 16 | 944 | 59.0 | 9 | 105.0 | - | 23 | 11 | 13 |
| 2002 | 7 | 3 | 6 | 16 | 1051 | 65.7 | 9 | 116.8 | 1 | 24 | 11 | 13 |
| 2003 | 7 | 5 | 4 | 16 | 1066 | 66.6 | 15 | 71.1 | 3 | 25 | 12 | 13 |
| 2004 | 9 | 4 | 4 | 17 | 1021 | 60.1 | 15 | 68.1 | 8 | 30 | 13 | 14 |
| 2005 | 8 | 7 | 3 | 18 | 997 | 55.4 | 15 | 66.5 | 12 | 35 | 13 | 14 |
| 2006 | 8 | 9 | 4 | 21 | 1024 | 48.8 | 16 | 64.0 | 14 | 30 | 13 | 15 |
| 2007 | 8 | 10 | 5 | 23 | 1081 | 47.0 | 20 | 54.1 | 10 | 30 | 13 | 15 |
| 2008 | 10 | 10 | 5 | 25 | 1079 | 43.2 | 21 | 51.4 | 11 | 33 | 13 | 16 |
| 2009 | 11 | 10 | 8 | 29 | 1148 | 39.6 | 27 | 42.5 | 10 | 28 | 14 | 17 |
| 2010 | 13 | 8 | 11 | 32 | 1291 | 40.3 | 29 | 44.5 | 15 | 28 | 15 | 18 |
| 2011 | 14 | 6 | 15 | 35 | 1430 | 40.9 | 32 | 44.7 | 19 | 26 | 15 | 19 |
| 2012 | 15 | 8 | 12 | 35 | 1406 | 40.2 | 33 | 42.6 | 17 | 26 | 15 | 20 |
| 2013 | 16 | 8 | 12 | 36 | 1434 | 39.8 | 33 | 43.5 | 16 | 23 | 15 | 20 |
| 2014 | 18 | 9 | 9 | 36 | 1378 | 38.3 | 36 | 40.5 | 22 | 17 | 15 | 19 |
| 2015 | 18 | 8 | 10 | 36 | 1276 | 35.4 | 36 | 37.5 | 23 | 19 | 15 | 19 |

Legend: FP - full professors, AP - associate professors, DOC - assistant prof., ASIST - assistants

* Only the number of students from study programmes of the 1st and 2nd cycle.

Premises

The Faculty is performing its activities at four locations. Besides the main building on Aškerčeva Street, it rents premises on Tržaška Street, the building at Aškerčeva 9 and the lecture facility in the backyard. Despite all these, the available space is still insufficient (according to the space estimate, the Faculty needs an additional 9 thousand square meters of space) and unsuitable for teaching (not enough lecture rooms, unsuitable types of rooms) and primarily for research work. For the latest research in the field of pharmacy, we urgently need so-called clean laboratories, of which the Faculty

has none and which also cannot be provided in the existing buildings. For this reason, in 2014 the Faculty initiated a procedure at the University of Ljubljana for building new premises for the Faculty at the location for a group of the University's faculties on Brdo. The procedure began with the preparation of the document for the identification of the investment project, the preliminary design and the positioning of the building into the municipal spatial plan of the Municipality of Ljubljana. In 2015, the procedure got somewhat entangled, but at the end of the year, the competent body at the Municipality of Ljubljana finally confirmed the design so that possibility of construction is included in the document. The Faculty shall continue the procedure for the new construction with the cooperation of the competent services and the bodies of the University of Ljubljana, starting with the procedure for obtaining the design documents.

In accordance with the decision of the Governing Board of the University of Ljubljana, after the Faculty of Chemistry and Chemical Technology moved to a new location, our Faculty took over the premises in the building at Aškerčeva c.9 and the full use of the lecture room in the backyard (Pd) and thus obtained 500 m² of usable surface area. Both buildings are in a relatively poor condition, especially the lecture room building, which requires renovation. In 2015, the activity related to diploma thesis defences was fully moved to the building at Aškerševa 9 and the possible intended functions were reviewed by the construction committee together with the dean and with the help of outside experts. The proposal has yet to be completely formed. A tendering procedure was initiated for the renovation of the backyard lecture room (Pd) and heating was ensured by building-in a special stove before the heating season.

In 2015, the Faculty also took some spatial measures for improving the working conditions in the existing premises. Social Pharmacy thus obtained use of a larger space in the central part of the garret that in the past was intended primarily for exercises in courses on Pharmaceutical Biology. The space was also suitably fitted out with equipment. Furthermore, the premises for Pharmaceutical Biology on the 1st floor of the Stara tehnika building were rebuilt for the purposes of research and operation of larger devices, and the maintenance service started the procedure for improving and upgrading the ventilation and cooling system of the south wing of the building at Aškerčeva 7.

The issue of rebuilding the Faculty's premises at the Trg MDB 2 in Ljubljana, where a student pharmacy is planned in cooperation with Lekarna Ljubljana, remains open. At the Faculty's initiative, the building manager initiated a procedure according to the Act on the Acquisition of the Strata Title of a Part of a Building based on the Proposal of the Owner and on Determining the Land Belonging Thereto for arranging the strata title, which is one of the necessary prerequisites for continuing the process of renewing the premises.

(Chapter 2 prepared by: B. Božič, A. Obreza, S. Menard, T. Kadunc, Z. Gantar, B. Doljak)

IN MEMORY OF

Prof. Saša Baumgartner, PhD, MSc Pharm., Vice Dean for International Cooperation

We were shocked and deeply saddened upon receiving the news of the tragic accident and still find it unfathomable. The pharmaceutical profession and the Faculty's associates lost a valuable co-worker, vice dean and friend. Saša, we admired your cheerfulness, and we valued your determination and sense of justice. A piece of every one of us has left with you, but at the same time you will always remain with us.

Saša Baumgartner, Master of Pharmacy, Doctor of Pharmaceutical Science and full time professor of pharmaceutical technology since last year was dedicated to the Faculty of Pharmacy throughout her professional career. After graduating at the Department of Pharmacy at the then Faculty of Natural Sciences and Technology, she was employed in 1994 as an early stage researcher and enrolled into the then two-part study of science. For her master's thesis, she received the Krka Award. After her doctorate, she continued research work in the field of biocompatible polymers, substances used in forming various solid pharmaceutical forms with modified release. Recently, she was focusing on the growing field of nanotechnology by creating nanofibres for wet healing of wounds.

She was successful in transferring her knowledge of research work into pedagogical work - through mentorships on five doctorates and over 40 diplomas and naturally via direct contact with students. First, since 1996, as an assistant at laboratory exercises and later with lectures. She received the title of assistant professor in 2003, associate professor in 2008 and last year the highest pedagogical academic title of full professor. She was an excellent lecturer and generous in sharing her knowledge with students. She taught at 4 Faculty programmes: long-cycle master's study programme of pharmacy, first-cycle study of cosmetology, second-cycle study of industrial pharmacy and doctoral study of biomedicine. Last year, she also received a special award from the Student Council of the University of Ljubljana for best teacher.

Throughout her entire career, she was open to collaborations within the work setting of the Faculty itself as well as outside of it: in Slovenia, for example with experts from the Jožef Stefan Institute and the Faculty of Chemistry and Chemical Technology or experts from the industry - Lek, Krka, and internationally, for example by training at the renowned University of Purdue in the US and via the organisation of international scientific and professional meetings or collaborations at the international postgraduate school of radiopharmacy. She never made a narrow divide between teaching, scientific and professional work. She was the chair of the Section of Pharmaceutical Technologists at the Slovenian Pharmaceutical Society and a member of the executive board of the society, a member of the commission for preparing the national supplement to European pharmacopeia at the Ministry of Health, the general secretary of the Central European Symposium and a member of the scientific or organisational board for a series of international meetings. For her work in several areas that was important to the pharmaceutical profession, she received the Minařik Award in 2009.

When it was suggested to her in 2011 that she should join the leadership team of the Faculty for the area of international collaboration, she was doubtful at first. But because this position as vice-dean meant working with students, she accepted the challenge. She strived for a greater openness of the

Faculty. She made it possible for several hundred students to go on an exchange to foreign universities and accepted numerous foreign exchange students from various European faculties at the Faculty. She also made and strengthened connections with teachers from foreign universities.

Prof. Saša Baumgartner, PhD was a trustworthy person and reliable co-worker, always ready to face situations she disliked. She had a broad view of the reality and understanding of issues along with a distinctive sense of justice. She may have been a bit too modest when she did not want to call attention to her work and her merits so that none of her co-workers would be deprived.

But of course, her work and results did not go unnoticed. We are well aware of how important Saša's contribution to the academic community of the Faculty of Pharmacy of the University of Ljubljana as a professor and a vice-dean has been. We are especially aware of the contribution she gave to us as a person.

And because of this, the emptiness she left behind is that much greater. Memories of our joint work do soothe the pain but cannot replace Saša's contribution to our community. The expressions of condolence the Faculty received from professionals and universities across Europe emphasise Saša's scientific depth but mainly the depth of her humanity.

We know that Saša was a devoted mother to her daughter Ana and son Marko and a wife to Tone. She was proud of her family. This is why I can hardly imagine what a horrific emptiness her departure has left in her family, to whom we convey our condolences.

With Saša's departure, every one of us who knew her lost a piece of ourselves, but at the same time we still carry her with us.

The collective, students and associates from the Faculty

3 WE ARE PROUD OF

INTERNATIONAL INSTITUTIONAL EVALUATION OF THE FACULTY OF PHARMACY

The Faculty of Pharmacy as an educational, research and professional institution for the fields of pharmacy, laboratory medicine and cosmetology was institutionally evaluated in 2014 by the renowned ASIIN evaluation agency according to internationally established standards. The ASIIN accreditation agency, which has its head office in Düsseldorf, is a member of the European Quality Assurance Register for Higher Education (EQUAR) at the European Association for Quality Assurance in Higher Education (ENQA).



in

The evaluation is part of the process of assuring and improving quality. The implementation of the first international evaluation of the Faculty of Pharmacy was made possible as part of the project Quality of the University of Ljubljana (KUL) and involved an in-depth analysis at three levels:

structure (systemic framework, legislation, rules, organisation),
processes (transparency, effectiveness, rationality) and
values (culture of quality, employee and student satisfaction).

The evaluation of the Faculty of Pharmacy was performed in three stages:
preparation of extensive self-evaluation report by the Faculty,
video conference with representatives of ASIIN,
two-day visit from external independent evaluators.

Several cycles of preparations of the self-evaluation report involved students, the management and employees from all organisational units of the Faculty. In accordance with the ASIIN criteria, the report evaluated the Faculty's following areas of operation:

- I. **Quality Policy** (quality goals, quality management)
- II. **Study Programmes, Courses and Training** (introduction, development and implementation, cooperation with external stakeholders, exam system, recognition of study achievements obtained outside the faculty, support activities for the studies)
- III. **Resource Management** (materials and human resources for teaching and learning, development of staff, research activity)
- IV. **Document Management** (transparency of rules, regulations and documentation)
- V. **Monitoring and Self-Evaluation System**

In the final report on the institutional evaluation of the Faculty of May 2015, the ASIIN accreditation agency wrote:

"The Faculty of Pharmacy has established a good and effective organisational structure. In developing the offer of education, the Faculty is focused on goals in accordance with the commitment to quality and vision of good teaching and successful learning. The Faculty is developing and carrying out study programmes in accordance with the goals and quality specifications.

The processes at the Faculty are established rationally, are constantly developing and change regularly. The findings of the quality assurance system are regularly integrated into the decision-

making and management processes. The Faculty has regular, periodic examinations of whether study programmes, courses and training provided by this higher education institution are in accordance with the quality of related expectations. Also examined are the criteria for assessing the feasibility, the worthwhileness and possible adjustments of the study programmes.

The prevailing values and methods that direct the majority of processes at the Faculty are strategically focused on achieving the desired results and support the organisation as a whole. The Faculty successfully combines various interests of organisational units in forming and further development of the teaching services on offer and harmonises them with the strategy of the institution's development as a whole. It supports cooperation between teachers as well as students in the creation and further development of study programmes. The Faculty has also established mechanisms for cooperation with suitable interested stakeholders."

The Faculty of Pharmacy is committed to further improving its educational, research and professional activity. In accordance with the final report of the ASIIN accreditation agency, it shall prepare a follow-up action plan with specified steps for the realisation of all unutilised opportunities and challenges in the future.

PROMINENT EVENTS IN 2015

Inter-University European Post-Graduate Course in Medicines Development - CEMDC Module II

The 2nd Module of the inter-university European postgraduate course Cooperative European Medicines Development Course (CEMDC) titled "*Non-clinical pharmaceutical and early clinical development*" took place between 19 and 22 November 2015 at the Faculty of Pharmacy.



Moments from the 2015 CEMDC.

The course was carried out as part of the Pharma Train harmonised programme, which involves the collaboration of 10 European universities. At the Faculty of Pharmacy, the activities were managed by Prof. Irena Mlinarič-Raščan, PhD, vice-dean for scientific and research work. 17 listeners from Italy, Lithuania, Hungary and Slovenia attended the intense 4-day programme encompassing 20 lectures from Slovenian and foreign professors and lecturers from a series of European regulatory authorities and from the pharmaceutical industry.

The lectures were devoted to the stages of developing substances and developing effective, safe and quality synthetic or biological/biosimilar medicines. A large emphasis was on the selection and importance of preclinical trials (pharmacological studies, toxicology studies, genotoxicity, carcinoma toxicity and reproduction toxicity) and their integration into the medicine development scheme. A special set of lectures was also intended for critical assessment and use of results of preclinical trials for planning the first stage of the clinical trial and determining the first dose for human trials.



Group photo of the participants of the CEMDC European inter-university European postgraduate course with the dean, Prof. Borut Božič, PhD and the vice-dean for scientific and research work, Prof. Irena Mlinarič Raščan, PhD.



Participants at CEMDC

Postgraduate European Radiopharmacy Course

In September 2015, the Faculty of Pharmacy, in collaboration with the Department of Nuclear Medicine of the University Medical Centre Ljubljana and the Federal Swiss University ETH Zürich, organised for the 8th time a two-week Postgraduate European Radiopharmacy Course (PERC). The course took place from 31 August to 11 September 2015 at the Faculty of Pharmacy in Ljubljana. 31

listeners from Europe (Bosnia and Herzegovina, Denmark, Estonia, Finland, France, Hungary, Germany, Norway, Poland, Switzerland, Turkey, Great Britain), Kuwait, Russia and Thailand attended the course.



Welcoming the participants of the Postgraduate European Radiopharmacy Course at the Town Hall.

The European postgraduate course is a part of the European postgraduate courses in Radiopharmacy. It is one of three theoretical sets required for obtaining the European specialisation in radiopharmacy. It is intended for pharmacists, chemists and biochemists with (at least) a master's degree in these fields. The course is organised under the auspices of the European Association of Nuclear Medicine (EANM) and is carried out in English. It encompasses three theoretical sets (modules 1-3) that take place in various European countries, namely:

- module 1: Pharmacy in Slovenia,
- module 2: Radiopharmaceutical chemistry in Switzerland and Italy and
- module 3: Associated subjects - Radiopharmacology and Clinical Radiopharmacy in Germany and France.



Postgraduate European Radiopharmacy Course at the Faculty of Pharmacy

The first set of lectures (module 1) introduces the listeners to the core areas of pharmacy: legislation, planning, manufacture and analysis of various pharmaceutical forms, good practices of medicinal products manufacture, medicine stability, pharmacokinetics, biopharmacy, microbiology, quality assurance, etc. The majority of lecturers participating in PERC are habilitated at the Faculty of Pharmacy, four guest lecturers are from abroad (Great Britain, Netherlands, Switzerland and Austria)

and experts from the Faculty of Medicine of the University of Ljubljana, the Public Agency of the Republic of Slovenia for Medicinal Products and Medical Devices, the Lek Company and the University Medical Centre in Ljubljana also participate in the performance of the course.

Assessment of knowledge for obtaining the diploma is performed in three parts: upon the completion of lectures, every listener presents and defends a selected monography from that European pharmacopeia in front of a four member commission composed of university teachers from the Faculty of Pharmacy of the University of Ljubljana and ETH Zürich. The practical part of the exam is a written work in the form of a standard operating procedure (SOP); each of the listeners selects a title from the field of manufacturing and quality assurance of radiopharmaceutical products that they have to prepare and submit before the written theoretical part of the exam. In January 2016, the listeners also performed the written theoretical part of the exam organised by ETH Zürich.



Previous PERC courses were organised in Ljubljana in 2003, 2004, 2006 and 2008, 2009, 2011 and 2013. In total, over 180 listeners from Europe, Brazil, Canada, Kuwait, Singapore, Russia, Thailand and the South African Republic have attended the courses.

Faculty of Pharmacy Research Day

For the Faculty, science is the foundation of our mission and is reflected in our educational programmes and in our involvement in the profession. The research day is a demonstration of respect towards the achievements of the Faculty, namely the achievements of our associates and students that exceed the average, and this day is intended to grant them special attention.

Celebrating Science is the motto of the research day at the Faculty, and with this event the Faculty celebrated the festive Week of the University of Ljubljana.



Faculty of Pharmacy Research Day

The research day was divided into two sections. It was a great pleasure and satisfaction during the first part of the research day to have been joined by Tone Strnad, MSc Pharm, the managing director of Medis d.o.o., as the introductory lecturer with a lecture

titled “Company Development and Innovation”. With his presentation, he made a contribution towards connecting academia and the industry.

The day continued with lectures by the 2015 dean’s award winners, who are a testament to the fact that the most visible achievements are the result of creativity, commitment, teamwork and good mentoring.

The keynote speaker during the afternoon part of the meeting was last year’s recipient of the Golden Plaque for exceptional merits in developing a scientific, educational or artistic creation and for strengthening the University’s reputation, Aleš Mrhar, PhD with a lecture titled “Slovenian Pharmacy - Quo Vadis?”

We were proud to declare the recipient of the 2015 Zois Award for top achievements in modern sustainable development of pharmaceutical biotechnology in the Republic of Slovenia and the recipients of the University’s awards.

2. Meeting of Slovenian Pharmaceutical Chemists

The Faculty of Pharmacy of the University of Ljubljana and the Slovenian Pharmaceutical Society (Section of Pharmaceutical Chemistry) organised the 2nd Meeting of Slovenian Pharmaceutical Chemists, which took place on 23 September 2015 at the Faculty of Pharmacy.

The meeting is mainly intended for socialising and getting to know the pharmaceutical and chemical field with the intent of strengthening the already excellent collaboration between the pharmaceutical and chemical professionals in Slovenia. Participation at the meeting is completely free of charge. The meeting was organised as a mini symposium with nine lectures in the P1 lecture room at the Faculty of Pharmacy of the University of Ljubljana.

The following renowned researchers attended and gave lectures: Prof. Andrear Reisner, PhD (Graz, Austria), Assist. Prof. Branimir Bertoša, PhD (Zagreb, Croatia), Assist. Prof. Nace Zidar, PhD (Faculty of Pharmacy), Assist. Prof. Izidor Sosič, PhD (Faculty of Pharmacy), Assist. Prof. Zoran Arsov, PhD (IJS), Assist. Prof. Urban Švajger, PhD (Blood Transfusion Centre of Slovenia), Assist. Prof. Janez Konc, PhD (National Institute of Chemistry), Jakob Kljun, PhD (Faculty of Chemistry and Chemical Technology), Martin Gazvoda, PhD (Faculty of Chemistry and Chemical Technology).

Organising the meeting not only increases the recognisability of results of a narrow programme group but also strengthens one of the fundamental scientific branches, the parent faculty of which is the Faculty of Pharmacy. This significantly raises the recognisability of our faculty in Slovenia and internationally.

AWARDS AND RECOGNITIONS FOR THE ASSOCIATES OF THE FACULTY OF PHARMACY

Zois Award

Prof. Borut Štrukelj, PhD: recipient of the 2015 Zois Award for top achievements in modern sustainable development of pharmaceutical biotechnology in the Republic of Slovenia

Borut Štrukelj, PhD is the founder of the joint research programme and laboratories of the Jožef Stefan Institute and the Faculty of Pharmacy of the University of Ljubljana in the field of pharmaceutical biotechnology. A series of pharmacists and biotechnologists graduated in these laboratories who now work in the Slovenian and global pharmaceutical industry. Borut Štrukelj was an expert at the European Medicines Agency in London until 2013. He is a lecturer at renowned foreign institutions, among others as a Fulbright visiting professor at the Duquesne University in Pittsburgh.

Prof. Borut Štrukelj's top awarded achievements include a series of highly read scientific works in international journals. These rank him among the top 1% of all Slovenian scientists working in Slovenia in terms of quality, with a very high value of top scientific publications (A").



His achievements encompass several fields:

Reducing adverse effects when treating malignant neoplasms with fullereneols, for which he developed a new delivery system for their treatment.

Together with co-authors, he discovered a general method for selecting new peptide ligands with a method of phage display.

Borut Štrukelj's group was the first to prepare a recombinant lactic acid bacteria *Lactococcus lactis* with an expressed ligand against

TNF α that is the basis for developing a target treatment of chronic inflammatory bowel disease. For this, the group was awarded a US patent.

The above demonstrates Prof. Borut Štrukelj's exceptional contribution to applied science and use of scientific achievements in the industry in Slovenia and globally. We are proud that Prof. Borut Štrukelj, PhD is a teacher and researcher at the Faculty of Pharmacy.

Golden Plaque of the University of Ljubljana

Professor Stanko Srčič, PhD: Recipient of the Golden Plaque of the University of Ljubljana for exceptional merits in developing a scientific, educational or artistic creation and for strengthening the University's reputation

Professor Stanko Srčič is known as an expert with a great breadth of knowledge and is among the top European pharmaceutical technologists, teachers and researchers. With his entire body of work, he gives the Slovenian pharmaceutical profession an indispensable mark as an extraordinary teacher in all three cycles of pharmaceutical education; he is a firm central pillar of the field of solid pharmaceutical forms in the Republic of Slovenia and also holds an important place globally.

He completed his secondary school education in Ravne na Koroškem and received his Bachelor's, Master's and doctoral degrees at the former Department of Pharmacy at the Faculty of Natural

Sciences and Technology of the University of Ljubljana. After his doctorate, he trained at the University of Regensburg, Germany from 1987 to 1988 with renowned pharmaceutical technologist Professor Herbert Rupprecht. Later, he spent a short time at the University of Liverpool, Great Britain. He began his academic career at the University of Ljubljana first as an assistant (1979-1985) to his teacher Prof. Jelka Šmid Korbar, and then continued as assistant professor (1985-1990) and associate professor (1990-1997) and was elected as a full professor for the field of pharmaceutical technology in 1997. He was the head of the Department of Pharmacy at the former Faculty of Natural Sciences and Technology of the University of Ljubljana from 1989 to 1991. At the Faculty of Pharmacy of the University of Ljubljana, he worked as the vice-dean for study matters from 1996 to 2000 and was the head of the Chair of Pharmaceutical Chemistry from 2000 to 2003 and 2005 to 2013.



Recipients of the Golden Plaque of the University of Ljubljana

Prof. Stanko Srčič's achievements are the result of his extremely committed teaching work and creative research, which through the search for technological novelties always focus on developing laboratories and knowledge in Slovenia and on growth comparable with his colleagues in Europe and beyond. He follows the trends of global technological development and introduced the courses Physical Pharmacy, Industrial Pharmacy and Quality of Medicinal Products into the pharmaceutical study programme as early as 1995. During the Bologna reform of education in the Republic of Slovenia, he was the head and coordinator for the preparation of materials and the accreditation procedure for the master's study programme of Industrial Pharmacy (2007) and now operates as the administrator of the programme. He also performed the function of coordinator for specialisation in medicine formation. Prof. Srčič is a witty teacher with vast knowledge and experience. His success as a teacher is reflected in the numerous roles as a mentor for undergraduate (105) and postgraduate degrees: for 16 master's degrees, 5 specialisations and 13 doctorates. In terms of education, he is also connecting Slovenian pharmacy with veterinary science by providing joint courses at the postgraduate level and projects.

Prof. Srčič has a rich research history based on the scientific and research work he performed in various fields of pharmaceutical technology, acting throughout with a personal note and great commitment to progress. He implemented his ideas on new research approaches by carefully

selecting technological equipment and integrating them into research and teaching activities together with his doctorate holders: Prof. France Vrečer, PhD, Prof. Janez Kerč, PhD, Prof. Odon Planinšek, Robert Pišek, PhD, Andrijana Tivadar, PhD, Natalija Zajc, PhD, Mila Božič, PhD, Assist. Prof. Rok Dreu, PhD, Judit Širca, PhD, Assist. Prof. Biljana Janković, PhD, Assist. Prof. Ilija Iličem, PhD, Matevž Luštrik, PhD, Assist. Zoran Lavrič PhD and Prof. Edina Vranić, PhD and Midhat Vehabović, PhD from Sarajevo. All of these doctorate holders today occupy important and responsible positions of employment in Slovenia and abroad. Together they have introduced into the Slovenian pharmaceutical field analysis techniques such as differential thermal analysis, inverse gas chromatography, atomic force microscopy,¹⁴ N nuclear quadrupole resonance and nanoindentation. As regards technological procedures, they performed the majority of their work in the field of fluid bed technologies in a Wurster chamber, for which they optimised the process by modifying the hardware and through a computer simulation of the particle movements in it. The next technological process they engaged in intensely was compressing (tableting) and performing research with the use of various compression models. Extremely important is the early research in the field of pellets, since it grew into the so called Ljubljana school, whose knowledge has been important for both Slovenian pharmaceutical manufacturers.

Besides international recognisability, Professor Srčič always strived to actively link the university environment with the industry (pharmaceutical and mechanical industry). This is reflected in the implementation of numerous productive projects and the implementation of innovative ideas in the form of Slovenian and international patent applications (3) and awarded patents (5). He is also the recipient of the golden award of the Chamber of Commerce and Industry of Slovenia (2004). He is an expert from an academic environment who practically never refuses to help or cooperate with the industry.

Together with co-authors, he published the results of the research in international journals with impact factor, in more than 110 research and review scientific articles. In his work as a university teacher, he actively promoted the operation of the "Slovenian technological school" abroad (in Serbia, Bosnia and Herzegovina, Germany, Italy, Hungary, Czech Republic, Slovakia, Poland, Russia, Great Britain, Georgia), mainly in the field of solid pharmaceutical forms. His international role is also reflected in the initiation and management of numerous bilateral collaborations, the CEEPUS network and TEMPUS projects. Based on its recognisability in Europe, the Chair of Pharmaceutical Technology at the Faculty of Pharmacy of the University of Ljubljana was also invited to the prestigious club of the Pharmaceutical Solid State Research Cluster (PSSRC), which combines 11 European pharmaceutical faculties and one faculty from New Zealand.

For more than ten years, he has been professionally active in the field of regulating medicinal products for use in veterinary medicine at the national level and at the highest European level. Since 2004, he has been a member of the Committee for Medicinal Products for Veterinary Use (CVMP, EMA) and also the deputy chairman of the Scientific Advice Working Party (SAWP) at CVMP and an expert of the European Medicines Agency (EMA). He is a member of the editorial boards of Pharmaceutical Technology Europe (since 2005) and Recent Patents on Drug & Delivery Formulation (since 2007), and during the periods 1996-2005 and 1992-2000, he was a member of the editorial boards of Acta Pharmaceutica and the Farmaceutski vestnik respectively. Since 2013, he has been a member of the scientific advisory body at the Research Centre Pharmaceutical Engineering in Graz.

As a member of the Slovenian Pharmaceutical Society, he was one of the founders of the Technological Section in 1988 and was its first chairman. He participated in numerous annual symposiums of the technological Section as a chairman or a member of the expert organisational board or as a lecturer.

Professor Stane Srčič is an exceptional and versatile creative person and is, when required, critical and uncompromising. He is an established figure in the field of pharmaceutical technology that has

great enthusiasm for its progress. In his speech, when accepting this award, he stated that he has always worked for and cared for the image of Slovenian pharmacy in Slovenia and abroad. He then stated he intends to keep doing this in the future. Because I have been his colleague for years, I believe and know that he shall never give up on this goal. This is also why the 2014 Minařik Award went into the right hands.

Ceremonial Certificate of the University of Ljubljana for Young Teachers

Assist. Prof. Alenka Zvonar Pobirk, PhD: recipients of the Ceremonial Certificate for young higher education teachers and associates

Assist. Prof. Alenka Zvonar Pobirk, PhD, born in 1980, graduated in 2005 at the Faculty of Pharmacy of the University of Ljubljana. In 2006, the Faculty gave her employment as an early stage researcher and assistant in the field of pharmaceutical technology. In 2010, she defended her doctoral thesis at the Faculty of Pharmacy of the University of Ljubljana, for which she received the Krka Award for special achievements. In 2012, she received the title of assistant professor for pharmaceutical technology.

She has demonstrated her pedagogical successfulness with her work in several areas:

as a lecturer, she works on the undergraduate study programmes of Pharmacy and Cosmetology and in the doctoral study programme of Biomedicine;

as part of the new university study programme of Cosmetology, she set up the course Evaluation of Cosmetic Products and laboratory exercises for the course Cosmetic Products I;

she is a mentor or co-mentor to 13 diploma and master's theses, of which one was awarded the Krka Award for students;

she is an active mentor to several foreign students who study at the Faculty as part of the Erasmus programme;

she is a co-author of the university textbook with a review entitled *Cosmetic Products I: Exercises and Theoretical Bases*;

for the last 5 years, she has been the co-organiser of the postgraduate course for pharmacists organised each year by the Faculty of Pharmacy and the co-editor of proceedings published alongside it;

internationally, she has been working as a lecturer for the specialist study of *Postgraduate European Radiopharmacy Course*.

The scientific and research work of Assist. Prof. Alenka Zvonar Pobirk focuses on pharmaceutical technology and cosmetology, with an emphasis on the development of new delivery systems and the evaluation of their properties and effectiveness;

her bibliographical work encompasses 81 units, of which 13 are original scientific articles, 4 review articles and 1 short scientific contribution;

she was invited 4 times to lecture at professional and scientific meetings;

she is the co-author of a chapter in a foreign monograph;

she has made numerous contributions to scientific conferences;

she is the co-author of a European patent that protects the technology of making nanoparticles;

she is actively participating in projects in connection with the Ministry as well as the industry.

Her exceptional scientific success is, among other things, made evident by 13 original scientific articles in international journals with a high impact factor, 5 reviewed scientific articles, 23 published scientific papers and their summaries at conferences and 5 research reports for the pharmaceutical industry. Alenka Zvonar Pobirk, PhD has 71/97 of all quotes in WOS/SCOPUS, of which full quotes are 53/79 and h-index of 4. She is also the recipient of the Krka Award for Research Work.

Assist. Prof. Alenka Zvonar Pobirk, PhD has demonstrated an above average research success. In the area of research, she has distinguished herself with her orientation towards results. Difficulties in work barely affect her and instead give her an exceptional motivation on her path towards the set goal. The results of her published work are internationally renowned and give new insight into the relevant subject matters. Assist. Prof. Alenka Zvonar Pobirk, PhD is an excellent and valued teacher, which is also reflected in the results of student surveys. It is also important to highlight her dedication to the profession and her parent university as evidenced by her enthusiasm for organising courses that strengthen the Faculty's renown.



Recipients of the Ceremonial Certificate of the University of Ljubljana for Young Teachers

University of Ljubljana Award for Students of the Faculty of Pharmacy

Students Eva Shannon Schiffer and Danaja Rode: Recipient of the Award of the University of Ljubljana for Students for Special Achievements and Extra Curricular Activities

Besides regularly performing her study activities, **Eva Shannon Schiffer** has throughout the years also been actively participating in the work of the Student Section of the Slovenian Pharmaceutical Association (ŠSSF) and the Association of Students of Pharmacy of Slovenia (DŠFS). She completed all the study years with a high average that ranks her among the top 5% of students with the highest average in the year, and she received the Faculty's Commendation for achieved average grade above 8.75.

In the DŠFS, in the past year she held the function of the Representative for Contact with the European Pharmaceutical Students' Association (EPSA) and worked as a member of the monitoring committee and organisational team of the International Pharmaceutical Summer Camp. She organised and participated in numerous public campaigns, expert lectures and other events held by the DŠFS. She also represented DŠFS and the Faculty of Pharmacy at numerous sports competitions.

She developed her competences by attending training of soft skills such as workshops on public appearance, time management, communication, management, etc. She actively participated in producing the ŠSSFD Spatula newsletter as author of articles and a member of the editorial board. She took part in the presentation of the Faculty of Pharmacy at the 2014 and 2015 Informativa fair as part of the Faculty's Information Day. During the 2014/2015 academic year, she was the member of the Faculty's Academic Assembly. During her studies, she participated as a demonstrator for exercises in the courses Pharmaceutical Technology 1, Physical Pharmacy and Pharmaceutical Chemistry 3; she is also currently working on a research assignment at the Chair of Pharmaceutical Chemistry. She assisted in the organisation of the 8th Annual Symposium of PSSRC (Pharmaceutical Solid State Research Cluster) in Ljubljana and the 20th Annual Conference of EAFP (European Association of Faculties of Pharmacy) in Ljubljana.

As a member of the Slovenian delegation, she attended international events, such as the 2013 Autumn Assembly of European Pharmaceutical Students' Association in Valencia. She attended international events such as 2014 EPSA Annual Reception at the European Parliament in Brussels, the 2014 EPSA Annual Congress in Budapest and the 2014 EPSA Autumn Assembly in Hradec Kralove as an official delegate of DŠFS. As a delegate, she represented the Student Section of the Slovenian Pharmaceutical Association (ŠSSFD) at the 39th Assembly of the Slovenian Pharmaceutical Association (SFD) and attended the Symposium of the Annual Assembly of SFD.

As the head of the organisational team, she organised the project Capsule of Opportunity in 2015. The purpose of the project was to present the possibilities of future employment for students from all the study programmes of the Faculty of Pharmacy and to help them develop competences that will increase their employability. As part of the project, 13 lectures, 6 soft skills workshops and one professional excursion were organised between 16 March and 10 April 2015, the purpose of which was to show the interested students the course of their desired career path and introduce them to companies and institutions where they might gain employment in the future. During the organisation, she acquired knowledge in project management, networking and logistics and details about the process of employment.

Besides regularly performing her study activities, **Danaja Rode** has throughout the years also been actively participating in the work of the Student Section of the Slovenian Pharmaceutical Association (ŠSSFD) and the Association of Students of Pharmacy of Slovenia (DŠFS). After completing the first study year, she received the Faculty's Commendation for achieved average grade above 8.5.

In the past few years, she held the functions of Head of the Humanitarian Group, Treasurer and Chair at the DŠFS and worked as a member of the organisational team of the International Pharmaceutical Summer Camp. As the Chair of DŠFS, she is also a member of the executive committee of the Slovenian Pharmaceutical Association (SFD). She organised and participated in numerous public campaigns, expert lectures and other events held by the DŠFS. She also represented DŠFS and the Faculty of Pharmacy at sports competitions. She developed her competences by attending training of soft skills such as workshops on public appearance, time management, communication, management, etc. She actively participated in producing the ŠSSFD Spatula newsletter as author of articles and a member of the editorial board. She took part in the presentation of the Faculty of Pharmacy at the 2014 and 2015 Informativa fair. During her studies, she participated as a demonstrator for exercises in the course Pharmaceutical Chemistry 3; she is also currently working on a research assignment at the Chair of Pharmaceutical Chemistry. She assisted in the organisation of the 8th Annual Symposium of PSSRC (Pharmaceutical Solid State Research Cluster) in Ljubljana.

As a member of the Slovenian delegation, she attended international events, such as the Annual Congress of the International Pharmaceutical Students' Federation (IPSF) in Porto. She attended international events such as the 2014 EPSA Autumn Assembly in Hradec Kralove as an official

delegate of DŠFS. During the 2014/15 academic year, she was also the official representative of the development and education platform at EPSA. As a delegate, she represented the Student Section of the Slovenian Pharmaceutical Association (ŠSSFD) at the 39th Assembly of the Slovenian Pharmaceutical Association (SFD) and attended the Symposium of the Annual Assembly of SFD.

As an important member of the organisational team, she organised the project Capsule of Opportunity in 2015. The purpose of the project was to present the possibilities of future employment to students from all the study programmes of the Faculty of Pharmacy and to help them develop competences that will increase their employability. As part of the project, 13 lectures, 6 soft skills workshops and one professional excursion were organised between 16 March and 10 April 2015, the purpose of which was to show the interested students the course of their desired career path and introduce them to companies and institutions where they might gain employment in the future. During the organisation, she acquired knowledge in project management, networking and logistics and details about the process of employment.

Minařik Decoration

Gařper Marc, PhD: recipient of the Minařik Decoration

While he was employed at the Faculty of Pharmacy, Gařper Marc, PhD worked as a teacher and as a research scientist in the field of pharmaceutical chemistry; today, he is a valued lecturer on the subject of practical aspects of performing clinical trials, ethics in healthcare and the regulatory system.

Gařper Marc, PhD spent his childhood in Vipava, finished his secondary school education in Ajdovřina, served his compulsory military service and in 1980 enrolled at the Department of Pharmacy of the former Faculty of Natural Sciences and Technology of the University of Ljubljana, where he gained employment in 1988 as an early stage researcher as part of the "2000 Early Stage Researchers" programme. He acquired a Master's degree with an excellent grade in 1991 and a doctoral degree in 1995 in the field of the synthesis of bioactive oligopeptides. As part of his postdoctoral education during 1995-1996, he perfected his knowledge at the Faculty of Chemistry of the University of Trieste in the research group of Prof. Pitaccova and Prof. Valentine. In January 1998, he gained employment at the Ljubljana subsidiary of the Hoffmann-La Roche Ltd. pharmaceutical company that today is an independent company Roche farmacevtska druřba d.o.o., where he serves as the expert responsible for registrations, pharmacovigilance, clinical operations and quality control.

The wide breadth of his professional knowledge and skill has made it possible for Gařper Marc, PhD to always appropriately respond to professional challenges and also obtain consensus on ideas from his colleagues. This can be attested to by the document entitled *The National Strategy of Integrating Pharmacist Activities and Pharmacists Into the future Development of Slovenian Healthcare System*, which was harmonised by the Slovenian Pharmaceutical Association, the Faculty and the Slovenian Chamber of Pharmacy and prepared by the Section of Pharmacists from Public Pharmacies of the SFD and which became the template for forming the new healthcare legislation in the field of pharmacy. In its communication with the public, the SFD under his management followed the spirit of the times and reacted to changes pro-actively with clear positions of the pharmaceutical profession. The Slovenian Pharmaceutical Association awarded him the Minařik Decoration for all the above and for other unmentioned merits.

Minařik Award

Assoc. Prof. Mitja Kos, PhD: recipient of the Minařik Award

Mitja Kos, PhD completed his studies and gained employment at the Faculty of Pharmacy of the University of Ljubljana. In 1999, he was elected to the title of assistant in the field of social pharmacy. He received the title of associate professor in 2008 and full professor in 2014. After graduating, he continued his education in the field of pharmacoepidemiology with Prof. Bert Leufkensen, PhD in the Netherlands and with Prof. Albert I. Wertheimer, PhD from Temple University, US. He was the first habilitated assistant and teacher in the field of social pharmacy at the Chair of Social Pharmacy, which meant that he had to re-establish or reform the majority of courses and teaching activities. He succeeded by diligently incorporating modern forms of work into the teaching and research process; among other things, he developed a modern system of on-line classrooms in 2008. He has been the head of the Chair for Social Pharmacy since 2009, which covers pharmacoepidemiology, pharmacoconomics and research of structures, processes and health records; he also coordinates the practical training of pharmacy students. His professional competence is attested to by his management of and membership on editorial boards of the following renowned journals: *Journal of Pharmaceutical Health Services Research*, *Zdravstveno varstvo* and *Farmacevtski vestnik*.

Practical work has been an integral part of his activities throughout his academic career. His research focuses on the safety and comparative effectiveness of medicinal products, their availability and rationalisation and optimisation of their use. He devotes special care to application research activities with the purpose of ensuring evidence-supported pharmacy practice. In collaboration with his colleagues, he is developing and assessing new roles and services of pharmacists in healthcare. As part of the Slovenian Chamber of Pharmacy, he is participating in setting up a model of cognitive services, in preparing the system of standardising competences and in renewing the specialisations of Masters of Pharmacy.



Recipients of the Association's Awards

Mitja Kos, PhD has been attached to the Slovenian Pharmaceutical Association ever since enrolling at the Faculty of Pharmacy, where he was the chairman of the Student Section that connected the students of pharmacy in Slovenia and the International Pharmaceutical Students' Federation (IPSF): he managed symposiums, projects and represented the IPSF delegation at FIP, WHO and UNESCO. For his merits, he was named a deserving member of the IPSF in 1999. Mitja Kos introduced the initiative for organising the first student camp with international cooperation in Slovenia, he participated in establishing the Spatula student newspaper and he also organised competitions in advising patients that are still being held today. Mitja Kos has been an IO member of the Ljubljana subsidiary for several mandates as an organiser of round tables and has made a significant contribution towards organising monthly meetings of the subsidiary. In 2014, he led the organisation of the Section of Public Pharmacies' symposium and the research that the Section annually carries out in connection with the Day of Pharmacies. His involvement in various activities in the field of healthcare is otherwise extremely diverse: he is a member of workgroups and committees at the Public Agency of the Republic of Slovenia for Medicinal Products and Medical Devices, he was a member of the Health Council at the Ministry of Health of the RS and is still a member of the IO of the Pharmaceutical Care Network Europe (PCNE), the presidency of which shall go to Slovenia from 2016 on.

He received the Minařik Award for a scientific article in the field of social pharmacy, for the effort he invests into the development of the field of dispensary pharmacy and for dedicated work at the Slovenian Pharmaceutical Society.

Assist. Lea Knez, PhD: recipient of the Minařik Award

Assist. Lea Knez, PhD participates in the Faculty's teaching process as an assistant for undergraduate and postgraduate exercises and lectures, at meetings for extracurricular activities (Pharmaceutical Students Summer Camp, The Fair of Opportunities, Clinical Skills Event, IPSF Congress, IPSF News Bulletin) and at informal gatherings as well as with fellow pharmacists at professional meetings, lectures and workshops in Slovenia and abroad (FIP Congress, EAHP Symposium, Annual SFD Symposium, the Symposium of the Section of Clinical Pharmacists, NZW Hamburg, ESOP Masterclass).

Lea Knez, PhD received her professional and scientific education at the University of Ljubljana; she completed her university studies of pharmacy at the Faculty of Pharmacy in 2006. She was an early stage researcher at the Golnik University Clinic and obtained her PhD at the Faculty of Medicine in 2013. In 2014, she completed her specialisation thesis on the role of clinical pharmacists in treating cancer patients with specialisation. With the results of her professional and research work, Lea Knez, PhD made a huge contribution towards the recognisability of clinical pharmacy and its integration into the healthcare system.

She made every effort to encourage pharmacists to be proactive in their approach to implementing the work of clinical pharmacists and its importance to the healthcare system. These ideas are intended for Slovenian as well as foreign students.

