



BEOGRAD

**1st SEE Quality in Pharmacy Summit
Belgrade • October 23-25, 2015**

Programme and Presentation Abstracts

HOSTED BY



Faculty of Pharmacy
University of Belgrade

1st SEE Quality of Pharmacy Summit is hosted by the Faculty of Pharmacy, University of Belgrade in collaboration with the Pharmaceutical Association of Serbia and Pharmaceutical Chamber of Serbia and with the support of the European Association of Faculties of Pharmacy (EAFP), European Federation for Pharmaceutical Sciences (EUFEPS), Pharmaceutical Group of the European Union (PGEU), Pharmaceutical Care Network Europe (PCNE), Accreditation Council for Pharmacy Education (ACPE), Pharma Expert – Consultancy and Education (PhEx) and European Pharmaceutical Students' Association (EPSA).

The summit will address the important issues related to advancement of pharmacy education, professional practice, regulation/policy and research. The main objective of this regional summit is to open the new platform for transnational collaboration, exchange of experience and sharing the best practice among the stakeholders. It gathers representatives from academia, professional chambers and professional associations across South East Europe.



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EAFP

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Savez farmaceutskih udruženja Srbije



РЕПУБЛИКА СРБИЈА
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The Pharmaceutical Chamber of Serbia



ERASMUS+ Programme
Capacity Building
in Higher Education



ReFEEHS
Reinforcement of the Framework for Experiential Education in
Healthcare in Serbia

Steering Committee

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Jelena Parojčić

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- 13.30-14.30 Registration & Refreshments
- 14.30-14.45 **Opening and Welcome Remarks**
 Zorica Vujić, Dean of the Faculty of Pharmacy, University of Belgrade
 Vesna Matović, President of the Pharmaceutical Association of Serbia
 Svetlana Stojkov, Director of the Pharmaceutical Chamber of Serbia
 Nada Kovačević, Vice Rector of the University of Belgrade
- 14.45-18.15 **Session 1**
2020 Vision for Pharmacy Profession
 Chairs:
 Arijana Meštrović (Croatia) and Zahida Binakaj (Bosnia and Herzegovina)
- Pharmacist, a changing profession**
 Jan Smits – Pharmaceutical Group of European Union (PGEU)
- Medication review - the opportunity and challenge for practice, system and academia**
 Mitja Kos – Pharmaceutical Care Network of Europe (PCNE)
- Indicators of quality in patient care (EDQM)**
 Arijana Meštrović – Pharma Expert Consultancy and Education, Croatia
- Future of pharmacy profession and education – students' perspective**
 Svetlana Kolundžić – European Pharmaceutical Students' Association (EPSA)
- 16.15-16.45 *Coffee break*
- 16.45-17.45 **World Café discussions**
- What services can we implement in our health systems?**
- Do we need same standards and policies?**
- Expansion of patient care services and what is needed to achieve this (competency development/continuing education/CPD, practice setting changes (physical layout, facilities)), regulation and expanded scope of practice for pharmacists).**
- 17.45-18.15 **Group reports**
- 20.00-23.00 **Networking Reception**
 Top of the Hub Restaurant
 25th floor UŠĆE Tower
 Bulevar Mihaila Pupina 6, Novi Beograd

09.00-12.00

Session 2**From Professional Competencies to Educational Outcomes**

Chairs:

Jelena Parojčić (Serbia) and Guenka Petrova (Bulgaria)

The advancement of pharmacy education in Europe – for the new generation in pharmacy

Andries Koster - European Association of Faculties of Pharmacy (EAFP)

Inter-professional education in pharmacy: the challenges

Graham Davies – King's College London, United Kingdom

Competency based design of traineeship as part of the pharmacy curricula

Mitja Kos – Faculty of Pharmacy, University of Ljubljana, Slovenia

Teaching competence development to support innovation in pharmacy education

Jelena Parojčić - Faculty of Pharmacy, University of Belgrade, Serbia

10.30-11.00

Coffee break

11.00-12.00

World Café discussions**Competencies development in line with the expansion of patient care services, regulation and expanded scope of practice for pharmacists.****Development of experiential pharmacy curriculum (traineeship). How to design and deliver the relevant study program?****Roles and responsibilities of university. Roles and responsibilities of placement sites and teacher practitioners. Students' expectations. Is there a need for regional cooperation?****Teaching competence development of university staff and teacher practitioner: Is there a need for formal study program?**