Science Communicator

Prof. Samo Kreft, PhD: recipient of the honorary title of the Slovenian Science Foundation's 2015 Science Communicator



The honorary title of the "Science Communicator" is awarded by the Slovenian Science Foundation to individuals for their excellence in communicating science to the public in the previous year. In 2015, Prof. Samo Kreft introduced his research achievements and global treasure-trove of knowledge from the field of medicinal plants to the general public through a series of TV shows and to various other interested publics (high school students, herbalists, pharmaceutical experts) through a series of lectures.

Science Prometheus

Assist. Prof. Nina Kočever Glavač, PhD, Assoc. Prof. Damjan Janež, PhD, Assist. Mateja Lumpert, Katja Stojilkovski, Assist. Meta Kokalj, PhD, Assist. Eva Tavčar Benkovič, PhD, Assist. Mirjam Gosenca, PhD, Helena Hendrychova, Prof. Mirjana Gašperlin, PhD, Assoc. Prof. Mojca Lunder, PhD and Prof. Saša Baumgartner, PhD^(*): recipients of the Slovenian Science Foundation's "Science Prometheus for Excellence in Communicating Science" Award



The "Science Prometheus for Excellence in Communicating Science" award went to the authors of the book *Sodobna kozmetika – sestavine naravnega izvora* (<http://www.sodobna-kozmetika.si>) (Modern Cosmetics - Ingredients of Natural Origin), which is the first Slovenian book on cosmetic ingredients of natural origin and modern natural cosmetics. The book's 917 pages and 26 chapters describe 800 cosmetic ingredients in detail.

The first three chapters represent a general introduction that defines three very important broader subject matters: 1) the legislative aspects of cosmetics, including the certificates for natural and ecological cosmetics, 2) skin and its main components and characteristics and 3) bases and support systems that are the essence of cosmetic products from the technological aspect. Other chapters present cosmetic ingredients of natural origin, which are described in the form of monographs. *Sodobna kozmetika* is an important source of information for the professional as well as the general public. It is intended for pharmacists, doctors, students of pharmacy/medicine, the cosmetic industry and the broadest circle of users of cosmetics as well as for fans of home-made cosmetics. The book is written at a highly professional level but is still layman-friendly enough to be understandable by a wide circle of readers.

Excellence in Science

Prof. Janko Kos, PhD: recipient of the Slovenian Research Agency's Excellence in Science Award



As part of the promotion of science, the Slovenian Research Agency has awarded the Excellence in Science Award to Prof Janko Kos for the most prominent scientific achievement in the field of biotechnical sciences entitled: "Pretnost tumorskih celic pri iskanju rezervnih poti migracije in invazije" (The Cunning of Tumour Cells in Searching for Backup Routes for Migration and Invasion).

Prof. Danijel Kikelj, PhD: recipient of the Slovenian Research Agency's Excellence in Science Award



As part of the promotion of science, the Slovenian Research Agency has awarded the Excellence in Science Award to Prof. Danijel Kikelj for the most prominent scientific achievement in the field of natural sciences entitled: "Naravne spojine morskoga izvora kot vir in navdih za razvoj novih zdravil" (Natural Compounds from the Sea as a Source and Inspiration for Developing New Medicines)

Assist. Tijana Markovič, PhD: recipient of the award for an excellent short lecture at the EUSAAT Congress



Tijana Markovič, MSc Pharm. received the award for a short lecture at the "19th European Congress on Alternatives to Animal Testing EUSAAT 2015" (Lienz Austria, 20-23 September 2015). The Science Council of the Congress ranked the short lecture by authors: Tijana Markovič, David Gurwitz, Maša Vidmar, Helena Podgornik and Irena Mlinarič-Raščan: Human Lymphoblastoid Cell Lines as an In Vitro Method in Preclinical Drug Evaluation among the top 5 in the young scientists category, which included a total of 27 participating lectures.

NEWLY APPOINTED FULL PROFESSORS OF THE FACULTY OF PHARMACY

Prof. ALEŠ OBREZA, PhD, MSc Pharm.

Was born in Ljubljana in 1974. After finishing his secondary education, he enrolled at the Faculty of Pharmacy of the University of Ljubljana, where he graduated in 1998. He continued with doctoral studies and in 2002 successfully defended his doctoral thesis.



He has been employed at the University of Ljubljana, the Faculty of Pharmacy, since 1998, first as an early stage researcher and today as a university teacher; since 2011, he has also held the position of vice-dean for education. He worked for three years at the University of Leeds, Great Britain as a visiting researcher and lecturer.

In the field of pedagogic activities, he is cooperating in three study programmes of the Faculty of Pharmacy: the long-cycle master's study programme Pharmacy, the 1st cycle university study Cosmetology, the 2nd cycle master's study programme Industrial Pharmacy and the interdisciplinary doctoral study of Biomedicine.

His research activities are related to actively participating in the projects of the Ministry and the industry. He studies the following fields: planning and synthesis of serine proteases inhibitors, inhibitors of the biosynthesis of the bacterial cell wall, synthesis and evaluation of amphiphilic antioxidants and anticancer substances. He works on the link between the structure and biological activity of substances and is developing methods for discovering new bioactive substances. He also utilises his research work when managing various projects in collaboration with the industry. He is also actively and professionally studying the history of pharmacy, namely the discovery of the use of medical substances of natural and synthetic origin during various historical periods and is in charge of the development of Slovenian pharmaceutical terminology.

His scientific work and bibliography encompasses 153 bibliographical units. As an author or co-author, he has published 31 articles in international journals indexed by SCI, of which 7 articles are from the 1st quarter of the SCI ranking. He co-authored one patent, two reviewed university textbooks and several study materials. He was a mentor or co-mentor to 31 graduates, 2 students on their research assignments and 2 recipients of the Faculty's Prešeren Awards and mentor or co-mentor for 1 master's degree and 2 doctorates.

He is an active member of several Slovenian and foreign professional associations, and he is the chair of the scientific section of the Slovenian Pharmaceutical Association and of the Commission for Homoeopathic Medicinal Products at the Ministry of Health. In 2012, he received an award from the Student Council of the University of Ljubljana for best teacher.

Prof. Aleš Obreza, PhD was elected for the title of assistant at the University of Ljubljana in 2000, in 2004 for the title of assistant professor, in 2009 for the title of associate professor and in March 2015 for the title of full professor for the field of pharmaceutical chemistry.

Prof. METKA FILIPIČ, PhD, B.Eng.

She was born in Ljubljana, where after completing her secondary school education at Gimnazija Bežigrad she enrolled into the study of food technology at the Biotechnical Faculty of the University of Ljubljana. She graduated in 1977 and continued her education with the inter-faculty master's study programme of Microbiology, which she completed in 1986. She received her doctoral degree at the Biotechnical Faculty of the University of Ljubljana in 1995.

After graduating, she was employed for ten years as a researcher at Lek, tovarna farmacevtskih in kemijskih izdelkov, then for a year at the Jožef Stefan Institute and from 1988 to 1996 at the Institute of Public Health of the Republic of Slovenia, where she set up the Laboratory for Genetic Toxicology and implemented the basic genotoxicity tests.

Since 1996, she has been employed at the National Institute of Biology, the Department of Genetic Toxicology and Biology, recently as the head of the Department of Genetic Toxicology and Cancer Biology, where she also obtained the title of research counsellor.

As a visiting researcher, she trained in Italy at Istituto Superiore di Sanita in Rome, in Denmark at the Finnsen Institute in Copenhagen and in the US, where she received an international scholarship for her work at Columbia University in New York.

In terms of her teaching activities, she is working in the doctoral study programme of Biomedicine at the University of Ljubljana, at the Jožef Stefan International Postgraduate School, at the Faculty of Health Sciences at the University of Primorska and the study programme of Environmental Sciences at the University of Nova Gorica.

Her research activities are related to active cooperation in programme groups and projects of the Slovenian Research Agency. The main areas of her scientific research work encompass studying mechanisms of genotoxic action of various pollutants – metals, natural toxins, organophosphates, nutritional carcinogens, residues of pharmaceuticals and nanoparticles; studying the mechanisms of protective action of substances of natural origin against genotoxic carcinogens; development of alternative tests for determining genotoxicity and ecotoxicology research focused on identifying early indicators of exposure and effects for anticipating delayed effects of long-term exposure. She is also good at utilising her knowledge and professional work for managing various international bilateral procedures and for projects of the Framework Programmes of the European Commission. She is an active member of several Slovenian and foreign professional associations and scientific committees.

As an author or co-author, she has published 74 scientific works in journals indexed by SCI. She is a co-author of 5 sections of foreign monographs and mentor or co-mentor for 2 research assignments, 30 diplomas in the university, master's and specialist study programmes and 9 doctoral theses.

In 2003, Assoc. Prof. Metka Filipič, PhD was elected for the title of assistant professor at the University of Ljubljana for the postgraduate course of Biotechnological Processes in Pharmacy and in 2009 for the title of associate professor for toxicological chemistry. In February 2015, the Habilitation Commission of the University of Ljubljana approved her appointment to the title of full professor.

DEAN'S AWARDS

Recipients of the 2015 Dean's Awards:

BOŽENA BÜRMEN for the scientific article entitled:

"Analysis of Factors Influencing Gastric Emptying of Pellets in a Fed State" in Expert Opinion on Drug Delivery.

KATJA ČVAN TROBEC for the scientific article entitled:

"Influence of Cancer Cachexia on Drug Liver Metabolism and Renal Elimination in Rats" in Journal of Cachexia, Sarcopenia and Muscle.

ANDREJ JANŽIČ for the scientific article entitled:

"Cost Effectiveness of Novel Oral Anticoagulants for Stroke Prevention in Atrial Fibrillation Depending on the Quality of Warfarin Anticoagulation Control" in PharmacoEconomics.

JURE PEKLAR for the scientific article entitled:

"Sedative Load and Frailty Among Community-Dwelling Population Aged ≥ 65 Years" in Journal of the American Medical Directors Association.

SIMON ŽURGA for the scientific article entitled:

"A novel β -trefoil lectin from the parasol mushroom (*Macrolepiota procera*) is nematotoxic" in the FEBS journal.

PREŠEREN AWARDS

Recipients of the 2015 Faculty Awards are:

MANA GARTNAR for article entitled: Synthesis and Evaluation of Toll-like Receptor 7 Modulatory Activity of Chromeno[3,4-d]imidazol-4-one Derivatives (mentor: Assist. Prof. Matej Sova, PhD, co-mentor: Assist. Prof. Urban Švajger, PhD).

DEJAN LAMEŠIČ for article entitled: Spherical Crystallisation of Lactose (mentor: Prof. Odon Planinšek, PhD).

ANDRAŽ LAMUT for article entitled: Synthesis and Biological Evaluation of Dendron Antagonists of Receptor DC-SIGN (mentor: Assoc. Prof. Marko Anderluh, PhD).

HELENA MACUT for article entitled: Design and Synthesis of Novel 4,5-dobromo-N-phenyl-1H-pyrrole-2-carboxamide in N-phenyl-1H-indole-2-carboxamide DNA Gyrase B Inhibitors (mentor: Assist. Prof. Nace Zidar, PhD).

BARBARA MUNDA for article entitled: Comparative Effectiveness of Drugs for the Treatment of Attention Deficit Hyperactivity Disorder Among Children: A Systematic Review and Meta-analysis (mentor: Assist. Prof. Igor Locatelli, PhD, co-mentor: Assist. Matej Štuhec, PhD).

FACULTY OF PHARMACY STUDENT AWARDS AND COMMENDATIONS

Faculty of Pharmacy Student Awards

The Faculty Awards are awards awarded to graduates who during their studies made regular, uninterrupted progress and completed all their study requirements (except the diploma) within one year from the date of enrolling into the graduation year with an average grade of 8.75 or higher.

53 awards were awarded in 2015.

The Faculty Award consists of a plaque and a material prize.



Prizes and Awards for the Students of the Faculty of Pharmacy

: Long-Cycle Master's Study Programme of Pharmacy

Matevž Aubreht
Kaja Bergant
Tamara Bergoč
Sara Božič
Urška Čotar
Anja Gregorc
Urška Jug
Eva Knuplež
Primož Lokošek
Neža Muhič
Mitja Pohlen

Alja Prah
Tea Rakovec
Petruša Rozman
Ema Sever
Domen Smodiš
Sara Strasner
Tjaša Vidmar
David Zupančič

▪ University Study Programme of Laboratory Biomedicine

Judita Avbelj
Darja Božič

Mateja Cigoj
Nuša Debevec

Marjetka Glavič
Anja Herceg
Danijela Josić
Tomaž Kajtna
Tina Kuhar
Tjaša Legen
Katja Mehle

Anja Mejač
Tjaša Pavlin
Maja Svetličič
Anja Žmuc

-
-

University Study Programme of Cosmetology

Martina Balažic
Sara Kimm Fuhrmann
Nana Gorjup
Tjaša Grum
Anja Jazbec
Elizabeta Jevnikar
Maruša Klemenčič

Eva Mihevc
Maša Močnik Roner
Timeja Planinešk Parfant
Anja Plešec
Urška Povše
Nika Zupanc

University Study Programme of Laboratory Biomedicine

Ana Boneš
Ana Ercegovič Rot
Barbara Kern
Ida Lesar

Tjaša Mikerevič
Ajda Trdin
Maša Vidmar

University Master's Study Programme of Industrial Pharmacy

Maja Avbelj
Dragica Glavič
Katja Mikolič
Žiga Strmšek

Faculty of Pharmacy Student Commendations

Faculty Commendations are recognitions awarded only to the best students from an individual study year, EM Pharmacy, UN Laboratory Biomedicine, UN Cosmetology, postgraduate master's degree study Industrial Pharmacy and postgraduate master's degree study Laboratory Biomedicine. The conditions for receiving this award are regular study progress and an average mark of 8.75 or higher for all study requirements during the relevant study year, regardless of the conditions for advancement into the higher study year. The Faculty Commendation consists of a certificate (a plaque). 187 Commendations of the Faculty of Pharmacy were awarded in 2015.

Long-Cycle Master's Study Programme of Pharmacy, 1st Year, 2014/15

Andreja Anderlič
Naja Bedek
Amwel Beganović
Špela Bohinec
Lara Bolčina
Sandra Cetin
Črt Dragar
Nina Katarina Grilc
Špela Gubič
Luka Hiti
Katja Hostar
Tilen Huzjak

Eva Kogovšek
Maja Kokot
Klemen Kreft
Vid Lah
Nina Marovič
Anže Meden
Eva Prašnikar
Nejc Vodir
Tajda Vöröš

Long-Cycle Master's Study Programme of Pharmacy, 2nd Year, 2014/15

Lea Benčina
Andraž Bevk
Ula Božič
Laura Činč
Maša Dolenc
Rok Hribšek
Santina Jazbinšek
Andrej Kobold
Petra Kocmur
Marko Kočevar
Jan Kumar
Samo Kuzmič
Janja Lozar
Gregor Marič

Eva Mežnaršič
Maja Mlakar
Nika Osel
Aljaž Pisnik
Eva Praunseis
Anja Prešern
Matic Proj
Maša Sterle
Katja Šopar
Tina Viler
Eva Pokovec
Anže Zidar

Long-Cycle Master's Study Programme of Pharmacy, 3rd Year, 2014/15

Neža Aličr
Damjan Avsec
Enej Bole
Tjaša Herlah
Katja Kramberger
Uroš Markoja
Sandra Mramor
Doroteja Novak
Veronica Pelicon

Tina Perko
Tina Vida Plavec
Manca Potočnik
Emanuela Senjor
Andrej Šterman
Jernej Štukelj
Timotej Žvanut

Long-Cycle Master's Study Programme of Pharmacy, 4th Year, 2014/15

Neža Brezovec
Sabrina Čatić
Tjaša Frelih
Kaja Gantar
Samo Guzelj
Nives Hribernik

Tanja Jakoš
Rebeka Jereb
Aljaž Jeromel
Jacqueline Kajtna
Anita Kosmač
Ina Kosmač

Urša Nagode
Katarina Nemec
Nika Pahor
Gašper Pisanec
Katja Podgoršek
Kaja Sajko
Eva Shannon Schiffrer
Žiga Skok
Maja Starič
Mateja Stopinšek

Nina Strah
Janka Straus
Luka Šrot
Maja Tibaut
Urška Urnaut
Jerneja Varl
Blaž Vraničar
Špela Zajec

University Study Programme of Laboratory Biomedicine, 1st Year, 2014/15

Klementina Črepinšek
Blaž Mencinger
Ajda Ogrin
Sara Pucko

Alja Primc

University Study Programme of Laboratory Biomedicine, 2nd Year, 2014/15

Tina Draškovič
Mojca Hunski
Eva Kladnik
Eva Kozjek
Tina Levstek

Anja Ličen
Barbara Lipovšek
Veronika Novak

University Study Programme of Laboratory Biomedicine, 3rd Year, 2014/15

Mateja Cigoj
Nuša Debevec
Marjetka Glavič
Anja Herceg
Aleksandar Janev
Tomaž Kajtna
Tina Kuhar
Tjaša Legen
Valentina Matek
Veronika Mikolič

Judita Nussdorfer
Tjaša Pavlin
Katja Roškar
Lara Slavec
Maja Svetličič
Anja Žmuc
Maja Žugec

University Study Programme of Cosmetology, 1st Year, 2014/15

Anja Hriberšek
Blažka Kolenc

University Study Programme of Cosmetology, 2nd Year, 2014/15

Nina Bahun
Julija Buchmeister

Valerija Janežič
Nuša Japelj

Kity Požek
Nina Jeknić
Irena Kastelic

Ana Kovačič

University Study Programme of Cosmetology, 3rd Year, 2014/15

Martina Balažic
Barbara Borštnik
Sara Kimm Fuhrmann
Nana Gorjup
Tjaša Grum
Barbara Herlah
Anja Jazbec
Elizabeta Jevnikar
Lidija Klanjšek
Maruša Klemenčič

Ana Krstova
Eva Mihevc
Jasmina Minova
Maša Močnik Roner
Saša Pirnat
Timeja Planinšek Parfant
Anja Plešec
Urška Povše
Petra Uršič
Nika Zupanc

Master's Study Programme of Laboratory Medicine, 1st Year, 2014/15

Tina Kljun
Mojca Krivec
Sara Lorbek

Maja Murkovič
Martina Tomažin
Meta Zupančič

Master's Study Programme of Laboratory Medicine, 2nd Year, 2014/15

Ana Boneš
Ana Ercegovič Rot
Melisa Fazlić
Tadeja Gerečnik
Barbara Grkman
Barbara Kern
Ida Lesar
Tjaša Mikerevič

Metta Pavlič
Meta Pavlič
Andreja Slapšak
Katja Starič
Ajda Trdin
Matic Ukmar
Maša Vidmar

Master's Study Programme of Industrial Pharmacy, 1st Year, 2014/15

Špela Hafner
Domen Matjaž

Vesna Pirnat

Master's Study Programme of Industrial Pharmacy, 2nd Year, 2014/15

Maja Avbelj
Anja Babič
Dragica Glavič
Blaž Grilc
Miljana Grujić
Yaniv Nissim

Katja Mikolič
Jasmina Pišan
Žiga Strmšek
Jelena Topić

2015 KRKA AWARD WINNERS

Krka Awards for Special Achievements in the Field of Research Work



Katja Čerpnjak (mentors: Mirjana Gašperlin, Franc Vrečer): Solubilisation of a Poorly Soluble Drug with Selfmicroemulsifying Delivery Systems Incorporated into Solid Dosage Forms, COBISS.SI-ID: 3962481.

Maja Radivojša Matanović (mentor: Pegi Ahlin Grabnar, co-mentor: Iztok Grabnar): Development and Evaluation of Thermoresponsive Hydrogels with Nanocomplexes for Subcutaneous Prolonged Release of Heparin, COBISS.SI-ID: 3962737.

Eva Tavčar Benković (mentor: Samo Kreft, co-mentor: Damjan Janež): Phytochemical Investigation of Fagopyrins from Common Buckwheat and Phenols from Silver Fir, COBISS.SI-ID: 3962993.

Krka Awards for Research Work

Antončič Maja (mentor Marko Anderluh, co-mentor Anna Bernardi): Synthesis of Alpha-D-mannosyl Glycoconjugates Aimed to Target Mannose-Binding Lectins, COBISS.SI-ID: 3964017.

Andrej Emanuel Cotman (mentor: Danijel Kikelj, co-mentor Rok Frlan): Design and Synthesis of 4,5-dibromo-1H-pyrrole Analogues with Tyrosine Fragment as Gyrase B Inhibitors with Antibacterial Activity, COBISS.SI-ID: 3964273

Jernej Kastelic (mentor: Franc Vrečer, co-mentor: Uroš Očepek): The Influence of Tablet Film Coating Dispersion Composition on Selected Film Coating Properties, COBISS.SI-ID: 3964529

Dejan Lamešič (mentor: Odon Planinšek): Spherical Crystallisation of Lactose, COBISS.SI-ID: 3965041.

Urša Nagode: (mentor: Petra Kocbek): Solubility and Dissolution Rate Improvement of Carvedilol by Electrospinning, COBISS.SI-ID: 3965297

Mitja Pišlar (mentor: Aleš Mrhar, co-mentor: Marija Bogataj): Modeling of Pellets Gastric Emptying for Prediction of Drug Absorption, COBISS.SI-ID: 3963249.

Marko Slana (mentor: Marija Sollner Dolenc, co-mentor: Vesna Pahor): Degradation of Enrofloxacin in Chicken Broiler Excreta, COBISS.SI-ID: 3963505.

Rok Šibanc (mentor: Rok Dreu): Numerical Modelling of Two-Phase Flow in Wurster Chamber Using Computational Fluid Dynamics, COBISS.SI-ID: 3963761.

HOLDERS OF THE LEK REGIONAL BIO CAMP AWARDS

35 of the best students of natural sciences from the region attended the regional Biocamp. Of those, some were also representatives from the Faculty of Pharmacy of the University of Ljubljana. Students from universities from 13 countries attended the 2015 Regional Biocamp: from Slovenia, Austria, Bosnia and Herzegovina, Denmark, Croatia, Ireland, Italy, Macedonia, Germany, Poland, Russia, Serbia and Great Britain.

A group of students that included our students Daniela Milosheska and Janja Mirtič was selected as the best team.

SPORTS ACHIEVEMENTS

Sports at the Faculty of Pharmacy of the University of Ljubljana are organised as an extracurricular activity for all students and are obligatory for 1st year students from all study programmes. Students have the option of choosing various sports: aerobics, pilates, swimming, volleyball, basketball, indoor soccer, fitness, ballroom dance, activities in nature, etc.

In the 2014/15 academic year, students and employees at the Faculty of Pharmacy of the University of Ljubljana successfully took part in various championships of the University of Ljubljana as well as at state and international competitions.

The most recognisable athlete of the Faculty of Pharmacy was Maruša Mišmaš, student of Laboratory Medicine, who was selected as the top athlete of 2015 in the category of younger seniors.

We participated in the following team and individual sports at championships of the University of Ljubljana:

University Sport:

UNI. FUTSAL LEAGUE male students, 5th to 8th place:

Miha Belak, Klemen Jerman, Mensud Omerović, Mitja Pišlar, Izidor Sosič, Matej Štaus, Jernej Štukelj, Matic Zorko, Luka Jurič, Klemen Kreft

UNI. VOLLEYBALL LEAGUE female students, 5th place:

Nika Zidarič, , Vesna Jug, Kristina Kacin, Lea Ješe, Anita Bajuk, Urša Pratneker, Špela Prijon, Petra Ropret, Andreja Anžič, Mojca Novak, Anja Pavlovič, Tina Požun, Enita Skenderović, Urša Vrečič

UNI. VOLLEYBALL LEAGUE male students, 7th place:

Rok Hrovat, Jani Jamnik, Tim Rahne, Gašper Vrhunc, Aljaž Pisnik, Simon Brodnjak, Samo Kuzmič, Martin Mikelj, Gregor Ratek, May Žitnik

BEACH VOLLEYBALL 1st place: Gašper Vrhunc, Gregor Ratek
 3rd place: Samo Kuzmič, Simon Brodnjak

JUDO

1st place: Anja Štanger

2nd place: Zala Nikita Mihalič



CHESS



1st place: male students, Jure Borišek
1st place: employees, Aleš Obreza
2nd place: team, Faculty of Pharmacy
3rd place: female students, Jelena Topič

TRACK AND FIELD

1st place: 400 m running, Anja Benko
2nd place: classic relay, Faculty of Pharmacy
2nd place: 100 m running, Tina Jug
3rd place: 800 m running, Luka Hiti
4th place: shot put, Jan Breznikar

DARTS

2nd place: Faculty of Pharmacy: Žan Bulc, Samo Guzelj, Martin Grosek, Stefan Lukič

UNIVERSITY OF LJUBLJANA RELAY RUNNING:

4th place, Faculty of Pharmacy: Maruša Mišmaš, Tina Čačilo, Nace Zidar, Neža Vrečar, Rok Frlan, Eva Shannon Shifrer, Anže Božič, Ema Valentina Sajovic, Luka Hiti, Sašo Vindiš

Some of the exceptional sports results of the Faculty's students with athlete status **at the state and international level:**

ATHLETICS



Maruša Mišmaš, top athlete of 2015 in Slovenia - younger seniors
8th place at the European indoor championship in Prague (3000 m)
5th place at the European championship for younger seniors in Tallinn (3000 m steeplechase)
21st place at the world championships in Beijing (3000 m steeplechase)
1st place at the Balkan cross-country championship, Vrbovac, Croatia, achieved the norm for 3000 m steeplechase at the 2016 Olympic Games



Neja Filipič
1st place - long jump, state championship, younger seniors
3rd place - long jump, state championship, seniors



Tina Čačilo

1st place - 21 km half marathon, Ljubljana

8th place - 42 km marathon, Ljubljana

1st place - 29 km three member team running, Ljubljana

HANDBALL

Katja Legan – ŽRK Krka

5th place, state championship - seniors

DANCING

Matej Voušek

1st place, show dance, duo seniors, state championship

1st place, show dance, small group, seniors, state championship

4th place, show dance, solo male, seniors, state championship

2nd place total of cup tournaments, show solo, male seniors

Tina Kljun and Ajda Vičič

2nd place, show dance formations, state championship, seniors

Tina Draškovič

1st place, street dance, state championship

2nd place, street dance, European championship

BIATHLON

Anthea Grum

4th place, Slovenia Biathlon Cup, Pokljuka

5th place, Slovenia Biathlon Cup, Pokljuka

JUDO



Anja Štanger

1st place, Junior European Cup, Lignano, Italy and Kaunas, Lithuania

3rd place, Senior European Cup, Bratislava, Slovakia

5th place, European Junior Championship Oberwart, Austria and 2nd place in team

BASKETBALL

Urša Žibert - Women's Basketball Club Triglav

1st place: European Universities Basketball Championship 3 on 3, Kragujevac

2nd place: First Slovenian Women's Basketball League

2nd place: Slovenia Senior Women's Cup

4th place, First European Games, Basketball 3 on 3, Baku 2015

STANDUP PADDLEBOARDING - SUP



Manca Notar - world champion in the category of inflatable boards and long distances

3rd place, Stand Up World Series Barcelona 2015

2nd place, Stand Up World Series Kaganawa 2015

1st place, The Adriatic Crown, Beach Race 2015

3rd place, Fastest Paddler on Earth 2015

(Chapter 3 prepared by: B. Božič, A. Obreza, I. Grabnar, I. Mlinarič Raščan, D. Černe, S. Kreft, S. Gobec, M. Gašperlin, A. Kristl, M. Kos, T. Kadunc, Z. Gantar, N. Bratuž)

4 *INTERNATIONAL ACTIVITY IN 2015*

Internationalisation for the purpose of international transfer of knowledge and recognisability is a priority area of the University of Ljubljana's and Faculty of Pharmacy's strategy. We are especially aiming to increase the mobility of students and the teaching staff. By entering into bilateral agreements with partner faculties and integrating the Faculty into various international networks, we wish to enable the mobility to a maximum number of the Faculty's students. The goals of student mobility are improving the learning competences, increasing employability and possibility of employment, increasing initiative and enterprise, increasing self-confidence and self-esteem, improving language skills, increasing inter-cultural awareness, a more active engagement in the society, better understanding of EU projects and EU values, increasing motivation for further education (formal and informal) and training after finishing mobility. The international orientation also plays an important part in other areas of priority such as integration into international research projects, transfer of knowledge and organising summer schools. The Faculty's international activity is thus integrated into the teaching, scientific research and organisational activity of the entire Faculty.

INTERNATIONAL ACTIVITY IN THE STUDIES AREA

In the studies area, the international activity encompasses activities related to various types of exchanges of students and the teaching staff as well as to the organisation of various summer schools. Exchanges abroad are made possible through various mobility programmes. The total number of students participating in one of the mobility programmes (Table 4.1) is slightly higher than during the 2013/14 academic year.

- a) **ERASMUS+** Programme: In 2015, we entered into two bilateral agreements with the Faculty of Pharmacy of the University of Coimbra, Portugal and with the International School of Law and Business in Vilnius, Lithuania. The latter makes it possible to exchange students from the university study programme of Cosmetology. In total, the Faculty has 53 bilateral agreements with universities abroad (Figure 4.1) that enable exchanges of students of all of the Faculty's study programmes for the purposes of studying (SMS) as part of the ERASMUS+ programme. Abroad, the students can fulfil the study requirements for an individual semester or study year, which the Faculty recognises in full after they return ... For this purpose, upon placement a tripartite agreement is entered into by the student, the hosting university and the Faculty. The ERASMUS+ programme also enables exchanges for the purpose of internship (SMP) at companies and similar organisations in one of the countries that participate in the ERASMUS+ programme. The internship programme must be connected with the field of the student's studies and can be a part of the obligatory or non-obligatory study content.



Partner faculties with which the Faculty of Pharmacy is cooperating in the ERASMUS+ programme

- b) Norwegian Financial Mechanism (**NFM**): The programme enables the acquisition of funds for exchanges with Norway, Iceland and Lichtenstein. The exchanges are carried out according to almost exactly the same mechanism as Erasmus+ exchanges.
- c) **CEEPUS**: Central European Exchange Programme for University Studies is a regional programme that enables exchanging of students, teaching staff and researchers in Central Europe. The programme enables exchanges as part of the CEEPUS networks or outside it (freemover mobility) where students and researchers apply as “free-movers”. As part of the CEEPUS network *Novel diagnostic and therapeutic approaches to complex genetic disorders (CIII-HR-0611)* network, the Faculty in 2015 organised an international summer school in Portorož.
- d) The international (**IPSF**) and European (**EPSA**) association of pharmaceutical students: Both associations enable pharmaceutical students shorter one-month (SEP) two-way exchanges (to and from foreign institutions) for the purpose of internship.
- e) Other types of mobility: The Faculty also cooperates with other associations and supports its students attending at various summer schools and research camps. In 2015, the Faculty signed a memorandum of understanding with the College of Pharmacy and Healthcare, Tajen University, Taiwan that supports exchanging students and teaching staff and joint research projects.

Table 4.1: Statistical data on the Faculty's exchanges of students who performed a part of their study requirements abroad and on foreign students who were guests at the Faculty. The data collected is for the 2015/16 academic year.

| Number of students | Regularly enrolled students from abroad | Erasmus+ SMS (study) | Erasmus+ SMP (internship) | CEEPUS | IPSF SEP | Total |
|---------------------------------------|---|----------------------|---------------------------|-------------------|----------|-------|
| From the Faculty abroad (departing) | - | 20 | 23 | 2 | 33 | 78 |
| From abroad to the Faculty (arriving) | 34 | 22 | 4 | 2+39 ^a | 22 | 123 |

^a Participants of the CIII-HR-0611-04-1415 (CEEPUS) international summer school network - Novel diagnostic and therapeutic approaches to complex genetic disorders (CIII-HR-0611), coordinated by the University of Zagreb.

Nearly 80 regularly enrolled students from the first and second cycle of the study programme completed a part of their requirements or obtained additional competences for future work abroad. The total number of students participating in one of the mobility programmes is slightly higher than during previous year (Figure 4.2). The majority of exchanges are within the ERASMUS+ programme; like the year before, the shorter CEEPUS exchanges were also high in 2015. Like the year before, the number of departing students was similar to the number of arriving students, which is one of the goals of internationalisation. If we exclude the participants at the CEEPUS network summer school and focus only on study exchanges, the number of the Faculty's students departing for exchange is still higher than the number of foreign students arriving to the Faculty.

As part of the ERASMUS+ programme, there is a noticeable trend of a growing number of students coming from abroad, while since 2011/12, the number of exchanges of students departing abroad has dropped considerably. There are two likely reasons for this. The first is definitely the economic crisis, since the scholarship as part of the ERASMUS+ programme in most cases does not guarantee covering all the costs of the exchange. The second reason for the drop is that students mainly want exchanges with universities from German speaking countries or universities that perform their study programmes in English. It is harder to enter into bilateral agreements with these universities, because the Faculty is still performing a great majority of study programmes in Slovenian and is thus less interesting for the arriving students. A significant development in the future in this area will be possible if the Faculty starts performing at least a part of the optional courses in all study programmes in English and by putting even more emphasis on quality mentoring of individual research assignment of foreign students. Approximately half of the arriving students perform an individual research assignment at the Faculty for their master's or diploma thesis.

Our students are very successful in fulfilling their study requirements abroad. The majority complete all their study requirements with high grades. This and the information that we obtain in direct contact with the coordinators of the ERASMUS+ exchanges abroad indicate that our students prepare for the exchange responsibly and thus in terms of good learning basics and the capability to adjust to other cultures. It remains sensible to ensure that the procedure of selecting students for exchange enables the exchange primarily for the best students.

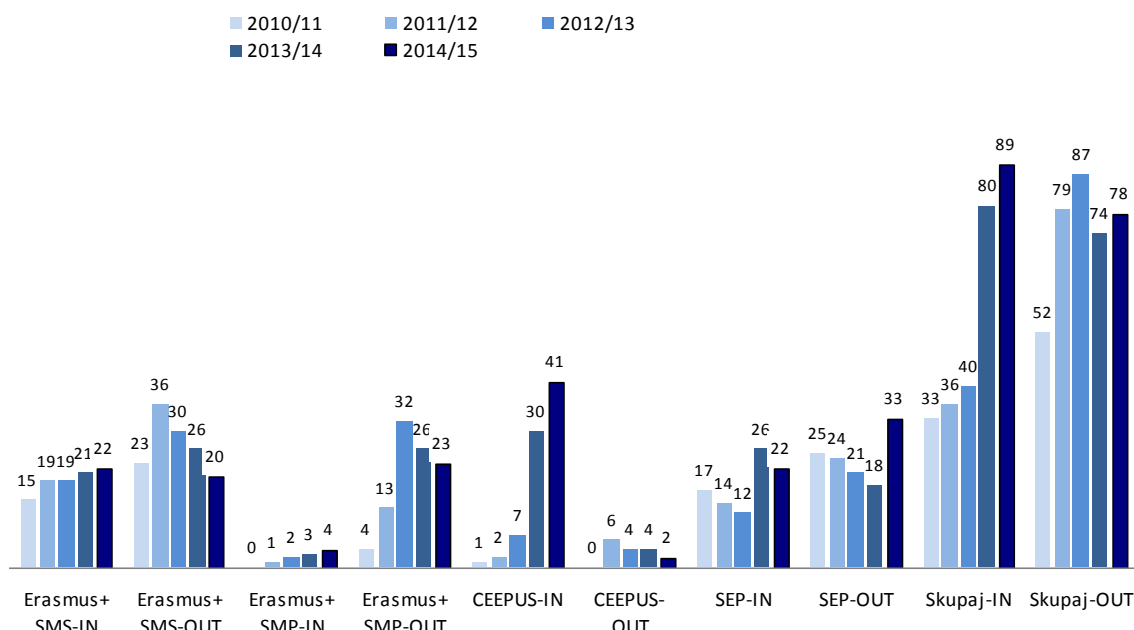


Figure 4.2: The number of students on international exchanges by years and mobility programmes. IN – students arriving from abroad, OUT – the Faculty's students departing abroad, Erasmus+ SMS – exchange as part of the Erasmus+ programme for the purposes of studying, Erasmus+ SMP – exchange as part of the Erasmus+ programme for the purpose of internship, CEEPUS – Central European Exchange Programme for University Studies, SEP – exchange as part of the IPSF association (Student Exchange Programme).

In 2014/15, a large number of students did internships abroad. This way, students can obtain international experience at a foreign institution in a profession for which they are studying. Students of all study programmes, even Cosmetology and Laboratory Biomedicine, can take part in these exchanges. For these study programmes, it is namely more difficult to find similar study programmes at foreign universities. The majority of students are successful in finding their internship placement. They are often also assisted by teachers and assistants at the Faculty. In the future, when looking for placements for internships of students, it would be sensible to utilise to an even greater extent the possibilities provided by the Career Centre of the University of Ljubljana, however at the same time the Faculty should start planning a network for student internships abroad. The students of the Faculty are increasingly becoming aware that some general competences acquired on international exchanges will present a key advantage in their search for employment.

International recognisability of the Faculty is also being spread and strengthened by teachers and researchers. The possibilities for international mobility of teachers are different, from shorter pedagogical or scientific visits to various presentations of scientific work at conferences. In 2015, there were as many as 87 teachers and researchers of the Faculty active abroad through various activities:

- 28 visits abroad were as guest teachers and researchers,
- 59 visits at conferences, the majority of them were invited lecturers,
- 13 participations at various meetings (agreements on work in international project groups and presentations of results),
- and 14 participations at various summer schools and seminars.

During the 2014 academic year, the Faculty hosted 45 foreign teachers and researchers, namely 27 teachers and 18 researchers, which is approximately twice the number from the previous year (21 in total). We are planning to increase the number of teacher and researcher exchanges as part of the

ERASMUS+ programme. The exchanges of teachers and researchers also promote better recognisability of the Faculty and the establishment of new international connections.

ORGANISATION OF INTERNATIONAL MEETINGS

International Summer School of the CEEPUS Network

The 2015 international summer school, which took place from 23 to 29 July, 2015 in Portorož, was organised by the CEEPUS network CIII-HR-0611-04-1415 - *Novel diagnostic and therapeutic approaches to complex genetic disorders*. The summer school was located at the premises of the Portorož Student Dormitory. There were 49 participants from 6 countries (Slovenia, Croatia, Bosnia and Herzegovina, Serbia, Hungary, Czech Republic), of which 10 were teachers and 39 were undergraduate and postgraduate students of laboratory medicine, medical biochemistry, pharmacy and medicine.

The main topics at the school were: haematological disorders, neurodegenerative disorders and hormonal dysfunction. All participants participated actively in the school: teachers through 45 minute lectures and students through 20 minute presentations of selected topics or their research work. There were 36 lectures or presentations and 2 interactive workshops in a total scope of 24 teaching hours. The lectures took place before noon, social events in the afternoon and workshops after the dinner.

Special attention was given to networking, so we organised various events such as e.g.: “Speed Dating”, during which the participants tried to find out as much as possible about each other during three minute conversations, the “National Evening”, where the participants introduced their countries with short films and traditional products (food and drinks), “Photohunting”, a visit to the city of Piran under the guidance of an art historian, and a final dinner.



Participants at the CEEPUS network international summer school - Novel diagnostic and therapeutic approaches to complex genetic disorders.

At the end of the school, the participants filled out a survey about the school. The majority gave commendations - the quality of lectures and workshops and the social programme as well the organisation of the school.

We estimate that the organisation of the summer school was very successful, and we believe that the participants returned home with plenty of new knowledge from the fields of haematological disorders, neurodegenerative disorders and hormonal dysfunction as well as with new acquaintances and beautiful memories of Portorož and Slovenia.

The CEMDC Inter-University Postgraduate European Course:

More on pages 36-37.

Postgraduate European Radiopharmacy Course:

More on pages 37-39.