12.00-13.00

Lunch break

13.00-16.00

Session 3**Towards excellence in pharmacy education and research**

Chairs:

Mike Rouse (USA) and Svetlana Ibrić (Serbia)

Quality assurance and standards in pharmacy education

Mike Rouse - International Services, Accreditation Council for Pharmacy Education (ACPE), USA

Excellence in professional pharmacy education

Stanley Weber – School of Pharmacy, University of Washington, USA

The importance of experiential education

Martin Henman – School of Pharmacy and Pharmaceutical Sciences, Trinity College Dublin, Ireland

Taking advantage of excellence in science and innovation

Hans Lindén - European Federation for Pharmaceutical Sciences (EUFEPS)

14.30-15.00

Coffee break

15.00-16.00

World Café discussions

How to achieve quality assurance in experiential education (clinical placement)? How to collaborate with other healthcare professionals? What are best examples in our countries so far?

Do we need specific accreditation standards for Pharmacy Education? Is there a case for common regional accreditation standards? What would be the way to achieve this?

How to establish a platform to collaborate in scientific research and overcome the challenges in PhD education?

16.00-17.00

Sessions 2 and 3 group reports

17.00-17.30

Steering committee: Recommendations and concluding remarks

09.00-12.00

Post Summit meeting of the nominated country representatives

Pharmacist, a changing profession

Jan Smits - Pharmaceutical Group of European Union (PGEU)

There are challenging times for pharmacists in Europe. The organizational environment in which pharmacy operates constantly changes and evolves. The Pharmaceutical Group of the European Union (PGEU), representing more than 400.000 pharmacists in Europe has set out its vision for greater use of pharmacist's competences in the PGEU. Blueprint: i) Enhancing medicines safety and access to medicines; ii) Improving outcomes of individual patients; iii) Improving public health and iv) Contributing to system efficiency. This is what PGEU would like to achieve all over Europe. European governments are seeking to optimize the use of medicines to achieve better value from pharmacotherapy of patients, and reduce the overall cost of healthcare. Making better use of the competences of European Pharmacists can help them to achieve these goals. A mayor implication is a process of change of the pharmacist profession. The most important implications are: i) The remuneration of the pharmacist: From margins to more emphasis on fees for core business and additional health care services; ii) Education: The changing role will have impact on the Pharmaceutical Curriculum and will require a Continuous Professional Development, iii) Sharing tasks: Collaborative care: Doctors and Pharmacists will be part of a team of health professionals treating the same patient and play an active role in primary healthcare; and iv) Access to Patient Health Records is a prerequisite for change. Despite the continuous budgetary pressure the fundamental challenge which pharmacists face is to maintain and extend their professional mission and their relevance for health systems.

The future of pharmacists can be positively influenced by showing there added value in health care. IMS has shown in their report "Advancing the responsible use of medicines" that, as a result of this changing role of the pharmacist substantial costs in health care can be avoided. Recognition of this added value will in due time pay off. Expertise of medicines and medicines management and moreover communication of this expertise are key to the required recognition of the added value of the pharmacist.



Jan Smits, MSc, PhD, studied pharmacy at the State University of Utrecht. He has ten years of experience in the national and international marketing of drugs and provision of business services with Glaxo and Yamanouchi Europe and twelve years of pharmacy experience in managing a group of pharmacies. Mr. Smits was also member of the board of MKB, the national organization for small and medium-sized enterprises. From November 2008 until December 2012 he has been the president of the Royal Dutch Pharmacists Association (KNMP). As president of the KNMP he played an important role in the organisation of the FIP Centennial and the first Ministerial Conference in Amsterdam. Since 2013 he is a member of PGEU Executive Committee and elected as Vice President of PGEU in 2015.

Medication review - the opportunity and challenge for practice, system and academia

Mitja Kos –Pharmaceutical Care Network of Europe (PCNE)

Drug related problems represent the central focus of new cognitive pharmacist services. In the past we have seen several studies exploring the extent and nature of the problems, as well as development of services in order to address them. The services were described under the umbrella of several different terms, including pharmaceutical care and clinical pharmacy. Later developments in the area focus on medication review that seems as a nice package and a new driving force but could be more or less described by several other terms we have already seen in the past. Medication review can be regarded solely as a systematic assessment process of patients' pharmacotherapy, aiming at detecting drug related problems. On the other hand, it could be regarded as a service that goes beyond assessment and also includes recommendation for the patient and prescriber, intervention and follow-up. Being one or the other, the ultimate goal is to identify, prevent and solve negative outcomes related to medicines and assure expected outcomes of patients' health.

For years, several different classifications of drug related problems were used but nearly all in the same non-ideal way. The problems were actually reported as potential causes or risks; however, the problems were rarely presented. The PCNE classification was upgraded in this regard in order to separate the actual problems related to effectiveness, safety or costs from the risk factors that can cause them. For example, the prescription of two different drugs that are known to interact from the literature presents a potential risk for the patient. However, the actual problem could never present as an adverse event.

The above described nature of 'problems' is also un-separately related to the interventions and services pharmacists were developing in the past years. The service that aims to identify and prevent risks could in ca. 1 of 100 cases prevent actual problem that patient would observe as symptoms. Number needed to treat is in such case much higher as it would be in the case of a cure of actual problems that already emerged with an intervention directly addressing the problem.

The aim to observe benefits from services addressing risks seems challenging, although not impossible. For that purpose we need well prepared study designs, which we have not always observed in the past. The meta-analysis of such results can only reflect the quality of individual studies. Furthermore, the challenge is a meta-analysis per se. Taking evaluation of drug effectiveness as an example: all the individual effectiveness studies would have one well defined intervention, that is the drug and the adherence would be monitored, clear study designs with randomization, control, inclusion and exclusion criteria, etc. Meta-analysis would clearly divide between different patient populations and combine only those studies that are relevant. And what have we done in case of meta-analysis and reviews of pharmacist cognitive services?



Mitja Kos is an associate professor of social pharmacy at the Faculty of Pharmacy, University of Ljubljana, Slovenia and the Head of the Department of Social Pharmacy. From the beginning of his career he has been developing skills in several different areas including pharmacoepidemiology, pharmacoconomics, outcomes research, clinical pharmacy and informatics. He was employed by the Faculty of Pharmacy in Ljubljana in 1999, after the diploma thesis on the topic of "Pharmacoepidemiologically supported design of pharmaceutical care program for asthma patients" under the mentorship of Prof. Stanislav Primožič. In 2001 he studied and researched pharmacoepidemiology at the University of Utrecht under the mentorship of Prof. Bert

Leufkens. Mitja defended his thesis on the topic "Extent and Nature of Off- Label Prescribing" in 2005. His mentors were Prof. Albert I. Wertheimer (Temple University, USA) and Prof. Aleš Mrhar (University of Ljubljana, Slovenia). In 2005 he was also employed as a researcher at the Institute of Public Health working on a theme of mental health in cooperation with Dr. Andrej Marušič. The focus of his scientific and professional activities is comparative effectiveness of medicines, medicine safety and health technology assessment. He is author of more than 40 scientific articles published in the international peer reviewed journals. Under his leadership, the team of young researchers became the reference for the HTA process and pharmaceutical services development. In the past he has served as a member of two commissions at the Agency for Medicinal Products and Medical Devices of the Republic Slovenia: one focusing on the evaluation of clinical trials and the other on medicine prices. He has also served as a member of Health Council at the Ministry of Health of the Republic of Slovenia. Currently, he is the board member and president-elect of the Pharmaceutical Care Network Europe. He is also an active member of the commission at the Slovene Chamber of Pharmacies developing medication review services. He is a husband and father of three kids.