ASSOCIATION WITH FOREIGN HIGHER EDUCATION INSTITUTES OR ORGANISATIONS**Guest Foreign Teachers at the Faculty of Pharmacy**

- Prof. Rolf Bass, PhD, Universitätmedizin Berlin, Pharmakologie und Toxikologie – Charité, Berlin, Deutschland
- Prof. Beatriz Silva-Lima, PhD, University of Lisboa, Faculty of Pharmacy, Portugal
- Prof. Sandos Kerpel-Fronius, PhD, Semmelweis University, Department of Pharmacology and Pharmacotherapy, Budapest, Hungary
- Prof. Marja-Liisa Dahl, PhD, Karolinski Institut, Department of Clinical Pharmacology at Karolinska University Hospital, Stockholm, Sweden
- Branimir Bertoša, PhD, Faculty of Science, Department of chemistry, University of Zagreb, Croatia
- Andreas Reisner, PhD, University of Applied Sciences, Biomedical Sciences, Graz, Austria
- Prof. Maria Cecilia Carpinella, PhD, Facultad de Ciencias Químicas, Universidad de Córdoba, Argentina
- Prof. Clemens Decristoforo, PhD, Univ. Klinik für Nuklearmedizin, Innsbruck, Austria
- Desiree Vendrig, PhD, Teva Pharmaceutical Europe, Haarlem, the Netherlands
- Gerrit Westera, PhD, University Hospital Zürich, Switzerland
- Sergio Todde, PhD, University of Milan – Bicocca, Italy
- Mathijs Kroon, PhD, GE Healthcare Netherlands, Hemelsteede, the Netherlands
- Prof. Nuška Tschammer, PhD, Department of Chemistry and Pharmacy, Medicinal Chemistry, Emil Fischer Center, Friedrich Alexander University, Erlangen, Germany
- Prof. Daniel H. WSreschner, PhD, Faculty of Life Sciences, Tel Aviv University, Israel
- Prof. Noam Shomron, PhD, Sackler Faculty of Medicine, Tel Aviv University, Israel
- Prof. Marianne Hiorth, PhD, School of Pharmacy, University of Oslo, Norway
- Prof. Jelena Filipović-Grčić, PhD, University of Zagreb Faculty of Pharmacy and Biochemistry, Croatia
- Prof. Eva Roblegg, PhD, University of Graz, Institute of Pharmaceutical Sciences, Graz, Austria
- David Flores, PhD, San Jorge University, Faculty of Health Sciences, Zaragoza, Spain
- Teja Čelhar, PhD, Singapore Immunology Network, Singapore
- Miha Milek, PhD, Max Delbrueck Center for Molecular Medicine, Berlin, Germany
- Tamas Köszegi, PhD, University of Pecs, Faculty of General Medicine, Pecs, Hungary
- Gregor Cevc, PhD, Advanced Treatment Institute, Gauting, Germany
- David Roper, PhD, School of Life Sciences, University of Warwick, UK
- Prof. Edina Vranić, PhD, Faculty of Pharmacy, University of Sarajevo, BiH
- Prof. Hans Uwe Simon, PhD, University of Bern, Medical Faculty, Institute of Pharmacology, Bern, Switzerland
- Prof. Jerka Dumić, PhD, University of Zagreb, Faculty of Pharmacy and Biochemistry, Croatia

Guest Foreign Researchers at the Faculty of Pharmacy

- Chief Physician, Dr. Sanja Stanković, Department of Medical Biochemistry, Clinical Center of Serbia, Belgrade, Serbia

- Assoc. Prof. Jelena Antić Stanković, PhD, University of Belgrade, Faculty of Pharmacy, Belgrade, Serbia
- Viktoria Tenesfoi, University of Pecs, Medical School, Pecs, Hungary
- Assist. Prof. Katarina Vučićević, PhD, University of Belgrade, Serbia
- Assoc. Prof. Sandra Vezman Kovačević, PhD, University of Belgrade, Serbia
- Jelena Lazarević, PhD, Faculty of Medicine, University of Niš, Serbia
- Prof. Courtney Aldrich, PhD, University of Minnesota, Department of Medicinal Chemistry, USA
- Evan Alexander, University of Minnesota, Department of Medicinal Chemistry, USA
- Joe Buonomo, University of Minnesota, Department of Medicinal Chemistry, USA
- Prof. Helene Barreateau, PhD, Université de Paris Sud, France
- Prof. Thierry Tonze, PhD, Université de Paris Sud, France
- Prof. Višnja Drinovac, PhD, University of Zagreb, Faculty of Pharmacy and Biochemistry, Croatia
- Prof. Josefina Higgs, PhD, Facultad de Farmacia Bioquímica, Universidad de Buenos Aires, Argentina
- Prof. Andrija Šmelcerović, PhD, Faculty of Medicine, University of Niš, Serbia
- Jacques-Phillipe Colletier, PhD, Institut de Biologie Structurale Grenoble, France
- Bojana Golubović, University of Belgrade, Faculty of Pharmacy, Belgrade, Serbia
- Marija Jovanović, University of Belgrade, Faculty of Pharmacy, Belgrade, Serbia
- Lena Decuyper, Ghent University, Faculty of Bioscience Engineering, Ghent, Belgium

Teachers and Associates of the Faculty Visiting or Training Abroad

Teachers, Assistants

Assoc. Prof. Iztok Grabnar, PhD: guest teacher at the University of Belgrade, Serbia

Assoc. Prof. Tomaž Vovk, PhD: professional visit/lecturer at the University of Belgrade, Serbia

Assoc. Prof. Barbara Ostanek, PhD: guest professor at the Faculty of Pharmacy and Biochemistry, University of Zagreb, Croatia

Prof. Borut Štrukelj, PhD: guest teacher at the Faculty of Pharmaceutical and Veterinary Science, University of Brno, Czech Republic

Prof. Saša Baumgartner, PhD: guest professor at the University of Sarajevo, BiH

Assoc. Prof. Marko Anderluh, PhD: professional visit at the University of Utrecht, the Netherlands

Prof. Danijel Kikelj, PhD: visit at the Faculty of Pharmaceutical Science, University of Iceland, Reykjavik, Iceland

Prof. Albin Kristl, PhD: visit at the University of Tromsø, Norway

Assoc. Prof. Marko Anderluh, PhD: professional visit at the University of Utrecht, the Netherlands

Prof. Odon Planinšek, PhD: scientific and research collaboration at the Faculty of Pharmacy, University of Sarajevo, BiH

Assist. Prof. Nataša Karas Kuželički, PhD: guest ERASMUS teacher at the Faculty of Health Sciences, Linköping University, Sweden

Prof. Stanko Srčić, PhD: guest ERASMUS teacher at the Faculty of Pharmacy, University of Szeged, Hungary

Prof. Janja Marc, PhD: collaboration at the University of Lorraine, Nancy, France

Prof. Danijel Kikelj, PhD: collaboration at Università degli Studi di Bari Aldo Moro, Bari, Italy

Prof. Danijel Kikelj, PhD: collaboration at Università degli Studi di Palermo, Italy

Prof. Mirjana Gašperlin, PhD: membership in the expert group P-SC-COS; Strasbourg, France

Assist. Jasna Omersel, PhD: postdoctoral professional education at The Zabludowicz Center of Autoimmune Diseases at Sheba Medical Center, Tel Aviv, Israel

Prof. dr. Borut Božič, PhD: professional visit to The Zabludowicz Center of Autoimmune Diseases, Medical Centre Sheba, University of Tel Aviv, Israel

Prof. Janja Marc, PhD: the congress of the European Society of Calcified Tissue, Rotterdam, the Netherlands

Prof. Borut Štrukelj, PhD: the congress "5 godina ALMBIH, perspektive", Sarajevo, BiH

Prof. Albin Kristl, PhD: the conference Global Bioequivalence Harmonisation Initiative, Amsterdam, the Netherlands

Assoc. Prof. Mitja Kos, PhD, Assist. Prof. Igor Locatelli, PhD, Assist. Andrej Janžič, Assist. Nika Marđetko: ISPOR 18th Annual European Congress, Milano, Italy

Professor Stanko Srčič, PhD: International Conference on Advances in the Area of Bioequivalence, Budapest, Hungary

Assist. Alenka Šmid, PhD: the Cell Symposia – Human Genomics; professional visit to the Singapore Immunology Network, Singapore

Assist. Prof. Tomaž Bratkovič, PhD: practical training at "iCLIP: Genomic views of protein-RNA interactions", Mainz, Germany

Professor Stanko Srčič, PhD: 1st SEE Quality in Pharmacy Summit, Belgrade, Serbia

Assist. Ana Janežič, Assist. Andreja Detiček: 44. ESCP Symposium, Lisbon, Portugal

Prof. Janja Marc, PhD, Assist. Prof. Nataša Karas Kuželički, PhD, Assist. Irena Prodan Žitnik, PhD, Assist. Tilen Kranjc, PhD: the European Society of Pharmacogenomics and Personalised Therapy 2015 Conference, Budapest, Hungary

Assoc. Prof. Mitja Kos, PhD, Assist. Nejc Horvat, PhD: 75th FIP World Congress of Pharmacy and Pharmaceutical Sciences 2015, Düsseldorf, Germany

Prof. Danijel Kikelj, PhD, Assoc. Prof. Janez Ilaš, PhD, Assist. Prof. Nace Zidar, PhD: COST campaigns - Rome/Italy, Budapest/Hungary, Athens/Greece

Assoc. Prof. Mitja Kos, PhD: SEE Quality in Pharmacy Initiative, 1st Invitational Summit, Belgrade, Serbia

Assist. Prof. Simon Žakelj, PhD: 17th Annual John Goldman Conference on Chronic Myeloid Leukemia: Biology and Therapy, Estoril, Portugal

Assist. Tijana Markovič: 19th European Congress on alternatives and Animal Use, Linz, Austria

Prof. Marija Sollner Dolenc, PhD: 51st Congress of the Association of European Toxicologists – EUROTOX 2015, Porto, Portugal

Assoc. Prof. Mojca Kerec Kos, PhD, Assoc. Prof. Tomaž Vovk, PhD: ICH GCP Training, Brussels, Belgium

Prof. Odon Planinšek, PhD, Prof. Julijana Kristl, PhD, Assist. Prof. Jurij Trontelj, PhD: 6th BBBB Conference on Pharmaceutical Technology, Helsinki, Finland

Prof. Stanislav Gobec, PhD, Assist. Kaja Rožman: Congress on The Dynamics of Peptidoglycan Structure and Function, Florence, Italy

Prof. Stanko Srčič, PhD, Assist. Prof. Rok Dreu, PhD, Assist. Tanja Potrč, Assist. Dejan Lamešič: 9th Annual Symposium on Pharmaceutical Solid State Research Cluster, Ghent, Belgium

Prof. dr. Stanko Srčič, PhD, Assist. Prof. Biljana Janković, PhD, Assist. Zoran Lavrič, PhD, Assist. Matevž Luštrik, PhD: "Competency-based curriculum for Industrial Pharmacy - LIAT-Ph", Helsinki, Finland

Prof. Irena Mlinarič Raščan, PhD: scientific symposium of the Austrian and European Association of Pharmacology and the 4th European Congress of Immunology, Graz/Vienna, Austria

Assist. Prof. Nataša Karas Kuželički, PhD: working on a bilateral project between Slovenia and Serbia, Belgrade, Serbia

Assist. Prof. Rok Dreu, PhD, Assist. Matevž Luštrik, PhD, Assist. Rok Šibanc, PhD: the 7th International Granulation Workshop, Sheffield, UK

Prof. Danijel Kikelj, PhD, M. Jukič: 5th Meeting of the Paul Ehrlich Medchem Euro-PhD Network, Krakow, Poland

Prof. Janja Marc, PhD: 21st IFCC – EFLM European Congress of Clinical Chemistry and Laboratory Medicine, Paris, France

Prof. Danijel Kikelj, PhD, Prof. Stanislav Gobec, PhD, Assoc. Prof. Marko Anderluh, PhD, Assist. Prof. Tihomir Tomašič, PhD, Asist. Boris Brus, PhD: IXth Joint Meeting in Medicinal Chemistry, Athens, Greece

Prof. Borut Štrukelj, PhD, The international conference Pharmacy Today and Tomorrow, Lublin, Poland

Assoc. Prof. Mitja Kos, PhD: Summer School Utrecht: Pharmacy Education and Training, Utrecht, Netherlands

Prof. Irena Mlinarič Raščan, PhD, Assist. Tijana Markovič, Assist. Dunja Urbančič: 14th International Summer School: Inflammation, Immunomodulation, Inspiration; Bönningen, Switzerland

Prof. Borut Božič, PhD: 21st Conference of EAFP, Athens, Greece

Prof. Borut Božič, PhD: 2nd congress Kongres farmaceuta Crne Gore, Bečići, Montenegro

Prof. Samo Kreft, PhD: International Training Workshop on Herbal Medicine, Mysore and Ooty, India

Prof. Janko Kos, PhD: Hungarian Life Sciences 2015 Conference, Eger, Hungary

Prof. Mirjana Gašperlin, PhD: 1st European Conference on Pharmaceutics, Reims, France

Professor Stanko Srčić, PhD, Prof. Janko Kos, PhD: 3rd Congress of Pharmacists of Bosnia and Herzegovina, Sarajevo, BiH

Assist. Andrej Janžič: 5th Adriatic and 4th Croatian Congress of Pharmacoeconomics and Outcome Research, Šibenik, Croatia

Assoc. Prof. Mitja Kos, PhD, Assist. Nejc Horvat, PhD, Assist. Ana Janežič, Asist. Andreja Detiček, Assist. Nika Marđetko: 9PCNE work conference, Mechelen, Belgium.

Prof. Irena Mlinarič Raščan, PhD, Assist Prof. Tanja Gmeiner, PhD: meeting of EATRIS partners, Amsterdam, the Netherlands; London, UK

Prof. Stanislav Gobec, PhD, Assist. Martina Hrast, PhD, Assist. Kaja Rožman: working on the Proteus project, Orsay, France

Researchers

Assist. Damijan Knez: professional training at the Institute for Structural Biology - IBS, Grenoble, France

Assist. Špela Zupančič: professional training at the University of Illinois at Chicago, Department of Mechanical & Industrial Engineering, Chicago, USA

Assist. Prof. Anja Pišlar, PhD: training for flow cytometer Attune NxT, Thermo Fischer Scientific, Darmstadt, Germany

Assist. Martina Hrast, PhD, Asist. Kaja Rožman: professional research work at the School of Life Sciences, University of Warwick, UK

Assist. Roman Šink, PhD: guest researcher at the Institute de Biologie Structurale; Grenoble, France

Assist. Damijan Knez, Assist. Kaja Rožman: research work at the University of Minneapolis, USA

Assist. Prof. Biljana Janković, PhD: 4th World Conference on Physico-Chemical Methods in Drug Discovery and Development, Rovinj, Croatia

Assist. Prof Tanja Gmeiner, PhD: 24th European Congress for Dermatovenerology, Copenhagen, Denmark

Assist. Prof. Izidor Sosič, PhD, Assist. Roman Šink, PhD: Frontiers in Medicinal Chemistry congress and Young Medicinal Chemist Symposium, Antwerp, Belgium

Assist. Marko Jukič: summer school and symposium Vienna Summer School Drug Design 2015, Vienna, Austria

Assist. Ana Krese: summer school - English for Academic Staff, Professional English Programme, University of Hull, Utrecht Network, Kingston upon Hull, UK

Assist. Ana Mitrović: 40th Congress of the Federation of the European Biochemical Societies in FEBS Young Scientist Forum, Berlin, Germany

Mateja Lumpert: 63rd International Congress and Annual Meeting of the Society for Medicinal Plants and Natural Product Research, Budapest, Hungary
Assist. Prof. Tanja Gmeiner, PhD: EATRIS Conference, Amsterdam, the Netherlands
Assist. Prof. Izidor Sosič, PhD: conference IMI CEE: Industry Meets Academia, Prague, Czech Republic
Assist. Prof. Biljana Janković, PhD: conference on Formulation, Design and Troubleshooting of Pharmaceutical Dosage Forms: Tablets, Amsterdam, the Netherlands

Professional Associates

Tanja Kadunc, Mateja Terčič: seminar "Closing in on Erasmus", University of Bergen, Norway

Collaborations and Exchanges Between Employed Teachers, Associates and Researchers at Foreign Educational and Research Institutions in 2015 (GROUPED by institutions)

Faculty of Pharmacy, University of Belgrade, Republic of Serbia: Assoc. Prof. Iztok Grabnar, PhD, Assoc. Prof. Tomaž Vovk, PhD, Prof. Stanko Srčič, PhD, Prof. Mirjana Gašperlin, PhD, Prof. Janja Marc, PhD, Assist. Prof. Nataša Karas Kuželički, PhD
Faculty of Pharmacy and Biochemistry, University of Zagreb, Croatia: Assoc. Prof. Barbara Ostanek, PhD
Faculty of Pharmacy of the University of Sarajevo, BiH Prof. Saša Baumgartner, PhD, Prof. Odon Planinšek, PhD
University of Utrecht, the Netherlands: Assoc. Prof. Marko Anderluh, PhD
Faculty of Pharmaceutical Science, University of Iceland, Reykjavik, Iceland: Prof. Danijel Kikelj, PhD
University of Tromsø, Norway: Prof. Albin Kristl, PhD
Faculty of Medicine, University of Niš, Serbia: Assoc. Prof. Marko Anderluh, PhD
Faculty of Health Sciences, University of Linköping, Sweden: Assist. Prof. Nataša Karas Kuželički, PhD
Faculty of Pharmacy, University of Szeged, Hungary Prof. Stanko Srčič, PhD
Faculty of Pharmaceutical and Veterinary Science, University of Brno, Czech Republic: Prof. Borut Štrukelj, PhD:
University of Lorraine, Nancy, France: Prof. Janja Marc, PhD
Università degli Studi di Bari Aldo Moro, Bari, Italy: Prof. Danijel Kikelj, PhD
Università degli Studi di Palermo, Italy: Prof. Danijel Kikelj, PhD
The Zabludowicz Center of Autoimmune Diseases at Sheba Medical Center, Tel Aviv, Israel: Assist. Jasna Omersel, PhD, Prof. Borut Božič, PhD
College of Pharmacy, University of Minnesota, Minneapolis, USA: Prof. Stanislav Gobec, PhD, Assist. Damijan Knez, Assist. Kaja Rožman
Institute for Structural Biology, IBS, Grenoble, France: Prof. Stanislav Gobec, PhD, Assist. Roman Šink, Assist. Damijan Knez
Faculty of Bioscience Engineering, Ghent University, Belgium: Prof. Stanislav Gobec, PhD, Assist. Izidor Sosič, PhD:
Euipe Enveloppes Bactériennes et Antibiotiques IBBMC, Université Paris Sud, Paris, France: Prof. Stanislav Gobec, PhD:
University of Warwick, School of Life Sciences, Warwick, UK: Prof. Stanislav Gobec, PhD, Assist. Martina Hrast, PhD, Assist. Kaja Rožman
University of Illinois at Chicago, USA: Assist. Špela Zupančič

Conclusion

In 2015, the Faculty of Pharmacy was very active internationally. We have maintained a relatively high number of student exchanges for all study programmes, we are strengthening the importance of the tutorship system for foreign students and we have successfully organised international summer schools and two inter-university postgraduate courses. All the above is proof that the Faculty is strongly integrated in the international study and scientific spheres and that internationalisation is a part of all stakeholders taking part in the Faculty's activities, which is one of the key strategic goals of the University of Ljubljana and thus also of the Faculty of Pharmacy.

(Chapter 4 prepared by: I. Grabnar, B. Božič)

5 SCIENTIFIC, RESEARCH AND PROFESSIONAL ACTIVITIES OF THE FACULTY OF PHARMACY IN 2015

Last year, we formed and mastered new strategies in the field of research and development in the Republic of Slovenia. We actively responded to the open call for specifying prospective technological areas and productive directions of the Smart Specialisation strategy.

Smart specialisation (SSS) is a platform for focusing development investments on areas where Slovenia has a critical mass of knowledge, capacities and competences and where it has the innovation potential for positioning on global markets. SSS is based on the study of the definition of focus areas, which paid special attention to international competitiveness of individual branches or product groups, analyses of export comparative advantage, the attractiveness of an individual area for foreign investments and a dynamic performance analysis from the aspect of the growth of productiveness and export performance. One of the industries standing out in Slovenia is the production of pharmaceutical materials and preparations, in terms of disclosed export as well as technological comparative advantages being strengthened dynamically. This industry uses 25% of all gross expenditures for research and development and is at the top of the fields where the cooperation between public research organisations and the private sector is the most intensive.

Integrating the Faculty into the activities of SSS is important in terms of two aspects. As an institution that has at its disposal the knowledge and competences, we are obliged to make a contribution towards jointly shaping the future in accordance with our vision and to operate for the good of Slovenian citizens and the general development by creating and spreading scientific discoveries. Integrating the Faculty into the formation of value chains from the idea to the product or service is of vital importance for the long-term development of the faculty in all areas: research, teaching, professional and material. The Faculty engages as a coordinator of two value chains in the field of health-medicine, namely with the initiative "Centre of Translation Research Infrastructures in Pharmacy in Slovenia, CITRI.si" (coordinator, Prof. Irena Mlinarič-Raščan, PhD) and in the segment *Natural and Traditional Sources for the Future* with the initiative "Use of Renewable Natural Resources of Local Origin for the Development of Innovative Dermo-cosmetic Products and Services for a New Development Breakthrough of Slovenian Health Resorts and Wellness Centres" (coordinator Prof. Mirjana Gašperlin, PhD). The Faculty's teachers were also active in eleven other initiatives.

We are aware of the importance of a modern infrastructure in the area of research and development throughout the total product life cycle of medicinal products, also called translation research in pharmacy, and the fact that top human resources can be developed and educated only in teaching bases with state-of-the-art equipment and with access to state-of-the-art technologies, where we ourselves have the possibility of research and innovative creation and cooperation with providers of medicinal services (University Medical Centre, The Faculty of Medicine of the Uni. of Ljubljana) and others. By drawing down the funds as part of the Slovenian Strategy of Smart Specialisation (SSS) and other cohesion funds, the Faculty of Pharmacy wishes to award and develop an infrastructure and competences in its own areas of research of medicinal products by implementing the concept of translation research in the field of pharmacy and in the field of laboratory biomedicine.

The Faculty also intensively engages in national and international collaboration with partner organisations from the academic, public and the economic spheres. By strengthening the cooperation and forming joint strategies, we wish to achieve a better and faster flow and exchange of knowledge, new discoveries and a transfer or translation from base research laboratories into the industrial environment or healthcare institutions. Partnership in the axis of the medicinal product's life cycle integrates base and clinical researchers, experts in production and legislation and healthcare professionals in the pharmaceutical and healthcare fields.

ORGANISATION OF RESEARCH ACTIVITIES AT THE FACULTY OF PHARMACY

The Faculty's research work is carried out as part of four programme groups and numerous projects. The programme groups are financed as part of the ARRS national programme. In 2015, the researched programmes were financed in the scope of 11.88 FTE. The Faculty of Pharmacy of the University of Ljubljana carried out 10 foundation research projects, 1 postdoctoral project, a large number of development and research projects with the industry, European projects in the scope of 5.5 FTW and several bilateral projects. The research work is performed by the majority of the teaching staff as part of a 20-percent employment in projects or programmes and fully employed researchers. The changes in the way of assigning early stage researchers to individual project groups have in 2015 resulted in the acquisition of 4 new early stage researchers, which compared to last year is a smaller improvement and still lower than expected: 2014 (3), 2013 (4), 2012 (5), 2011 (6), 2010 (6).

Publications are one of the parameters of monitoring a research work's performance; they are used to measure the performance of research institutions and researchers regardless of the position of employment a researcher occupies. University teachers-researchers are definitely in a worse position, since the excessive load of their teaching duties only allows them to perform research work in a limited scope in comparison with fully employed researchers at the institutes. The system of assessing research work, which includes quantitative and qualitative research parameters, does not include pedagogical activity or the related transfer of knowledge. Despite a large scope of teaching work, in 2015, researchers from the Faculty published 152 scientific articles, of which 133 in journals with an impact factor, scientific papers and filed several patent applications in cooperation with the pharmaceutical industry. An increase in the number of quotes is expected (Chart 5.1 and 5.2). In 2015, we published a higher number of articles per unit of research time, but this also takes into account publications in journals with a lower impact factor (Chart 5.3, Tables 5.1 and 5.2).

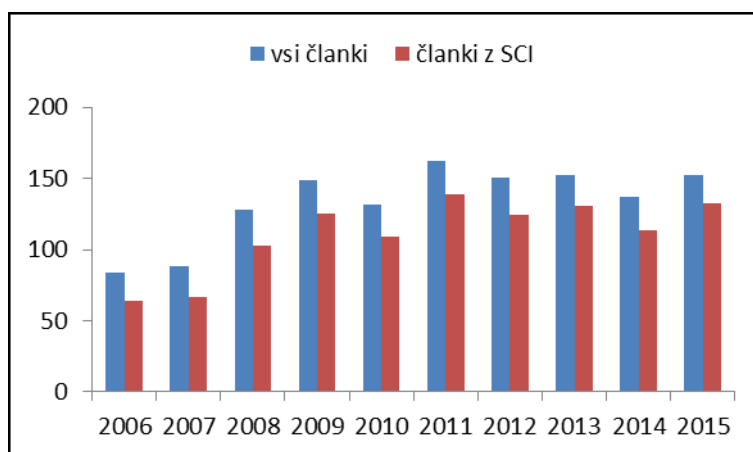


Chart 5.1: Number of scientific publications of the Faculty.

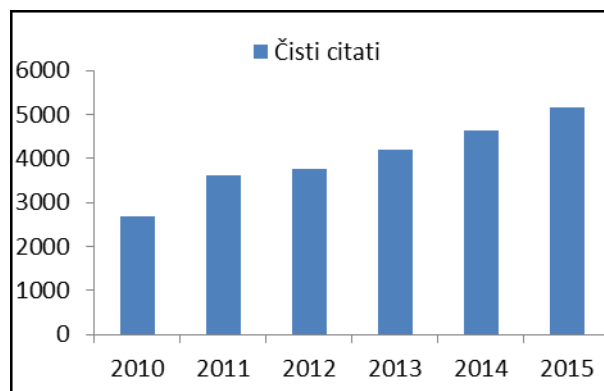


Chart 5.2: Number of quotes of the Faculty.

Table 5.1: Number of articles with impact factor

| IMPACT FACTOR | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---------------|------|------|------|------|------|------|
| SCI up to 1 | 23 | 18 | 15 | 8 | 8 | 16 |
| SCI up to 2 | 24 | 31 | 22 | 22 | 15 | 23 |
| SCI up to 3 | 25 | 29 | 28 | 36 | 39 | 37 |
| SCI up to 4 | 22 | 34 | 24 | 38 | 36 | 39 |
| SCI up to 5 | 10 | 13 | 15 | 9 | 13 | 8 |
| SCI above 5 | 6 | 12 | 11 | 7 | 8 | 10 |
| total | 110 | 137 | 115 | 120 | 119 | 133 |

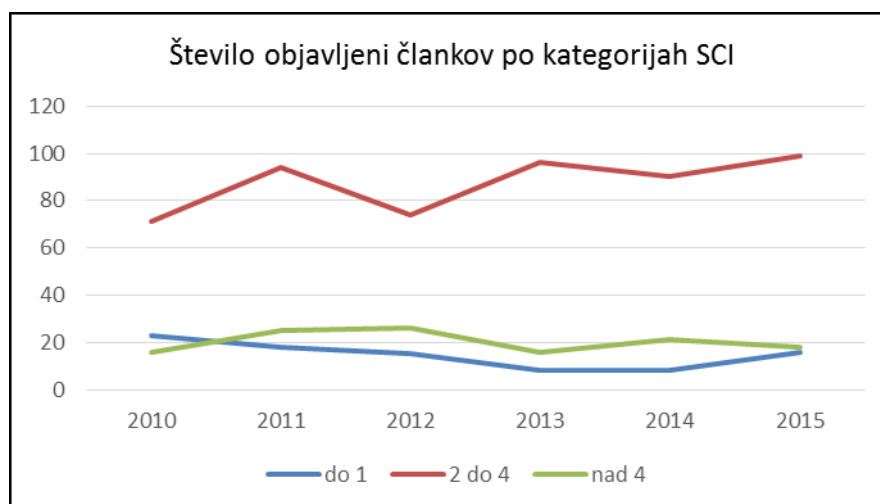


Chart 5.3: Number of published articles by SCI categories (up to 2, up to 2 to 4 and above 4 during 2010-2015).

Table 5.2: Scientific articles and quotes per FTE researchers who are financed from ARRS and EU sources (programmes and projects) and ARRS (early stage researchers).

| year | Funds for full researchers (FTE) Source | | | | No. of all scientific articles/FTE | No. of articles in journals with SCI /FTE | Number of quotes/FTE |
|------|--|------|-------|-------|--|---|-------------------------|
| | ARRS | EU | MR | total | | | |
| 2008 | 12.65 | 4.42 | 24.70 | | 3.4 | 2.8 | 40.1 |
| 2009 | 14.09 | 3.16 | 20.25 | | 3.8 | 3.2 | 56.4 |
| 2010 | 14.67 | 0.92 | 24.60 | 40.2 | 2.9 | 2.4 | 66.4 |
| 2011 | 15.42 | 6.33 | 19.60 | 41.4 | 3.9 | 3.4 | 86.8 |
| 2012 | 17.55 | 4.95 | 20.30 | 42.8 | 4.0 | 3.0 | 87.8 |
| 2013 | 17.96 | 8.2 | 18.28 | 44.4 | 3.4 | 3.0 | 94.4 |
| 2014 | 19.80 | 8.2 | 16.8 | 44.8 | 3.2 | 2.7 | 103.6 |
| 2015 | 19.06 | 5.5 | 13.8 | 38.36 | 4.0 | 3.5 | 134.5 |

NATIONAL PROGRAMMES AND PROJECTS

Research Programmes of the Faculty

1. Pharmaceutical Technology: from Drug Delivery Systems to Therapeutic Results of Drugs in Children and Elderly, under the management of Prof. Aleš Mrhar, PhD, combines the researchers from the Chair of Biopharmacy and Pharmacokinetics, the Chair of Pharmaceutical Technology and the Chair of Social Pharmacy.

The programme encompasses all segments from studying basic properties of drugs and helper substances to the evaluation of medicinal products as economic and ethical categories. The main goal of the programme is to develop methodologies for the recognition and decrease of interindividual variability of substances in clinically desired and undesired substances and thus increase the effectiveness of treatment. They are developing procedures for designing particles with desired properties that they utilise in designing, making and evaluating modern (nano) delivery systems that enable the transport of substances to the site of action and/or within intracellular uptake and protection against proteolytic enzymes and controlled release. They study biopharmaceutical and pharmacokinetic processes after applying the above mentioned substance delivery systems and stability and bioanalytical substances, with an emphasis on the development of more friendly technologies. They are developing new experimental models for studying the release and for evaluating permeability of substances through the mucous of the digestive tract and urinary bladder. As part of the programme, they have also developed several types of in vitro models for simultaneous studying of the transportation and metabolism of substances, while also taking into account pharmacogenetic aspects. The developed pharmacokinetic-pharmacodynamic models make it possible to forecast the clinical results of medicinal products and identify the reasons for their variability.

2. Pharmaceutical Chemistry: Design, Synthesis and Evaluation of Substances, under the management of Prof. Danijel Kikelk, PhD, combines researchers from the Chair of Pharmaceutical Chemistry, the Chair of Clinical Biochemistry and the Chair of Pharmaceutical Biology.

The goal of the research programme is to discover new substances and to clarify the mechanism of their functioning at the molecular level. The programme encompasses rational design of substances

based on known and newly validated targets, synthesis and isolation of substances and their biological and physical chemical evaluation. Validated targets shall be selected among proteins with a known 3D structure that are available in the PDB database, and as part of own pharmacogenetic research, they shall strive to discover, isolate and validate new target macromolecules. Among enzymes with a known 3D structure, they shall select as targets for the development of inhibitors enzymes of the coagulation cascade, Mur ligase and 85C antigen, and among receptors integrin alpha-V-beta-3. By analysing the expression of genes through microarray technology, they are planning identification, isolation and validation of new target macromolecules that participate in the regulation of apoptosis.

3. Pharmaceutical Biotechnology: Science for Health, under the management of Prof. Janko Kos, PhD, combines researchers from the Chair of Pharmaceutical Biology, the Chair of Clinical Biochemistry and the Department of Biotechnology of the Jožef Stefan Institute.

The work of the programme group involves all modern scientific trends with the purpose of increasing knowledge of life and preserving human health and a clean environment. Besides basic mechanisms of the cells' functioning, the greatest emphasis is on studying the mechanisms of the creation and progress of certain diseases, because by knowing the main factors in disease processes they can identify new targets for more successful diagnosis and therapy. Past achievements of the programme group's members in this field, which are reflected in numerous publications and quotes, demonstrate that the contribution of new knowledge towards the global treasury of knowledge is very important. Also important is the group's work in searching for new possible substances and diagnostic approaches and in the development of analytical and biotechnological methods. In its research, the group is using and implementing the latest scientific techniques and methodologies. The group's interaction with other researchers in Slovenia and globally ensures a flow of knowledge and continued good results.

4. Clinical Biochemistry: Genes, Hormonal and Personality Changes in Metabolic Disorders, under the management of Prof. Janez Preži, PhD, operates at the Ljubljana University Medical Centre and at the Faculty of Pharmacy, the Chair of Clinical Biochemistry, coordinated by Prof. Janja Marc.

The programme is designed based on own years of experience and achievements in the field of clinical and laboratory research that studies chronic metabolic disorders, osteoporosis, diabetes and the polycystic ovarian syndrome. They are studying osteoporosis on the level of local regulators of bone turnover. The goal of the research is to highlight the importance of local regulators for the etiopathogenesis of osteoporosis. They expect to identify the serum marker that will be in correlation with the developments in bone tissue. They are also planning to research the effect of the germline mutations of some of the responsible genes on the treatment (pharmacogenetics) and on early discovery of persons with increased risk for osteoporosis. In the field of diabetes, they are researching the occurrence of cell resistance in peripheral tissues to insulin. For patients with polycystic ovarian syndrome, they are interested in the changes of the mechanism of the transfer of glucose into adipocytes after treatment with metformin or rosiglitazone. They expect to make a contribution towards understanding of the etiopathogenesis of polycystic ovarian syndrome that is based on insulin resistance.

5. Participation in Other Programmes

The researchers from the Faculty also collaborate in research programmes performed at other institutions, namely Experimental Biophysics of Complex Systems and Imaging in Biomedicine, managed by Prof. Janez Štrancar, PhD at the Jožef Stefan Institute, Systemic Autoimmune Diseases, managed by Assist. Prof. Snežna Šemrl Sodin, PhD at the Ljubljana University Medical Centre, and Cellar Physiology 10-7, managed by Prof. Robert Zorec, PhD also at the Ljubljana University Medical Centre.

Faculty of Pharmacy Research Projects

ARRS Foundation Research Projects:

- Analysis of Folate Metabolism Biomarkers in the Risk Assessment for Neural Tube Defects (coordinator at the Faculty: Prof. Irena Mlinarič Raščan, PhD, head: Prof. Ksenija Geršak, PhD, Ljubljana University Medical Centre)
- Micro RNA - New Diagnostic and Therapeutic Targets in Osteoporosis (coordinator at the Faculty: Prof. Janja Marc, PhD, head: Prof. Janez Preželj, PhD, Ljubljana University Medical Centre)
- Dysregulation of TDP-43 Expression in Amyotrophic Lateral Sclerosis and Frontotemporal Lobar Degeneration (coordinator at the Faculty: Assit. Prof. Tomaž Bratkovič, PhD, head: Boris Rogelj, PhD, BRIS Institute)
- Nitroxoline and Its Derivatives as New Antitumour Drugs (head: Prof. Janko Kos, PhD)
- Protein Engineering of Recombinant Probiotic Lactic Acid Bacteria for Treatment of Irritative Bowel Disease (head: Prof. Borut Štrukelj, PhD)
- TRANS TIO Translational Pharmacogenomic Research of Thiopurine Therapy (head: Prof. Irena Mlinarič Raščan, PhD)
- Intra-Pocket-targeted Nanomedicines for Treatment of Periodontal Disease (head: Prof. Julijana Kristl, PhD)
- Computational Tools Development for Modelling of Pharmaceutically Interesting Molecules (coordinator at the Faculty: Prof. Stanislav Gobec, PhD, head: Prof. Dušanka Janežič, PhD, University of Primorska, the Koper Faculty of Mathematics, Natural Sciences and Information Technologies)
- The Role of Cysteine Protease Inhibitors in NK Cell Mediated Lysis of Tumour Cells (coordinator at the Faculty: Prof. Janko Kos, PhD, head: Prof. Janko Kos, PhD, Jožef Stefan Institute)
- Development of Molecularly Imprinted Polymers and their Application in Environmental and Bio-analysis (coordinator at the Faculty: Prof. Albin Kristl, PhD, head: Tina Kosjek, PhD, Jožef Stefan Institute)

ARRS Applied Research Projects:

- Combating Bacterial Resistance: Optimisation of Bacterial Cell Wall Biosynthesis Inhibitors (head: Prof. Stanislav Gobec, PhD)

Postdoctoral Research Project

- Design, Synthesis, and Evaluation of New Voltage-Gated Sodium Channels Modulators (head: Assist. Prof. Nace Zidar, PhD)

Other National Projects

Encouraging Employment of Young Doctors of Science

The subject of the Open Call "Encouraging Employment of Young Doctors of Science" in 2015 is the co-funding of salaries and other work expenses for young doctors of science that completed their defence of the doctoral dissertation between 1 January 2015 and 31 May 2015 and are in the register of unemployed persons at the Employment Service of Slovenia. The purpose of allocating funds based on this call is to enable the employment of young doctors of science who after completing their doctoral education were left without employment due to the long-term economic and financial

crisis. The goal of the open call is utilising the acquired knowledge in the field of research and development work, the transfer of knowledge into practice and raising the research and development potential. Based on the call, the Faculty of Pharmacy employed two young doctors of science.

Bilateral Projects

| HEAD | COLLABORATING COUNTRY | PROJECT TITLE |
|---------------------------------------|------------------------------|--|
| Prof. S. Gobec, PhD | France | Development of Inhibitors Acting on Extracellular and Membrane Levels of Biosynthesis of Bacterial Peptidoglycan |
| Prof. O. Planinšek, PhD | Bosnia and Herzegovina | Formulation of Plastic Tablets with a Substance that is Difficult to Dissolve in Water for Chronotherapy |
| Prof. S. Gobec, PhD | USA | Development of New Anti-Microbial Substances for Treating Tuberculosis |
| Prof. J. Marc, PhD | Croatia | The Role of Galectin-3 in Bone Diseases |
| Assoc. Prof. M. Anderluh, PhD | Serbia | Sifting of Oriented Chemical Libraries for Anti-Bacterial and Anti-Inflammation Action |
| Assist. Prof. N. Karas Kuželički, PhD | Serbia | Validation of the Dosing Algorithm for 6-Mercaptopurine in Groups of Paediatric Patients with Acute Lymphoblastic Leukaemia |
| Assoc. Prof. I. Grabnar, PhD | Serbia | Evaluating the Variability in Pharmacokinetics for Pharmacotherapy of Epilepsy Adjusted on an Individual Basis |
| Prof. S. Gobec, PhD | Argentina | Development of New Multiple Inhibitors as Potential Medicinal Products for Treating Alzheimer's Disease |
| Prof. D. Kikelj, PhD | Argentina | Semi-synthetic Derivatives and Analogues (Z,Z)-5(Trideca-4,7-Dienyl)-Resorcinola of Natural Origin as New Anti-Bacterial Compounds |
| Prof. S. Gobec, PhD | France (CEA) | Development of New Inhibitors and Fluorescent Probes for Butyrylcholinesterase |

PROJECTS WITH THE INDUSTRY

We continued our successful collaboration with pharmaceutical and similar companies. Some of the partners are: Krka, LEK, Valdoltra, Arhel, Entrapharm, Vzajemna, Geneplanet, Poligenol, Siemens, Polimat, Novo Nordisk, Medis, Biogen Idec, AstraZeneca, Labena, AbbVi

Research Connections of Companies with Research Institutions and Slovenian Strategy of Smart Specialisation - S4

The panel discussion on connecting companies with research institutions in the field of research was organised on 4 November 2015 by the Section for Pharmaceutical Sciences of the Slovenian Pharmaceutical Association and the Faculty of Pharmacy.

The purpose of the panel was to address and expose publicly the question of how important the pharmaceutical profession is for the Slovenian economic and social progress, what are the social priorities and how to shape the environment for the optimal utilisation of the options and capabilities we possess.

During the introduction to the panel, Matjaž Oven, PhD, director of Biopharmaceutics at Lek, Darja Ferčej-Temeljotov, PhD, the head of strategic programmes at Lek, d.d., and Prof. Irena Mlinarič-Raščan, PhD, vice-dean for scientific research at the Faculty, presented their views on the issues. The discussion was continued by active participants of the round table: Stane Pejovnik, PhD (Innovation Hub), Andreja Čufar, PhD, (Public Agency of the Republic of Slovenia for Medicinal Products and Medical Devices), Urban Krajcar, MSc (Ministry of Education, Science and Sport), Vojmir Urlep, MSc (Lek, d.d.), Mateja Štempelj, PhD (Medis) and Prof. Borut Božič, PhD (Faculty of Pharmacy). 75 invited guests from ministries, the industry, public healthcare, research institutes and educational institutions attended the panel.

The Faculty of Pharmacy in the so called “knowledge triangle” connects the development, innovation and education aspects: as a socially responsible higher education institution, it ensures for the development of critically thinking graduates capable of facing the challenges of the future and for the transfer and use of new scientific discoveries and knowledge, whereby it is well aware of all of the levels of technological development of the product or service. The pharmaceutical industry and global partners have recognised Slovenian human resources as innovative, highly trained and of high quality, which is the result of a good system of education, the connection between the academic and economic sphere in the form of joint projects, etc. The advantages of closer cooperation are better solutions for more challenges and the achieved higher competitiveness on the labour market and in the sense of development. The pharmaceutical industry has good experience in cooperating with the academic sphere. But both have discovered that the state left the partnership upon the occurrence of the crisis. The state’s role should be creating a suitable environment that encourages innovation, research and development.

It is important to acquire from past experience examples of good practice of cooperation and try to upgrade them, strengthen and expand them. When forming partnerships and achieving the set goals, it is essential to take into account the principle of ethical conduct and transparency. Intellectual property should not be an obstacle to collaboration, but it is important that the rules and collaboration are suitably defined in advance in terms of the protection of intellectual rights or property.

When establishing the vision and goals and forming partnerships, the difference in understanding and the point of view of solving the same challenges in different environments should be taken into account. When forming teams, it is necessary to incorporate all aspects and ensure a culture of cooperation, trust and responsibility.

In the field of development and design of medicinal products, safety and quality have to be integrated at every step from the idea to the final use, which requires compliance with regulatory requirements and their consistent implementation or integration into products and services. It is important to ensure that technologically advanced solutions are actually implemented in practice and used in the intended way. It is urgent to transfer new knowledge, technologies and implementation of good practice from the pharmaceutical industry to healthcare and to provide healthcare services for the patient or the user with responsibility and suitable quality assurance. When forming teams and strategic partnerships, it is necessary to incorporate all aspects and ensure a culture of cooperation, trust and responsibility and to balance all the participants so they complement each other when managing knowledge and experience regarding the potential for marketing and profitability. This way, we will be able to ensure: focusing research on areas that will give results of interest to the market, a faster and better transfer of knowledge into the research

sphere, industry (production, marketing), service providers and regulations, creating a suitable environment by the state, defining real needs and issues by the provider and users of services and, ultimately, a global breakthrough of the country.

INFRASTRUCTURE CENTRES

The Faculty of Pharmacy has prepared a strategy for operating two Infrastructure Centres: **Medicinal Product Analysis** and **EATRIS-TRI.si**.

The Infrastructural Centre for the Analysis of Medicinal Products was established with the expansion and renaming of the already existing infrastructural centre of the Faculty of Pharmacy of the University of Ljubljana under the framework of which the unit for NMR spectroscopy was active. In the next period, the infrastructure centres will be expanding into the wider area of analysis of medicinal products.

Areas of expertise: development, validations and verifications of analytical methods, identification and specification of physico-chemical properties of drugs, helper substances and impurities, analytical support in the development of medicinal products and in the identification of the reasons for the deviations beyond the specifications, analysis of substances and metabolites in biological systems, analysis of vegetable drugs and their preparations. A large amount of research equipment of the Faculty of Pharmacy intended for the analysis of medicinal products will be organised under the auspices of the centre.

Infrastructural Centre for Translation Research - EATRIS-TRI.si (European Advanced Translational Research Infrastructure - Translational Initiative Slovenia). The concept of the Infrastructural Centre for Translation Research in the field of pharmacy (TRI.si) is designed with the strategic goal of connecting and upgrading the infrastructure of the Faculty of Pharmacy that will enable a faster and more effective transfer of knowledge from basic research laboratories into products and services in the field of research, development and use of medicinal products.

The main goal of IC TRI is about achieving the highest standards in translation research that will provide us a greater competitiveness for projects on the market, better opportunities for research work and integration into international connections and access to large infrastructural centres. Ever since 2009, we have been participating in the activity of ESFRI - EATRIS (European Advanced Translational infrastructure).

The activities for becoming a member of EATRIS (European Advanced Translational Research Infrastructure) have intensified after a decision of the ARRS scientific council was made in autumn 2013 in accordance with the 2011-2020 Development Plan for Research Infrastructures to finance activities for association with EATRIS. The Faculty of Pharmacy namely in 2009 responded to the **Public Call for Collecting Proposals for International Projects of Developing a Large Research Infrastructure (RI) in which the Republic of Slovenia should participate**. The Faculty of Pharmacy shall be integrated into an association in the field of Research and Development of Medicinal Products and with its expertise and infrastructure become a member of the EATRIS network. The Faculty of Pharmacy also expressed an interest in taking over the initiative for a Slovenian centre for translation research, which, following the example of EATRIS, would include partners from the governmental, professional and scientific sphere and would be open to users (STRI: Slovenian Translational Research Initiative).

EUROPEAN PROJECTS

Projects of the 7th Framework Programme



ORCHID, an open collaborative model for TB drug discovery and lead optimisation. The head of the project at the Faculty is Prof. Stanislav Gobec, PhD. The goal of the project is optimisation of leading compounds with anti-tuberculosis effect until the stage where it can go into clinical trials. The project is coordinated by the pharmaceutical concern GlaxoSmithKline Diseases of the Developing World, Spain.

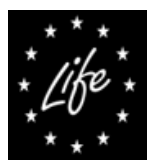
Lifelong Learning Programme

EACEA in the Programme of Lifelong Learning. The Faculty of Pharmacy has as a partner institution acquired the European project EACEA in the programme of lifelong learning: **PHAR-QA: Quality assurance in pharmacy education and training in the EU** (527194-LLP-1-2012-1-BE-ERASMUS-EMGR) with a total value of half a million Euros (72% are EU funds). The Faculty of Pharmacy represents a regional management board and is coordinating one of 4 geographical areas of partner and participating faculties from the EU member states and other European countries. The regional director is Prof. Borut Božič, PhD.

(LIAT-Pharma) Linking Industry and Academia in Teaching Pharmaceutical Development and Manufacture: a lifelong learning programme, the coordinator is College Green, Dublin, participating countries: Serbia, Finland, Great Britain and 5 companies, among those Brinox Slovenija. The coordinator at the Faculty is Prof. Stanko Srčič.

HOME - is a programme of lifelong learning. The purpose of the project is to develop and strengthen the open higher education network that shall make a contribution towards cooperation and open education in general. The partners shall make a contribution towards the establishment of an open institutional network. The head of the project at the Faculty is Prof. Julijana Kristl, PhD.

HORIZON 2020



LIFE13 ENV/SI/000466

Degradation of Pharmaceuticals in Wastewaters from Nursing Homes and Hospitals as part of the LIFE+ programme. The proposed project represents a solution for the removal of pharmaceuticals from waste water. The Arhel Company is participating in the project as the project manager and shall be in charge of establishing, planning, implementation, monitoring, control and timely completion of the planned work programme. The head of the project at the Faculty is Prof. Albin Kristl, PhD.

INTEGRATE - Interdisciplinary Training Network for Validation of Gram-Negative Antibacterial Targets. Is a H2020 project, Marie Skłodowska – Curie ITN. A foreign doctoral student is studying at

the Faculty of Pharmacy as part of the project. The head of the project at the Faculty is Prof. Danijel Kikelj, PhD.

ARTEMIDA

Under the Horizon 2020 WIDESPREAD-2014-1 TEAMING call, the European Commission has approved funds for the first stage of the ARTEMIDA Teaming proposal (Advanced Regional Translation of Excellence into Medical Innovations for Delayed Ageing), which shall focus on identifying and treating diseases of the nervous system, diabetes and cancer.

Among other things, the ARTEMIDA project intends to establish a Centre of Excellence for Translation Medicine that shall coordinate and develop research and innovation activities in Central and South-East Europe and thus facilitate the improvement of health and economic well-being of several hundred millions of inhabitants in this part of Europe.

In the Consortium of the ARTEMIDA project, the applicant is the University of Ljubljana, which encompasses members of the University of Ljubljana, namely the Faculty of Medicine as the project coordinator, the Faculty of Pharmacy, the Biotechnical Faculty and the Faculty of Arts, as well as Slovenian partners: the Ljubljana University Medical Centre, the National Institute of Chemistry, the National Institute of Biology and small and medium-sized innovation-focused companies - Acies Bio, Vizera, Pristop, MG-SOFT and MESI.

As part of the ARTEMIDA Teaming project, this Slovenian consortium is connected with top research institutions of the Karolinska Institutet from Stockholm and The European Molecular Biology Laboratory – The European Bioinformatics Institute from Heidelberg.

Projects of the European Structural Funds

Quality - University of Ljubljana (KUL). The project's goal is to support the development of a comprehensive quality assurance system harmonised with international standards that will enable and support continuous improvement of the quality of Slovenian higher education, especially the provision of quality, modernised study programmes. The project is coordinated by the University of Ljubljana. The project's coordinator at the Faculty is Assist. Prof. Bojan Doljak, PhD. Project duration: 2013-2015.

Internationalisation of University of Ljubljana

The purpose of the project is a faster development and greater scope of activities that lead to the internationalisation of the University of Ljubljana, by encouraging the integration of foreign experts into the pedagogical and research process and activities that strengthen the recognisability of the University of Ljubljana in the international environment. The project is coordinated by the University of Ljubljana. The project's coordinator at the Faculty is Assist. Prof. Saša Baumgartner, PhD. Project duration: 2013-2015.

Researchers at the Start of Their Career

The goal of the project is raising research intensity and quality, which is directly reflected in the integration of research work of researchers at the start of their career with the industry and addressing the industry's needs. The purpose of the project, which is partially financed by the European Union with the European Social Fund and is managed by the Ministry of Education, Science and Sport, is to stimulate Slovenian companies to include young doctorate holders at research institutions into the formation of the research activities and to transfer the created knowledge of researchers into the commercial research/development environment and thus increase the competitiveness of the Slovenian economy.

The Faculty of Pharmacy acquired three projects, namely two in the partnership with Lek, d.d. and one project in partnership with Labena d.o.o.

Obtaining Practical Knowledge via a Creative Path 2: The purpose of the public call for proposals was to support the development of competencies and the acquiring of practical knowledge and experiences of students by using an innovative, problem-oriented and group approach towards solving practical problems, specifically by including them into projects that were being carried out as part of a direct partnership between higher education institutions and the industry. With the help of mentors from the educational and economic sphere and as part of the project activities that were carried out as an addition to the regular learning process, the students were developing innovation, creative thinking and other competences that will make their transition from education into employment easier. The Faculty of Pharmacy acquired 1 project; 9 students participated.



Other Projects

Novel diagnostic and therapeutic approaches to complex genetic disorders (CIII-HR-0611), coordinated by the University of Zagreb. Is a CEEPUS (Central European Exchange Programme for University Studies) project that is a regional programme, the aim of which is to establish and encourage mobility of students and professors in cooperating countries. The project includes faculties from partner countries Austria, Bulgaria, Czech Republic, Croatia, Hungary, Poland, Romania, Slovakia, Slovenia, Serbia, Albania, Macedonia and Montenegro. The coordinator at the Faculty is Prof. Janja Marc, PhD.

US Project “RNA targets of SNORD116” (the Foundation for Prader-Willi Research)

The US non-profit organisation the Foundation for Prader-Willi Research (FPWR), the goal of which is to invest into PWS research and thus help people with PWS and their relatives, regularly publishes calls for research projects. At the end of 2015, the consortium, composed of the Faculty of Pharmacy, the University of Ljubljana (coordinator, Assist. Prof. Tomaž Bratkovič, PhD), the Jožef Stefan Institute (Prof. Boris Rogelj, PhD) and the University College London Institute of Neurology (Prof. Jernej Ule, PhD), was awarded a one year financing of the project titled “RNA targets of SNORD116”.

Prader–Willi syndrome is a genetic disorder the etymology of which is still poorly explained. Its central cause is the deletion of non-coding RNA genes (SNORD116), which are expressed primarily in the brain and the function of which is not explained. As part of the project to identify RNA targets of SNORD116, we shall use a new technique called hiCLIP developed by Prof. Ule with associates. The essence of the approach is immunoprecipitation of proteins that bind with SNORD116 (together with its RNA targets) in the cell nucleus, ligation of moth RNA molecules (namely, formation of hybrid RNA molecules) and hybrid sequencing. Identification of RNA targets of SNORD116 shall provide an insight into the aetiology of PWS and shall serve as a foundation for planning new therapeutic strategies. The project’s coordinator at the Faculty is Assist. Prof. Tomaž Bratkovič, PhD.

COST Projects

- Chemical Approaches to Targeting Drug Resistance in Cancer Stem Cells CMST COST Action CM1302 (Prof. Danijel Kikelj, PhD, Assoc. Prof. Lucija Peterlin Mašič, PhD).
- Challenging organic syntheses inspired by nature - from natural products chemistry to drug discovery CMST COST Action CM1407 (Assist. Prof. Janez Ilaš, PhD, Prof. Danijel Kikelj, PhD).
- Epigenetic Chemical Biology (EPICHEM) CMST COST Action CM1406 (Assist. Prof. Janez Ilaš, PhD).

- Targeted chemotherapy towards diseases caused by endoparasites CMST COST Action CM1307 (Assoc. Prof. Lucija Peterlin Mašič, PhD).
- Biomimetic Radical Chemistry CMST COST Action CM1201 (Prof. Marija Sollner Dolenc, PhD).
- Electrospun nano-fibres for bio inspired composite materials and innovative industrial applications MPNS COST Action MP1206 (Assist. Prof. Petra Kocbek, PhD).
- Chemical Approaches to Targeting Drug Resistance in Cancer Stem Cells CM 1106 (Prof. Danijel Kikelj, PhD).
- Ion Channels and Immune Response toward a global understanding of immune cell physiology and for new therapeutic approaches (IONCHAN-IMMUNRESPON) COST Action BM1406 (Assist. Prof. Nace Zidar, PhD).

COOPERATION OF TEACHERS OF THE FACULTY OF PHARMACY IN DIFFERENT BODIES

In Slovenia

University of Ljubljana - Senate

- Prof. Borut Božič, PhD - member

University of Ljubljana - Research and Development Work Committee

- Prof. Stanislav Gobec, PhD - member

University of Ljubljana – Committee for Master’s Degree Study

- Prof. Darko Černe, PhD

University of Ljubljana – Committee for Doctoral Studies

Prof. Julijana Kristl, PhD

University of Ljubljana – Committee for Granting Honorary Titles and Awards of the University of Ljubljana

- Prof. Julijana Kristl, PhD

University of Ljubljana – Committee for Prešeren Awards

- Prof. Janko Kos, PhD

University of Ljubljana - Committee for Preparing Starting Points and Monitoring the Financing of Higher Education and for Distributing of Funds at the University of Ljubljana

- Prof. Borut Božič, PhD - member

University of Ljubljana - Programme Council of Biomedicine

- Prof. Borut Božič, PhD - deputy chairman
- Prof. Stanislav Gobec, PhD - member

University of Ljubljana - Innovation and Development Institute - Council

- Prof. Franc Vrečer, PhD
- Prof. Janko Kos, PhD

University of Ljubljana - Innovation and Development Institute UL - member of the IRI Council:

- Prof. Franc Vrečer, PhD

Public Agency of the Republic of Slovenia for Medicinal Products and Medical Devices - Committee for Medicinal Products II:

- Prof. Aleš Krbavčič, PhD - chairman
- Prof. Samo Kreft, PhD - deputy chairman
- Prof. Mirjana Gašperlin, PhD

Public Agency of the Republic of Slovenia for Medicinal Products and Medical Devices - Committee for Homeopathic Medicinal Products

- Prof. Aleš Obreza, PhD
- Prof. Saša Baumgartner, PhD

Public Agency of the Republic of Slovenia for Medicinal Products and Medical Devices - Committee for Medicinal Products for Use in Veterinary Medicine:

- Prof. Stanko Srčič, PhD - expert in the field of pharmac. tech.
- Assoc. Prof. Lucija Peterlin Mašič, PhD - exper in pharmac. chemistry

Public Agency of the Republic of Slovenia for Medicinal Products and Medical Devices - Committee for Clinical Trials of Medicinal Products for Human Use:

- Assoc. Prof. Mitja Kos, PhD

Public Agency of the Republic of Slovenia for Medicinal Products and Medical Devices - Committee for Preparing Opinions for Determining Irregular Higher Allowed Prices for Medicinal Products:

- Assoc. Prof. Mitja Kos, PhD

Public Agency of the Republic of Slovenia for Medicinal Products and Medical Devices - Committee for Pharmacopeia and Preparation of the National Supplement to European Pharmacopeia:

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- Prof. Mirjana Gašperlin, PhD
- Prof. Uroš Urleb, PhD
- Assist. Prof Tanja Gmeiner Stopar, PhD
- Prof. Aleš Obreza, PhD

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- Prof. Janko Kos, PhD

Slovenian Research Agency - Scientific Council for Interdisciplinary Research:

- Prof. Borut Štrukelj, PhD

Slovenian Research Agency - Scientific Council for Natural Sciences:

- Prof. Julijana Kristl, PhD

Slovenian Academy of Sciences and Arts - Slovenian Pharmaceutical Terminology Dictionary:

- Prof. Mirjana Gašperlin, PhD
- Prof. Jelka Šmid Korbar, PhD
- Prof. Borut Božič, PhD
- Prof. Samo Kreft, PhD

- Prof. Janja Marc, PhD
- Prof. Aleš Mrhar, PhD
- Prof. Saša Baumgartner, PhD
- Prof. Darko Černe, PhD
- Prof. Aleš Obreza, PhD
- Assoc. Prof. Matjaž Jeras, PhD
- Assoc. Prof. Mitja Kos, PhD
- Assoc. Prof. Damjan Janeš, PhD
- Assoc. Prof. Mojca Lunder, PhD

Olympic Committee of Slovenia - National Anti-Doping Commission:

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Ministry of Health of the Republic of Slovenia, Chemicals Bureau - Intradepartmental Sub-Committee for Good Laboratory Practice:

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Ministry of Health of the Republic of Slovenia - Group for Coordination of Implementation of the Rules on Conditions that Must Be Met by Laboratories in the Field of Laboratory Medicine

- Prof. Borut Božič, PhD

Ministry of Health of the Republic of Slovenia - Expanded Professional Board of Pharmaceutical Services:

- Prof. Aleš Mrhar, PhD
- Prof. Mirjana Gašperlin, PhD
- Prof. Aleš Obreza, PhD

Ministry of Health of the Republic of Slovenia - Expanded Professional Board of Diagnostics:

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- Prof. Darko Černe, PhD

Ministry of the Environment and Spatial Planning of the Republic of Slovenia - Scientific Council for Genetically Modified Organisms

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Slovenian Scientific Foundation - Scientific Council

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European Medicines Agency (EMA), Expert in the Quality of Medicines for Use in Veterinary Medicine

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European Pharmacopoeia, European Directorate for the Quality of Medicine

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European Federation for Laboratory Medicine - Working Group for Personalised Laboratory Medicine

- Prof. Janja Marc, PhD - member

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· Prof. Janko Kos, PhD - member

Editorial Board of the Central European Journal of Biology

· Prof. Samo Kreft, PhD - regional editor

(Chapter 5 prepared by: I. Mlinarič Raščan, J. Merjasec, D. Černe, S. Kreft, S. Gobec, M. Gašperlin, A. Kristl, M. Kos)

6 STUDENTS' REPORT ON 2015 ACHIEVEMENTS

Month of the Pharmacist

October 2015 saw the sixth Month of the Pharmacist, and activities took place throughout October as we presented the intensity and diversity of extracurricular activities at the Faculty of Pharmacy to the freshmen to make the beginning of their study year easier with useful advice. At the beginning of the academic year, on 1 October 2015, as they received their student transcript book, we presented the freshmen the possibilities of engaging in other student activities besides their studies. They received folders containing information about the study programme and extracurricular activities. A day before, a presentation of individual faculties to the wider audience took place as part of the Reception of Freshmen of the University of Ljubljana at Prešeren Square. During the rest of October, numerous activities took place at the information stalls enabling students to exchange informal information about the study programme and to acquire study literature (used textbooks fair).

The International Pharmaceutical Summer Camp

From 14 to 19 July 2015, the students organised the 19th International Pharmaceutical Camp at the Centre of School and Extracurricular Activities in Burja, Seča. The topic of the event was "Hungry for Knowledge".

During the Camp, diverse work methods were used such as lectures, workshops and roundtables, where we actively discussed the importance and role of nutrition and its interaction with medicinal products.

The professional programme thus included lectures and workshops, and a part of our time was also dedicated to a social programme that included sport and social activities for the participants. We prepared many activities and outdoor games. With various activities, we tried to connect individual participants as much as possible, to encourage them to participate in sports activities and to introduce mainly foreign students to Slovenian culture. We did this with trips, a traditional dinner with typical Slovenian cuisine and mainly via socialising with Slovenian students.

60 participants attended the Camp, of which 24 were from abroad. They improved their knowledge of nutrition and vegetable products and at the same time were educated about Slovenian culture, cross-cultural and mutual cooperation and who began to live a healthier life.

Spatula

Spatula is a newsletter of the Association of Students of Pharmacy of Slovenia (the student section of the Slovenian Pharmaceutical Association), with which we inform the students of pharmacy about extracurricular activities and novelties in the world of pharmacy at the local and international level. It is a periodical publication, and the articles are published in Slovenian, except for articles by foreign authors, which are published in English.

The Spatula magazine includes the following regular topics:

- professional articles,
- interviews,
- events at professional evening,
- presentation of pharmaceutical activity in Slovenia,
- Erasmus practices,
- the study of pharmacy abroad,
- LBM section,

- news from the world of pharmacy,
- reports on sports achievements,
- report on extracurricular activities,
- Sudoku and a crossword puzzle.

In 2015, 3 issues of the newsletter were published, in February, May and October.

Oncological Congress

At the symposium at the Faculty of Pharmacy, 11 lectures by experts and patients took place on the 24th of October. There were 165 attendees, a total of 185 counting the lecturers and organisers. After lectures, the day concluded with an interesting round table about including clinical pharmacists into the treatment of cancer patients, with participation of all lecturers and Prof. Aleš Mrhar, PhD. We received very positive feedback regarding the content and the organisation of the symposium from both the participants and the listeners.

The purpose of the Student Section of the Slovenian Pharmaceutical Association's Oncology symposium was:

- To expand the knowledge and provide insight into the field of oncology for pharmaceutical students with lectures by various experts.
- To gather in one place physicians, clinical pharmacists and representatives of patients to exchange information for the purpose of better clinical and humanistic results for cancer patients.

Advising Patients

This project is well-known among the students of pharmacy and also in the wider pharmaceutical public. The single competition takes place in two parts. The first involves a lecture on disease and a lecture on medicine. The second is competitive and takes place at a pharmacy. The competitors compete in giving advice to an imaginary patient. The use of professional knowledge acquired from the lecture is graded, then the performance, the suitability of the communication with the patient and the general impression. The competition is suitable for freshmen as well as undergraduates.

The topic in 2015 was Nonsteroidal anti-inflammatory drugs. The competitors compete for attractive prizes, such as participation at the IPSF congress, which took place in Hyderabad, India, and at the International Pharmaceutical Summer Camp.

Mini School of Clinical Pharmacy

The project is similar to the Advising Patients project. It involves a lecture on a certain topic, followed by a competition. An important difference is that the contestants take on the role of a clinical pharmacist, and besides advice, they also fill out a special form about the patient and include a comment. The competition took place in December 2015. The topic was heart failure. At the same time, we were also introduced to the current state in the field of clinical pharmacy in Slovenia.

Volunteering at the Faculty of Pharmacy

Our humanitarian group was also active in 2015. They organised collecting of clothes and food, school supplies, etc.

In May, the students of the Faculty of Pharmacy attended the humanitarian run as part of Wings for Life, the international non-profit organisation for spinal cord research. In December, they organised the traditional Christmas Bazaar, where mainly sweets, greeting cards and presents were sold. The collected money was sent to a socially endangered Slovenian family.

Public Campaign: Diabetes

The campaign was organised in cooperation with students of medicine on the international day of diabetes, 14 November 2015. It took place in Prešeren Square. The students introduced passers-by to the dangers of type 2 diabetes and explained to them the methods and principles of measuring the concentration of glucose in blood and the application of insulin. The students of medicine also performed these measurements.

Public Campaign: Safe Use of Antibiotics

The campaign took place at Prešeren Square, where the students gave information to passers-by about the safe use of antibiotics. With the campaign, we joined the European campaign as part of EPSA about safe use of antibiotics, and the EPSA website also published an article on the subject.

Public Campaign: Circle of Health

The campaign took place on Sunday, 5 April at Prešeren Square in Ljubljana. We prepared it together with the Association of Medical Students of Slovenia and the Association of Psychology Students of Slovenia as part of the Circle of Health (the 3rd annual traditional project prepared by students of medicine). We distributed brochures to passers-by with a summary of interaction; for children, we prepared balloons that they filled with helium. We also displayed dried plant drugs that most frequently enter into interaction with medicinal products (we borrowed them from the Chair of Pharmaceutical Biology).

Public Campaign: Health Festival

In 2015, Lekarne Ljubljana celebrated its 66th anniversary, so on 14 June 2014, the 2nd Health Festival took place in the lobby of the Križanke Outdoor Theatre to commemorate the occasion. At the Festival, the students of pharmacy also had their stand, where they gave advice to visitors about the importance of correct protection against sun and the effect of sunrays on the skin. Flyers were made and they presented the book *Sodobna fitoterapija* (Modern Phytotherapy) and the *Spatula* newsletter. They also prepared mixtures of teas with children and helped them make creams and ointments.

Public Campaign: Medicinal Teas

The project was carried out in June. Its basic goal is to visit elderly homes throughout Slovenia with the purpose of presenting elderly people the medicinal effects of herbal teas. Before the campaign, there were lectures for students who participated in the campaign that were open to anyone else interested in the topic.

Motivational Weekend of the Association of Students of Pharmacy of Slovenia

The two day event is intended for freshman and sophomore students and for students who wish to get to know the association, its projects and actively participate in it. The event programme involves various workshops and a training of soft skills (motivation, project management, communication, conflict solving, team-building and presentation techniques). Alongside professional work, there was of course no shortage of social programme events, which involved meeting other students and soft skill coaches. In 2015, the Motivational Weekend took place in ČŠOD Čebelica, in Čatež.

IPSF SEP (Students Exchange Programme)

Is a mobility programme that provides students of pharmacy the opportunity for getting to know the pharmaceutical profession in more than 50 countries of the world. It is one of the largest projects of the International Pharmaceutical Students' Federation (IPFS). The programme is carried out throughout the year and provides 1- to 3-months practical training and experience in the fields of working in general and hospital pharmacy, pharmaceutical industry, research work and working as a clinical pharmacist. The majority of practical training is performed during summer. In 2015, 22 foreign students performed practical training in Ljubljana, Kranj, at Golnik, in Maribor and Portorož in

the period from June to September. In 2015, the Faculty of Pharmacy enabled SEP practical training to three students at the Chair of Pharmaceutical Technology, two students each at the Chair of Social Pharmacy and to one student at the Chair of Pharmaceutical Biology and the Chair of Biopharmacy and Pharmacokinetics. In total, it provided 7 positions for practical training. The interest of students from the Faculty of Pharmacy in performing practical training is growing each year. 34 Slovenian students participated in practical training in 2015. For 2016, there 36 positions available for Slovenian students. The number of students who can perform practical training abroad namely depends on the number of students we are hosting.

EPSA Individual Mobility Project

EPSA Individual Mobility Project (IMP) is a long-term project that provides students of pharmacy and recently graduated pharmacists and graduates of pharmaceutical science the possibility of obtaining work and research experience in all areas of the pharmaceutical profession. IMP was created with the desire for interlinking of the European pharmaceutical industry, institutions and organisations of students of pharmacy.

The IMP programme has the potential to unify European countries in terms of mobility of the students of pharmacy. The project offers students and recent graduates at least 6 and maximum 12 month long paid traineeships in an international pharmaceutical company.

This year, we have applied for one IMP practical training placement, which is the maximum number of open positions so far. Four students from our Faculty applied, which represents more than 35% of all applications. None of Slovenian students obtained the position, but one candidate was on a shortlist of two candidates.

Student Exchange - Twinnet

Twinnet is a project of the European Pharmaceutical Students Association (EPSA), the idea of which is based on promoting mobility of youth in Europe. It involves international one week student exchanges. A smaller group of students from an individual country meets in each of the partner countries, where workshops and lectures on a certain subject and soft skill training takes place; it also involves a visit to the local pharmaceutical company. There is also a rich social programme (visits to sites of special interest, sports activities and similar).

This year, we decided to revive the project. This year's TWIN was organised in cooperation with the Serbian organisation PSANS from Novi Sad. Students from Serbia came to Slovenia between 3rd and 8th November and Slovenian students visited Serbia between the 17th and 22nd November. 9 Slovenian students and 12 Serbian students attended the exchange.

IPSF World Congress (Hyderabad, India, August 2015)

At the beginning of August, the International Pharmaceutical Students' Federation (IPSF) organised its 61st World Congress, which took place in India. The primary purpose of this 10-day socialising of pharmacy students from around the world is the annual meeting of the IPSF General Assembly, which consists of all the member national organisations of pharmaceutical students. The general assembly is the head organ of IPSF, where the annual reports on events in the Federation are presented, decisions are made and the new executive board is elected.

While the 3 official delegates from each country take part in the assembly, lectures, workshops and training in soft skills also take place.

The IPSF congress also includes a two-day symposium, which in 2015 was titled Encompassing API to Formulation- Process, Quality and Economics. 11 Slovenian students attended the congress in India.

EPSA Annual Congress (Toulouse, France, April 2015)

The European Pharmaceutical Students Association (EPSA) organises its largest event every year in spring. It is an annual congress that consists of a rich professional and social programme. At the congress, delegates meet from every member organisation (2 delegates per organisation) with the function of decision-making and the right to vote at the official General Assemblies. Delegates have the task of representing the interests of students represented by their associations, thus the Slovenian delegates represent the interests and opinions of the Slovenian students of pharmacy and simultaneously represent the organisation of the study of pharmacy in Slovenia and are looking for new ideas and possibilities for improving extracurricular activities for our students. They are thus informed about projects of mobility, student offers for participation in various congresses of

professional partners of the EPSA (DIA, EAHP, PGEU etc.), options for training and possibilities for financing various projects. They also have the possibility of contacting and improving contacts with other member organisations, which strengthens the collaboration between students all over Europe. As part of the General Assembly, the official delegates elect a new EPSA team. Five Slovenian students were elected for positions in the EPSA team for the 2015/2016 mandate.

And the option of making contact and participating in the professional part of the programme is also given to other participating students via a two-day thematic symposium as well as workshops and training in soft skills that take place at the same time as the General Assembly. At the end of the congress, upon evaluating the event, the students have the possibility of obtaining points for the LLP certificate (Life-Long Learning Programme), which is granted by EPSA for participation at professional events. 22 Slovenian students attended the annual congress in Toulouse.

EPSA Summer University (Lisbon, Portugal, July 2015)

The Summer University is the most informal EPSA event without any General Assembly. This year, the Summer University took place in Lisbon, where the students from member associations had the opportunity to socialise in a relaxed atmosphere and obtain new skills with the help of training and workshops about networking, the European Union, Communication, etc. 15 Slovenian students attended the congress in Lisbon.

EPSA Autumn Assembly (St. Julian's, Malta, October-November 2015)

The Autumn Assembly is the second largest and most important EPSA event, where the representatives of the member organisations come together at the meeting of the General Assembly and, in the mid-term of their mandate, present their work and plans for the future. Similar to other congresses, the duty and the right of two Slovenian delegates at the meetings of the Assembly are to represent the opinion of Slovenian students of pharmacy and to vote. As the annual congress, the Autumn Assembly also combines a professional (thematic symposium, workshops, soft skill training) and a social part. Here, the students can also obtain points that count towards an LLP certificate. There were 19 students representing the Slovenian delegation at the Autumn Assembly.

2015 Capsule of Opportunity

The Capsule of Opportunity is a project of the Association of Students of Pharmacy of Slovenia that we decided to revive a few years ago and which was expanded in 2015. During 4 weeks, 13 lectures, 9 workshops and 1 professional excursion took place with the purpose of presenting various career paths. Due to high demand, three additional soft skills workshops shall be performed in May. In the project, we tried to include as many possibilities of employment as possible for students of all programmes of the Faculty of Pharmacy. We are aware that despite the large number of events, not all possibilities were presented, and we intend to improve this in the future. Summaries of events are in the form of proceedings in an electronic format. Due to the complexity of the project and because we wish to ensure a suitable number of attendees, in the future, the Capsule of Opportunity shall be organised every two years.

The basis of the project was lectures that were presentations of various career paths by successful individuals from various fields. The concept was received very well and all lectures truly provided plenty of new insight. All participants agreed that the lectures were not only educational but also extremely motivating.

Besides the excellent knowledge the Faculty of Pharmacy provides, the importance of soft skills is also growing. Therefore, soft skills workshops were organised as part of the project that are based on personal contact and as much cooperation as possible. The interest was so overwhelming that we decided to organise additional workshops in May.

Other Projects in 2015

Information Days and “Informativa” Fair - in cooperation with the Faculty of Pharmacy, the students organised a presentation of the Faculty, the study programmes and extracurricular activities.

Professional Evenings - professional evenings are lectures on a certain topic organised by the students themselves in collaboration with lecturers and guest lecturers. This way, some topics are covered at the students' own initiative that they believe should be discussed, as they are not emphasised enough due to the shortage of time during the studies, and this way they make a significant contribution to their own education. In 2015, the students organised professional evenings on the topic of depression and diabetes.

Skiing on Vogel - skiing of pharmacists took place on Vogel at the beginning of March 2015.

Picnic - this was organised in May and it is the last socialising event before the end of the academic year and before the summer exam period.

Mobility day - a project of the Faculty of Pharmacy and the Association of Students of Pharmacy of Slovenia, where the students were presented the possibility of the study programmes, exchange and practical training abroad (ERASMUS exchanges, ERASMUS, SEP and IMP training).

Professional/Social Trip to Budapest - 4 December - 6 December 2014, two day trip with an organised professional and social programme. Approximately 50 students from the Faculty of Pharmacy went on the trip.

(Chapter 6 prepared by: Student Council of the Faculty of Pharmacy)

7 GRADUATES OF THE FACULTY OF PHARMACY IN 2015

UNIVERSITY STUDY PROGRAMME OF PHARMACY (PRE-BOLOGNA PROGRAMME)

Balas Marko (mentor Mitja Kos): Ovrednotenje modelov najvišjih priznanih vrednosti za terapevtske skupine zdravil na primeru zdravil za zmanjševanje ravni serumskih lipidov = Evaluation of the highest Recognised Value Models for a Therapeutic Group of Medicines on the Example of Lipid-Lowering Drugs, COBISS.SI-ID: 3838065.

Boh Špela (mentor Joško Osredkar): Serološke in genetske značilnosti pri bolnikih s celiakijo = Serological and Genetic Traits in Patients with Celiac Disease, COBISS.SI-ID 3892081.

Cimprič Sara (mentor Aleš Mrhar, co-mentor Lea Knez): Vpliv usklajevanja zdravljenja z zdravili na število nenamernih neskladij v odpustni terapiji - podanaliza randomizirane klinične študije = Impact of Medication Reconciliation on Medication Errors at Hospital Discharge - Subanalysis of a Randomised Clinical Study, COBISS.SI-ID: 3844721.

Čeh Marša (mentor Mitja Kos): Ovrednotenje sistema zunanje primerjave cen zdravila z vidika Slovenije = External price referencing system from the aspect of Slovenia, COBISS.SI-ID: 3971697.

Černe Zala (mentor Igor Locatelli): Vrednotenje porabe neopioidnih analgetikov in nesteroidnih antirevmatikov v Sloveniji v obdobju med 2009 in 2013 = Evaluation of consumption of non-opioid analgesics and non-steroidal anti-inflammatory drugs in Slovenia from 2009 to 2013, COBISS.SI-ID: 3892337.

Črnič Jan (mentor Mitja Kos): Raziskava stališč pedagoških delavcev Fakultete za farmacijo, Medicinske fakultete, Univerza v Ljubljani, in Medicinske fakultete, Univerza v Mariboru, do etičnih vprašanj farmakogenomike = Investigation of pedagogical workers of Faculty of Pharmacy, Faculty of Medicine, University of Ljubljana, and Faculty of Medicine, University of Maribor, attitudes toward ethical issues of pharmacogenomics, COBISS.SI-ID: 3808113.

Ficko Pristov Marina (mentor Pegi Ahlin Grabnar): Fizikalno-kemijsko vrednotenje polimernih nanodelcev s heparinom, izdelanih z dvojno emulzijsko metodo = Physicochemical evaluation of heparin-loaded polymeric nanoparticles prepared by double emulsion method, COBISS.SI-ID: 3923569.

Forštnarič Eva (mentor Robert Roškar, co-mentor Miha Vivoda): Uporaba mikrokolorimetrije in diferenčne dinamične kalorimetrije za preverjanje stabilnosti amorfnega nifedipina = Stability evaluation of amorphous nifedipine by microcalorimetry and differential scanning and differential scanning calorimetry, COBISS.SI-ID: 3887985.

Gartner Klemen (mentor Biljana Janković, co-mentor Ilija Ilić): Ocena mehanskih lastnosti izbranih gumijastih podlag za izdelavo žvečljivih tablet = Evaluation of mechanical properties of selected gum bases used in manufacture of chewable tablets, COBISS.SI-ID: 3830641.

Glušič Mateja (mentor Janez Kerč, co-mentor Sebastjan Reven): Vpliv pogojev mletja ter različnih stabilizatorjev na učinkovitost mletja ter kemijsko stabilnost atorvastatina = The effect of milling conditions and various stabilisers on milling efficiency and chemical stability of atorvastatin, COBISS.SI-ID: 3805809.

Gombač Marinka (mentor Mitja Kos): Ambulantno predpisovanje zdravil za obstruktivne pljučne bolezni v Sloveniji v letu 2008 = Prescriptions at the ambulatory level for obstructive lung diseases in Slovenia in 2008, COBISS.SI-ID: 3830385.

Humar Tina (mentor Joško Osredkar, co-mentor Damjan Kovač): Antiproteinurično delovanje holekalciferola pri IgA nefropatiji = Antiproteinuric action of cholecalciferol in IgA nephropathy, COBISS.SI-ID: 3822193.

Jelen Katja (mentor Marija Sollner Dolenc): Ocena varne uporabe barvil v dekorativni kozmetiki na slovenskem tržišču = Assessment of the safe use of colours in decorative cosmetics on Slovenian market, COBISS.SI-ID: 3884657.

Jereb Tina (mentor Eva Ružič Sablić, co-mentor Mateja Pirš): Opredelitev občutljivosti enterobakterij, ki izločajo betalaktamaze razširjenega spektra delovanja, na piperacilin s tazobaktamom = Determination of susceptibility of Enterobacteriaceae, which produce extended spectrum betalactamases, to piperacillin with tazobactam, COBISS.SI-ID: 3866481.

Lah Tomšič Suzana (mentor Marija Sollner Dolenc): Napovedovanje dražilnosti in jedkosti spojin na koži in očeh z računalniško aplikacijo Toxtree = Prediction of skin and eye irritation and corrosion with the toxtree software, COBISS.SI-ID: 3861105.

Lešnik Mojca (mentor Joško Osredkar): Primerjava rezultatov dihalnega testa za določanje bakterije *Helicobacter pylori* in antigena v blatu = Comparison of the results for breath test for determination of *Helicobacter pylori* and antigen in stool, COBISS.SI-ID: 3807345.

Martini Tomaž (mentor Irena Mlinarič Raščan, co-mentor Damjana Rozman): Interakcija med period 2 in konstitutivnim androstanskim receptorjem = Interaction between period 2 and constitutive androstane receptor, COBISS.SI-ID: 3947889.

Miklavčič Martina (mentor Samo Kreft, co-mentor Nina Kočevar Glavač): Ugotavljanje antioksidativne aktivnosti izvlečkov lubja navadne jelke (*Abies Alba* Mill.) iz različnih delov Slovenije in njihovih frakcij = Determination of antioxidant activity of silver fir (*Abies alba* mill.) bark extracts from different places in Slovenia, COBISS.SI-ID: 3805553.

Petrič Agata (mentor Mojca Kržan, co-mentor Damjana Mojca Jurič): Vpliv resveratrola na sintezo nevrotrofina-3 v astrocitih novorojenih podgan = The influence of resveratrol on neurotrophin-3 synthesis in neonatal rat astrocytes, COBISS.SI-ID: 3875697.

Ploj Anja (mentor Joško Osredkar): Določanje koncentracije prostaglandina F2-alfa kot pokazatelja bolečine pri ablaciji endometrija s toplotnim balonom = Determination of prostaglandin F2-alpha concentration as a pain indicator in patients undergoing thermal balloon endometrial ablation, COBISS.SI-ID: 3884913.

Rožmarin Mateja (mentor Robert Roškar): Vredotenje stabilnosti klindamicina v vodnih raztopinah z metodo tekočinske kromatografije visoke ločljivosti = Evaluation of stability of clindamycin in aqueous solutions by high performance liquid chromatography, COBISS.SI-ID: 3869297.

Skvarča Gregor (mentor Iztok Grabnar): Populacijska analiza farmakokinetike topiramata pri bolnikih z epilepsijo = Population analysis of topiramate pharmacokinetics with epileptic patients, COBISS.SI-ID: 3950193.

Štirn Davor (mentor Janez Ilaš): Priprava enantiomerno čistih antitrombotičnih spojin z uporabo kiralne tekočinske kromatografije visoke ločljivosti = Preparation of enantiomerically pure antithrombotics using chiral high performance liquid chromatography, COBISS.SI-ID: 3889777.

Tomšič Katarina (mentor Aleš Obreza): Kritično ovrednotenje opisa anorganskih učinkovin v Dioskoridovem delu De materia medica = Critical evaluation of the description of inorganic substances in Dioscorides' work De materia medica, COBISS.SI-ID: 3831153.

Zupančič Biber Kaja (mentor Mirjana Gašperlin, co-mentor Mirjam Gosenca): Vpliv strukture tekočih kristalov za dermalno uporabo na sproščanje askorbilpalmitata = Structure impact of liquid crystals for dermal use on the release of ascorbyl palmitate, COBISS.SI-ID: 3855217.

UNIVERSITY STUDY PROGRAMME OF LABORATORY BIOMEDICINE (PRE-BOLOGNA PROGRAMME)

Rep Staša (mentor Joško Osredkar): Klinični pomen določanja koncentracije metabolitov adrenalina in noradrenalina v plazmi pri bolnikih z nevroblastomom (SLO) = Clinical significance of determining the concentration of metabolite levels of adrenaline and noradrenaline in patients with neuroblastoma (ENG), COBISS.SI-ID: 3941745.

SCIENTIFIC MASTER'S PROGRAMME (PRE-BOLOGNA PROGRAMME)

Lađić Tanja (mentor Mojca Stegnar): Neodzivnost na protitrombocitna zdravila pri koronarni bolezni = Resistance to antiplatelet therapy in cardiovascular disease, COBISS.SI-ID: 3871089.

UNIVERSITY STUDY PROGRAMME OF COSMETOLOGY

Belinc Janja (mentor Damjan Janeš): Analiza za aromo pomembnih hlapnih spojin v cvetovih hibiskusa = Analysis of volatile compounds important for the aroma of Hibiscus sabdariffa, COBISS.SI-ID 3911025.

Bizjak Anja (mentor Marija Sollner Dolenc): Toksikološki profil kozmetičnih sestavin v trdnih in tekočih pudrih = Toxicological profile for cosmetic ingredients in solid and liquid powders, COBISS.SI-ID: 3929457.

Borštnik Barbara (mentor Aleš Obreza, co-mentor Damjan Janeš): Proučevanje sestave eteričnega olja mehiškega brina (Juniperus mexicana), izolacija cedrola in olfaktorno vrednotenje = Examination of the composition of essential oil Mexican juniper (Juniperus mexicana), isolation of cedrol and olfactory evaluation, COBISS.SI-ID: 3929201.

Demšar Ajda (mentor Mojca Lunder): Določanje vezave protiteles razreda E na mimotope glavnega mačjega alergena in optimizacija imunodetekcije = Binding of immunoglobulin E to mimotopes of major cat allergen and optimisation of immunodetection, COBISS.SI-ID: 3911281.

Ferkolj Maja (mentor Nina Kočevlar Glavač): Test izzivanja učinkovitosti konzerviranja različnih sestavin naravnega izvora v dermalni formulaciji z uporabo bakterije Escherichia coli = Preservation challenge test of various ingredients of natural origin in a topical formulation using bacteria Escherichia coli, COBISS.SI-ID: 3885937.

Forster Monika (mentor Saša Baumgartner): Izdelava in fizikalno vrednotenje hidrogela z vgrajenim rožmarinovim oljem = Manufacture and physical evaluation of hydrogel with rosemary oil, COBISS.SI-ID: 3919473.

Fuhrmann Kimm Sara (mentor Marija Sollner Dolenc): Ugotavljanje nedovoljenih snovi in kontaminantov v dekorativnih snovi in kontaminantov v dekorativnih kozmetičnih izdelkih na trgu Evropske unije s sistemom hitrega obveščanja = Identifying of prohibited substances and contaminants in decorative cosmetics available in the European Union market by rapid alert system, COBISS.SI-ID: 3928945.

Grgičevič Tia (mentor Pegi Ahlin Grabnar): Proučevanje sestave kozmetičnih izdelkov za nego otroške kože = A study of the composition of baby care products, COBISS.SI-ID: 3911537.

Herlah Barbara (mentor Žiga Jakopin): Napovedovanje razgradnje, metabolizma in toksičnosti benzofenona-3 in silico = Prediction of degradation, metabolism and toxicity of benzophenone-3 in silico, COBISS.SI-ID: 3922289.

Jerković Olga (mentor Mirjana Gašperlin, co-mentor Mirjam Gosenca): Vrednotenje učinkovitosti naravnih antioksidantov = Effectiveness evaluation of natural antioxidants, COBISS.SI-ID: 3941489.

Jevnikar Elizabeta (mentor Pegi Ahlin Grabnar): Proučevanje vpliva mil na barierno funkcijo kože = Examining the impact of soap on skin barrier function, COBISS.SI-ID: 3922801.

Klanjšek Lidija (mentor Janez Mravljak): Uporaba DPPH metode za ugotavljanje antioksidativnih lastnosti izbranih negovalnih kozmetičnih izdelkov = The use of DPPH method for identifying antioxidant properties of selected cosmetic skincare products, COBISS.SI-ID: 3928689.

Klemenčič Maruša (mentor Janez Mravljak): Vrednotenje antioksidativne kapacitete izbranih kozmetičnih izdelkov za nego kože = Evaluation of antioxidant capacity of chosen cosmetic products for skin care, COBISS.SI-ID: 3930481.

Komljenović Manca (mentor Pegi Ahlin Grabnar): Preučevanje sestave serumov za zrelo kožo = A study of the composition of serums for mature skin, COBISS.SI-ID: 3929713.

Kramberger Urška (mentor Matjaž Jeras, co-mentor Nada Kecelj Leskovec): Kronična urtikarija in njen vpliv na kvaliteto življenja = Chronic urticaria and its impact on quality of life, COBISS.SI-ID: 3913329.

Krivos Klara (mentor Mirjana Gašperlin): Vpliv hialuronske kisline na hidratacijo kože in transepidermalno izgubo vode = Effect of hyaluronic acid on skin hydration and transepidermal water loss, COBISS.SI-ID: 3910769.

Krivec Nuša (mentor Damjan Janeš, co-mentor Aleš Obreza): Frakcionirna vakuumaska destilacija eteričnega olja nepravlega gvajaka (Bulnesia sarmienti) z izolacijo gvajola in olfaktornim vrednotenjem posameznih frakcij = Fractional vacuum distillation of guaiac wood (Bulnesia sarmienti) essential oil with isolation of guaiaol and olfactory evaluation, COBISS.SI-ID: 3923313.

Krstova Ana (mentor Janez Mravljak): Sinteza in vrednotenje antioksidativnih lastnosti derivatov 5-benziliden-N,N-dimetilbarbiturne in 5-benziliden-N,N-dimetiltiobarbiturne kisline = Synthesis and evaluation of antioxidant properties of 5-benzylidene-N,N-dimethylbarbiturates and 5-benzylidene-N,N-dimethyltiobarbiturates, COBISS.SI-ID: 3919729.

Kuhar Anamarija (mentor Odon Planinšek): Proučevanje anorganskih delcev v izdelkih za zaščito pred soncem = Study of inorganic particles in sunscreens, COBISS.SI-ID: 3922033.