Quality indicators of quality in patient care

Arijana Meštrović - Pharma Expert Consultancy and Education, Croatia

Pharmaceutical care is the responsible pharmacist's practice, which provides safe and best available therapy for the patient. It is the professional activity in which the pharmacist, using his knowledge and experience, revealing patients' needs, set priorities in the treatment process, and takes responsibility for a positive outcome of drug therapy. That responsibility is shared with the doctor who determined the diagnosis and prescribed therapy, and with patients, encouraging them to the compliance, frequent check and counseling about responsible treatment. Today, many countries are trying to incorporate this new concept in its health care system, and although such attempts are of great interest to national and international pharmacy organizations, many challenges often appear in the implementation of this concept. Some of the difficulties may include: attitudes and opinions of other health professionals, lack of cooperation, and inadequate communication between them, an insufficient number of pharmacists, space or equipment for the provision of pharmaceutical care, including the structure and organization of health care.

Pharmaceutical care derives from the principles and postulates of clinical pharmacy, which pharmacists recognize as the scientific basis for intervention in the treatment of patients. The concept of clinical pharmacy clarifies the role of the pharmacist in the process of providing health care. It involves different ways of cooperation of health professionals in which science and practice can be linked to patient care. But to make this impact had the biggest impact possible, it is necessary to develop clinical knowledge, but also communication skills, judgment and decision-making. Clinical practice should occupy an increasing role in the daily work of a pharmacist, instead of being just one of the possible options or specialty pharmacist.

Clinical pharmacy practice means and includes the philosophy of pharmaceutical care that is focused on specialized knowledge and experience in the treatment. As a scientific discipline, clinical pharmacy includes the task of collecting and contributing to the creation of new knowledge that can improve the health and quality of life.

Indicators of quality of pharmaceutical care are equally appropriate for in-patient and community settings, for hospital and community pharmacists, and other healthcare professionals, as applicable, in low-, middle-income and industrialized countries in Europe and other regions of the world. The indicators provide information about the range; quantity and quality of pharmaceutical care interventions/services delivered. The indicators also provide an opportunity to gather in-depth knowledge on pharmaceutical care practices that will permit the sharing and follow-up of experiences over time by professional disciplines and the health sector in general, regionally, nationally and internationally. These indicators are rather broad, and can be further developed and refined over time, but they are easily understood and will help pharmacists, other healthcare providers, and professional regulators to formalize and develop the pharmaceutical care philosophy and its working methods.



Dr sc Arijana Meštrović, MPharm has been working 14 years as a community pharmacist and she was responsible for education and competency development in the biggest pharmacy chain in Croatia. She is now independent consultant in Pharma Expert international agency, providing lectures and workshops in CPD programs for pharmacists, implementing new services in pharmacy chains and teaching Professional Practice and Pharmaceutical Care at universities in Croatia and Cyprus. Her Doctor's degree is in biomedical sciences – competency development in pharmacy. Representing CoDEG (Competency Development and Evaluation Group) she is using the Global Competency Framework and evaluating its impact on pharmaceutical

care and practitioner development in European countries. She is collaborating with FIP/UNESCO/WHO Education Development Team in areas of Competency and Quality Assurance in Pharmacy Education. Arijana serves as member of the International Services Program Advisory Group the Accreditation Council for Pharmacy Education (ACPE, USA), Co-Chair of the FIP Programme Committee, Expert Member of Board of Pharmacy Practice at FIP, and member of PCNE (Pharmaceutical Care Network of Europe). Arijana is dedicated to promote competency-based education in CPD cycle among pharmacy practitioners, so her teaching usually addresses all components of competencies – knowledge, experience and motivation.

Future of pharmacy profession and education - students' perspective

Svetlana Kolundžić - European Pharmaceutical Students' Association (EPSA)

The European Pharmaceutical Students' Association (EPSA) represents over 160,000 students from 34 countries. Our vision is to represent, reach and engage every single pharmacy student in Europe in order to collaborate on the development of the future of pharmacy and healthcare in Europe. Over the past years, EPSA's network has widely discussed topics considering the future of the pharmaceutical profession and education. This presentation will show you the European pharmacy students' position on the future of mobile health, the healthcare workforce, inter-professional collaboration and education, and pharmacist-delivered vaccination. European pharmacy students strongly believe that mobile health can be used as a tool for increasing patient safety and compliance. EPSA believes that mobile health has the potential to become a prominent part of safe and effective healthcare as long as healthcare professionals are strongly involved in its development from the start, and educated on integrating it in their daily practice as well as during patient interaction.