Madžarac Vanja (mentor Marija Sollner Dolenc, co-mentor Ivana Blagojević): Določanje učinka avobenzona, butiliranega hidroksianizola in 2-metilresorcinola na androgenih in glukokortikoidnih receptorjih = Determination of the effects of avobenzene, butylated hydroxyanisole and 2-methylresorcinol on the androgen and glucocorticoid receptors, COBISS.SI-ID: 3830897.

Mehle Katarina (mentor Matjaž Jeras): Ocena obsežnosti vnosa vitamina A v organizem s hrano, prehranskimi dopolnili in kozmetičnimi izdelki ter možne posledice njegovih previsokih koncentracij = Evaluation of the extent of vitamin A into an organism through food, food supplements and cosmetic products and possible consequences of too high concentrations, COBISS.SI-ID: 3923057.

Mihevc Eva (mentor Alenka Zvonar Pobirk): Proučevanje kozmetičnih izdelkov z izvlečki iz alg na tržišču = A study of cosmetic products with algae extracts on the market, COBISS.SI-ID: 3930225.

Miklavčič Martina (mentor Samo Kreft, co-mentor Nina Kočevar Glavač): Ugotavljanje antioksidativne aktivnosti izvlečkov lubja navadne jelke (*Abies alba* mill.) iz različnih delov Slovenije in njihovih frakcij = Determination of antioxidant activity of silver fir (*Abies alba* mill.) bark extracts from different places in Slovenia, COBISS.SI-ID: 3805553.

Papler Sara (mentor Matjaž Jeras, co-mentor Igor Bartenjev): Vpliv navad sončenja na pojavnost pigmentnih rašč na koži = Influence of sun exposure habits on density of nevi, COBISS.SI-ID: 3886193.

Planinšek Parfant Timeja (mentor Alenka Zvonar Pobirk): Vrednotenje antioksidativne učinkovitosti eteričnega olja suhocvetnice (*Helychrisum italicum*) s feritiocianatno in difenilpikrilhidrazilno metodo = Evaluation of antioxidant activity of immortelle essential oil (*Helychrisum italicum*) with ferric thiocyanate and diphenylpicrylhydrazyl assay, COBISS.SI-ID: 3922545.

Plešec Anja (mentor Marija Sollner Dolenc): Varnost sestavin kozmetičnih izdelkov za zunanjo intimno nego = Safety of ingredients of cosmetic products for external intimate care: University Study Programme Cosmetology, COBISS.SI-ID: 3918961.

Ploj Anja (mentor Joško Osredkar): Določanje koncentracije prostaglandina F2-alfa kot pokazatelja bolečine pri ablaciji endometrija s toplotnim balonom = Determination of prostaglandin F2-alpha concentration as a pain indicator in patients undergoing thermal balloon endometrial ablation, COBISS.SI-ID: 3884913.

Repše Pia (mentor Mirjana Gašperlin): Zahteve certifikata COSMOS in analiza izdelkov za naravno kozmetiko na tržišču = Requirements of COSMOS certificate and market study of natural cosmetic products, COBISS.SI-ID: 3929969.

Repše Eva (mentor Eva Ružič-Sabljčić): Primerjava dveh analiznih setov za dokazovanje specifičnih protiteles proti borelijskim antigenom v krvi bolnika = Comparison of two analysis sets for detection of specific antibodies against *Borrelia* antigens in patient blood, COBISS.SI-ID: 3983217.

Seljak Lea (mentor Nace Zidar): Sinteza in vrednotenje antioksidativnih lastnosti derivatov 5-benzilidenbarbiturne in 5-benzilidentioibarbiturne kisline = Synthesis and evaluation of antioxidative properties of 5-benzylidenbarbituric and 5-benzylidenethioibarbituric acid derivatives, COBISS.SI-ID: 3912817.

Struna Alenka (mentor Matjaž Jeras, co-mentor Maja Šegvić Klarić): Toksični učinki aflatoksina B1, sterigmatocistina in okratoksina A na humano keratinocitno celično linijo HaCaT = Toxic effects of aflatoxin B1, sterigmatocystin and ochratoxin A on HaCaT human keratinocyte cell line, COBISS.SI-ID: 3918705.

Šabić Samra (mentor Pegi Ahlin Grabnar): Določanje tipa kože glede na hidratacijo in vsebnost površinskih lipidov = Evaluation of skin type based on skin hydration and Sebum content, COBISS.SI-ID: 3947633.

Šilc Maja (mentor Mirjana Gašperlin, co-mentor Alessandra Semenzato): Razvoj in vrednotenje emulzij s pigmenti za prekrivanje kožnih nepravilnosti = Development and evaluation of emulsions containing pigments for skin care imperfections, COBISS.SI-ID: 3872113.

Škafar Nives (mentor Marija Sollner Dolenc): Proučevanje varnosti uporabe sestavin v kozmetičnih izdelkih za nego zob in ustne votline = Examining the safety of ingredients in cosmetic products for dental and oral cavity care, COBISS.SI-ID: 3919217.

Škufca Sandra (mentor Alenka Zvonar Pobirk): Etiopatogeneza aken in pregled kozmetičnih izdelkov za nego aknaste kože = Etiopathogenesis of acne and review of cosmetic products for acne prone skin, COBISS.SI-ID: 3953009.

Škulj Zala (mentor Janez Mravljak): Ugotavljanje antioksidativnih lastnosti pri izbranih 5-benziliden barbituratih z metodo redukcije 2,2-difenil-1-pikrilhidrazila = Evaluation of antioxidative properties of selected 5-benzylidene barbiturates with method of 2,2-diphenyl-1-picrylhydrazyl reduction, COBISS.SI-ID: 3911793.

Štante Matej (mentor Mirjana Gašperlin, co-mentor Mateja Bodlaj): Analiza dožemanja naravne kozmetike med študentkami Fakultete za farmacijo in Ekonomske fakultete = Analysis of the perception of natural cosmetics among students of the Faculty of Pharmacy, COBISS.SI-ID: 3865457.

Štepic Barbara (mentor Nina Kočevar Glavač): Preizkus učinkovitosti konzerviranja različnih sestavin naravnega izvora v dermalni formulaciji z uporabo bakterije *Staphylococcus aureus* = Challenge test of preservation efficacy of various natural ingredients in dermal formulation using *Staphylococcus aureus*, COBISS.SI-ID: 3982961.

Štrancar Tjaša (mentor Odon Planinšek): Proučevanje abrazivnih delcev v izbranih zobnih pastah = Testing the abrasive particles in selected toothpastes, COBISS.SI-ID: 3913585.

Tajnšek Tia Kristian (mentor Nina Kočevar Glavač): Preizkus učinkovitosti konzerviranja različnih sestavin naravnega izvora v dermalni formulaciji z uporabo glive *Candida albicans* = Examination of preservative effectiveness of various natural ingredients in dermal formulation using the fungus *Candida albicans*, COBISS.SI-ID: 3921777.

Vodopivec Špela (mentor Žiga Jakopin): Varnost uporabe anorganskih ultravijoličnih filtrov v kozmetičnih izdelkih = Safety of usage of inorganic ultraviolet filters in cosmetic products : University Study Programme Cosmetology, COBISS.SI-ID: 3875441.

Volovšek Manca (mentor Saša Baumgartner): Kritična ocena kozmetičnih izdelkov z vidika mehanizmov vlaženja kože = Critical assessment of cosmetic products from aspect of mechanism of skin moisturising, COBISS.SI-ID: 3913073.

Zager Dea (mentor Odon Planinšek, co-mentor Werner Kunz): Izdelava šampona z natrijevim oleatom kot površinsko aktivno snovjo = Formulation of a shampoo with sodium oleate as surfactant, COBISS.SI-ID: 3889521.

Zagorc Maruša (mentor Mojca Lunder): Proučevanje izražanja receptorjev za transferin in epidermalni rastni dejavnik v človeških keratinocitih = Study of transferrin and epidermal growth factor receptor expression in human keratinocytes, COBISS.SI-ID: 3913841.

LONG-CYCLE MASTER'S STUDY PROGRAMME OF PHARMACY

Antolič Tina (mentor Lucija Peterlin Mašič, co-mentor Miran Brvar): Pregled in vrednotenje zastrupitev odraslih bolnikov s paracetamolom v letih 1990-2014 v Univerzitetnem kliničnem centru Ljubljana = Review and evaluation of paracetamol poisoning in adult patients at the University Medical Centre Ljubljana during the period of 1990-2014, COBISS.SI-ID: 3949169.

Banko Eva (mentor Igor Locatelli, co-mentor Andreja Čufar): Vrednotenje mikrobiološke kakovosti pogojev priprave zdravil za parenteralno aplikacijo na kliničnem oddelku za revmatologijo Interne klinike Univerzitetnega kliničnega centra Ljubljana = Microbiological quality evaluation of conditions for parenteral medication preparation at the department of rheumatology of the Ljubljana University Medical Centre, COBISS.SI-ID: 3943793.

Banko Hana (mentor Aleš Mrhar, co-mentor Nataša Faganeli): Vpliv traneksaminske kisline na zmanjšanje izgube krvi pri primarni popolni artroplastiki kolka in kolen = The impact of tranexamic acid on reduction of blood loss in primary total hip and knee arthroplasty, COBISS.SI-ID: 3992433.

Bedene Ajda (mentor Janja Marc, co-mentor Simona Mencej Bedrač): Ugotavljanje povezanosti mikroRNA 7d, 7e in 423 v plazmi s kazalci tveganja za razvoj osteoporoze = Identification of association plasma microRNA 7d, 7e and 423 with osteoporosis risk factors, COBISS.SI-ID: 4008305.

Belak Miha (mentor Jurij Trontelj): Spremljanje nastanka razpadnih produktov zdravilnih učinkovin pri elektrokemičnem čiščenju odpadnih vod = Monitoring the occurrence of degradation products of active substances in electrochemical wastewater treatment, COBISS.SI-ID: 3972209.

Benko Danila (mentor Janja Marc, co-mentor Simona Mencej Bedrač.): Farmakogenetska analiza polimorfizmov v izbranih genih pri zdravljenju z zaviralci testosteron-5-alfa-reduktaze = Pharmacogenetic analysis of selected genes in therapy with inhibitors of testosterone-5-alpha-reductase, COBISS.SI-ID: 3957873.

Bergant Kaja (mentor Marija Sollner Dolenc): Določanje učinka zmesi paracetamola, diklofenaka, 4'-hidroksidiklofenaka ter resveratrola na tiroidne receptorje, izražene v celicah GH3.TRE-Luc = Determination of the effects of paracetamol, diclofenac, 4'-hydroxydiclofenac and resveratrol mixtures on thyroid receptors, expressed in cells GH3.TRE-Luc, COBISS.SI-ID: 3919985.

Bergoč Tamara (mentor Jurij Trontelj): Razvoj in validacija metode za ekstrakcijo in kvantifikacijo nekaterih antidepresivov iz odpadnih vod = Development and validation of a method for extraction and quantification of selected antidepressants in wastewater, COBISS.SI-ID: 4005745.

Beznec Tea (mentor Tomaž Vovk): Razvoj enostavne analizne metode za terapevtsko spremljanje koncentracije valprojske kisline v posušenih krvnih madežih = Development of a simple analytical method for therapeutic drug monitoring of valproic acid in dried blood spots, COBISS.SI-ID: 3985521.

Blagotinšek Špela (mentor Aleš Mrhar, co-mentor Petra Jančar): Ovrednotenje centralizirane priprave citostatikov za pediatrične bolnike s stroškovnega in kliničnega vidika = Economic and clinical evaluation of centralised cytotoxic drug preparation for paediatric patients, COBISS.SI-ID: 3910513.

Božič Sara (mentor Janko Kos, co-mentor Päivi Tammela): Primerjava bioluminiscentnih sevov *Escherichia coli* K-12/pTetLux1 in WZM120/pCGLS-11 glede na njuno občutljivost na antibiotike = Comparison of bioluminescent *Escherichia coli* K-12/pTetLux1 and WZM120/pCGLS-11 strains in the evaluation of antibacterial activity, COBISS.SI-ID: 3948145.

Brcar Tjaša (mentor Jurij Trontelj, co-mentor Tina Kosjek): Preučevanje kinetike fotorazgradnje sertralina v vodi = A study of photodegradation kinetics of sertraline in the water, COBISS.SI-ID: 3893105.

Brili Andreja (mentor Tomaž Bratkovič, co-mentor Iva Hafner Bratkovič): Načrtovanje in vrednotenje aktivnosti peptidnih zaviralcev inflammasoma NLRP3 = Design and activity assesment of inflammasome NLRP3 peptide inhibitors, COBISS.SI-ID: 3942769.

Bunc Marko (mentor Julijana Kristl, co-mentor Mine Orlu Gul): Razvoj kulture staranih celic za in vitro vrednotenje dostavnih sistemov za starejšo populacijo = Development of aged cell culture model to assess the in vitro fate of drug delivery systems for older patients, COBISS.SI-ID: 3954545.

Ciman Tamara (mentor Pegi Ahlin Grabnar): Izdelava in vrednotenje polimernih nanodelcev z ovalbuminom ter ocena eksperimentalnega prostora z matematičnim modelom = Preparation, characterisation and design-space estimation of ovalbumin-loaded PLGA nanoparticles, COBISS.SI-ID: 3953265.

Colja Iva (mentor Marija Sollner Dolenc): Preučevanje vpliva mešanic spojin avobenzona, butiliranega hidroksianizola in 2-metilsezorcinol na moduliranje androgenega in glukokortikoidnega sistema = Studying the influence of avebenzone, butylated hydroxyanisole and 2-methylresorcinol mixtures on modulation of androgen and glucocorticoid systems, COBISS.SI-ID: 3990897.

Čamernik Klemen (mentor Janja Marc, co-mentor Vid Mlakar): Preoblikovanje plazmida pGL3 za funkcijsko testiranje področij 3'-UTR v mRNA = Modification of pGL3 plasmid for functional testing of 3'-UTR regions in mRNA, COBISS.SI-ID: 3886705.

Černigoj Matevž (mentor Stanislav Gobec, co-mentor Boris Brus): Ločba enantiomerov in encimsko vrednotenje zaviralcev butirilholin-esteraze = Separation of enantiomers and evaluation of butyrylcholinesterase inhibitors, COBISS.SI-ID: 3885169.

Črešnjovec Katja (mentor Marija Sollner Dolenc, co-mentor Katra Kolšek): Vpliv resveratrola in njegovih analogov na aktivnost androgenih receptorjev, izraženih v celicah MDA-kb2 = Influence of resveratrol and its analogues on the modulation of androgen receptors, expressed in MDA-kb2 cells, COBISS.SI-ID: 3848049.

Čujež Tina (mentor Matej Sova): Sinteza analogov kromeno[3,4-d]imidazol-4-ona s potencialnim agonističnim delovanjem na Toll-u podobni receptor 7 = Synthesis of cromeno[3,4-d]imidazol-4-one analogues with potential agonistic activity on Toll like receptor 7, COBISS.SI-ID: 3882865.

Debelak Katja (mentor Igor Locatelli, co-mentor Andreja Čufar): Vrednotenje mikrobiološke kakovosti okolja za pripravo farmacevtskih izdelkov za parenteralno uporabo na oddelku za intenzivno terapijo Kliničnega oddelka za anesteziologijo in intenzivno terapijo operativnih strok v Univerzitetnem kliničnem centru = Evaluation of microbiological quality of the environment for preparation of parenteral medications in intensive care unit of the Clinical Department for Anaesthesiology and Intensive Care of Operational Branches at University Medical Centre Ljubljana, COBISS.SI-ID: 3864689.

Deberšek Kaja (mentor Tomaž Vovk, co-mentor Alenka Premuš Marušič): Spremljanje in primerjava perioperativnih krvavitev in zapletov ob uvedbi traneksaminske kisline na Oddelku za ortopedijo v Splošni bolnišnici Murska Sobota = Monitoring and comparison of perioperative bleeding and complications at the introduction of tranexamic acid at the Department of Orthopaedics in General Hospital of Murska Sobota, COBISS.SI-ID: 4008049.

Dominković Nikola (mentor Janja Marc): The influence of Hsp90 silencing on galectin-3 expression = Vpliv utišanja izražanja proteina Hsp90 na izražanje proteina galektin-3, COBISS.SI-ID: 3909233.

Drndalaj Elvedin (mentor Tihomir Tomašič): Sinteza tetravalentnih diarilglicerolomanozidov z etilglikolnim distančnikom kot potencialnih antagonistov receptorja DC-SIGN = Synthesis of tetravalent diarylglycerolomannosides with ethylene glycol linker as potential antagonists of DC-SIGN receptor, COBISS.SI-ID: 3971953.

Drnovšek Sabina (mentor Nina Kočevar Glavač): Prilagoditev fitokemijskih metod identifikacije izbranih rastlinskih drog za pedagoške namene = Adaption of phytochemical screening methods for selected herbal drugs for educational purposes, COBISS.SI-ID: 3908465.

Drobnič Lucija (mentor Janez Ilaš): Določanje stabilnosti spojin iz knjižnice zaviralcev trombina s tekočinsko kromatografijo visoke ločljivosti = Determination of stability of compounds from the library of thrombin inhibitors with high performance liquid chromatography, COBISS.SI-ID: 3959409.

Đalapa Denis (mentor Odon Planinšek): Porožni kalcijev karbonat kot nosilec za izboljšanje raztapljanja naproksena = Porous calcium carbonate as a carrier for naproxen dissolution improvement, COBISS.SI-ID: 3975281.

Erdani Nataša (mentor Aleš Obreza, co-mentor Izidor Sosič): Načrtovanje in sinteza derivatov psoralen-3-ocetne kisline kot zaviralcev imunoproteasoma = Design and synthesis of psoralen-3-acetic acid derivatives as immunoproteasome inhibitors, COBISS.SI-ID: 3942513.

Felicijan Tjaša (mentor Marija Bogataj): Spremljanje nabrekanja in sproščanja ogrodnih tablet natrijevega diklofenakata s hipromelazo v sistemu s kamerami = Monitoring of swelling and dissolution of diclofenac sodium and hypromellose matrix tablets using system with cameras, COBISS.SI-ID: 3949425.

Ferant Črt (mentor Tihomir Tomašič): Sinteza 4-bromo- in 3,4-dibromo-5-metil-1H-pirol-2-karboksamidov kot novih ATP kompetitivnih zaviralcev bakterijske DNA giraze B = Synthesis of 4-bromo- and 3,4-dibromo-5-methyl-1H-pyrrole-2-carboxamides as novel ATP-competitive inhibitors of bacterial DNA gyrase B, COBISS.SI-ID: 3993201.

Ferfolja Mateja (mentor Stanislav Gobec, co-mentor Matej Živec): Sinteza potencialnih zaviralcev encima InhA s tetrahidropiranskim skeletom = Synthesis of potential InhA inhibitors with tetrahydropirane scaffold, COBISS.SI-ID: 3844977.

Frangež Živa (mentor Hans-Uwe Simon, co-mentor Anamarija Zega): Študij odvisnosti mitohondrijske lokalizacije ATG12 od izražanja Bcl-2 = Evaluation of ATG12 mitochondrial localisation on Bcl-2 expression, COBISS.SI-ID: 3808881.

Gartnar Mana (mentor Matej Sova, co-mentor Urban Švajger): Sinteza in vrednotenje modulatornega delovanja derivatov kromeno[3,4-d]imidazol-4-ona na Toll-u podobnem receptorju 7 = Synthesis and evaluation of Toll like receptor 7 modulatory activity of chromeno[3,4-d]imidazol-4-one derivatives, COBISS.SI-ID: 3896689.

Gerželj Urška (mentor Marija Sollner Dolenc, co-mentor Tatjana Tišler): Določanje kronične strupenosti bisfenolov A, F in AF na algah in raki = Estimating the chronic toxicity of bisphenols A, F and AF on algae and crustaceans, COBISS.SI-ID: 3944561.

Gornik Tjaša (mentor Matej Sova): Sinteza nove serije hidroksietilaminskih in cianotiofenskih analogov kot zaviralcev bakterijskih encimov MurC, D in F = Synthesis of a new series of hydroxyethylamine and cyanothiophene analogues as inhibitors of bacterial enzymes MurC, D and F, COBISS.SI-ID: 3950961.

Grašič Sabina (mentor Mitja Kos, co-mentor Lea Knez): Ovrednotenje dela kliničnega farmacevta na internističnih oddelkih Klinike Golnik v letu 2014 = Evaluation of the work of clinical pharmacists in internistic section at Golnik Clinic in 2014, COBISS.SI-ID: 3840369.

Guček Zala (mentor Mojca Kržan, co-mentor Lovro Žiberna): Vpliv energijske presnove na privzem flavonoida kvercetina v astrocite novorojene podgane = The impact of energy metabolism on flavonoid quercetin uptake into neonatal rat astrocytes, COBISS.SI-ID: 3864945.

Hafner Jernej (mentor Janez Ilaš): Analiza termodinamskih parametrov vezave zaviralcev tripsina z izotermno titracijsko kalorimetrijo = Analysis of thermodynamic parameters of binding of trypsin inhibitors with isothermal titration calorimetry, COBISS.SI-ID: 3960177.

Hočevar Keli (mentor Matej Sova): Sinteza in vrednotenje novih hidroksietilaminskih in cianotiofenskih zaviralcev ligaz MurC, D in F = Synthesis and evaluation of novel hydroxyethylamine and cyanothiophene inhibitors of MurC, D and F ligases, COBISS.SI-ID: 3838833.

Homec Kristina (mentor Aleš Mrhar, co-mentor Matej Dobravc Verbič): Ocena pojavnosti in pregled ukrepov ob hematoloških neželenih učinkih pri gastro-onkoloških bolnikih, zdravljenih z intravensko kemoterapijo v Univerzitetnem kliničnem centru Ljubljana = Assessment of incidence and management of haematologic toxicity in gastrointestinal cancer patients receiving intravenous chemotherapy at the University Clinic Ljubljana, COBISS.SI-ID: 3959153.

Horvat Iva (mentor Nina Kočever Glavač): Maščobnokislinska sestava rastlinskih olj z [alfa]-linolensko kislino in njihova antioksidativna aktivnost = Fatty acid composition of vegetable oils containing alpha linolenic acid and their antioxidative activity, COBISS.SI-ID: 3855729.

Hrovat Rok (mentor Damjan Janeš): Analiza hlapnih spojin destilatov jantarja in iz njih pridobljenega umetnega mošusa = Analysis of volatile compounds distilled from amber and from the derived artificial musk, COBISS.SI-ID: 3948913.

Jarc Urša (mentor Stanislav Gobec): Načrtovanje, sinteza in vrednotenje novih naftalensulfonamidov kot potencialnih zaviralcev holinesteraz = Design, synthesis and evaluation of novel naphtalenesulfonamides as potential cholinesterase inhibitors, COBISS.SI-ID: 3816817.

Jeke Tjaša (mentor Tihomir Tomašič): Sinteza in biološko vrednotenje glicerolomanozidnih dendronov kot potencialnih antagonistov receptorja DC-SIGN = Synthesis and biological evaluation of glycerolomannoside dendrons as potential antagonists of receptor DC-SIGN, COBISS.SI-ID: 3954033.

Jelenko Aljoša (mentor Stanislav Gobec, co-mentor Boris Brus): Razvoj metode za detekcijo aktivnosti in zaviranja butiril-esteraze na možganskih rezinah = Development of method for detecting the activity and inhibition of butyrylcholinesterase on brain slices, COBISS.SI-ID: 3953777.

Jerala Urša (mentor Albin Kristl, co-mentor Katja Berginc): Ovrednotenje predstavitve vitaminskih pripravkov na slovenskem tržišču = Evaluation of the presentation of vitamin preparations on the Slovenian market, COBISS.SI-ID: 3892593.

Jović Slobodanka (mentor Mirjana Gašperlin): Vpliv topnosti učinkovin na sproščanje iz samomikroemulgirajočih sistemov in vitro = Influence of drug solubility on in vitro release from self-microemulsifying drug delivery systems, COBISS.SI-ID: 3819633.

Jurinec Tjaša (mentor Mitja Kos): Kakovost življenja pri pacientih z astmo in kronično obstruktivno pljučno boleznijo v Sloveniji = Health related quality of life of patients with asthma and chronic obstructive pulmonary disease in Slovenia, COBISS.SI-ID: 3869041.

Kacin Kristina (mentor Janja Marc): Vpliv hipoksije in estrogenov na izražanje genov, vpletenih v epigenetske mehanizme, v humanih osteosarkomskih celicah = The influence of hypoxia and estrogens on expression of genes involved in epigenetic mechanisms in human osteosarcoma cells, COBISS.SI-ID: 3995761.

Kastelic Jernej (mentor Franc Vrečer): Vpliv sestave disperzije za oblaganje tablet na izbrane lastnosti filmske obloge = The influence of tablet film coating dispersion composition on selected film coating properties, COBISS.SI-ID: 3855473.

Kavčič Andreja (mentor Pegi Ahlin Grabnar): Vpliv pomožnih snovi na termoreverzibilne lastnosti poloksamernih hidrogelov = The impact of excipients on the thermoreversible properties of poloxamer hydrogels, COBISS.SI-ID: 3888241.

Klemenčič Ines (mentor Tihomir Tomašič): Sinteza etilsečninskih derivatov 4,5,6,7-tetrahidrobenzo[1,2-d]tiazol-2,6-diamina kot zaviralcev DNA giraze = Synthesis of ethylurea derivatives of 4,5,6,7-tetrahydrobenzo[1,2-d]thiazole-2,6-diamine as inhibitors of DNA gyrase, COBISS.SI-ID: 3948657.

Klep Jasmina (mentor Marija Sollner Dolenc): Ugotavljanje tiroidnega delovanja izbranih nesteroidnih protivnetnih učinkovin na celicah GH3.TRE-Luc = Detection of thyroid activity of selected nonsteroidal anti-inflammatory drugs on cells GH3.TRE-Luc, COBISS.SI-ID: 3896945.

Ključevšek Anja (mentor Urban Švajger, co-mentor Marko Anderluh): Določanje antioksidativne moči nekaterih vinilognih kislin z metodo celične antioksidativne aktivnosti = Antioxidant power determination of some vinylogous acids by the cellular antioxidant activity assay, COBISS.SI-ID: 3874929.

Kocjan Metka (mentor Aleš Mrhar, co-mentor Miha Vivoda): Vloga lekarniškega farmacevta pri optimizaciji farmakoterapije starostnikov v Obalnem domu upokoјencev Koper = The role of the community pharmacist in the optimisation of pharmacotherapy for the elderly at the Littoral Nursing Home Koper, COBISS.SI-ID: 3885425.

Kolar Tamara (mentor Janez Ilaš): In vitro določanje aktivnosti potencialnih antitrombotičnih učinkovin morskega izvora = In vitro activity evaluation of potential antithrombotic agents of marine origin, COBISS.SI-ID: 3868529.

Kolarič Anja (mentor Marko Anderluh, co-mentor Nuška Tschammer): Načrtovanje, sinteza in biološko vrednotenje modulatorjev kemokinskih receptorjev CXCR3 in CXCR4 s pirazolopiridinskim skeletom = Design, synthesis and biological evaluation of CXCR3 and CXCR4 modulators with pyrazolopyridine scaffold, COBISS.SI-ID: 3921521.

Komerički Klara (mentor Saša Baumgartner): Proučevanje vpliva deleža ksantana na hitrost sproščanja pentoksifilina iz ogrodnih tablet in robustnost gelske plasti po manipulaciji tablet s stresanjem = Impact of the xanthan gum share in matrix tablets on prolonged release of pentoxifylline and mechanical susceptibility of gel layer after manipulation with oscillating, COBISS.SI-ID: 3942001.

Kompara Špelca (mentor Mojca Kerec Kos): Uporaba ravnotežne dialize, ultrafiltracije in ultracentrifugiranja za določanje vezaev učinkovin na plazemske albumine = Use of equilibrium dialysis, ultrafiltration and ultracentrifugation for determining the plasma protein binding of drugs, COBISS.SI-ID: 3924081.

Koren Eva (mentor Urban Švajger, co-mentor Stanislav Gobec): Biokemijsko vrednotenje novih antagonistov receptorja TLR4 = Biochemical evaluation of novel TLR4 antagonists, COBISS.SI-ID: 3992945.

Kotar Anita (mentor Marko Anderluh, co-mentor Janez Plavec): Študij interakcij ligandov receptorja DC-SIGN = Interaction studies of DC-SIGN ligands using nuclear magnetic resonance, COBISS.SI-ID: 3914097.

Krajnc Anja (mentor Robert Roškar, co-mentor Tina Kosjek): Posnemanje fotorazgradnje sertralina v vodnem okolju = Simulating the photodegradation of sertraline in the aquatic environment, COBISS.SI-ID: 3957105.

Krel Alja (mentor Marija Sollner Dolenc, co-mentor Tatjana Tišler): Strupenost bisfenolov A, F in AF za ribe zebrice (*Danio rerio*), vodne bolhe (*Daphnia magna*) in bakterije *Vibrio fischeri* = Toxicity of bisphenols A, F and AF on zebrafish (*Danio rerio*), water fleas (*Daphnia magna*) and bacteria *Vibrio fischeri*, COBISS.SI-ID: 3944049.

Krivec Karmen (mentor Samo Kreft): Primerjava ekstraktov in dekoktov pripravka Si Miao Wan iz tradicionalne kitajske medicine = Comparison of extracts and decocts of Si Miao Wan preparation from traditional Chinese medicine, COBISS.SI-ID: 3866993.

Kumar Klara (mentor Odon Planinšek): Fizikalna stabilnost karvedilola v trdnih disperzijah z mezoporoznim silicijevim dioksidom = Physical stability of carvedilol in solid dispersions with mesoporous silica, COBISS.SI-ID: 3840113.

Kunc Klara (mentor Janez Ilaš): Iskanje novih zaviralcev histonske deacetilaze z virtualnim rešetanjem = Discovery of novel histone deacetylase inhibitors using virtual screening, COBISS.SI-ID: 3951217.

Levstik Jure (mentor Mojca Kržan, co-mentor Mojca Jurič): Vpliv kisika na nevrotrofično aktivnost astrocitov po zastrupitvi z ogljikovim monoksidom = The influence of oxygen on neurotrophic activity of astrocytes after carbon monoxide intoxication, COBISS.SI-ID: 3982193.

Lipušček Julija (mentor Stanislav Gobec): Načrtovanje, sinteza in vrednotenje novih piperidinov kot potencialnih zaviralcev butirilholin-esteraze in monoamin-oksidaze B = Design, synthesis and evaluation of novel piperidines as potential butyrylcholinesterase and monoamine oxidase B inhibitors, COBISS.SI-ID: 3981681.

Lobe Jernej Marko (mentor Janez Ilaš, co-mentor Arasu Ganesan): Načrtovanje in sinteza novih zaviralcev lizin-specifične demetilaze1 = Design and synthesis of novel lysine-specific demethylase 1 inhibitors, COBISS.SI-ID: 3981425.

Lorber Jasna (mentor Tihomir Tomašič): Vpliv substituentov na pirolnem obroču na aktivnost 4,5,6,7-tetrahidrobenzo[1,2-d]tiazolnih zaviralcev DNA giraze B = Influence of substituents on the pyrrole ring on the activity of 4,5,6,7-tetrahydrobenzo[1,2-d]thiazole-based DNA gyrase B inhibitors, COBISS.SI-ID: 3975537.

Lukan Boštjan (mentor Stanislav Gobec, co-mentor Matej Živec): Sinteza derivatov 4-((3,5-dimetilpirazolil)metil)benzojske kisline kot potencialnih zaviralcev InhA = Synthesis of 4-((3,5-dimethylpyrazolyl)methyl)benzoic acid derivatives as potential InhA inhibitors, COBISS.SI-ID: 3838577.

Majcen Slavka (mentor Marko Anderluh, co-mentor Rok Frlan): Sinteza aminopirimidintiazolov s potencialnim delovanjem na napetostno odvisne ionske kanalčke = Synthesis of aminopirimidinethiazoles with potential activity on voltage-gated ion channels, COBISS.SI-ID: 3809393.

Marinčič Nastja (mentor Tihomir Tomašič): Sinteza sideroforov in konjugatov siderofor-zaviralcev DNA-giraze B = Synthesis of siderophores and siderophore-DNA gyrase B inhibitor conjugates, COBISS.SI-ID: 3944305.

Matjašec Tjaša (mentor Stane Srčič, co-mentor Biljana Janković): Vrednotenje mehanskih lastnosti različnih polimorfni oblik klorpropamida z instrumentalno nanoindentacijo = Evaluation of mechanical properties of different polymorphic forms of chlorpropamide by instrumental nanodentation, COBISS.SI-ID: 3842417.

Medvedec Janez (mentor Iztok Grabnar): Razvoj farmakokinetičnega modela enterohepatične cirkulacije silibina za zdravilni žvečilni gumi z izvlečkom pegastega badlja = Development of a pharmacokinetic model of enterohepatic circulation of silybin for a medicated chewing gum with milk thistle extract, COBISS.SI-ID: 3823217.

Mesarič Aleksandra (mentor Mojca Kerec Kos): Analiza porabe protimikrobnih zdravilnih učinkovin v Splošni bolnišnici Ptuj od 2001 do 2013 = Analysis of antimicrobial drugs use at General Hospital Ptuj in years from 2001 to 2012, COBISS.SI-ID: 3809649.

Mihičinac Miha (mentor Žiga Jakopin): Načrtovanje in sinteza N-benziliranih 2-iminoindolinov kot potencialnih antagonistov receptorja NOD1 = Design and synthesis of N-benzylated 2-iminoindolines as potential NOD1 receptor antagonists, COBISS.SI-ID: 3886449.

Mikec Mia (mentor Saša Baumgartner, co-mentor Nurdin Bajramović): Primerjava fizikalne stabilnosti hidrofilnih krem z različnimi neionogenimi emulgatorji in ksantanskim gumijem ali karbomerom = Physical stability of hydrophilic creams with different non-ionic surfactants and xanthan gum or carbomer, COBISS.SI-ID: 3950449.

Mikelj Martin (mentor Tomaž Vovk): Razvoj in validacija analizne metode za določanje koncentracij okskarbazepina, karbamazepina in njunih metabolitov v posušeni krvni madežih = Development and validation of analytical method for determination of oxcarbazepine, carbamazepine and their metabolites in dried blood spots, COBISS.SI-ID: 3961713.

Mikolič Maja (mentor Pegi Ahlin Grabnar): Izdelava in vrednotenje poloksamernih termoreverzibilnih hidrogelov z nanokompleksi hitosana in nizkomolekularnega heparina = Formulation and characterisation of thermoreversible poloxamer-based hydrogels with nanocomplexes between chitosan and low molecular weight heparin, COBISS.SI-ID: 3888497.

Mirtič Ana (mentor Tomaž Vovk): Populacijska farmakokinetika lamotrigina in njegovega glukuronida pri bolnikih z epilepsijo = Population pharmacokinetics of lamotrigine and its glucuronide in patients with epilepsy, COBISS.SI-ID: 3890801.

Mirtič Janja (mentor Saša Baumgartner, co-mentor Marianne Hiorth): Izdelava in vrednotenje nanodostavnih sistemov z vgrajenim cetilpiridinijevim kloridom za potencialno uporabo v ustni votlini = Formulation and characterisation of nanodelivery system loaded with cetylpyridinium chloride for potential use in the oral cavity, COBISS.SI-ID: 3909745.

Nagode Urša (mentor Petra Kocbek): Povečevanje topnosti in hitrosti raztapljanja karvedilola z elektrostatskim sukanjem = Solubility and dissolution rate improvement of carvedilol by electrospinning, COBISS.SI-ID: 3810417.

Nemec Kristina (mentor Danijel Kikelj, co-mentor Rok Frlan): Sintaza derivatov 4-amino-1H-pirol-2-karboksamida s potencialnim zaviralnim delovanjem na girazo B = Synthesis of 4-amino-1H-pyrrole-2-carboxamide derivatives with potential inhibitory activity on gyrase B, COBISS.SI-ID: 3907953.

Novak Lucija (mentor Mojca Kržan, co-mentor Lovro Žiberne): Funkcionalne in kinetične lastnosti privzema flavonoida kvercetina v astrocite novorojene podgane = Quercetin uptake into neonatal rat astrocytes: functional and kinetic properties, COBISS.SI-ID: 3860337.

Opeka Lara (mentor Iztok Grabnar, co-mentor Jernej Pajk): Optimizacija protokola merjenja serumskega očistka sinistrina s farmakokinetično simulacijo = Optimisation of the protocol for measurement of sinistrin clearance by pharmacokinetic simulation, COBISS.SI-ID: 3875185.

Perčič Špela (mentor Damjan Janeš): Maščobnokislinska sestava in antioksidativno delovanje izbranih rastlinskih olj = Determination of fatty acid composition and antioxidative activity of selected vegetable oils, COBISS.SI-ID: 3869553.

Poklukar Gašper (mentor Marko Anderluh): Načrtovanje in sinteza tiazolinonskih zaviralcev ksantin-oksidade = Design and synthesis of thiazolinone xanthine oxidase inhibitors, COBISS.SI-ID: 3924337.

Poljšak Nina (mentor Nina Kočevar Glavač, co-mentor Stanko Srčič): Analiza alantoina in pirolizidinskih alkaloidov v izvlečkih gabeza (*Symphytum officinale*) s kapilarno elektroforezo = Analysis of allantoin and pyrrolizidine alkaloids in comfrey (*Symphytum officinale* L.) extracts by capillary electrophoresis, COBISS.SI-ID: 3981937.

Prikeržnik Marcel (mentor Samo Kreft, co-mentor Meta Kokalj): Razvoj metode za ločevanje listov rukole in grinta s pomočjo infrardeče spektroskopije = The development of a method for classification of arugula and groundsel leaves using infrared spectroscopy, COBISS.SI-ID: 3942257.

Privileggio Martina (mentor Janja Marc, co-mentor Simona Mencej Bedrač): Povezanost polimorfizmov v genu za Wnt16 in LRP5 z mineralno kostno gostoto in biokemičnimi kazalci kostne premene = Association of polymorphisms in Wnt16 and LRP5 genes with bone mineral density and biochemical markers of bone turnover, COBISS.SI-ID: 3823473.

Purić Sanja (mentor Saša Baumgartner, co-mentor Jürgen Siepmann): Proučevanje mehanskih lastnosti silikonskih elastomernih filmov z vgrajenim gentamicinom za dostavo v notranje uho = Investigation of mechanical properties of gentamicin loaded silicone elastomer films for inner ear application, COBISS.SI-ID: 3858801.

Razdevšek Maša (mentor Aleš Mrhar, co-mentor Jure Bračun): Vloga kliničnega farmacevta pri obravnavi onkoloških bolnikov v Splošni bolnišnici Celje = The role of the clinical pharmacist in the treatment of cancer patients at the General Hospital Celje, COBISS.SI-ID: 3970161.

Rebek Luka (mentor Robert Roškar): Razvoj in validacija analizne metode na osnovi tekočinske kromatografije sklopljene z masno spektrometrijo za merjenje koncentracij topiramata in njegovih metabolitov v plazemskih vzorcih = Development and validation of an analytical method for quantification of topiramate and its metabolites in plasma samples by liquid chromatography coupled with mass spectrometry, COBISS.SI-ID: 3953521.

Redenšek Sara (mentor Borut Štrukelj): Validacija neinvazivnega presejalnega testa za odkrivanje Downovega sindroma iz polne krvi nosečnic = Validation of a non-invasive screening test for diagnostics of Down syndrome from whole blood samples of pregnant women, COBISS.SI-ID: 3920241.

Ribić Vera (mentor Mitja Kos, co-mentor Marko Pukl): Raziskava odpadnih zdravil zbranih v zunanjih lekarnah v republiki Sloveniji = Research of waste medicines collected in community pharmacies in Republic of Slovenia, COBISS.SI-ID: 3842161.

Simončič Diana (mentor Stanislav Gobec, co-mentor Izidor Sosič): Sinteza 4'-cikloheksilsubstituiranih zaviralcev imunoproteasoma s psoralenskim skeletom = Synthesis of 4'-cyclohexyl-substituted inhibitors of immunoproteasome with psoralene scaffold, COBISS.SI-ID: 3892849.

Sirc Anja (mentor Nace Zidar): Razvoj 4,5-dibromopirolamidov kot ATP kompetitivnih zaviralcev DNA giraze B = Development of 4,5-dibromopyrroloamides as ATP competitive DNA gyrase B inhibitors, COBISS.SI-ID: 3910257.

Skušek Špela (mentor Tomaž Bratkovič, co-mentor Maria Jose Hernaiz Gomez-Degano): Izražanje in izolacija rekombinatne alfa-glikosintaze iz termofilne bakterije *Thermotoga maritima* in njena uporaba v encimski sintezi disaharidov = Expression and isolation of recombinant alpha-glycosynthase from Thermophilic bacteria *Thermotoga maritima* and its use in the enzymatic synthesis of disaccharides, COBISS.SI-ID: 3822961.

Soršak Petra (mentor Mitja Kos, co-mentor Andreja Čufar): Klinični, ekonomski in organizacijski vidiki uporabe zdravil, ki nimajo dovoljenja za promet, v Univerzitetnem kliničnem centru Ljubljana v letu 2013 = Clinical, economical and organisational aspects of using medicines without marketing authorisation at the University Medical Centre Ljubljana in 2013, COBISS.SI-ID: 3832433.

Stančev Sara (mentor Mirjana Gašperlin): In vitro lipoliza samomikroemulgirajočih sistemov z ibuprofenom in valsartanom = In vitro lipolysis of self-microemulsifying drug delivery systems with ibuprofen and valsartan, COBISS.SI-ID: 3861361.

Strah Anja (mentor Aleš Mrhar, co-mentor Maja Petre): Optimizacija zdravljenja z valprojsko kislino v Univerzitetnem kliničnem centru Maribor = Optimisation of valproic acid treatment at University Medical Centre Maribor, COBISS.SI-ID: 3957361.

Šijanec Nataša (mentor Nace Zidar): Načrtovanje in sinteza 3,4-dikloro-5-metilpirolamidnih zaviralcev DNA giraze B = Design and synthesis of 3,4-dichloro-5-methylpyrrolamide DNA gyrase B inhibitors, COBISS.SI-ID: 3957617.

Škrinjar Janja (mentor Žiga Jakopin, co-mentor Albert D. Windhorst): Načrtovanje in sinteza dipeptida L-[[sup]11C]PHE-L-PHE-NH[sub]2 = Design and synthesis of dipeptide L-[[sup]11C]PHE-L-PHE-NH[sub]2, COBISS.SI-ID: 3871857.

Šmidhofer Žiga (mentor Robert Roškar, co-mentor Tina Kosjek): Razvoj in validacija analize metode na osnovi tekočinske kromatografije sklopljene z masno spektrometrijo za določanje sertralina v površinskih in odpadnih vodah = Development and validation of analytical method on the basis of liquid chromatography coupled with mass spectrometry for determination of sertraline in surface and waste waters, COBISS.SI-ID: 3918193.

Štalcar Andreja (mentor Damjan Janeš): Analiza hlapnih spojin v japonskem dresniku (*Fallopia japonica*) in češkem dresniku (*Fallopia x bohémica*) = Analysis of volatile compounds from Japanese knotweed (*Fallopia japonica*) and Bohemian knotweed (*Fallopia x bohémica*), COBISS.SI-ID: 3975025

Štupar Jasna (mentor Jurij Trontelj): Kvantifikacija nekaterih novih zaviralcev butirilholin-esteraze iz možganskega tkiva in krvne plazme podgane = Quantification of selected novel inhibitors of butylcholinesterase in brain tissue and blood plasma of a rat, COBISS.SI-ID: 3961969.

Švajger Tadeja (mentor Samo Kreft, co-mentor Eva Tavčar Benkovič): Vpliv sestave matriksa na rezultat kromatografske analize hipericina = Influence of sample's matrix on chromatographic analysis of hypericin, COBISS.SI-ID: 3967857.

Švencbir Jana (mentor Pegi Ahlin Grabnar): Vpliv koncentracije heparina in nizkomolekularnega heparina na termoodzivne lastnosti poloksamernih hidrogelov = Effect of heparin and low molecular weight heparin concentration on thermoresponsive properties of poloxamer hydrogels, COBISS.SI-ID: 3959921.

Temova Žana (mentor Robert Roškar): Vrednotenje stabilnosti vitamina D3 v raztopinah prehranskih dopolnil in zdravil z metodo tekočinske kromatografije visoke ločljivosti = Evaluation of vitamin D3 stability in solution, nutrition supplements and drugs by high performance liquid chromatography, COBISS.SI-ID: 3891057.

Trampuž Marko (mentor Danijel Kikelj, co-mentor Rok Frlan): Načrtovanje in sinteza aminokislinskih derivatov substituiranih pirolamidov kot zaviralcev bakterijske DNA giraze B = Design and synthesis of amino acid derivatives of substituted pyrroleamides as inhibitors of bacterial DNA gyrase B, COBISS.SI-ID: 3920497.

Vanicka Gojčič Sara (mentor Samo Kreft, co-mentor Gorazd Drevenšek): Akutni vplivi zaviralca signalne poti Wnt na ishemično-refuzijske poškodbe izoliranega srca podgane = Accute effects of the Wnt pathway inhibitor on ischemia-reperfusion injuries in isolated rat heart, COBISS.SI-ID: 3967601.

Vidovič Gregor (mentor Borut Štrukelj, co-mentor Gregor Serše): Testiranje plazmidne DNA s kolagenskim promotorjem za vnos genov v izbrano tkivo = Testing of plasmid DNA containing collagen promoter for gene delivery to selected tissue, COBISS.SI-ID: 3908209.

Vlahovič Simona (mentor Marija Sollner Dolenc, co-mentor Katarina Kolšek): Ugotavljanje vpliva triklosana in triklokarbana na adhezijo celic raka dojke in človeške endotelijske venske celice = Determination of the impact of triclosan and triclocarban on adhesion of breast cancer cells and human endothelial vein cells, COBISS.SI-ID: 3809137.

Vrčkovnik Deja (mentor Simon Žakelj, co-mentor Vid Mlakar): Vpliv izražanja OCT1 na aktivni privzem imatiniba v celice HEK293 = Influence of OCT1 expression on active uptake in HEK293 cells : Uniform master's study programme Pharmacy, COBISS.SI-ID: 3891313.

Zidarič Nika (mentor Samo Kreft): Vrednotenje razumevanja različnih načinov navajanja odmerjanja v navodilih za uporabo zdravil pri pediatrični populaciji = Evaluation of the comprehensibility of different methods of expressing posology information leaflets for paediatric population, COBISS.SI-ID: 3950705.

Zupan Petra (mentor Aleš Obreza, co-mentor Izidor Sosič): Načrtovanje in sinteza fluorescentno označenega zaviralca imunoproteasoma = Design and synthesis of fluorescent-labelled inhibitor of immunoproteasome, COBISS.SI-ID: 3982449.

Zupančič Maja (mentor Janja Marc, co-mentor Simona Mencej Bedrač): Farmakogenetska analiza polimorfizmov v genih za estrogenski receptor 1, androgeni receptor in citokrom P450-oksidozo 19A1 pri zdravljenju z zaviralci testosteron 5-alfa-reduktaze = Pharmacogenetic analysis of polymorphisms in estrogen receptor 1, androgen receptor and cytochrome P450-oxidase 19A1 genes in treatment with testosterone 5-alpha-reductase inhibitors, COBISS.SI-ID: 3956849.

Žel Mateja (mentor Mojca Lunder, co-mentor Miha Vodnik): Nove metode vrednotenja afinitete fagnih klonov iz bakteriofagnih knjižnic = New methods for evaluation affinity of phage clones from phage display libraries, COBISS.SI-ID: 3811441.

MASTER'S STUDY PROGRAMME OF INDUSTRIAL PHARMACY

Andoljšek Arteja (mentor Marko Anderluh): Kompetitivni vezavni test za določanje zaviralnega delovanja antagonistov receptorja DC-SIGN in vitro = Competitive binding assay for determining inhibitory activity of DC-SIGN antagonists in vitro, COBISS.SI-ID: 3991665.

Avsec Mihael (mentor Žiga Jakopin): Ocena varne uporabe fenolnih antioksidantov in njihovih derivatov v kozmetičnih izdelkih = Evaluation of safe use of phenolic antioxidants and their derivatives in cosmetic products, COBISS.SI-ID: 3823985.

Bjeloševič Maja (mentor Tomaž Bratkovič): Identifikacija aminokislinskih ostankov kemokina CCL2, ki tvorijo konformacijski epitop nevtralizacijskega protitelesa S101 = Identification of amino acid residues of chemokine CCL2 that constitute the conformational epitope recognised by neutralising antibody S101, COBISS.SI-ID: 808625.

Božič Ajda (mentor Mojca Lunder, co-mentor Franci Smrekar): Optimizacija pridobivanja in čiščenja dveh rekombinantnih proteinov = Optimisation of production and purification of two recombinant proteins, COBISS.SI-ID: 3894129.

Doljak Rebeka (mentor Irena Mlinarič Raščan): Vrednotenje sinergističnega delovanja agonista receptorja EP4 in terapevtskih monoklonskih protiteles in vitro = Synergistic effects of EP4 receptor agonists and therapeutic monoclonal antibodies in vitro, COBISS.SI-ID: 3831409.

Franko Nina (mentor Tomaž Vovk, co-mentor Martina Gobec): Proučevanje vpliva protiepileptičnih učinkovin prve in druge generacije na nastanek oksidativnega stresa na celicah THP-1 = The influence of the first and second generation antiepileptic drugs on oxidative stress development in THP-1 cells, COBISS.SI-ID: 3890289.

Goršak Tanja (mentor Petra Kocbek, co-mentor Slavko Kralj): Proučevanje in vrednotenje formulacije magnetoliposomov s skupki superparamagnetnih nanodelcev železovega oksida = Preparation and characterization of magnetoliposome formulation with superparamagnetic iron oxide nanoparticle clusters, COBISS.SI-ID: 3923825.

Grilc Blaž (mentor Odon Planinšek): Vrednotenje segregacije binarnih zmesi s sferično kristalizirano laktozo = Evaluation of segregation of binary mixtures with spherical crystallized lactose, COBISS.SI-ID: 3959665.

Kristan Anja (mentor Mirjana Gašperlin): Proučevanje fizikalne stabilnosti emulzijskih sistemov s suhocvetnico = Physical stability of the emulsion systems containing *Helichrysum italicum*, COBISS.SI-ID: 3825009.

Lipar Rok (mentor Petra Kocbek): Optimizacija izdelave polimernih nanodelcev s celekoksibom in vrednotenje ultracentrifugiranja kot separacijske metode = Optimization of manufacturing polymer nanoparticles with celecoxib and evaluation of ultracentrifugation as a separating technique, COBISS.SI-ID: 3967345.

Mikolič Katja (mentor Anamarija Zega): Priprava in vrednotenje kristalov klaritromicina = Preparation and evaluation of clarith[ro]mycin crystals, COBISS.SI-ID: 3943537.

Nissim Yaniv (mentor Rok Dreu): Vpliv sestave in deformacijskih lastnosti posameznih komponent na mehanske lastnosti binarnih zmesi za direktno tabletiranje = Influence of composition and deformation properties of individual components on the compression behaviour of binary mixtures intended for direct compression, COBISS.SI-ID: 3997297.

Požar Jure (mentor Danijel Kikelj, co-mentor Janez Ilaš): Sinteza potencialnih zaviralcev giraze B z 1,4-benzoksazinskim skeletom = Synthesis of potential gyrase B inhibitors with 1,4-benzoxazinone scaffold, COBISS.SI-ID: 3954801.

Rapuš Mateja (mentor Franc Vrečer): Primerjava regulativnih zahtev za vrednotenje dovoljenih ostankov kontaminantov po čiščenju opreme v farmacevtski proizvodnji = The comparison of regulatory requirements for the evaluation of permissible residues of contaminants after equipment cleaning in pharmaceutical manufacture, COBISS.SI-ID: 3890033.

Roš Eva (mentor Alenka Zvonar Pobirk): Razvoj sklopa metod za razlikovanje med izbranimi vzorci na osnovi belega vazelina = Development of a set of methods in order to distinguish between selected samples based on white soft paraffin, COBISS.SI-ID: 3872369.

Rupnik Simona (mentor Benjamin Nottelet, co-mentor Biljana Janković): Načrtovanje mehanskih lastnosti elastomerov polimlečne kisline s kemijskim premreževanjem = Tuning of mechanical properties of polylactic acid based elastomers with chemical cross-linking, COBISS.SI-ID: 3975793.

Strmšek Žiga (mentor Tomaž Bratkovič, co-mentor Miha Vodnik): Dostava ekspresijskih kaset v sesalske celične linije z bakteriofagnim vektorjem = Delivery of expression cassettes into mammal cell lines with bacteriophage vector, COBISS.SI-ID: 3952753.

Sušek Urška (mentor Stanko Srčič): Študij vpliva razmerij sestavin na segregacijo v vertikalnih cevni povezavah = Study of the components ratio impact on segregation on vertical chute connections, COBISS.SI-ID: 3879537.

Zorc Lana (mentor Rok Dreu, co-mentor Polona Smrdel): Vrednotenje sočasnega kapsuliranja štirih vrst pelet na industrijski kapsulirki = Evaluation of successive filling of four types of pellets on the industrial capsule filling machine, COBISS.SI-ID: 3879025.

Zorko Katja (mentor Odon Planinšek, co-mentor Ilija Ilić): Proučevanje pretočnih lastnosti in stisljivosti trdnih disperzij naproksena s poroznimi pomožnimi snovmi = Study of flow characteristics and compressibility of solid dispersion of naproxen with porous excipients, COBISS.SI-ID: 3838321.

MASTER'S STUDY PROGRAMME OF LABORATORY BIOMEDICINE

Cedilnik Manja (mentor Janja Marc, co-mentor Martina Drevenšek): Vpliv sistema RANKL/RANK/OPG na kostno resorpcijo pri živalskem modelu sladkorne bolezni tipa 2 = Influence of RANKL/RANK/OPG system on bone resorption in animal model of diabetes type 2, COBISS.SI-ID: 3882609.

Dežman Katarina (mentor Irena Mlinarič Raščan, co-mentor Matija Rijavec): Povezanost izbranih genskih polimorfizmov s pojavom atopijskega dermatitisa = Association of selected gene polymorphisms with atopic dermatitis, COBISS.SI-ID: 3806833.

Islamović Sabina (mentor Joško Osredkar): Primerjava rezultatov aktivnosti in koncentracije serumske timidin-kinaze pri izbranih hematoloških rakavih obolenjih = Comparison of results of activity and concentration of serum thymidine kinase for selected haematological cancers, COBISS.SI-ID: 3823729.

Jarc Eva (mentor Helena Podgornik, co-mentor Irena Preložnik Zupan): Uporabnost eritrocitnih in retikulocitnih parametrov pri opredelitvi anemije = Application of erythrocyte and reticulocyte indexes in defining anaemia: magistrski Programme laboratorijske biomedicine, COBISS.SI-ID: 3845489.

Klun Jurka (mentor Nataša Karas Kuželički): Vpliv polimorfizmov v genih, katerih produkti sodelujejo pri prevzemu, poliglutamaciji in redukciji folne kisline, na pojavnost orofacialnih shiz v slovenski populaciji = The influence of polymorphism in genes, whose products are involved in uptake, polyglutamation and reduction of folic acid, on the occurrence of orofacial clefts in the Slovenian population, COBISS.SI-ID: 3885681.

Kobe Zupanc Maja (mentor Iztok Grabnar): Razvoj in validacija analizne metode za terapevtsko spremljanje koncentracij protiepileptičnih učinkovin = Development and validation of an analytical method for therapeutic drug monitoring of antiepileptic drugs, COBISS.SI-ID: 3955057.

Kodrič Klemen (mentor Darko Černe, co-mentor Tadej Čepeljnik): Pospešeni test stabilnosti modificiranega terapevtskega proteina = Accelerated test of stability of the modified therapeutic protein, COBISS.SI-ID: 3920753.

Kosednar Nuša (mentor Helena Podgornik): Vloga molekularne citogenetike pri opredelitvi kromosomskih preureditev pri hematoloških novotvorbah = The role of molecular cytogenetics in resolving chromosomal rearrangements in haematological neoplasms, COBISS.SI-ID: 3960689.

Kotnik Eva (mentor Matjaž Jeras, co-mentor Miroslav Petrovec): Dokazovanje virusnih okužb z metodo verižne reakcije s polimerazo pri starostnikih z okužbo dihal = Detection of respiratory viruses by polymerase chain reaction in elderly with respiratory infection, COBISS.SI-ID: 3897201.

Krajnc Anja (mentor Robert Roškar, co-mentor Tina Kosjek): Posnemanje fotorazgradnje sertralina v vodnem okolju = Simulating the photodegradation of sertraline in the aquatic environment, COBISS.SI-ID: 3957105.

Kuret Tadeja (mentor Saša Čučnik, co-mentor Katja Lakota): Biološki označevalci pomembni pri spremljanju bolnikov z gigantoceličnim arteritisom = Biomarkers important for monitoring patients with giant cell arteritis, COBISS.SI-ID: 3924593.

Kuzmič Uroš (mentor Janja Marc, co-mentor Simona Mencej Bedrač): Vpliv polimorfizmov rs7646906 in rs6784957 v receptorju za paratiroidni hormon na uspešnost zdravljenja osteoporoze s teriparatidom = The influence of polymorphisms rs7646906 and rs6784957 in parathyroid hormone receptor on the success of osteoporosis treatment with teriparatide, COBISS.SI-ID: 3890545.

Lesar Ida (mentor Nataša Karas Kuželički, co-mentor Alenka Šmid): Vpliv polimorfizmov v genih za encime folatnega cikla na pojavnost prirojenih srčnih napak v slovenski populaciji = The influence of polymorphisms in folate metabolism genes on the occurrence of congenital heart disease in the Slovenian population, COBISS.SI-ID: 3987057

Malnar Morana (mentor Iztok Grabnar, co-mentor Valentina Bude): Vrednotenje ujemanja rezultatov elektrokemiluminiscenčne metode in encimsko imunske metode z mikropelci pri določanju gonadotropnih hormonov in prolaktina = Evaluation of the agreement between the results of electrochemiluminescence immunoassay and microparticle enzyme immunoassay method aimed at determining gonadotropins and prolactin, COBISS.SI-ID: 3874673.

Merjak Maša (mentor Saša Čučnik, co-mentor Polona Žigon): Določanje od fosfatidilserina odvisnih protiteles proti protrombinu razreda A z encimsko imunsko metodo na trdnem nosilcu = Detection of class A antiphosphatidylserine/prothrombin antibodies with enzyme linked immunosorbent method on solid support, COBISS.SI-ID: 3865201.

Mikec Staša (mentor Janja Marc, co-mentor Pika Meško Brguljan): Priprava načrta in uvedba kontrole kakovosti plinske analize krvi na osnovi ocene obvladovanja tveganja = Risk management based design and implementation of quality control plan for blood gas analysis, COBISS.SI-ID: 3808369.

Obreza Tamara (mentor Katarina Trebušak Podkrajšek): Genetska analiza hipogonadotropnega hipogonadizma s sekvenciranjem naslednje generacije = Next generation sequencing in genetics analysis of hypogonadotropic hypogonadism, COBISS.SI-ID: 3949681.

Palir Neža (mentor Matjaž Jeras, co-mentor Maria de Fátima Vieira Ventura): Lastnosti novo odkritih mutacij povezanih s pomanjkljivostjo acil-koencim A dehidrogenaze srednje dolgih verig maščobnih kislin = Characteristics of the newly discovered mutations related to medium-chain acyl-coenzyme A dehydrogenase deficiency, COBISS.SI-ID: 4006001.

Pernat Patricija (mentor Joško Osredkar, co-mentor Alenka Repše Fokter): Pogostost in klinični pomen atipičnih železnih celic v brisih materničnega vratu pregledanih na oddelku za patologijo Univerzitetnega kliničnega centra Maribor = Frequency and clinical significance of atypical glandular cells in the cervical smears examined at the Department of Pathology, University Clinical Centre Maribor, COBISS.SI-ID: 3831665.

Ribnikar Ana (mentor Iztok Grabnar, co-mentor Irena Grmek Košnik): Primerjava encimskoimunske in imunofluorescenčne metode v postopku stopenjske laboratorijske diagnostike borelijskih okužb = Comparison of enzyme-linked immunosorbent method and immunofluorescence method in twostep laboratory testing process for Borrelia infections, COBISS.SI-ID: 3969905.

Slevec Jerneja (mentor Helena Podgornik): Opredelitev in ovrednotenje nekaterih kriterijev za mikroskopski pregled krvnega razmaza = Definition and evaluation of certain criteria for microscopic examination of blood smears, COBISS.SI-ID: 3980913.

Špendal Nejc (mentor Milan Skitek, co-mentor Elizabeta Božnar Alič): Evalvacija metode za določanje koncentracije celic v telesnih tekočinah na hematološkem analizatorju = Evaluation of the method for determining the concentration of cells in body fluids on haematology analyser, COBISS.SI-ID: 3879281.

Ters Helena (mentor Matjaž Jeras, co-mentor Eva Ružič-Sabljič): Primerjava dveh seroloških testov za dokazovanje nevroboorelioze = Comparison of two serological tests for diagnosing neuroborreliosis: magistrski študij laboratorijske biomedicine, COBISS.SI-ID: 3981169.

Trdin Ajda (mentor Janja Marc, co-mentor Ingrid Falnoga): Povezanost mutacij v genu za apolipoprotein E s koncentracijami živega srebra pri materah in novorojencih = Connection between mutations in the gene for apolipoprotein E with concentrations of mercury in the mothers and newborns, COBISS.SI-ID: 3921265.

Vidmar Maša (mentor Irena Mlinarič Raščan): Vrednotenje prostaglandinskega receptorja EP4 kot potencialne tarče za zdravljenje kronične limfocitne levkemije = Evaluation of prostaglandin EP4 receptor as a potential target for the treatment of chronic lymphocytic leukemia, COBISS.SI-ID: 3918449.

Zorko Katarina (mentor Helena Podgornik): Preureditev gena IGH pri bolnikih s kronično limfatično levkmeijo = IGH rearrangements in patients with chronic lymphocytic leukemia, COBISS.SI-ID: 3866737.

Zupančič Mojca (mentor Janez Mravljak): Vrednotenje imiddioksimov z deoksiriboznim in ferocinskim testom = Evaluation of imid dioximes with deoxyribose assay and ferrozine assay, COBISS.SI-ID: 3980657.

DOCTORAL STUDY PROGRAMME OF BIOMEDICINE

Field: Pharmacy

Borišek Jure (mentor Marjana Novič, co-mentor Anamarija Zega): Načrtovanje zaviralcev katepsina K in avtolizina s pomočjo pristopov kemometrije in strukturno podprtega načrtovanja = Design of inhibitors of cathepsin K and autolysin with application of chemometrics and structure-based drug design, COBISS.SI-ID: 282440704.

Brus Boris (mentor Stanislav Gobec): Strukturno-podprto načrtovanje in vrednotenje spojin s potencialnim imunomodulatornim in nevroprotektivnim delovanjem = Structure-based design and evaluation of potential immunomodulatory and neuroprotective agents, COBISS.SI-ID 3841905.

Bukovec Polona (mentor Franc Vrečer): Študij vpliva zgradbe in oblike kristalov na fizikalno-kemijske lastnosti zdravilnih učinkovin = Study of the influence of crystal structure and shape on physico-chemical properties of active substances, COBISS.SI-ID: 282809600.

Čerpnjak Katja (mentor Mirjana Gašperlin, co-mentor Franc Vrečer): Solubilizacija slabo topne učinkovine s samo-mikroemulgirajočimi sistemi vgrajenimi v trdne farmacevtske oblike = Solubilisation of poorly soluble drug with self-microemulsifying delivery systems incorporated into solid dosage forms, COBISS.SI-ID: 280473344

Čufar Andreja (mentor Aleš Mrhar, co-mentor Marko Robnik Šikonja): Načrtovanje dejavnosti klinične farmacije v bolnišnici s pomočjo metod umetne inteligence = Planning of clinical pharmacy services in the hospital using artificial intelligence methods, COBISS.SI-ID 279943424.

Herman Ana (mentor Matjaž Jeras, co-mentor Kristina Gruden): Mikro RNA v plazemskih vzorcih zdravih oseb in bolnikov z malignim gliomom = Micro RNA in plasma samples of healthy individuals and malignant glioma patients, COBISS.SI-ID 280326912.

Hudovornik Grega (mentor Franc Vrečer): Optimizacija izdelave filmsko obloženih pelet v zvrtnih plasteh s pomočjo in-line tehnik = Optimization of fluid bed pellet film coating process using in-line techniques, COBISS.SI-ID: 282794752.

Martinc Boštjan (mentor Tomaž Vovk): Spremljanje zdravljenja epilepsije z zdravili in vloga nekaterih kazalcev oksidativnega stresa = Therapeutic drug monitoring in epilepsy and the potential role of oxidative stress markers, COBISS.SI-ID: 279957248.

Martinčič Rok (mentor Marjana Novič, co-mentor Janez Mravljak): Napovedovanje antioksidativne aktivnosti in transmembranskega transporta derivatov pulvinske kisline in kumarina = Prediction of antioxidant activity and cell membrane transport of pulvinic acid and coumarine derivatives, COBISS.SI-ID: 281987840.

Molek Peter (mentor Tomaž Bratkovič): Razvoj peptidnih modulatorjev delovanja leptina in vrednotenje njihove biološke aktivnosti = Development of peptide modulators of leptin activity and evaluation of their biological activity, COBISS.SI-ID: 277758976.

Pišlar Mitja (mentor Aleš Mrhar, co-mentor Marija Bogataj): Razvoj modela prehoda pelet skozi želodec za napovedovanje kinetike absorpcije učinkovin = Modelling of pellets' gastric emptying for prediction of drug absorption, COBISS.SI-ID: 279280640.

Pogorelčnik Barbara (mentor Tomaž Šolmajer, co-mentor Andrej Perdih): Strukturno podprto načrtovanje novih zaviralcev človeške DNA topoizomeraze II[alfa] = Structure-based design of novel human DNA topoisomerase II[alpha] inhibitors, COBISS.SI-ID: 279351040.

Radivojša Matanović Maja (mentor Pegi Ahlin Grabnar, co-mentor Iztok Grabnar): Razvoj in vrednotenje temperaturno odzivnih hidrogelov z nanokompleksi za subkutano podaljšano sproščanje heparina = Development and evaluation of thermoresponsive hydrogels with nanocomplexes for subcutaneous prolonged release of heparin, COBISS.SI-ID: 280089600.

Režonja Kukec Renata (mentor Aleš Mrhar, co-mentor Tanja Čufer): Razvoj orodij za optimizacijo peroralnega odmerka etopozida pri zdravljenju bolnikov z drobnoceličnim pljučnim rakom = Development of tools for optimization of oral etoposide dose in treatment of small-cell lung cancer patients, COBISS.SI-ID: 281437184.

Šmid Alenka (mentor Irena Mlinarič-Raščan): Proučevanje biokemičnih in genetskih dejavnikov pri individualizaciji zdravljenja s tiopurini = Study of biochemical and genetic factors in individualization of thiopurine therapy, COBISS.SI-ID: 279654656.

Štuhec Matej (mentor Vesna Švab, co-mentor Igor Locatelli): Epidemiologija, farmakoepidemiologija ter primerjalna učinkovitost in sprejemljivost zdravil za zdravljenje hiperkinetične motnje otrok in mladostnikov = Epidemiology, pharmacoepidemiology, comparative efficacy and acceptability of drugs in treatment of attention deficit hyperactivity disorder in children and adolescents, COBISS.SI-ID: 3811697.

Tavčar Benković Eva (mentor Samo Kreft, co-mentor Damjan Janeš): Fitokemijske raziskave fagopirinov iz navadne ajde in fenolov iz navadne jelke = Phytochemical investigation of fagopyrins from common buckwheat and phenols from silver fir, COBISS.SI-ID: 279325952.

Urek Blatnik Sandra (mentor Stanko Srčič): Vpliv pH modifikatorja na stabilnost in raztapljanje hidroklorotiazida v dvoplastnih dostavnih sistemih = Influence of pH modifiers on stability and dissolution of hydrochlorothiazide [!] in bi-layer delivery system, COBISS.SI-ID: 281589504.

Field: Clinical Biochemistry and Laboratory Biomedicine

Vižin Tjaša (mentor Janko Kos): Vloga gama-enolaze pri raku in njeno uravnavanje s proteolitičnimi encimi = The role of gamma-enolase in cancer and its regulation by proteolytic enzymes, COBISS.SI-ID: 279301888.

Vrtačnik Peter (mentor Barbara Ostanek): Vpliv estrogenov, oksidativnega stresa in hipoksije na epigenetske procese v osteoblastih = The influence of estrogens, oxidative stress and hypoxia on epigenetic processes in osteoblasts, COBISS.SI-ID: 278090496.

Žurga Simon (mentor Janko Kos, co-mentor Jerica Sabotič): Biokemijske lastnosti in delovanje ricinu B podobnega lektina iz gobe *Macrolepiota procera* = Biochemical properties and function of ricin B like lectin from mushroom *Macrolepiota procera*, COBISS.SI-ID: 279208192.

(Chapter 7 prepared by: B. Toth)

8 SCIENCE AND RESEARCH ACTIVITY - PUBLICATIONS

THE CHAIR OF BIOPHARMACY AND PHARMACOKINETICS

Scientific Papers and Professional Publications

Beloica Sofija, Cvijić Sandra, Homšek Irena, Bogataj Marija, Parojčić Jelena: An in vitro - in silico - in vivo approach in biopharmaceutical drug characterization: metformin hydrochloride IR tablets.- *Pharmazie*, 2015, 70, 7, pp. 458-465, COBISS.SI-ID: 3887729.

Beloica Sofija, Cvijić Sandra, Bogataj Marija, Parojčić Jelena: In vitro-in vivo-in silico approach in biopharmaceutical characterization of ibuprofen IR and SR tablets.- *Eur. J. Pharm. Sci.*, 2015, 75, pp. 151-159, COBISS.SI-ID: 3847537.

Bogataj Marija, Cof Greta, Mrhar Aleš: Development of a glass-Bead device for dissolution testing.- *Dissolut. Technol.*, 2015, 22, 3, pp. 18-24, COBISS.SI-ID: 3905905.

Bürmen Božena, Locatelli Igor, Mrhar Aleš, Bogataj Marija: Analysis of factors influencing gastric emptying of pellets in a fed state.- *Expert Opin Drug Deliv*, 2015, 12, 8, pp. 1225-1238, COBISS.SI-ID: 3846769.

Čufar Andreja, Mrhar Aleš, Robnik Šikonja Marko: Assessment of surveys for the management of hospital clinical pharmacy services.- *Artif. Intell. Medicine*, 2015, 64, 2, pp. 147-158, COBISS.SI-ID: 3854705.

Dall'acqua Stefano, Perissutti Beatrice, Grabnar Iztok, Farra Rossella, Comar Manola, Agostinis Chiara, Caristi Gabriella, Golob Samuel, Voinovich Dario: Pharmacokinetics and immunomodulatory effect of lipophilic Echinacea extract formulated in softgel capsules.- *Eur. J. Pharm. Biopharm.*, 2015, part A, 97, pp. 8-14, COBISS.SI-ID: 3954289.

Dobravec Verbič Matej, Primc Kaja, Mrhar Aleš: Vrednotenje predpisovanja intravenske kemoterapije gastroonkološkim bolnikom = Evaluation of prescribing of intravenous chemotherapy to patients with gastrointestinal cancer.- *Farm. Vestn.*, 2015, 66, 5, pp. 392-401, COBISS.SI-ID: 4006769.

Hasa Dritan, Perissutti Beatrice, Campisi Barbara, Grassi Mario, Grabnar Iztok, Golob Samuel, Mian M., Voinovich Dario: Quality improvement of melt extruded laminar systems using mixture design.- *Eur. J. Pharm. Sci.*, 2015, 75, pp. 169-176, COBISS.SI-ID: 3849073.

Jovanović, Marija, Sokić, Dragoslav, Grabnar, Iztok, Vovk, Tomaž, Prostran, Milica, Erić, Slavica, Kuzmanovski, Igor, Vučićević, Katarina, Miljković, Branislava: Application of counter-propagation artificial neural networks in prediction of topiramate concentration in patients with epilepsy.- *J. Pharm. & Pharm. Sci.*, 2015, 18, 5, pp. 856-862, COBISS.SI-ID: 3985777.

Knez Lea, Kerec Kos Mojca, Čufer Tanja: Drug interactions in cancer treatment: measures for their identification and prevention in routine clinical practice.- *Farm. Vestn.*, 2015, 66, 1, pp. 116, COBISS.SI-ID: 29127207.

Milosheska Daniela, Vovk Tomaž, Grabnar Iztok, Roškar Robert: Simple and sensitive high performance liquid chromatography method with fluorescence detection for therapeutic drug monitoring of topiramate.- *Acta Chimica Slov.*, 2015, 62, 2, pp. 411-419, COBISS.SI-ID: 3880305.

Milosheska Daniela, Grabnar Iztok, Vovk Tomaž: Dried blood spots for monitoring and individualization of antiepileptic drug treatment.- *Eur. J. Pharm. Sci.*, 2015, 75, pp. 25-39, COBISS.SI-ID: 3847281.

Pišlar Mitja, Brelih Hana, Mrhar Aleš, Bogataj Marija: Analysis of small intestinal transit and colon arrival times of non-disintegrating tablets administered in the fasted state.- *Eur. J. Pharm. Sci.*, 2015, 75, pp. 131-141, COBISS.SI-ID: 3825265.

Potrč Tanja, Baumgartner Saša, Roškar Robert, Planinšek Odon, Lavrič Zoran, Kristl Julijana, Kocbek Petra: Electrospun polycaprolactone nanofibers as a potential oromucosal delivery system for poorly water-soluble drugs.- *Eur. J. Pharm. Sci.*, 2015, 75, pp. 101-113, COBISS.SI-ID: 3849329.

Radivojša Matanović Maja, Grabnar Iztok, Gosenca Mirjam, Ahlin Grabnar Pegi: Prolonged subcutaneous delivery of low molecular weight heparin based on thermoresponsive hydrogels with chitosan nanocomplexes: design, in vitro evaluation and cytotoxicity studies.- *Int. J. Pharm.*, 2015, 488, 1-2, pp. 127-135, COBISS.SI-ID: 3849585.

Radivojša Matanović Maja, Ahlin Grabnar Pegi, Voinovich Dario, Golob Samuel, Božič Mojca, Grabnar Iztok: Development and preclinical pharmacokinetics of a novel subcutaneous thermoresponsive system for prolonged delivery of heparin.- *Int. J. Pharm.*, 2015, 496, 2, pp. 583-592, COBISS.SI-ID: 3976049.

Radivojša Matanović Maja, Grabnar Iztok, Ahlin Grabnar Pegi, Roškar Robert: Development and validation of a simple and sensitive size-exclusion chromatography method for quantitative determination of heparin in pharmaceuticals.- *Acta pharmaceutica*, 2015, 65, 1, pp. 43-52, COBISS.SI-ID: 3809905.

Režonja Renata, Grabnar Iztok, Mrhar Aleš, Čebren Lipovec Nanča, Čufer Tanja, Vovk Tomaž: A simple dried blood spot method for clinical pharmacological analyses of etoposide in cancer patients using liquid chromatography and fluorescence detection.- *Clin. Chim. Acta*, 15. Jan. 2016, vol. 452, pp. 99-105, COBISS.SI-ID: 3976561.

Režonja Renata, Grabnar Iztok, Vovk Tomaž, Mrhar Aleš, Kovač Viljem, Čufer Tanja: Febrile neutropenia in chemotherapy treated small-cell lung cancer patients.- *Radiology and Oncology*, 2015, 49, 2, pp. 173-180, VI, COBISS.SI-ID: 3778929.

Roblek Tina, Vaupotič Tomaž, Mrhar Aleš, Lainščak Mitja: Drug-drug interaction software in clinical practice: a systematic review.- *Eur. J. Clin. Pharm.*, 2015, 71, 2, pp. 131-142, COBISS.SI-ID: 3795313.

Rugelj Neža, Trobec Katja, Pišlar Mitja, Meško-Brguljan Pika, Košnik Mitja, Mrhar Aleš: Evaluation of theophylline therapeutic drug monitoring service = Vrednotenje procesa terapevtskega spremljanja serumskih koncentracij teofilina.- *Zdravn. Vestn.*, 2015, 84, 3, pp. 191-202, COBISS.SI-ID: 3854449.

Trdan Lušin Tina, Mrhar Aleš, Trontelj Jurij: UGT1A1*28 polymorphism influences glucuronidation of bazedoxifene.- *Pharmazie*, 2015, 70, 2, pp. 94-96, COBISS.SI-ID: 3779441.

Trobec Katja, Kerec Kos Mojca, Trontelj Jurij, Grabnar Iztok, Tschirner Anika, Palus Sandra, Anker Stefan D., Springer Jochen, Lainščak Mitja: Influence of cancer cachexia on drug liver metabolism and renal elimination in rats.- *J. Cachexia, Sarcopenia Muscle*, 2015, 6, 1, pp. 45-52, COBISS.SI-ID: 3843185.

Invited Lectures

Marc Janja, Prodan Žitnik Irena, Žakelj Simon, Kristl Albin, Mlakar Vid: Cell models in pharmacogenomic research.- In: 21st IFCC - EFLM European Congress of Clinical Chemistry and Laboratory Medicine, Paris, France Palais des Congrès 21-25 June 2015, pp. 113, COBISS.SI-ID: 3891825.

Mrhar Aleš: Individualizacija farmakoterapije z metodami terapevtskega spremljanja koncentracij zdravil = Individualisation of pharmacotherapy with methods of therapeutic monitoring of drug concentrations.- In: Varna uporaba zdravil: proceedings.- Ljubljana, 2015, pp. 32-40, COBISS.SI-ID: 3807601.

Mrhar Aleš: Achievements and perspectives of clinical pharmacy in community care in Slovenia = Dostignuća i perspektive kliničke farmacije u javnom ljekarništvu u Sloveniji.- In: 5. hrvatski kongres farmacije s međunarodnim sudjelovanjem, 21. - 24. svibnja, Kongresni centar Aureo, Rovinj, Hrvatska, 2015, pp. 58, COBISS.SI-ID: 3864177.

Mrhar Aleš: Clinical pharmacy in Slovenia: recent achievements and perspectives.- In: III. Kongres farmaceuta Bosne i Hercegovine sa međunarodnim učešćem, Sarajevo, 14. - 17. 05. 2015 godine, pp. 87, COBISS.SI-ID: 3860849.

Mrhar Aleš, Grabnar Iztok: Basic concepts of pharmacokinetics.- In: Proceedings.- Module I: pharmacy: [course notes], Ljubljana, 2015, pp. 427-482, COBISS.SI-ID: 3917681.

Muhič Neža, Brvar Miran, Mrhar Aleš: Napovedna vrednost podatkovnih baz za prepoznavanje neželenih učinkov zdravil zaradi interakcij = Diagnostic accuracy of databases for detecting adverse effects of drugs due to interactions.- In: Proceedings.- Module I: pharmacy: [course notes], Ljubljana, 2015, pp. 427-482, COBISS.SI-ID: 3917681.

Roškar Robert: Stability and shelf-life of pharmaceuticals.- In: Proceedings.- Module I: pharmacy: [course notes], Ljubljana, 2015, pp. 231-246, COBISS.SI-ID: 3916657.

Trontelj Jurij: Novel approaches towards personalized medicine : the cases of imatinib, raloxifene and remifentanyl.- In: 6th BBBB Conference on Pharmaceutical Sciences, September 10-12, 2015, Helsinki, Finland, pp. 114, COBISS.SI-ID: 3925361.

Lectures and Contributions at Conferences

Marc Janja, Žakelj Simon, Prodan Žitnik Irena, Kristl Albin, Trdan Lušin Tina, Trontelj Jurij, Ostanek Barbara, Mrhar Aleš: Pharmacogenomics in vitro models in post-genome era.- In: Hematologic diseases, hormonal disfunction, neurodegenerative diseases, Ljubljana, 2015, pp. 27-28, COBISS.SI-ID: 3903601.

Meglič Andrej, Lakovič Gorazd, Rozina Tinkara, Klančar Anita, Trontelj Jurij, Kristl Albin, Roškar Robert, Finžgar Neža, Zupančič Justin Maja, Gerl Marko: Successful reduction of pharmaceuticals and herbicides from water: first laboratory-scale results of LIFE PharmDegrade project = Uspješna redukcija farmaceutskih proizvoda i herbicida iz vode : prvi laboratorijski rezultati projekta LIFE PharmDegrade.- In: 6th Hrvatska konferencija o vodama s međunarodnim sudjelovanjem, Opatija 20 - 23 May, 2015, 2015, pp. 1335-1344, COBISS.SI-ID: 3497295.

Mrhar Aleš, Vasle Anže: Clomifen: from structure to action.- In: Neplodnost: zbornik predavanj: zdravstveni TIM 2015 = Infertility: proceedings, 3-5 March, Ljubljana, 2015, pp. 21-25, COBISS.SI-ID: 3825521.

THE CHAIR OF PHARMACEUTICAL BIOLOGY

Independent Work

Barlič-Maganja Darja, Kreft Samo: Potencial bioaktivnih in prehransko zanimivih snovi v ajdi in ajdinih proizvodih = Bioactive and nutritional compounds in buckwheat products.- Ajda od njive do zdravja, (Hrana in prehrana za zdravje, 2). Izola, 2015, pp. 95-106, COBISS.SI-ID: 1537558468.

Janeš Damjan, Kočevar Glavač Nina: Emulgatorji in površinsko aktivne snovi za čiščenje kože in las = Emulsifier and surface active substances for cleaning skin.- In: Sodobna kozmetika: sestavine naravnega izvora, 1st ed., Velenje: Širimo dobro besedo, 2015, pp. 190-195, colour photos, COBISS.SI-ID: 3999601.

Janeš Damjan: Izvlečki = Extracts.- In: Sodobna kozmetika: sestavine naravnega izvora, 1st ed., Velenje: Širimo dobro besedo, 2015, pp. 590-895, COBISS.SI-ID: 4004977.

Janeš Damjan: Polsintezne spojine = Semi-synthetic compounds.- In: Sodobna kozmetika: sestavine naravnega izvora, 1st ed., Velenje: Širimo dobro besedo, 2015, pp. 898-916, COBISS.SI-ID: 4005233.

Kočevar Glavač Nina, Janeš Damjan, Lumpert, Mateja, Stojilkovski Katja, Kokalj Meta, Tavčar Benković Eva, Gosenca, Mirjam Hendrychová Helena, Gašperlin Mirjana, Lunder Mojca, Baumgartner Saša: Sodobna kozmetika: sestavine naravnega izvora, 1st ed., Velenje: Širimo dobro besedo, 2015, pp. 943, COBISS.SI-ID: 281719808.

Kočevar Glavač Nina: Rastlinska masla in olja = Vegetable butters and oils.- In: Sodobna kozmetika: sestavine naravnega izvora, 1st ed., Velenje: Širimo dobro besedo, 2015, pp. 52-171, COBISS.SI-ID: 3999089.

Kočevar Glavač Nina: Absoluti, eterična olja in sorodne snovi = Absolutes, essential oils and similar substances.- In: Sodobna kozmetika: sestavine naravnega izvora, 1st ed., Velenje: Širimo dobro besedo, 2015, pp. 444-586, COBISS.SI-ID: 4004721.

Kočevar Glavač Nina: Apiterapija = Apitherapy.- In: Znanstveno-kritičen pogled na komplementarno in alternativno medicino = Scientifically critical view of complementary and alternative medicine, Ljubljana: Faculty of Pharmacy, 2015, pp. 39-49, COBISS.SI-ID: 3878001.

Kokalj Meta: Kozmetično aktivne sestavine s protimikrobnim delovanjem = Cosmetically active substances with antimicrobial action.- In: Sodobna kozmetika: sestavine naravnega izvora, 1st ed., Velenje: Širimo dobro besedo, 2015, pp. 300-321, COBISS.SI-ID: 4001649.

Kokalj Meta: Kozmetično aktivne sestavine s protivnetnim delovanjem = Cosmetically active substances with anti-inflammatory action.- In: Sodobna kozmetika: sestavine naravnega izvora, 1st ed., Velenje: Širimo dobro besedo, 2015, pp. 324-335, COBISS.SI-ID: 4001905.

Kreft Samo: Komplementarna in alternativna medicina - o čem se sploh pogovarjamo? = Complementary and alternative medicine - What are we talking about?.- In: Znanstveno-kritičen pogled na komplementarno in alternativno medicino = Scientifically critical view of complementary and alternative medicine, Ljubljana: Faculty of Pharmacy, 2015, pp. 7-15, COBISS.SI-ID: 3877489.

Kreft Samo, Lipovec Čebren Uršula, Tavčar Benković Eva, Kočevar Glavač Nina, Anderluh Marko, Jakopin Žiga, Pečar Slavko, Lunder Mojca, Pisk Nina, Zvonar Pobirk Alenka: Znanstveno-kritičen pogled na komplementarno in alternativno medicino = Scientifically critical view of complementary and alternative medicine, Ljubljana: Faculty of Pharmacy, 2015. 92 pp., COBISS.SI-ID: 279749632.

Lumpert Mateja: Vitamini = Vitamins.- In: Sodobna kozmetika: sestavine naravnega izvora, 1st ed., Velenje: Širimo dobro besedo, 2015, pp. 270-289, COBISS.SI-ID: 4000881.

Lumpert Mateja: UV-filtri = UV filters.- In: Sodobna kozmetika: sestavine naravnega izvora, 1st ed., Velenje: Širimo dobro besedo, 2015, pp. 374-379, COBISS.SI-ID: 4003185.

Lumpert Mateja: Sladila = Sweetening agents.- In: Sodobna kozmetika: sestavine naravnega izvora, 1st ed., Velenje: Širimo dobro besedo, 2015, pp. 420-425, COBISS.SI-ID: 4003953.

Lumpert Mateja: Adsorbenti in polnila = Adsorbents and fillers.- In: Sodobna kozmetika: sestavine naravnega izvora, 1st ed., Velenje: Širimo dobro besedo, 2015, pp. 428-440, COBISS.SI-ID: 4004209.