As future healthcare professionals, we should strive to increase the immunization rate in Europe. With EU member states struggling to reach the target of 75% immunization coverage for seasonal influenza, EPSA believes that pharmacist-delivered vaccination will be an important step towards ensuring higher coverage, meeting European Council recommendations. This should be achieved in collaboration with other healthcare professionals, and with proper training to ensure proper safety, efficacy and quality for the public. The healthcare workforce is directly affected by EU and member state policies that aim to ensure good working conditions for workers. These policies, especially those regulating education, the future work of health professions and mobility, directly impact European healthcare students. As the healthcare students' curriculum should reflect new tasks and skills required for the future, students should be enlightened about the ongoing discussion and have their opinion taken into consideration.

The perspective of students, as future healthcare professionals plays a key role in achieving improved inter-professional collaboration. 870 students currently enrolled in the school of dentistry, medicine, nursing, pharmacy or physiotherapy completed a survey as part of a joint project lead by five healthcare students' associations. Almost 80% of respondents claimed that they were unsatisfied with the number of opportunities offered at their school regarding inter-professional education. EPSA seeks to continue supporting further implementation of inter-professional education with pharmacy students in Europe, and invites further discussion on the topic. Let us discuss the future of healthcare, together!



Svetlana Kolundžić graduated at Faculty of Pharmacy, University of Belgrade in September 2014. During her studies she was actively involved in several students' organizations in Belgrade and continued to represent students from Serbia through National Association of Pharmacy Students – Serbia (NAPSer) as Liaison Secretary for EPSA (2012) and President (2013). She joined European Pharmaceutical Students' Association as Parliamentarian for the mandate 2013-2014, and became President of EPSA for the mandate 2014-2015. During her presidency, EPSA continued to be strong voice of European pharmacy students amongst different stakeholders. Several new projects and activities were initiated, one of them being the summit of five healthcare students' organisations to discuss interprofessional education and collaboration. Svetlana continues to support students' activism as current Immediate Past President of EPSA and Honorary Member of NAPSer.

The advancement of pharmacy education in Europe-for the new generation in pharmacy

Andries Koster - European Association of Faculties of Pharmacy (EAFP)

Continuous adaptation of Pharmacy education is required by the rapid pace, at which the working environment of community, hospital and industrial pharmacists is changing. Pharmacists, while maintaining their traditional role as medicine experts, are expected to be able to communicate effectively with patients and health care providers in various settings. On top of a common education and training scaffold, several levels of specialization and/or postgraduate training appear to be necessary to fulfill all the expected roles in the near future. Arranging a coherent scheme of undergraduate, graduate and postgraduate education and training, in my opinion, is a responsibility shared by professional organizations and higher education institutions.

The European Association of Faculties of Pharmacy (EAFP) aims for the continuous improvement of Pharmacy education and training in Europe and supports member faculties in their efforts to develop resources, effective methods of learning and teaching, and effective quality enhancement procedures. Three European projects (Pharmine, Phar-QA and Phar-IN) have shown that — irrespective of differences in the content and structure of curricula — a general European consensus can be seen when learning outcomes are described in terms of required competencies of pharmacists (results to be published in 2016). We, therefore, suggest that competency frameworks can be used as an effective tool to guide the development of new and existing education and training programs. An increased attention for continued education and/or continuous professional development of pharmacists can also be foreseen.

EAFP can play a role in these developments by facilitating the creation of networks of everyone involved in Pharmacy education and training in Europe. The annual conference, regional conferences and/or workshops can be effectively used to bring together educators and professionals with common interests. Online courses, which are developed in conjunction with the European projects, will be made available through the EAFP website. Finally a summer school on 'Pharmacy education and training' is organized on a regular basis to advance the exchange of teaching experiences between several European higher education institutions.