Lunder Mojca, Janeš Damjan, Kočevar Glavač Nina: Emolienti in okluzivi = Softening agents and occlusives.- In: Sodobna kozmetika: sestavine naravnega izvora, 1st ed., Velenje: Širimo dobro besedo, 2015, pp. 174-187, COBISS.SI-ID: 3999345.

Miljković Jovan, Potočnik Uroš, Deželak Matjaž, Godić Aleksandar, Dolenc-Voljč Mateja, Holc Iztok, Mervic Liljana, Tlaker Žunter Vesna, Štrukelj Borut, Dolžan Vita, Rotar Žiga: Monografija o luskavici = Monograph on Psoriasis.- Maribor, 2015. 104 pp., COBISS.SI-ID: 83746817.

Stojilkovski Katja, Kočevar Glavač Nina: Chemical Peels.- In: Sodobna kozmetika: sestavine naravnega izvora, 1st ed., Velenje: Širimo dobro besedo, 2015, pp. 382-389, COBISS.SI-ID: 4003441.

Štrukelj Borut, Kočevar Glavač Nina, Zvonar Pobirk Alenka (ed.): Biološka zdravila- spletni učbenik za študente farmacije = Biological Medicines: Online textbook for pharmaceutical students, Ljubljana: Faculty of Pharmacy, 2015, COBISS.SI-ID: 280339456.

Tavčar Benković Eva: Barvila in anorganski pigmenti = Colorants and inorganic pigments.- In: Sodobna kozmetika: sestavine naravnega izvora, 1st ed., Velenje: Širimo dobro besedo, 2015, pp. 392-416, COBISS.SI-ID: 4003697.

Tavčar Benković Eva: Ajurvedska medicina = Ayurvedic medicine.- In: Znanstveno-kritičen pogled na komplementarno in alternativno medicino = Scientifically critical view of the complementary and alternative medicine, Ljubljana: Faculty of Pharmacy, 2015, pp. 25-38, COBISS.SI-ID: 3877745.

Tavčar Benković Eva, Janeš Damjan: Antioksidanti = Antioxidants.- In: Sodobna kozmetika: sestavine naravnega izvora, 1st ed., Velenje: Širimo dobro besedo, 2015, pp. 246-267, COBISS.SI-ID: 4000625.

Scientific Papers and Professional Publications

Berlec Aleš, Završnik Janja, Butinar Miha, Turk Boris, Štrukelj Borut: In vivo imaging of *Lactococcus lactis*, *Lactobacillus plantarum* and *Escherichiacoli* expressing infrared fluorescent protein in mice.- *Microbial Cell Factories*, 2015, 14, 181, pp. 1-14, COBISS.SI-ID: 3978609.

Cateni Francesca, Lucchini Vittorio, Zacchigna Marina, Procida Guiseppe, Doljak Bojan, Anderluh Marko: New triterpenes from the fungus *Gloeophyllum odoratum*.- *Chem. Nat. Compd.*, 2015, 51, 1, pp. 74-80, COBISS.SI-ID: 3819121.

Drevenšek Gorazd, Lunder Mojca, Tavčar Benković Eva, Mikelj Ana, Štrukelj Borut, Kreft Samo: Silver fir (*Abies alba*) trunk extract protects guinea pig arteries from impaired functional responses and morphology due to an atherogenic diet.- *Phytomedicine*, 2015, 22, 9, pp. 856-861, COBISS.SI-ID: 3889265.

Gerbec Blaž, Tavčar Benković Eva, Gregori Andrej, Kreft Samo, Berovič Marin: Solid state cultivation of *Hericium erinaceus* biomass and erinacine: a production.- *J. Bioprocess. Biotechn.*, 2015, 5, 3, pp. 1-5, COBISS.SI-ID: 1536261059.

Guzior Natalia, Bajda Marek, Skrok Mirosław, Kurpiewska Katarzyna, Lewiński Krzysztof, Brus Boris, Pišlar Anja, Kos Janko, Gobec Stanislav, Malawska Barbara: Development of multifunctional, heterodimeric isoindoline-1,3-dione derivatives as cholinesterase and β -amyloid aggregation inhibitors with neuroprotective properties.- *Eur. J. Med. Chem.* 2015, 92, pp. 738-749, COBISS.SI-ID: 3806577.

Janić Miodrag, Lunder Mojca, Šabovič Mišo: A low-dose combination of fluvastatin and valsartan: a new "drug" and a new approach for decreasing the arterial age.- *BioMed Research Int.*, 2015, 2015, pp. 1-9, COBISS.SI-ID: 2216620.

Katanić Jelena, Mihailović Vladimir, Matić Sanja, Stanković Vesna, Stanković Nevena, Boroja Tatjana, Mladenović Milan, Stanić Snežana, Kreft Samo, Mihailović Mirjana: The ameliorating effect of *Filipendula hexapetala* extracts on hepatorenal toxicity of cisplatin.- *J. Funct. Foods*, 2015, 18, part A, pp. 198-212, COBISS.SI-ID: 3902577.

Katanić Jelena, Boroja Tatjana, Stanković Nevena, Mihailović Vladimir, Mladenović Milan, Kreft Samo, Vrvic Miroslav M.: Bioactivity, stability and phenolic characterization of *Filipendula ulmaria* (L.) Maxim.- *Food & Function*, 2015, 6, 4, pp. 1164-1175, COBISS.SI-ID: 3902321.

Kos Janko, Vižin Tjaša, Pečar Fonović Urša, Pišlar Anja: Intracellular signaling by cathepsin X: molecular mechanisms and diagnostic and therapeutic opportunities in cancer.- *Seminars in cancer biology*, 2015, 31, pp. 76-83, COBISS.SI-ID: 3650929.

Magister Špela, Tseng Han-Ching, Bui, Vickie T., Kos Janko, Jewett Anahid: Regulation of split anergy in natural killer cells by inhibition of cathepsins C and H and cystatin F.- *Oncotarget*, 2015, 6, 26, pp. 22310-22327, COBISS.SI-ID: 3878769.

Maver Tina, Maver Uroš, Stana-Kleinschek Karin, Smrke Dragica, Kreft Samo: A review of herbal medicines in wound healing.- *Int. J. Dermatol.*, 2015, 54, 7, pp. 740-751, COBISS.SI-ID: 18578710.

Mirković Bojana, Markelc Boštjan, Butinar Miha, Mitrović Ana, Sosič Izidor, Gobec Stanislav, Vasiljeva Olga, Turk Boris, Čemažar Maja, Serša Gregor, Kos Janko: Nitroxoline impairs tumour progression in vitro and in vivo by regulating cathepsin B activity.- *Oncotarget*, 2015, 6, 22, pp. 19027-19042, COBISS.SI-ID: 3834225.

Molek Peter, Bratkovič Tomaž: Bacteriophages as scaffolds for bipartite display: designing Swiss army knives on a nanoscale.- *Bioconjugate Chem.*, 2015, 26, 3, pp. 367-378, COBISS.SI-ID: 3818353.

Ogrizek Mitja, Turk Samo, Lešnik Samo, Sosič Izidor, Hodošček Milan, Mirković Bojana, Kos Janko, Janežič Dušanka, Gobec Stanislav, Konc Janez: Molecular dynamics to enhance structure-based virtual screening on cathepsin B.- *J. Comput. Aid. Mol. Des.*, 2015, 29, 8, pp. 707-712, COBISS.SI-ID: 3858033.

Pečar Fonović Urša, Kos Janko: Cathepsin X cleaves profilin 1 C-Terminal Tyr139 and influences clathrin-mediated endocytosis.- *PloS one*, 2015, 10, 9, pp. 1-14, COBISS.SI-ID: 3912049.

Pišlar Anja, Perišić Milica, Kos Janko: Lysosomal cysteine peptidases - molecules signaling tumour cell death and survival.- *Semin. Cancer Biol.*, 2015, 35, pp. 168-179, COBISS.SI-ID: 3908977.

Ravnikar Matjaž, Terčelj Matic, Janeš Damjan, Štrukelj Borut, Kreft Samo: Antibacterial activity of endophytic fungi isolated from conifer needles.- *Afr. J. Biotechnol.*, 2015, 14, 10, pp. 867-871, COBISS.SI-ID: 3909489.

Roškar Irena, Molek Peter, Vodnik Miha, Štampelj Mateja, Štrukelj Borut, Lunder Mojca: Peptide modulators of alpha-glucosidase.- *J. Diabet. Invest.*, 2015, 6, 6, pp. 625-631, COBISS.SI-ID: 3894385.

Škrlec Katja, Štrukelj Borut, Berlec Aleš: Non-immunoglobulin scaffolds: a focus on their targets.- *Trends Biotechnol.*, 2015, 33, 7, pp. 408-418, COBISS.SI-ID: 3851377

Šmid Ida, Rotter Ana, Gruden Kristina, Brzin Jože, Buh Gašparič Meti, Kos Janko, Žel Jana, Sabotič Jerica: Clitocypin, a fungal cysteine protease inhibitor, exerts its insecticidal effect on Colorado potato beetle larvae by inhibiting their digestive cysteine proteases.- *Pestic. Biochem., Phys.*, 2015, 122, pp. 59-66, COBISS.SI-ID: 28231719.

Štrukelj Borut: Biološka zdravila pri multipli sklerozi = Biological medicinal products in the treatment of multiple sclerosis.- *Farm. Vestn.*, 2015, 66, 1, pp. 80-84, COBISS.SI-ID: 3818865.

Štrukelj Borut: Varnost, kakovost in učinkovitost originalnih in podobnih bioloških zdravil = Safety, quality and efficacy of biologicals and biosimilars.- *Farm. Vestn.*, 2015, 66, 3, pp. 256-259, COBISS.SI-ID: 3907185.

Tavčar Benković Eva, Kreft Samo: Fagopyrins and protofagopyrins : detection, analysis and potential phototoxicity in buckwheat.- *J. Agr. Food Chem.*, 2015, 63, 24, pp. 5715-5724, COBISS.SI-ID: 3900273.

Vižin Tjaša, Kos Janko: Gamma-enolase: a well known tumour marker with a less-known role in cancer.- *Radiology and Oncology*, 2015, 49, 3, pp. 217-226, COBISS.SI-ID: 3908721.

Zadravec Petra, Štrukelj Borut, Berlec Aleš: Improvement of LysM-mediated surface display of DARPin in recombinant and non-recombinant *Lactococcus lactis* and *Lactobacillus* species.- *Appl. Environ. Microb.*, 2015, 81, 6, pp. 2098-2106, COBISS.SI-ID: 28301607.

Zadravec Petra, Štrukelj Borut, Berlec Aleš: Heterologous surface display on lactic acid bacteria: non-GMO alternative?.- *Bioengineered*, 2015, 6, 3, pp. 179-183, COBISS.SI-ID: 3851633.

Žurga Simon, Pohleven Jure, Kos Janko, Sabotič Jerica: [Beta]-trefoil structure enables interactions between lectins and protease inhibitors that regulate their biological functions.- *J. Biochem.*, 2015, 158, 1, pp. 83-90, COBISS.SI-ID: 28421927.

Invited Lectures

Berovič Marin, Švagelj Mirjan, Boh Podgornik Bojana, Plankl Mojca, Wraber-Herzog Branka, Tavčar Benkovič Eva, Kreft Samo: Advances in cultivation of medicinal fungi biomass and pharmaceutical compounds in bioreactors.- In: The 8th International Medicinal Mushrooms Conference, 24-27 August 2015, Manizales (Caldas), Colombia, pp. 35-36, COBISS.SI-ID: 1536530627.

Kos Janko, Perišić Milica, Sabotič Jerica, Magister Špela, Jewett Anahid: Regulation of cell cytotoxicity by cysteine cathepsins.- In: Hungarian Molecular Life Sciences 2015, Eger, Hungary, 27-29 March 2015, pp. 19, COBISS.SI-ID: 3852145.

Kos Janko, Perišić Milica, Sabotič Jerica, Magister Špela, Jewett Anahid: The role of cysteine cathepsins in cytotoxic cells.- In: Redefining cancer therapy, 2015, pp. 43-44, COBISS.SI-ID: 3852657.

Kos Janko: The use of protease inhibitors for development of new approaches in cancer treatment.- In: 3rd Congress of Pharmacists of Bosnia and Herzegovina with international participation, Sarajevo, 14– 17 May 2015, pp. 66, COBISS.SI-ID: 3862129.

Pišlar Anja, Kos Janko: Role of [gamma]-enolase in neuronal development and degeneration: regulation by cysteine protease cathepsin X.- In: FEBS3+ Meeting and 11th Meeting of the Slovenian Biochemical Society, 16-19 September 2015, Portorož, Slovenia, pp. 114, COBISS.SI-ID: 3935857.

Sabotič Jerica, Künzler Markus, Kos Janko: Lectins and protease inhibitors in defense of fungal fruiting bodies.- In: 7th Congress of the Genetic Society of Slovenia and 7th Meeting of the Slovenian Society of Human Genetics, 20-23 September 2015, Rogaška Slatina, Slovenia, pp. 59, COBISS.SI-ID: 28921127.

Sosič Izidor, Mirković Bojana, Mitrović Ana, Markelc Boštjan, Butinar Miha, Vasiljeva Olga, Turk Boris, Čemažar Maja, Serša Gregor, Kos Janko, Gobec Stanislav: Cathepsin B inhibitors impair the processes of tumour progression.- In: 2nd EFMC Young Medicinal Chemist Symposium, 17 September 2015, pp. 20, COBISS.SI-ID: 3945585.

Štrukelj Borut: From gene engineering to modern biologicals.- In: Module I: pharmacy, Ljubljana, 2015, pp. 499-526, COBISS.SI-ID: 3917937.

Tavčar Benkovič Eva: Fitokemijske raziskave fagopirinov iz navadne ajde in fenolov iz navadne jelke = Phytochemical investigation of fagopyrins from common buckwheat and phenols from silver fir.- In: 45th Krka Awards: Science Connects, Novo mesto, 2015, pp. 44-47, COBISS.SI-ID: 3962993.

Vižin Tjaša, Pišlar Anja, Christensen I. J., Meško-Brguljan Pika, Kos Janko: C-terminal part defines a multifunctional role of gamma-enolase in cancer cells.- In: 3rd Congress of Pharmacists of Bosnia and Herzegovina with International Participation, Sarajevo, 14-17 May 2015, pp. 139, COBISS.SI-ID: 3862385.

Lectures and Contributions at Conferences

Bratkovič Tomaž: Farmakološko zdravljenje neplodnosti = Pharmacological treatment of infertility.- In: Neplodnost: zbornik predavanj: zdravstveni TIM 2015 = Infertility: proceedings, 3-5 March 2015, pp. 19-20, COBISS.SI-ID: 3826033.

Kos Janko: Uvod v biologijo raka = Introduction to the biology of cancer.- In: Onkologija: glas farmacevtov, zdravnikov in bolnikov = Oncology: the voice of pharmacists, physicians and patients, Ljubljana, 2015, pp. 11-12, COBISS.SI-ID: 3970673.

Kreft Samo: Bioidentični hormoni: biološko-kemijsko-tehnološki pogled = Bioidentical hormones: biological-chemical-technological aspect.- In: Neplodnost: zbornik predavanj: zdravstveni TIM 2015 = Infertility: proceedings, 3-5 March 2015, pp. 26-27, COBISS.SI-ID: 3825777.

Štrukelj Borut: Možnosti uporabe kanaboidov pri onkološkem bolniku = Possibilities of using endogenous cannabinoids in cancer patients.- In: Onkologija: glas farmacevtov, zdravnikov in bolnikov = Oncology: the voice of pharmacists, physicians and patients, Ljubljana, 2015, pp. 44-45, COBISS.SI-ID: 3970929.

Patents

Erjavec Jana, Dreo Tanja, Sabotič Jerica, Brzin Jože, Kos Janko, Ravnikar Maja: Composition and method for plant protection: PCT/EP2014/071216, 2 Oct. 2014, Rijswijk: European Patent Office, 2014, 60 pp., COBISS.SI-ID: 3252559.

Erjavec Jana, Dreo Tanja, Sabotič Jerica, Brzin Jože, Kos Janko, Ravnikar Maja: Composition and Method for Plant Protection: SI24489 (A), 2015-04-30, Ljubljana, 52 pp., COBISS.SI-ID: 3146575.

Rejc Tadej, Petrič Uroš, Debeljak Dora, Bremec Toni, Ferk Polonca, Lunder Mojca, Roškar Irena, Štrukelj Borut, Kreft Samo: Zmes naravnih polifenolov iz lesa bele jelke za zmanjšanje postprandialne glukoze: patentna prijava = Compound of polyphenols from the wood of silver fir for reducing postprandial glucose: patent application, Ljubljana, 2015. 15 pp., COBISS.SI-ID: 3895153.

Vodnik Miha, Lunder Mojca, Štrukelj Borut, Knuplež Eva, Kubale Valentina: Peptidi za farmakološko poseganje v grelinski sistem: patentna prijava = Peptides for pharmacological intervention into the ghrelin system: patent application, Ljubljana, 2015, 19 pp., COBISS.SI-ID: 3894897.

THE CHAIR OF PHARMACEUTICAL CHEMISTRY

Independent Work

Anderluh Marko, Jakopin Žiga: Srebrovi pripravki in medicinski pripomočki s srebrom - (ne)varna alternativa protimikrobnim sredstvom? = Silver preparations and medical devices containing silver - (un)safe alternative to antimicrobial agents?.-In: Znanstveno-kritičen pogled na komplementarno in alternativno medicino = Scientifically critical view of complementary and alternative medicine, Ljubljana, 2015, pp. 50-59, COBISS.SI-ID: 3878257.

Kreft Samo, Lipovec Čebren Uršula, Tavčar Benkovič Eva, Kočevič Glavač Nina, Anderluh Marko, Jakopin Žiga, Pečar Slavko, Lunder Mojca, Pisk Nina, Zvonar Pobirk Alenka: Znanstveno-kritičen pogled na komplementarno in alternativno medicino = Scientifically critical view of complementary and alternative medicine, Ljubljana, 2015, pp. 92, COBISS.SI-ID: 279749632.

Obreza Aleš, Bevc Bernarda, Baumgartner Saša, Sollner Dolenc Marija, Humar Marjeta: Pomožne snovi v farmaciji: od njihovega poimenovanja do vloge v zdravilu: spletni učbenik za študente farmacije, industrijske farmacije in kozmetologije. = Auxiliary substances in pharmacy: from their naming to the role in the drug: online textbook for students of pharmacy, industrial pharmacy and cosmetology - Ljubljana, 2015, COBISS.SI-ID: 277107200.

Pečar Slavko Mravljak Janez: Šumi življenja ali Radikali in druge reaktivne snovi v telesu. = Noise of life or Radicals and other reactive substances in the body - Ljubljana, 2015, 319 pp., COBISS.SI-ID: 279040256.

Tomašič Tihomir, Peterlin-Mašič Lucija: Rhodanine.- In: Privileged scaffolds in medicinal chemistry: design, synthesis, evaluation.- Cambridge, pp. 214-230, COBISS.SI-ID: 3988337.

Scientific Papers and Professional Publications

Arsov Zoran, Švajger Urban, Mravljak Janez, Pajk Stane, Kotar Anita, Urbančič Iztok, Štrancar Janez, Anderluh Marko: Internalization and accumulation in dendritic cells of a small pH-activatable glycomimetic fluorescent probe as revealed by spectral detection. - *ChemBioChem*, 2015, 16, 18, pp. 2660-2667, COBISS.SI-ID: 3970417.

Berne Sabina, Kovačič Lidija, Sova Matej, Kraševac Nada, Gobec Stanislav, Križaj Igor, Komel Radovan: Benzoic acid derivatives with improved antifungal activity: design, synthesis, structure-activity relationship (SAR) and CYP53 docking studies.- *Bioorg. Med. Chem.*, 2015, 23, 15, pp. 4264-4276, COBISS.SI-ID: 8189049.

Brvar Miran, Koželj Gordana, Peterlin-Mašič Lucija: Hypoglycemia in venlafaxine overdose : a hypothesis of increased glucose uptake.- *Eur. J. Clin. Pharmacol.*, 2015, 71, 2, pp. 261-262, COBISS.SI-ID: 31706329.

Cateni Francesca, Lucchini Vittorio, Zacchigna Marina, Procida Giuseppe, Doljak Bojan, Anderluh Marko: New triterpenes from the fungus *Gloeophyllum odoratum*.- *Chem. Nat. Compd.*, 2015, 51, 1, pp. 74-80, COBISS.SI-ID: 3819121.

Chinta Gopichand, Chandar Charles Mariasoosai Ramya, Klopčič Ivana, Sollner Dolenc Marija, Periyasamy Latha, Selvaraj Coumar Mohane: In silico and in vitro investigation of piperine's male contraceptive effect: docking and molecular dynamics simulation studies in androgen-binding protein and androgen receptor.- *Planta Medica*, 2015, 81, 10, pp. 804-812, COBISS.SI-ID: 3871601.

Festa Carmen, Maria Valeria D'auria, Sepe Valentina, Ilaš Janez, Leick Amelie, N'gom Saliou, De Marino Simona: Triterpenoid profile and bioactivity study of *Oenothera maritima*.- *Phytochem. Lett.*, 2015, 13, pp. 324-329, COBISS.SI-ID: 3912561.

Fic Anja, Jurković Mlakar Simona, Juvan Peter, Mlakar Vid, Marc Janja, Sollner Dolenc Marija, Broberk Karin, Peterlin-Mašič Lucija: Genome-wide gene expression profiling of low-dose, long-term exposure of human osteosarcoma cells to bisphenol A and its analogs bisphenols AF and S.- *Toxicology in Vitro*, 2015, 29, 5, pp. 1060-1069, COBISS.SI-ID: 3849841

Frlan Rok, Sova Matej, Gobec Stanislav, Stavber Gaj, Časar Zdenko: Cobalt-catalyzed cross-coupling of Grignards with allylic and vinylic bromides : use of sarcosine as a natural ligand.- *J. Org. Chem.*, 2015, 80, 15, pp. 7803-7809, COBISS.SI-ID: 1586012.

Gobec Martina, Tomašič Tihomir, Markovič Tijana, Mlinarič-Raščan Irena, Sollner Dolenc Marija, Jakopin Žiga: Antioxidant and anti-inflammatory properties of 1,2,4-oxadiazole analogues of resveratrol.- *Chem-Biol. Interact.*, 2015, 240, pp. 200-207, COBISS.SI-ID: 3914865.

Gramec Darja, Troberg Johanna, Javdas Jason, Peterlin-Mašič Lucija, Finel Moshe: Differences in the glucuronidation of bisphenols F and S between two homologous human UGT enzymes, 1A9 and 1A10.- *Xenobiotica*, 2015, 45, 6, pp. 511-519, COBISS.SI-ID: 3835505.

Guzior Natalia, Bajda Marek, Rakoczy Jurand, Brus Boris, Gobec Stanislav, Malawska Barbara: Isoindoline-1,3-dione derivatives targeting cholinesterases: design, synthesis and biological evaluation of potential anti-Alzheimer's agents.- *Bioorg. Med. Chem.*, 2015, 23, 7, pp. 1629-1637, COBISS.SI-ID: 3816561.

Guzior Natalia, Bajda Marek, Skrok Mirosław, Kurpiewska Katarzyna, Lewiński Krzysztof, Brus Boris, Pišlar Anja, Kos Janko, Gobec Stanislav, Malawska Barbara: Development of multifunctional, heterodimeric isoindoline-1,3-dione derivatives as cholinesterase and β -amyloid aggregation inhibitors with neuroprotective properties.- *Eur. J. Med. Chem.*, 2015, 92, pp. 738-749, COBISS.SI-ID: 3806577.

Hodnik Žiga, Tomašič Tihomir, Smodiš Domen, D'amore Claudio, Peterlin-Mašič Lucija, Fiorucci Stefano, Kikelj Danijel: Diethylstilbestrol-scaffold-based pregnane X receptor modulators.- *Eur. J. Med. Chem.*, 2015, 103, pp. 551-562, COBISS.SI-ID: 3921009.

Jakopin Žiga: The design and synthesis of Ala-Glu/iGln mimetics: heterocyclic building blocks for pseudopeptides.- *Tetrahedron Lett.* 2015, 56, 3, pp. 504-506, COBISS.SI-ID: 3792753.

Jug Gregor, Anderluh Marko, Tomašič Tihomir: Comparative evaluation of several docking tools for docking small molecule ligands to DC-SIGN.- *J. Mol. Model.*, 2015, 21, 6, pp. 1-12, COBISS.SI-ID: 3875953.

Jukič Marko, Frlan Rok, Chan Fiona, Kirby Robert W., Madge David J., Tytgat J., Peigneur Steve, Anderluh Marko, Kikelj Danijel: Synthesis and biological evaluation of piperazine derivatives as novel isoform selective voltage-gated sodium (Nav) 1.3 channel modulators.- *Med. Chem. Res.*, 2015, 24, 6, pp. 2366-2380, COBISS.SI-ID: 3779185.

Klopčič Ivana, Kolšek Katra, Sollner Dolenc Marija: Glucocorticoid-like activity of propylparaben, butylparaben, diethylhexyl phthalate and tetramethrin mixtures studied in the MDA-kb2 cell line.- *Toxicol. Lett.*, 2015, 232, 2, pp. 376-383, COBISS.SI-ID: 3789425.

Klopčič Ivana, Poberžnik Matic, Mavri Janez, Sollner Dolenc Marija: A quantum chemical study of the reactivity of acetaminophen (paracetamol) toxic metabolite N-acetyl-p-benzoquinone imine with deoxyguanosine and glutathione.- *Chem-Biol. Interact.*, 2015, 242, pp. 407-414, COBISS.SI-ID: 3977585.

Knez Damijan, Brus Boris, Coquelle Nicolas, Sosič Izidor, Šink Roman, Brazzolotto Xavier, Mravljak Janez, Colletier Jacques-Philippe, Gobec Stanislav: Structure-based development of nitroxoline derivatives as potential multifunctional anti-Alzheimer agents.- *Bioorganic & Med. Chem.*, 2015, 23, 15, pp. 4442-4452, COBISS.SI-ID: 3874161.

Kolenc-Peitzl Petra, Tamma Marialuisa, Krošelj Marko, Braun Friederike, Waser Beatrice, Reubi Jean Claude, Sollner Dolenc Marija, Maecke Helmut R., Mansi Rosalba: Stereochemistry of amino acid spacers determines the pharmacokinetics of ¹¹¹In-DOTA-minigastrin analogues for targeting of the CCK2/gastrin receptor.- *Bioconjugate Chemistry*, 2015, 26, 6, pp. 1113-1119, COBISS.SI-ID: 3861873.

Kolšek Katra, Gobec Martina, Mlinarič-Raščan Irena, Sollner Dolenc Marija: Screening of bisphenol A, triclosan and paraben analogues as modulators of the glucocorticoid and androgen receptor activities.- *Toxicology in vitro*, 2015, 29, 1, pp. 8-15. COBISS.SI-ID: 3697521.

Košak Urban, Hrast Martina, Knez Damijan, Maraš Nenad, Črnugelj Martin, Gobec Stanislav: Convenient syntheses of orthogonally protected aminocyclopentitols from aldopentoses.- *Tetrahedron Lett.*, 2015, 56, 3, pp. 529-531, COBISS.SI-ID: 3789937.

Krbavčič Aleš: The Isonzo front in the First World War. Fronta uz Soču tijekom prvog svjetskog rata = glass ampoules found in the vicinity of the village of Kred: staklene ampule nađene u blizini sela Kreda.- *Acta Med. Hist. Adriat.*, 2015, 13, 1, pp. 9-20, COBISS.SI-ID: 4010865.

Lešnik Samo, Štular Tanja, Brus Boris, Knez Damijan, Gobec Stanislav, Janežič Dušanka, Konc Janez: LiSiCA: a software for ligand-based virtual screening and its application for the discovery of butyrylcholinesterase inhibitors.- *J. Chem. Inf. Model.*, 2015, 55, 8, pp. 1521-1529, COBISS.SI-ID: 3893361.

Martinčič Rok, Mravljak Janez, Švajger Urban, Perdih Andrej, Anderluh Marko, Novič Marjana: In silico discovery of novel potent antioxidants on the basis of pulvinic acid and coumarine derivatives and their experimental evaluation.- *PloS one*, 2015, 10, 10, pp. 1-27, e0140602, COBISS.SI-ID: 3958129.

Mirković Bojana, Markelc Boštjan, Butinar Miha, Mitrović Ana, Sosič Izidor, Gobec Stanislav, Vasiljeva Olga, Turk Boris, Čemažar Maja, Serša Gregor, Kos Janko: Nitroxoline impairs tumour progression in vitro and in vivo by regulating cathepsin B activity.- *Oncotarget*, 2015, 6, 22, pp. 19027-19042, COBISS.SI-ID: 3834225.

Mravljak Janez: Radikali in oksidativni stres = Free radicals and oxidative stress.- *Farm. Vestn.* 2015, 66, 2, pp. 127-132, COBISS.SI-ID: 3859057.

Obreza Aleš: Zdravila za zdravljenje bolezni prostate in mehurja = Drugs for treating diseases of prostate and bladder.- *Farm. Vestn.*, 2015, 66, 2, pp. 209-214, COBISS.SI-ID: 3859313.

Ogrizek Mitja, Turk Samo, Lešnik Samo, Sosič Izidor, Hodošček Milan, Mirković Bojana, Kos Janko, Janežič Dušanka, Gobec Stanislav, Konc Janez: Molecular dynamics to enhance structure-based virtual screening on cathepsin B.- *J. Comput. Aid. Mol. Des.*, 2015, 29, 8, pp. 707-712, COBISS.SI-ID: 3858033.

Perdih Andrej, Hrast Martina, Pureber Kaja, Barreteau Hélène, Golič Grdadolnik Simona, Kocjan Darko, Gobec Stanislav, Šolmajer Tomaž, Wolber Gerhard: Furan-based benzene mono- and dicarboxylic acid derivatives as multiple inhibitors of the bacterial Mur ligases (MurC-MurF): experimental and computational characterization.- *J. Comput. Aid. Mol. Des.*, 2015, 29, 6, pp. 541-560, COBISS.SI-ID: 5677082.

Pogorelčnik Barbara, Janežič Matej, Sosič Izidor, Gobec Stanislav, Šolmajer Tomaž, Perdih Andrej: 4,6- substituted-1,3, 5-triazin-2(1H)-ones as monocyclic catalytic inhibitors of human DNA topoisomerase II [alpha] targeting the ATP binding site.- *Bioorg. Med. Chem.*, 2015, 23, 15, pp. 4218-4229, COBISS.SI-ID: 3886961.

Sinreih Maša, Zukunft Sven, Sosič Izidor, Cesar Jožko, Gobec Stanislav, Adamski Jerzy, Lanišnik-Rižner Tea: Combined liquid chromatography-tandem mass spectrometry analysis of progesterone metabolites.- *PloS one*, 2015, 10, 2, COBISS.SI-ID: 31822297.

Smelcerović Andrija, Miljković Filip, Kolarević Ana, Lazarević Jelena, Djordjević Aleksandra, Kocić Gordana, Anderluh Marko: An overview of recent dipeptidyl peptidase-IV inhibitors: linking their structure and physico-chemical properties with SAR, pharmacokinetics and toxicity.- *Curr. Top. Med. Chem.*, 2015, 15, 23, pp. 2342-2372, COBISS.SI-ID: 3873649.

Sosič Izidor, Anderluh Marko, Sova Matej, Gobec Martina, Mlinarič-Raščan Irena, Derouaux Adeline, Amoroso Ana, Terrak Mohammed, Breukink Eefjan, Gobec Stanislav: Structure-activity relationships of novel tryptamine-based inhibitors of bacterial transglycosylase.- *J. Med. Chem.*, 2015, 58, 24, 9712-9721, COBISS.SI-ID: 3978865.

Sova Matej, Frlan Rok, Gobec Stanislav, Stavber Gaj, Časar Zdenko: D-Glucosamine in iron-catalysed cross-coupling reactions of Grignards with allylic and vinylic bromides: application to the synthesis of a key sitagliptin precursor.- *Appl. Organomet. Chem.*, 2015, 29, 8, pp. 528-535, COBISS.SI-ID: 3870833.

Szałaj Natalia, Bajda Marek, Dudek Katarzyna, Brus Boris, Gobec Stanislav, Malawska Barbara: Multiple ligands targeting cholinesterases and b-amyloid: synthesis, biological evaluation of heterodimeric compounds with benzylamine pharmacophore.- *Arch. Pharm.*, 2015, 348, 8, pp. 556-563, COBISS.SI-ID: 3868785.

Šink Roman, Sosič Izidor, Živec Matej, Fernandez-Menendez Raquel, Turk Samo, Pajk Stane, Alvarez-Gomez Daniel, Lopez-Roman Eva Maria, Gonzalez Cortes, Carolina, Rullas-Trincado, Joaquin, Angulo-Barturen, Iñigo, Barros, David, Ballell Pages, Lluís, Young, Robert J., Encinas, Lourdes, Gobec Stanislav: Design, synthesis and evaluation of new thiadiazole- based direct inhibitors of enoyl acyl carrier protein reductase (InhA) for the treatment of tuberculosis. – *J. Med. Chem.*, 2015, 58, 2, pp. 613-624, COBISS.SI-ID: 3794801.

Švajger Urban, Gobec Martina, Obreza Aleš, Mlinarič-Raščan Irena: Novel N-amidinopiperidine-based proteasome inhibitor preserves dendritic cell functionality and rescues their Th1-polarizing capacity in Ramos-conditioned tumour environment.- *Cancer Immunol. Immun.*, 2015, 64, 1, pp. 15-27, COBISS.SI-ID: 31562969.

Švajger Urban, Horvat Žiga, Knez Damijan, Rožman Primož, Turk Samo, Gobec Stanislav: New antagonists of toll-like receptor 7 discovered through 3D ligand-based virtual screening.- *Med. Chem., Res.*, 2015, 24, 1, pp. 362-371, COBISS.SI-ID: 31483609.

Testen Anže, Podlipec Rok, Mravljak Janez, Orthmann Andrea, Šentjurs Marjeta, Zeisig Reiner, Štrancar Janez, Koklič Tilen: How perifosine affects liposome-encapsulated drug delivery across a cell barrier.- *Ther. Deliv.*, 2015, 6, 4, pp. 423-441, COBISS.SI-ID: 3863665.

Tomašič Tihomir, Katsamakos Sotirios, Hodnik Žiga, Ilaš Janez, Brvar Matjaž, Šolmajer Tomaž, Montalvão Sofia, Tammela Päivi, Banjanac Mihailo, Ergović Gabrijela, Anderluh Marko, Peterlin-Mašič, Lucija Kikelj Danijel: Discovery of 4,5,6,7-tetrahydrobenzo[1, 2-d]thiazoles as novel DNA gyrase inhibitors targeting the ATP-binding site.- *J. Med. Chem.*, 2015, 58, 14, pp. 5501-521, COBISS.SI-ID: 3889009.

Tomašič Tihomir, Nabergoj Dominik, Vrbek Sanja, Zidar Nace, Jakopin Žiga, Žula Aleš, Hodnik Žiga, Jukič Marko, Anderluh Marko, Ilaš Janez, Sollner Dolenc Marija, Peluso Jean, Ubeaud-Séquier Geneviève, Muller Christian D., Peterlin-Mašič Lucija, Kikelj Danijel: Analogues of the marine alkaloids oroidin, clathrocin and hymenidin induce apoptosis in human HepG2 and THP-1 cancer cells.- *MedChemComm*, 2015, 6, 1, pp. 105-110, COBISS.SI-ID: 3697265.

Więckowska Anna, Więckowski Krzysztof, Bajda Marek, Brus Boris, Sałat Kinga, Czerwińska Paulina, Gobec Stanislav, Filipek Barbara, Malawska Barbara: Synthesis of new N-benzylpiperidine derivatives as cholinesterase inhibitors with β -amyloid anti-aggregation properties and beneficial effects on memory in vivo.- *Bioorg. Med. Chem.*, 2015, 23, 10, str. 2445-2457, COBISS.SI-ID: 3833713.

Zelcerovic Zaklina, Veljkovic Andrej, Kocic Gordana, Yancheva Denitsa, Petronijevic Zivomir, Anderluh Marko, Smelcerović Andrija: Xanthine oxidase inhibitory properties and anti-inflammatory activity of 2-amino-5-alkylidene-thiazol-4-ones.- *Chemico-Biol. Interact.*, 2015, 229, pp. 73-81, COBISS.SI-ID: 3836017.

Zidar Nace, Macut Helena, Tomašič Tihomir, Brvar Matjaž, Montalvão Sofia, Tammela Päivi, Šolmajer Tomaž, Peterlin-Mašič Lucija, Ilaš Janez, Kikelj Danijel: N-phenyl-4,5-dibromopyrrolamides and N-phenylindolamides as ATP competitive DNA gyrase B inhibitors: design, synthesis and evaluation.- *J. Med. Chem.*, 2015, 58, 15, pp. 6179-6194, COBISS.SI-ID: 3888753.

Invited Lectures

Erjavec Boštjan, Hudoklin Petra, Perc Katja, Tišler Tatjana, Sollner Dolenc Marija, Pintar Albin: Fotokatalitsko odstranjevanje bisfenola A, F in AF iz vodnih vzorcev = Photocatalytic removal of bisphenol A, F and AF from water samples.- In: Kemijski povzročitelji hormonskih motenj od molekule do človeka = Endocrine disrupting chemicals - from molecule to man, Ljubljana, 2015, pp. 38-39, COBISS.SI-ID 3856753.

Ilaš Janez: An overview of modern pharmaceutical analysis.- In: Module I: pharmacy: [course notes], Ljubljana, 2015, pp. 391-425, COBISS.SI-ID: 3917425.

Klopčič Ivana, Kolšek Katra, Sollner Dolenc Marija: In vitro proučevanje glukokortikoidnega delovanja izbranih parabenov, ftalatov in insekticidov ter njihovih mešanic = In vitro study of glucocorticoid-like activity of parabens, phthalates and pyrethroid insecticides and their mixtures.- In: Kemijski povzročitelji hormonskih motenj od molekule do človeka = Endocrine disrupting chemicals - from molecule to man, Ljubljana, 2015, pp. 50-51, COBISS.SI-ID: 3857265.

Kolšek Katra, Mavri Janez, Gobec Stanislav, Sollner Dolenc Marija, Turk Samo: In silico identifikacija hormonskih motilcev - endocrine disruptome = In silico identification of endocrine disrupting chemicals - endocrine disruptome.- In: Kemijski povzročitelji hormonskih motenj od molekule do človeka = Endocrine disrupting chemicals - from molecule to man, Ljubljana, 2015, pp. 61-62, COBISS.SI-ID: 3857777.

Kolšek Katra, Sollner Dolenc Marija: Vpliv izbranih endokrinih motilcev na adhezijske procese celic = Influence of selected endocrine disruptors on cell adhesion processes.- In: Kemijski povzročitelji hormonskih motenj od molekule do človeka = Endocrine disrupting chemicals - from molecule to man, Ljubljana, 2015, pp. 48-49, COBISS.SI-ID: 3857009.

Obreza Aleš: Principles of medicinal chemistry.- In: Module I: pharmacy: [course notes], Ljubljana, 2015, pp. 261-294, COBISS.SI-ID: 3916913.

Sosič Izidor, Mirković Bojana, Mitrović Ana, Markelc Boštjan, Butinar Miha, Vasiljeva Olga, Turk Boris, Čemažar Maja, Serša Gregor, Kos Janko, Gobec Stanislav: Cathepsin B inhibitors impair the processes of tumour progression.- In: 2nd EFMC Young Medicinal Chemist Symposium, September 17, 2015, pp. 20, COBISS.SI-ID: 3945585.

Sosič Izidor: Water for pharmaceutical use.- In: Module I: pharmacy: [course notes], Ljubljana, 2015, pp. 117-133, COBISS.SI-ID: 3915633.

Švajger Urban, Sollner Dolenc Marija, Jeras Matjaž: Ugotavljanje vplivov bisfenolov BPA, BPF in BPAF na diferenciacijo, dozorevanje in funkcijske lastnosti iz človeških monocitov pripravljenih dendritičnih celic (DC) in vitro = The influences of bisphenols BPA, BPF, and BPAF on in vitro differentiation, maturation and functional properties of human monocyte-derived dendritic cells.- In: Kemijski povzročitelji hormonskih motenj od molekule do človeka = Endocrine disrupting chemicals - from molecule to man, Ljubljana, 2015, pp. 54-55, COBISS.SI-ID: 3857521.

Tišler Tatjana, Erjavec Boštjan, Sollner Dolenc Marija, Pintar Albin: Ekotoksikološki vidiki bisfenola A in njegovih analogov = Ecotoxicological aspects of bisphenol A and its analogues.- In: Kemijski povzročitelji hormonskih motenj od molekule do človeka = Endocrine disrupting chemicals - from molecule to man, Ljubljana, 2015, pp. 36-37, COBISS.SI-ID: 3856497.

Lectures

Erjavec Boštjan, Hudoklin Petra, Perc Katja, Tišler Tatjana, Sollner Dolenc Marija, Pintar Albin: Photocatalytic removal of toxicity and estrogenicity of water dissolved bisphenols (bisphenol A, F and AF) in BR and CSTR.- In: Book of proceedings, Athens, 2015, pp. 1-3, COBISS.SI-ID: 5808922.

Erjavec Boštjan, Hudoklin Petra, Perc Katja, Tišler Tatjana, Sollner Dolenc Marija, Pintar Albin: Photocatalytic removal of bisphenols (A, F and AF) in BR and CSTR.- In: European Meeting on Chemical Industry and Environment, Tarragona, Spain, 10-12 June 2015, pp. 545-546, COBISS.SI-ID: 5713946.

Patents

Časar Zdenko, Šterk Damjan, Jukič Marko: Process for the preparation of key intermediates for the synthesis of statins or pharmaceutically acceptable salts thereof: international publication number: US 9,085,538 B2, 2015, 59 pp., COBISS.SI-ID: 1486428.

Mravljak Janez, Sova Matej, Kovač Andreja, Gobec Stanislav, Časar Zdenko: Process for the synthesis of ezetimibe and intermediates useful therefor: patent no. JP5735913 (B2) - 2015-06-17, Tokio, 2015, 28 pp., COBISS.SI-ID: 2747249.

Sova Matej, Časar Zdenko, Stavber Gaj: Preparation of sitagliptin intermediates, patent, US 9,174,930 B2: Nov. 3, 2015, 36 pp., COBISS.SI-ID: 1517660.

THE CHAIR OF PHARMACEUTICAL TECHNOLOGY

Independent Work

Baumgartner Saša, Stojilkovski Katja: Zgoščevala = Thickening agents.- In: Sodobna kozmetika: sestavine naravnega izvora, 1st ed. Velenje, 2015, pp. 198-209, COBISS.SI-ID: 3999857.

Gašperlin Mirjana: Naravna kozmetika - kaj vse bi morali vedeti = Natural cosmetics - what you should know.- In: Sodobna kozmetika: sestavine naravnega izvora, 1st ed. Velenje, 2015, pp. 2-14, COBISS.SI-ID: 3998321.

Gosenca Mirjam: Koža - najpomembnejša dva kvadratna metra našega življenja = Skin - The two most important square meters of our life.- In: Sodobna kozmetika: sestavine naravnega izvora, 1st ed. Velenje, 2015, pp. 18-32, COBISS.SI-ID: 3998577.