After obtaining an MSc in Developmental Biology, Andries Koster started teaching pharmacology at the Faculty of Pharmacy (Utrecht University) and obtained a PhD in Pharmacology at the same university in 1985. He teaches statistics, physiology, pharmacology and pharmacokinetics at the Department of Pharmaceutical Sciences and the Universities Colleges in Utrecht and Middelburg. After 1998 he became involved in developing innovative curricula for the biomedical (BSc, several MSc programs) and the pharmaceutical sciences (B. Pharm, Pharm. D. and the College of Pharmaceutical Sciences). Currently he is Director of Education Research of the department and responsible for investigating the quality and effectivity of the teaching programs of the department. Since 2012 he is a member of the Executive Committee and Treasurer of the European Association of Faculties of Pharmacy (EAFP). Andries Koster is an associate professor and alumnus of the Centre of Excellence in University Teaching (CEUT). He is a (co)author of approximately 75 scientific publications.

Inter-professional education in pharmacy: the challenges

Graham Davies - King's College London, United Kingdom

Delivering effective pharmaceutical care is highly dependent on a pharmacist's ability to work as part of a team, both to contribute to as well as influence the decisions made regarding the use of medicines. Many have argued that working together should require professionals to learn together so that a better understanding of the roles, responsibilities and contributions made by other health care colleagues can be appreciated and tribalism limited. The concept of inter-professional education (IPE) has existed since the late 1960s and a number of definitions put forward in an attempt to capture the purpose and goals of IPE. These were somewhat crystallized in 2009 when an expanded definition of IPE was put forward by the American Association of Colleges of Pharmacy (AACCP) to highlight the key roles of both educators and learners in the process and the importance of fostering a collaborative learning environment. It also important to recognize that simply filling a lecture theatre with students from different health care professions, without any attempt at meaningful interaction and/or reflection does not constitute IPE. In fact such an approach often only serves to build barriers between students, rather than breaking them down. The importance of IPE has now been recognized by many health care regulators who expect such activity to be embedded within the curricula of health care students. For example the General Pharmaceutical Council (the UK pharmacy regulator) requires pharmacy undergraduate students to engage in multidisciplinary team working. Whilst the emphasis on IPE is increasing there remain a number of key barriers to its implementation. Some of these relate to the organizational challenges faced when trying to identify 'space' within already busy curricula, such as pharmacy. In addition, faculty may be resistant to change due to the lack of time to engage in the planning and delivery of IPE. Other barriers are more cultural and relate to the perceived lack of value of IPE by academic staff. This presentation will discuss the meaning and purpose of inter-professional education (IPE); highlighting the benefits and challenges of engaging in IPE. An example of an undergraduate IPE workshop will be used to illustrate how a medicines safety event can be used as a focus to design and engage students from different healthcare professions.



Graham Davies is Professor of Clinical Pharmacy & Therapeutics at the Institute of Pharmaceutical Science, King's College London. He has published over 150 peer reviewed articles and conference abstracts to date. His current research interests include medicines risk stratification in the elderly, being a member of a research group which includes academics and clinicians from Brighton and Sussex Medical School, Guy's and St Thomas NHS Foundation Trust and the Institute of Pharmaceutical Science, KCL. He is also a founder member of the Competency Development and Evaluation Group (CoDEG) which has designed and tested a number of pharmacist development frameworks to support the role of pharmacists in improving the safe and effective use of medicines. He is the Course Director for both the

Master of Pharmacy degree and the Independent Prescribing Course for pharmacists offered by King's College London. He contributed to the establishment of a novel postgraduate workplace Diploma for hospital pharmacists at University College London School of Pharmacy. He has taught a range of health care professionals at under and postgraduate levels, including inter-professional education. Before taking up an academic position, Professor Davies spent 10 years working as a clinical pharmacist, followed by 15 years as an advisor to the South Thames Regional Health Authority, contributing to strategy development for the provision of Clinical Pharmacy Services across the hospital sector. He is a Fellow and a Faculty Fellow of the Royal Pharmaceutical Society, an Honorary Fellow of the Hong Kong Academy of Pharmacy and holds a number of visiting professorships at UK and overseas universities.

Competency based design of traineeship as part of the pharmacy curricula

Mitja Kos - Faculty of Pharmacy, University of Ljubljana, Slovenia

The un-attractive nature of numbers and formal documents can hold an important content. One of such is the Directive 2005/36/EC that establishes a system for the recognition of professional qualifications in the EU¹. Its main aim is to help make labour markets more flexible, further liberalise the provision of services, encourage more automatic recognition of qualifications and simplify administrative procedures. The directive has an important impact on EU as well as other neighbouring countries.