Gosenca Mirjam: Tehnološki pogled na kozmetične izdelke - podlage in nosilni sistemi = Technological view of cosmetic products - bases and support systems.- In: Sodobna kozmetika: sestavine naravnega izvora, 1st ed. Velenje, 2015, pp. 36-48, COBISS.SI-ID: 3998833.

Kočevar Glavač Nina, Janeš Damjan, Lumpert Mateja, Stojilkovski Katja, Kokalj Meta, Tavčar Benković Eva, Gosenca Mirjam, Hendrychová Helena, Gašperlin Mirjana, Lunder Mojca, Baumgartner Saša: Modern Cosmetics: Ingredients of Natural Origin. 1st ed. Velenje, 2015, 943 pp., COBISS.SI-ID: 281719808.

Obreza Aleš, Bevc Bernarda, Baumgartner Saša, Sollner Dolenc Marija, Humar Marjeta: Pomožne snovi v farmaciji: od njihovega poimenovanja do vloge v zdravlju: spletni učbenik za študente farmacije, industrijske farmacije in kozmetologije. = Auxiliary substances in pharmacy: from their naming to the role in the drug: online textbook for students of pharmacy, industrial pharmacy and cosmetology - Ljubljana, 2015, COBISS.SI-ID: 277107200.

Scientific Papers and Professional Publications

Aleksovski Aleksandar, Dreu Rok, Gašperlin Mirjana, Planinšek Odon: Mini-tablets: a contemporary system for oral drug delivery in targeted patient groups.- *Expert Opin.Drug Deliv.*, 2015, 12, 1, pp. 65-84, COBISS.SI-ID: 3724401.

Aleksovski Aleksandar, Luštrik Matevž, Šibanc Rok, Dreu Rok: Design and evaluation of a specific, bi-phase extended release system based on differently coated mini-tablets.- *Eur. J. Pharm. Sci.*, 2015, 75, pp. 114-122, COBISS.SI-ID: 3847793.

Artenjak Andrej, Omersel Jasna, Ahlin Grabnar Pegi, Mlinarič-Raščan Irena, Shoenfeld Yehuda, Sodin-Šemrl Snežna, Božič Borut, Čučnik Saša: Oxidatively altered IgG with increased immunoreactivity to [beta]2-glycoprotein I and its peptide clusters influence human coronary artery endothelial cells.- *Lupus*, 2015, 24, 4/5, pp. 448-462, COBISS.SI-ID: 31901657.

Bukovec Polona, Meden Anton, Smrkolj Matej, Vrečer Franc: Influence of crystal habit on the dissolution of simvastatin single crystals.- *Acta Chim. Slov.*, 2015, 62, 4, pp. 958-966, COBISS.SI-ID: 4013681.

Čerpnjak Katja, Zvonar Pobirk Alenka, Vrečer Franc, Gašperlin Mirjana: Development of a solid self-microemulsifying drug delivery system (SMEDDS) for solubility enhancement of naproxen.- *Drug Dev. Ind. Pharm.*, 2015, 41, 9, pp. 1548-1557, COBISS.SI-ID: 3743857.

Čerpnjak Katja, Zvonar Pobirk Alenka, Vrečer Franc, Gašperlin Mirjana: Characterization of naproxen-loaded solid SMEDDSs prepared by spray drying: the effect of the polysaccharide carrier and naproxen concentration.- *Int. J. Pharm.* 2015, 485, 1-2, pp. 215-228, COBISS.SI-ID: 3832177.

Čerpnjak Katja, Zvonar Pobirk Alenka, Vrečer Franc, Gašperlin Mirjana: Tablets and minitables prepared from spray-dried SMEDDS containing naproxen.- *Int. J. Pharm.*, 2015, 495, 1, pp. 336-346, COBISS.SI-ID: 3915121.

Egart Mateja, Janković Biljana, Lah Nina, Ilić Ilija, Srčić Stanko: Nanomechanical properties of selected single pharmaceutical crystals as a predictor of their bulk behaviour.- *Pharm. Res.*, 2015, 32, 2, pp. 469-481, COBISS.SI-ID: 3691377.

Hudovornik Grega, Korasa Klemen, Vrečer Franc: A study on the applicability of in-line measurements in the monitoring of the pellet coating process.- *Eur. J. Pharm. Sci.*, 2015, 75, pp. 160-168, COBISS.SI-ID: 3865969.

Hudovornik Grega, Vrečer Franc: Impact of the curing parameters on drug release from Eudragit RS and RL 30D coated pellets: design of experiments.- *J. Drug Deliv. Science Technol.*, 2015, 30, part A, pp. 146-153, COBISS.SI-ID: 3968881.

Jaklič Miha Tomaž, Kočevar Klemen, Srčić Stanko, Dreu Rok: Particle size-based segregation of pharmaceutical powders in a vertical chute with a closed bottom: an experimental evaluation.- *Powder Technol.*, 2015, 278, pp. 171-180, COBISS.SI-ID: 3840881.

Kitak Teja, Dumičić Aleksandra, Planinšek Odon, Šibanc Rok, Srčić Stanko: Determination of solubility parameters of ibuprofen and ibuprofen lysinate.- *Molecules*, 2015, 20, 12, pp. 21549-21568, COBISS.SI-ID: 3983985.

Klančar Uroš, Baumgartner Saša, Legen Igor, Novak Polona, Jeraj Nataša, Krajcar Dejan, Markun Boštjan, Kočevar Klemen: Determining the polymer threshold amount for achieving robust drug release from HPMC and HPC matrix tablets containing a high-dose BCS class I model drug: in vitro and in vivo studies.- *AAPS PharmSciTech*, 2015, 16, 2, pp. 398-406, COBISS.SI-ID: 3750001.

Kravos Klara, Gašperlin Mirjana: Hialuronska kislina - naravna učinkovina za vlaženje in zaviranje znakov staranja kože = Hyaluronic acid - natural moisturizing and anti-ageing ingredient. *Farm. Vestn.*, 2015, 66, 4, pp. 318-325, COBISS.SI-ID: 3934577.

Lavrič Zoran, Pirnat Janez, Lužnik Janko, Puc Uroš, Trontelj Zvonko, Srčić Stanko: 14N nuclear quadrupole resonance study of piroxicam: confirmation of new polymorphic form V.- *J. Pharm., Sci.*, 2015, 104, 6, pp. 1909-1918, COBISS.SI-ID: 17286233.

Pelipenko Jan, Kocbek Petra, Kristl Julijana: Nanofiber diameter as a critical parameter affecting skin cell response.- *Eur. J. Pharm. Sci.*, 2015, 66, pp. 29-35, COBISS.SI-ID: 3750257.

Pelipenko Jan, Kocbek Petra, Kristl Julijana: Critical attributes of nanofibers: preparation, drug loading and tissue regeneration.- *Int. J. Pharm.*, 2015, 484, 1-2, pp. 57-74, COBISS.SI-ID: 3820401.

Potrč Tanja, Baumgartner Saša, Roškar Robert, Planinšek Odon, Lavrič Zoran, Kristl Julijana, Kocbek Petra: Electrospun polycaprolactone nanofibers as a potential oromucosal delivery system for poorly water-soluble drugs.- *Eur. J. Pharm. Sci.*, 2015, 75, pp. 101-113, COBISS.SI-ID 3849329.

Radivojša Matanović Maja, Grabnar Iztok, Ahlin Grabnar Pegi, Roškar Robert: Development and validation of a simple and sensitive size-exclusion chromatography method for quantitative determination of heparin in pharmaceuticals.- *Acta Pharmaceut.*, 2015, 65, 1, pp. 43-52, COBISS.SI-ID: 3809905.

Radivojša Matanović Maja, Grabnar Iztok, Gosenca Mirjam, Ahlin Grabnar Pegi: Prolonged subcutaneous delivery of low molecular weight heparin based on thermoresponsive hydrogels with chitosan nanocomplexes: design, in vitro evaluation and cytotoxicity studies.- *Int. J. Pharm.*, 2015, 488, 1-2, pp. 127-135, COBISS.SI-ID: 3849585.

Radivojša Matanović Maja, Ahlin Grabnar Pegi, Voinovich Dario, Golob Samuel, Božič Mojca, Grabnar Iztok: Development and preclinical pharmacokinetics of a novel subcutaneous thermoresponsive system for prolonged delivery of heparin.- *Int. J. Pharm.*, 2015, 496, 2, pp. 583-592, COBISS.SI-ID: 3976049.

Urek Sandra, Dreu Rok, Srčič Stanko: Influence of pH modifiers on the dissolution and stability of hydrochlorothiazide in the bi- and three-layer tablets.- *Acta Pharm.*, 2015, 65, 4, pp. 383-397, COBISS.SI-ID: 3984753.

Wosicka-Frąckowiak Hanna, Cal Krzysztof, Stefanowska Justyna, Główna Eliza, Nowacka Magdalena, Struck-Lewicka Wiktoria, Janković Biljana, Pasikowska Monika, Dębowska Renata, Jesionowski Teofil, Srčič Stanko, Markuszewski Michał Jan: Roxithromycin-loaded lipid nanoparticles for follicular targeting.- *Int. J. Pharm.*, 2015, 495, 2, pp. 807-815, COBISS.SI-ID: 3958385.

Zupančič Špela, Lavrič Zoran, Kristl Julijana: Stability and solubility of trans-resveratrol are strongly influenced by pH and temperature.- *Eur. J. Pharm. Biopharm.*, 2015, 93, pp. 196-204, COBISS.SI-ID: 3848561.

Zupančič Špela, Baumgartner Saša, Lavrič Zoran, Petelin Milan, Kristl Julijana: Local delivery of resveratrol using polycaprolactone nanofibers for treatment of periodontal disease.- *J. Drug Deliv. Sci. Technol.*, 2015, 30, part B, pp. 408-416, COBISS.SI-ID: 3989105.

Zupančič Špela, Kocbek Petra, Baumgartner Saša, Kristl Julijana: Contribution of nanotechnology to improved treatment of periodontal disease.- *Current Pharm. Des.*, 2015, 21, 22, pp. 3257-3271, COBISS.SI-ID: 3894641.

Invited Lectures

Dreu Rok: Particulate contamination.- In: Module I: pharmacy: [course notes], Ljubljana, 2015, pp. 135-147, COBISS.SI-ID: 3915889.

Gašperlin Mirjana: Sterilisation.- In: Module I: pharmacy: [course notes], Ljubljana, 2015, pp. 189-209, COBISS.SI-ID: 3916145.

Janković Biljana, Srčić Stanko: Quantitative mechanical measurements at the nano-scale for the crystalline pharmaceutical ingredients.- In: Fourth World Conference on Physico-Chemical Methods in Drug Discovery and Development, Red Island, Croatia, 21-24 September 2015, pp. 27, COBISS.SI-ID: 3945329.

Janković Biljana: Critical materials attributes (CMA) relevant for production of solid dosage forms.- In: Advanced Solid Dosage Forms Seminar, 8-9 June 2015, Belfast, pp. 4, COBISS.SI-ID: 3946353.

Kocbek Petra: Pregled sodobnih dostavnih sistemov za vnos učinkovin v tarčne lezije v onkologiji = Review of novel delivery systems for targeted drug delivery in oncology. - In: 27. strokovni sestanek internistov 2015 = 27th professional meetings of internists 2015, Ljubljana, 25 -26 September 2015, pp. 174-179, COBISS.SI-ID: 3949937.

Kristl Julijana: Elektrostatsko razprševanje - od teorije do farmacevtskega izdelka = Electrostatic spraying - from theory to a pharmaceutical product.- In: 26. simpozij Sekcije farmacevtskih tehnologov: načrtovanje lastnosti delcev v razvoju farmacevtskih oblik, zbornik predavanj = 26th symposium of the Section of Pharmaceutical Technologists, Ljubljana, 11 June 2015: planning particle properties in the development of pharmaceutical forms, proceedings, Ljubljana, 2015, pp. 44, COBISS.SI-ID: 3872881.

Planinšek Odon: Porozni SiO₂ kot nosilec zdravilnih učinkovin = Porous SiO₂ as a carrier of active substances.- In: 26. simpozij Sekcije farmacevtskih tehnologov: načrtovanje lastnosti delcev v razvoju farmacevtskih oblik, zbornik predavanj = 26th symposium of the Section of Pharmaceutical Technologists, Ljubljana, 11 June 2015: planning particle properties in the development of pharmaceutical forms, proceedings, Ljubljana, 2015, pp. 50-57, COBISS.SI-ID: 3873137.

Planinšek Odon: Tips and tricks on using porous silicon dioxide as a drug carrier.- In: 6th BBBB Conference on Pharmaceutical Sciences, 10-12 September 2015, Helsinki, Finland, pp. 108, COBISS.SI-ID: 3925617.

Potrč Tanja: Trdne disperzije težko topnih zdravilnih učinkovin s polimeri = Solid dispersions of difficult to dissolve active substances with polymers.- In: 26. simpozij Sekcije farmacevtskih tehnologov: načrtovanje lastnosti delcev v razvoju farmacevtskih oblik, zbornik predavanj = 26th symposium of the Section of Pharmaceutical Technologists, Ljubljana, 11 June 2015: planning particle properties in the development of pharmaceutical forms, proceedings, Ljubljana, 2015, pp. 45, COBISS.SI-ID: 3873393.

Zvonar Pobirk Alenka: Design of dosage forms.- In: Module I: pharmacy: [course notes], Ljubljana, 2015, pp. 87-111, COBISS.SI-ID: 3915377.

Žagar Ema, Pahovnik David, Perdih Peter, Reven Sebastjan, Cegnar Mateja, Kerč Janez: Designing new polymer carriers for drug delivery.- In: Dunabe Vltava Sava Polymer Meeting- DVSPM 2015: proceedings of a Conference on Polymer Science: 11-13 May 2015, pp. 7, COBISS.SI-ID: 5697562.

Lectures

Aleksovski Aleksandar, Vervaet C., Dreu Rok: Influence of bio-relevant dissolution medium and storage conditons on the dissolution performance of mini-extrudates, based on glyceryl palmitostearate and metoprolol tartarate.- In: 9th Annual Symposium of Pharmaceutical Solid State Research Cluster (PSSRC), 16-18/09/2015, Ghent University, Belgium, pp. 90-91, COBISS.SI-ID: 3940977.

Boehling Peter, Dreu Rok, Knop Klaus, Kleinebudde Peter, Funke Adrian, Rehbaum Hubertus, Rajniak Pavol, Khinast Johannes G: Assessing tablet surface velocity in a drum coater using DEM with reference to results of high speed video data analysis.- In: 9th Annual Symposium of Pharmaceutical Solid State Research Cluster (PSSRC), 16-18/09/2015, Ghent University, Belgium, pp. 29-30, COBISS.SI-ID: 3940721.

Dreu Rok, Toschkoff Gregor, Funke Adrian, Altmeyer Andreas, Knop Klaus, Khinast Johannes G., Kleinebudde Peter: Evaluation of the tablet surface flow velocities within pan coaters with implication to process understanding. - In: 7th International Granulation Workshop, Sheffield, 1-3 July, UK, 2015, 15 pp., COBISS.SI-ID: 3895665.

Lamešić Dejan, Ilić Ilija, Lavrič Zoran, Planinšek Odon: Spherical agglomerates of lactose with enhanced mechanical properties.- In: 9th Annual Symposium of Pharmaceutical Solid State Research Cluster (PSSRC), 16-18 September 2015, Ghent University, Belgium, 2015, pp. 23-24, COBISS.SI-ID: 3940465.

Luštrik Matevž, Dreu Rok: Influence of modified Wurster draft tube on coating uniformity of pellets.- In: 7th International Granulation Workshop, Sheffield, 1-3 July, UK, 2015, 13 pp., COBISS.SI-ID: 3896177.

Potrč Tanja, Kocbek Petra: Polycaprolactone nanofibers as a delivery system for poorly water-soluble drugs.- In: 9th Annual Symposium of Pharmaceutical Solid State Research Cluster (PSSRC), 16-18 September 2015, Ghent University, Belgium, 2015, pp. 17-18, COBISS.SI-ID: 3939953.

Šibanc Rok, Žun Iztok, Dreu Rok: Measurement of particle concentration in a Wurster coater draft tube using light attenuation.- In: 7th International Granulation Workshop, Sheffield, 1-3 July, UK, 2015, 19 pp., COBISS.SI-ID: 3895921.

Patents

Cegnar Mateja, Podobnik Barbara, Caserman Simon, Homar Miha, Kerč Janez: Erythropoietin compositions for oral administration: patent application: WO2015/032973 (A1), 2015-03-12, München: World Intellectual Property Organisation, International Bureau, 2015, 37 pp., COBISS.SI-ID: 5693978.

Homar Miha, Horvat Matej, Cegnar Mateja, Kerč Janez: Process for producing an active pharmaceutical ingredient (API) preparation in the form of beads.- EP2471513 (B1) - 2015-06-10, Munich, European Patent Office, 2015, 22 pp., COBISS.SI-ID: 1580380.

Leskovar Denise, Vrečer Franc, Kramar Andrejka, Kolenc Ivanka, Gobec Ivan, Princ Helena: Stable aqueous formulations comprising poorly water soluble active ingredients.- US 9,017,702 B2, Apr. 28, 2015, Alexandria: United States Patent and Trademark Office, 2015. 11 pp., COBISS.SI-ID: 3866225.

THE CHAIR OF CLINICAL BIOCHEMISTRY

Independent Work

Božič Tajda, Braune Veronika, Nahtigal Blaža, Osredkar Joško: Ribe v prehrani nosečnice.- Klinična prehrana v nosečnosti = Fish in the diet for pregnant women.- Clinical Nutrition during Pregnancy: university textbook, Ljubljana, 2015, pp. 327-341, COBISS.SI-ID: 3880049.

Gobec Martina, Mencej Bedrač Simona Omersel Jasna, Pajič Tadej, Prodan Žitnik Irena, Šmid Alenka, Zupan Janja: Vaje iz klinične kemije: študijsko gradivo in navodila za vaje = Exercises in Clinical Chemistry: study materials and instructions for exercises.- Ljubljana, 2015, 136 pp., COBISS.SI-ID: 278232832.

Žigon Polona, Božič Mojca, Frank Mojca, Ambrožič Aleš, Tomšič Matija, Hočeva, Alojzija, Božič Borut, Sodin-Šemrl Snežna, Kveder Tanja, Čučnik Saša: Laboratory methodology important in the diagnosis and prognosis of antiphospholipid syndrome, electronic source.- In: Thrombosis, atherosclerosis and atherothrombosis - new insights and experimental protocols. Rijeka: InTech, 2015, pp. 105-141, COBISS.SI-ID: 3984497.

Scientific Papers and Professional Publications

Artenjak Andrej, Omersel Jasna, Ahlin Grabnar Pegi, Mlinarič-Raščan Irena, Shoenfeld Yehuda, Sodin-Šemrl Snežna, Božič Borut, Čučnik Saša: Oxidatively altered IgG with increased immunoreactivity to [beta]2-glycoprotein I and its peptide clusters influence human coronary artery endothelial cells.- *Lupus*, 2015, Apr. 2015, 24, 4/5, pp. 448-462, COBISS.SI-ID: 31901657.

Artenjak Andrej, Locatelli Igor, Brelih Hana, Simonič Darka Maša, Ulčová-Gallova Zdenka, Swadzba J., Musial J., Iwaniec T., Stojanović Ljudmila, Conti F., Valesini Guido, Avčin Tadej, Cohen Tervaert J.W., Shoenfeld Yehuda, Blank Miri, Ambrožič Aleš, Sodin-Šemrl Snežna, Božič Borut, Čučnik Saša: Immunoreactivity and avidity of IgG anti- β 2- glycoprotein I antibodies from patients with autoimmune diseases to different peptide clusters of β 2-glycoprotein I.- *Immunol. Res.*, 2015, 61, 1/2, pp. 35-44, COBISS.SI-ID: 3779697.

Bego Tamer, Dujić Tanja, Mlinar Barbara, Semiz Sabina, Malenica M., Prnjavorac Besim, Ostanek Barbara, Marc Janja, Čaušević-Ramoševac Anida, Čaušević, A.: Association of LPIN1 gene variations with markers of metabolic syndrome in population from Bosnia and Herzegovina.- *Med. Glas.*, 2015, 12, 2, pp. 113-121, COBISS.SI-ID: 3906161.

Bratanič Nevenka, Dzodan Bojana, Trebušak Podkrajšek Katarina, Bertok Sara, Ostanek Barbara, Marc Janja, Battelino Tadej, Avbelj Magdalena: Childhood osteoporosis and presentation of two cases with osteogenesis imperfecta type V = Osteoporoza v otroški dobi in predstavitev dveh bolnikov z osteogenesis imperfecta tipa V.- *Zdr. Varst.*, 2015, 54, 2, pp. 119-125, COBISS.SI-ID: 3332837.

Fic Anja, Jurković Mlakar Simona, Juvan Peter, Mlakar Vid, Marc Janja, Sollner Dolenc Marija, Broberk Karin, Peterlin-Mašič Lucija: Genome-wide gene expression profiling of low-dose, long-term exposure of human osteosarcoma cells to bisphenol A and its analogues bisphenols AF and S.- *Toxicol. in vitro*, 2015, 29, 5, pp. 1060-1069, COBISS.SI-ID: 3849841.

Gobec Martina, Tomašič Tihomir, Markovič Tijana, Mlinarič-Raščan Irena, Sollner Dolenc Marija, Jakopin Žiga: Antioxidant and anti-inflammatory properties of 1,2,4-oxadiazole analogues of resveratrol.- *Chemico-Biol. Interact.*, 2015, 240, pp. 200-207, COBISS.SI-ID: 3914865.

Herman Ana, Gruden Kristina, Blejec Andrej, Podpečan Vid, Motaln Helena, Rožman Primož, Hren Matjaž, Zupančič Klemen, Veber Matija, Verbovšek Urška, Lah Turnšek Tamara, Porčnik Andrej, Koršič Marjan, Knežević Miomir, Jeras Matjaž: Analysis of glioblastoma patients' plasma revealed the presence of microRNAs with a prognostic impact on survival and those of viral origin.- *PloS one*, 2015, 10, 5, pp. 1-20, COBISS.SI-ID: 3453007.

Karas Kuželički Nataša, Šmid Alenka, Mlinarič-Raščan Irena, Jazbec Janez: 6-MP based maintenance therapy of childhood ALL in Slovenia: a retrospective study from 1970 to 2004 = Uporaba 6-merkaptopurina v vzdrževalni fazi zdravljenja ALL pri otrocih v Sloveniji: retrospektivna študija za obdobje od 1970 do 2004.- *Zdr. Vestn.*, 2015, 84, 2, pp. 99-107, COBISS.SI-ID: 3839089.

Kolšek Katra, Gobec Martina, Mlinarič-Raščan Irena, Sollner Dolenc Marija: Screening of bisphenol A, triclosan and paraben analogues as modulators of the glucocorticoid and androgen receptor activities.- *Toxicol. in Vitro*, 2015, 29, 1, pp. 8-15, COBISS.SI-ID: 3697521.

Markovič Tijana, Gobec Martina, Gurwitz David, Mlinarič-Raščan Irena: Characterization of human lymphoblastoid cell lines as a novel in vitro test system to predict the immunotoxicity of xenobiotics.- *Toxicol. Lett.* 2015, 233, 1, pp. 8-15, COBISS.SI-ID: 3803505.

Macedoni-Lukšič Marta, Gosar David, Bjørklund Geir, Oražem Jasna, Kodrič Jana, Lešnik Musek Petra, Zupančič Mirjana, France Štiglic Alenka, Sešek-Briški Alenka, Neubauer David, Osredkar Joško: Levels of metals in the blood and specific porphyrins in the urine in children with autism spectrum disorders.- *Biol. Trace Elem. Res.*, 2015, 163, 1-2, pp. 2-10, COBISS.SI-ID: 3740017.

Malentacchi Francesca, Mancini Irene, Brandslund Ivan, Vermeersch Pieter, Schwab Matthias, Marc Janja, Schaik Ron H. N. Van, Siest Gérard, Theodorsson Elvar, Pazzagli Mario, di Resta Chiara: Is laboratory medicine ready for the era of personalized medicine?: a survey addressed to laboratory directors of hospitals/academic schools of medicine in Europe.- *Clin. Chem. Lab. Med.*, 2015, 53, 7, pp. 981-988, COBISS.SI-ID: 3914353.

Mancini, Irene, Pinzani, Pamela, Simi, Lisa, Brandslund, Ivan, Vermeersch, Pieter, Di Resta, Chiara, Schwab, Matthias, Marc, Janja, Schaik, RON H. N. Van, Pazzagli Mario: Implementation of a companion diagnostic in the clinical laboratory: the BRAF example in melanoma.- *Clinica Chim. Acta*, 2015, 439, pp. 128-136, COBISS.SI-ID: 3914609.

Maver Tina, Maver Uroš, Stana-Kleinschek Karin, Mlinarič-Raščan Irena, Smrke Dragica: Advanced therapies of skin injuries.- *Wien. Klin. Wochenschr.*, 2015, 127, suppl. 5, pp. 187-198, COBISS.SI-ID: 512549944.

Mirjanić Azarić Bosa, Jelić-Ivanović Zorana, Zeljković Aleksandra, Vekić Jelena, Jürgens Günther, Milivojac Tatjana, Avram Sanja, Čorić Jozo, Marc Janja, Černe Darko: The pleiotropic effects of atorvastatin on stable angina patients: evidence by analysis of high-density lipoprotein size and subclasses and plasma mRNA=Pleiotropni efekti atorvastatina kod pacijenata sa stabilnom anginom: dokazi dobijeni analizom veličine i raspodele subfrakcija lipoproteina velike gustine i plazmatske mRNA.- *J. Med. Biochem.*, 2015, 34, 3, pp. 314-322, COBISS.SI-ID: 3848817.

Mlakar Vid, Jurković Mlakar Simona, Zupan Janja, Komadina Radko, Preželj Janez, Marc Janja: ADRA2A is involved in neuro-endocrine regulation of bone resorption.- *J. Cell. Mol. Med.*, 2015, 19, 7, pp. 1520-1529, COBISS.SI-ID: 3887217.

Sosič Izidor, Anderluh Marko, Sova Matej, Gobec Martina, Mlinarič-Raščan Irena, Derouaux Adeline, Amoroso Ana, Terrak Mohammed, Breukink Eefjan, Gobec Stanislav: Structure-activity relationships of novel tryptamine-based inhibitors of bacterial transglycosylase.- *J. Med. Chem.*, 2015, 58, 24, pp. 9712-9721, COBISS.SI-ID: 3978865-

Švajger Urban, Gobec Martina, Obreza Aleš, Mlinarič-Raščan Irena: Novel N-amidinopiperidine-based proteasome inhibitor preserves dendritic cell functionality and rescues their Th1-polarizing capacity in Ramos-conditioned tumour environment.- *Cancer Immunol. Immun.* 2015, 64, 1, pp. 15-27, COBISS.SI-ID: 31562969.

Vrtačnik Peter, Marc Janja, Ostanek Barbara: Hypoxia mimetic deferoxamine influences the expression of histone acetylation- and DNA methylation- associated genes in osteoblasts.- *Connect. Tissue Res.*, 2015, 56, 3, pp. 228-235, COBISS.SI-ID: 3879793.

Žigon Polona, Ambrožič Aleš, Božič Borut, Čučnik Saša: Protitelesa proti protrombinu = Antiprothrombin antibodies.- *Zdr. Vestn.*, 2015, 84, 3, pp. 209-221, COBISS.SI-ID: 32034265.

Žigon Polona, Perdan-Pirkmajer Katja, Tomšič Matija, Kveder Tanja, Božič Borut, Sodin-Šemrl Snežna, Čučnik Saša, Ambrožič Aleš: Anti-phosphatidylserine/prothrombin antibodies are associated with adverse pregnancy outcomes.- *J. Immunol. Res.* (Online), 2015, Article ID 975704, 8 pp. COBISS.SI-ID: 31904729.

Invited Lectures

Božič Borut: Competencies of the "first day on the job" pharmacist.- In: Drugi kongres farmaceuta Crne Gore sa međunarodnim učešćem, 28-31 May 2015, Bečići, pp. 29, COBISS.SI-ID: 3900785.

Marc Janja: Farmakogenomika in bolniku prilagojena laboratorijska medicina = Pharmacogenomics and personalised laboratory medicine.- In: Raziskovalni dnevi laboratorijske biomedicine = Research Days of Laboratory Medicine, Ljubljana, 2015, pp. 22-29, COBISS.SI-ID: 3952241.

Marc Janja: Farmakogenomika v personalizirani laboratorijski medicini = Pharmacogenomics and personalised laboratory medicine.- In: Raziskovalni dnevi laboratorijske biomedicine = Research Days of Laboratory Biomedicine, Ljubljana, 2015, pp. 22-29, COBISS.SI-ID: 3972465.

Marc Janja, Prodan Žitnik Irena, Žakelj Simon, Kristl Albin, Mlakar Vid: Cell models in pharmacogenomic research.- In: 21st IFCC - EFLM European Congress of Clinical Chemistry and Laboratory Medicine, Paris, France Palais des Congrès, 21-25 June 2015, pp. 113, COBISS.SI-ID: 3891825.

Markovič Tijana, Podgornik Helena, Gurwitz David, Doljak Rebeka, Delič Jozo, Mlinarič-Raščan Irena: Prostaglandin receptor EP4 is a novel target for the treatment of chronic lymphocytic leukemia.- In: Inflammation, Immunomodulation, Inspiration: 14th International Summer School, 26-28 July 2015, Bönigen, 1 pp., COBISS.SI-ID: 3903089.

Mlinarič-Raščan Irena: Perspektiva slovenskega razvoja skozi prizmo strategije pametnih specializacij = Perspective of Slovenian development in terms of the smart specialisation strategy.- In: 13. znanstvena konferenca = 12th Science Conference, PAZU, 27-28 November 2015, Murska Sobota, pp. 12-13, COBISS.SI-ID: 3998065.

Osredkar Joško, Humar Tina, Kovač Damjan: Uporaba vitamina D pri zdravljenju pacientov z IgA nefropatijo = Use of vitamin D in the treatment of IgA nephropathy.- In: Raziskovalni dnevi laboratorijske biomedicine: zbornik predavanj = Research Days of Laboratory Biomedicine: proceedings, Ljubljana, 2015, pp. 110-128, COBISS.SI-ID: 3952497.

Prodan Žitnik Irena, Mlakar Vid, Marc Janja: Novi pristopi pri genotipizaciji polimorfizmov v genu za CYP2D6 = Novel approaches to CYP2D6 genotyping.- In: Raziskovalni dnevi laboratorijske biomedicine: zbornik predavanj = Research Days of Laboratory Biomedicine: proceedings, Ljubljana, 2015, pp. 42-48, COBISS.SI-ID: 3951985.

Snoj Tratnik Janja, Mazej Darja, Kobal Alfred Bogomir, Krsnik Mladen, Osredkar Joško, Barbone Fabio, Mariuz Marika, Sofianou Katia, Spirić Zdravko, Marc Janja, Stajnko Anja, Falnoga Ingrid, Horvat Milena: Evaluation of methyl mercury exposure, susceptibility and health effects in the mediterranean population.- In: 12th International Conference on Mercury as a Global Pollutant, 14-19 June 2015, Jeju, Korea. ICMGP 2015 Korea, pp. 16, COBISS.SI-ID: 28686631.

Snoj Tratnik Janja, Mazej Darja, Miklavčič Ana, Krsnik Mladen, Osredkar Joško, Kobal Alfred Bogomir, Kodrič Jana, Neubauer David, Marc Janja, Horvat Milena: Dolgoročna epidemiološka študija izpostavljenosti nizkim koncentracijam živega srebra pri občutljivi populaciji = Longitudinal epidemiological study of low-level mercury exposure in susceptible population.- In: Kemijski povzročitelji hormonskih motenj od molekule do človeka = Endocrine disrupting chemicals - from molecule to man. Ljubljana, 2015, pp. 25-26, COBISS.SI-ID: 28538919.

Švajger Urban, Sollner Dolenc Marija, Jeras Matjaž: Ugotavljanje vplivov bisfenolov BPA, BPF in BPAF na diferenciacijo, dozorevanje in funkcijske lastnosti iz človeških monocitov pripravljenih dendritičnih celic (DC) in vitro = The influences of bisphenols BPA, BPF, and BPAF on in vitro differentiation, maturation and functional properties of human monocyte-derived dendritic cells.- In: Kemijski povzročitelji hormonskih motenj od molekule do človeka = Endocrine disrupting chemicals - from molecule to man, Ljubljana, 2015, pp. 54-55, COBISS.SI-ID: 3857521.

Lectures and Contributions at Conferences

Bukovnik Anja, Kramberger Urška, Mencej Bedrač Simona, Marc Janja: Pheochromocytoma and paraganglioma.- In: Haematologic diseases, hormonal disfunction, neurodegenerative diseases, Ljubljana, 2015, pp. 45-47, COBISS.SI-ID: 3904113.

Legen Tjaša, Šmid Alenka: Pharmacogenetics of 5-fluoruracil in colorectal cancer.- In: Haematologic diseases, hormonal disfunction, neurodegenerative diseases, Ljubljana, 2015, pp. 67-68, COBISS.SI-ID: 3904369.

Marc Janja, Žakelj Simon, Prodan Žitnik Irena, Kristl Albin, Trdan Lušin Tina, Trontelj Jurij, Ostanek Barbara, Mrhar Aleš: Pharmacogenomics in vitro models in post-genome era.- In: Haematologic diseases, hormonal disfunction, neurodegenerative diseases, Ljubljana, 2015, pp. 27-28, COBISS.SI-ID: 3903601.

Peternel Aleks, Damjanović Diana, Mencej Bedrač Simona: Acromegaly.- In: Haematologic diseases, hormonal disfunction, neurodegenerative diseases, Ljubljana, 2015, pp. 43-44, COBISS.SI-ID: 3903857.

Svetic Branka, Prodan Žitnik Irena, Gantar Helena, Avberšek-Lužnik Ivica: Klinična uporabnost laboratorijskih testov pri preiskovancih z diagnozo odvisnosti od alkohola = Clinical usefulness of laboratory tests in subjects with a diagnosis of alcohol dependence.- In: Zdravstvene stroke in njihov odziv na zdravstvene potrebe družbe: na dokazih podprto in usklajeno delovanje: zbornik predavanj z recenzijo = Health care professions and their response to the health care needs of society: an evidence based and coordinated action : proceedings of lectures with peer review, 11-12 June 2015, Bled, pp. 324-330, COBISS.SI-ID: 83048449.

Svetličič Maja, Prodan Žitnik Irena, Mlakar Vid, Marc Janja: CYP2D6-related pharmacogenetics in Alzheimer's disease.- In: Haematologic diseases, hormonal disfunction, neurodegenerative diseases, Ljubljana, 2015, pp. 17-19, COBISS.SI-ID: 3903345.

Vardjan Nina, Stenovec Matjaž, Jorgačevski Jernej, Potokar Maja, Trkov Saša, Horvat Anemari, Lasič Eva, Jeras Matjaž, Kreft Marko, Zorec Robert: Astrocytes from the other brain.- In: Haematologic diseases, hormonal disfunction, neurodegenerative diseases, Ljubljana, 2015, pp. 35-37, COBISS.SI-ID: 32353241.

Patents

Kveder Tanja, Lakota Katja, Švec Tinka, Čučnik Saša, Žigon Polona, Ambrožič Aleš, Sodin-Šemrl Snežna, Božič Borut, Tomšič Matija: Fluorometric immunoassay for detection of anti-dsDNA antibodies: international application no. PCT/SI2015/000003, international filing date 2015-02-03, Genève: European Patent Office, 2015, 17 pp., COBISS.SI-ID: 31901913.

Kveder Tanja, Lakota Katja, Švec Tinka, Čučnik Saša, Žigon Polona, Ambrožič Aleš, Sodin-Šemrl Snežna, Božič Borut, Tomšič Matija: Fluorometrična imunska metoda za določanje protiteles proti dvojnoverižni DNA: patent: SI24638 A, 31082015, Ljubljana, 15 pp., COBISS.SI-ID: 3947377.

THE CHAIR OF SOCIAL PHARMACY

Scientific Papers and Professional Publications

Bürmen Božena, Locatelli Igor, Mrhar Aleš, Bogataj Marija: Analysis of factors influencing gastric emptying of pellets in a fed state.- *Expert Opin. Drug Deliv.*, 2015, 12, 8, pp. 1225-1238, COBISS.SI-ID: 3846769.

Čufar Andreja, Mrhar Aleš, Robnik Šikonja Marko: Assessment of surveys for the management of hospital clinical pharmacy services.- *Artif. Intell. Med.*, 2015, 64, 2, pp. 147-158, COBISS.SI-ID: 3854705.

Čufar Andreja: Biološka in podobna biološka zdravila - kako izmeriti podobnost? = Biologicals and biosimilars - how to measure similarity?.- *Farm. Vestn.*, 2015, 66, 3, pp. 250-255, COBISS.SI-ID: 3906417.

Detiček Andreja, Kos Mitja: Kazalniki kakovosti zdravljenja z zdravili z vidika farmacevta = Pharmacotherapy quality indicators from the perspective of a pharmacist.- *Farm. Vestn.*, 2015, 66, 5, pp. 371-377, COBISS.SI-ID: 4004465.

Horvat Nejc, Kos Mitja: Contribution of Slovenian community pharmacist counseling on patients' knowledge about their prescription medicines: a crosssectional study.- *Croat. Med. J.*, 2015, 56, 1, pp. 41-49, COBISS.SI-ID 3822449.

Janežič Ana, Kos Mitja: Z dokazi podprte intervencije za izboljšanje sodelovanja pri zdravljenju z zdravili = Evidence-based interventions to improve medication adherence.- *Farm. Vestn.*, 2015, 66, 5, pp. 378-386, COBISS.SI-ID: 4006257.

Janžič Andrej, Kos Mitja: Cost effectiveness of novel oral anticoagulants for stroke prevention in atrial fibrillation depending on the quality of warfarin anticoagulation control.- *PharmacoEconomics*, 2015, 33, 4, pp. 395-408, COBISS.SI-ID: 3791729.

Kos Mitja: Elementi upravljanja s stroški zdravil v Sloveniji = Elements of medicine cost management in Slovenia.- *Farm. Vestn.*, 2015, 66, 3, pp. 239-244, COBISS.SI-ID: 3906929.

Mardetko Nika, Kos Mitja: Sistem zunanje primerjave cen zdravil z vidika Slovenije = External reference pricing system from the perspective of Slovenia.- *Farm. Vestn.*, 2015, 66, 3, pp. 231-238, COBISS.SI-ID: 3906673.

Mesti Tanja, Mileva-Boshkoska Biljana, Kos Mitja, Tekavčič Metka, Ocvirk Janja: The cost of systemic therapy for metastatic colorectal carcinoma in Slovenia : discrepancy analysis between cost and reimbursement.- *Radiology and Oncology*, 2015, 49, 2, pp. 200-208, COBISS.SI-ID: 1944187.

Nabergoj Makovec Urška, Kos Mitja: Vloga implementacijskih raziskav pri uvajanju kognitivnih storitev v lekarniško dejavnost = The role of implementation research as part of the cognitive pharmacy services' implementation process.- *Farm. Vestn.*, 2015, 66, 5, pp. 387-391, COBISS.SI-ID: 4006513.

Peklar Jure, O'Halloran Aisling M., Maidment Ian D., Henman Martin Charles, Kenny Rose Anne, Ko, Mitja: Sedative load and frailty among community-dwelling population aged >-65 years.- *J. Am. Med. Dir. Assoc.*, 2015, 16, 4, pp. 282-289, COBISS.SI-ID: 3800689.

Petrovič Maja, Locatelli Igor: Zdravila za zdravljenje pljučne arterijske hipertenzije = Medicines used in the treatment of pulmonary arterial hypertension.- *Farm. Vestn.*, 2015, 66, 5, pp. 414-422, COBISS.SI-ID: 4007025.

Štuhec Matej, Locatelli Igor, Švab Vesna: Trends in attention-deficit/hyperactivity disorder drug consumption in children and adolescents in Slovenia from 2001 to 2012: a drug use study from a national perspective.- *J. Child Adol. Psychop.*, 2015, 5, 3, pp. 254-259, COBISS.SI-ID: 3833201.

Štuhec Matej, Švab Vesna, Locatelli Igor: Prevalence and incidence of attention-deficit/hyperactivity disorder in Slovenian children and adolescents: a database study from a national perspective.- *Croat. Med. J.*, 2015, 56, 2, pp. 159-165, COBISS.SI-ID: 3848305.

Štuhec Matej, Munda Barbara, Švab Vesna, Locatelli Igor: Comparative efficacy and acceptability of atomoxetine, lisdexamfetamine, bupropion and methylphenidate in treatment of attention deficit hyperactivity disorder in children and adolescents: a meta-analysis with focus on bupropion.- *J. Affect., Disorders*, 2015, 178, pp. 149-159, COBISS.SI-ID: 3827569.

Invited Lectures

Čufar Andreja: Preparation of medicinal products in Slovenian pharmacies - regulatory issues = Izrada ljekovitih pripravka u ljekarnama Slovenije - regulatorna praksa.- In: 5. hrvatski kongres farmacije s međunarodnim sudjelovanjem, 21. - 24. svibnja, Kongresni centar Aureo, Rovinj, Hrvatska = 5th Croatian Congress on Pharmacy with International Participation 21-24 May 2015, pp. 98, COBISS.SI-ID: 3864433.

Čufar Andreja: Neregistrirana zdravila v ambulantni uporabi = Medicines without marketing authorization in ambulatory care.- *Medicinski razgledi, Supplement*, 2015, 54, supl. 1, pp. 15-23, COBISS.SI-ID: 279863040.

Lectures and Contributions at Conferences

Čufar Andreja: Neregistrirana zdravila v ambulantni uporabi = Medicines without marketing authorisation in ambulatory care.- In: 18. Schrottovi dnevi, Ljubljana, Medicinski razgledi, 2015, year 54, supl. 1, pp. 15-23, COBISS.SI-ID: 3928177.

Rakovec Romana, Čufar Andreja: e-Recept - prednosti in pasti = ePrescription - benefits and pitfalls. *Medicinski razgledi, Supplement*, 2015, 54, supl. 1, pp. 115-121, COBISS.SI-ID: 279888128.

Volk Markovič Petra, Laptoš Tomislav, Robnik Šikonja Marko, Čufar Andreja: Evaluation of drug and disease influence on occurrence of hyperkalemia: a data mining approach.- In: Digital Healthcare Empowering Europeans: proceedings of MIE2015, 2015, pp. 1026-1027, COBISS.SI-ID: 2352556.

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Lectures

Lamešić Dejan, Ilić Ilija, Lavrič Zoran, Planinšek Odon: Spherical agglomerates of lactose with enhanced mechanical properties.- In: 9th Annual Symposium of Pharmaceutical Solid State Research Cluster (PSSRC), 16-18/09/2015, Ghent University, Belgium, 2015, pp. 23-24, COBISS.SI-ID: 3940465.

Invited Lectures

Gmeiner Tanja: Aseptic preparation.- In: Module I: pharmacy: [course notes], Ljubljana: 2015, pp. 211-224, COBISS.SI-ID: 3916401.

Gmeiner Tanja: Radiolabelling of blood cells.- In: Module I: pharmacy: [course notes], Ljubljana, 2015, pp. 365-389, COBISS.SI-ID: 3917169.