For recognition purposes, the directive lays down minimum training conditions, including the minimum duration of studies. In the case of pharmacy profession that means training of at least five years duration, including a six-month traineeship in a pharmacy which is open to the public or in a hospital, under the supervision of that hospital's pharmaceutical department.

For some countries the uptake of the traineeship into undergraduate curricula meant a substantial change from the previous practice. In case of Slovenia, the Faculty and practice faced new organizational challenge as all the students of pharmacy need to get through the traineeship and not as previously only those that chose their job to be in health care. Namely, the practice and the registration as a pharmacist used to take place after graduation. The practice was also changing its shape from one year practice that covered all the necessary competences for the pharmacist in the country to a six month health care practice, namely community and hospital pharmacy practice. The previous version of practice seemed logical at that time as only half of the pharmacist worked in health care.

Recently, we have also seen a growing interest in competencies. The curricula are now supposed to be based on a previously defined competency framework, such as the one defined by FIP. If employers rapidly grabbed the old new concept and easily introduced it into their working routine, this was not necessary the case for the Faculties. The competency framework does not demand solely the ability for administrative juggling but a new way of breathing and thinking. Does it mean that the whole program and "staff reform" is necessary in order to place the whole idea in place or can we survive with small adaptations?

The author will present several challenges when faced with the competency based traineeship and hopefully also provide some solutions and ways to avoid the barriers.

¹ EU Directive 2005/36/EC on the recognition of professional qualifications; FIP A Global Competency Framework. Pharmacy Education Taskforce, FIP 2012.

Teaching competence development to support innovation in pharmacy education

Jelena Parojčić – Faculty of Pharmacy, University of Belgrade, Serbia

In the increasingly complex learning environment in pharmacy education, the necessity for effective initial and ongoing teaching competencies development has been recognized both from academia and relevant regulatory institutions. It has been argued that *“university teaching is one of the very few professions where practitioners receive almost no formal preparation for their work, where there is no process for the accreditation of minimum competence, and where involvement in continuing professional education is uncommon”* [1].

Current expectations for university teachers in health professionals education are defined as the ‘12 roles of the teacher’ which extend beyond the ‘information provider’ (i.e. content expert) to encompass effective communication, understanding educational theory, creating effective learning environment (including relevant educational resources and appropriate teaching and assessment methods) [2]. Teacher practitioners (practice preceptors or, clinical supervisors) also bear increased responsibility for effective teaching and learning in health professionals’ education. Contemporary quality assurance guidelines and accreditation standards for pharmacy education include relevant expectations for teaching competence development of university teachers and teacher practitioners. It is stated that *“academic staff must have access to an organised professional development programme which must provide opportunities to develop teaching, learning and assessment skills, as well as an understanding of pedagogy, including construction and delivery of the curriculum. Members of the academic staff should be trained to use educational technologies and techniques that support various modes of educational delivery.”* [3, 4]².

Different models for academic staff development are available, including formal programmes, as well as various informal activities. Many universities have established centers for teaching and learning which provide necessary support and guidance. Some schools offer structured teacher training courses, as well as various workshops and seminars for their staff members. There is also an increasing number of advanced level, degree courses in health science education, such as postgraduate diploma, certificate, master and PhD offered from the leading universities or professional associations. In our region, one of the first teaching development programmes for academic staff and teacher practitioners involved in health professionals education will be established through the Erasmus+ project ReFEEHS coordinated by the University of Belgrade (www.refeehs.com). Professional development of teaching staff should provide the necessary leadership for further quality improvement. They are expected to act as the agents of change and promote innovative practice in teaching, learning and patient care. In order to be effective, teaching competence development programme should be integrated with university policy. Establishment of institutional culture that promotes and nurtures professional development, support of the institutional management, strong determination and lot of motivation is needed in order to overcome the expected barriers and resistance to change.

² [1] Knapper C. Changing teaching practice: strategies and barriers (2008); [2] Harden RM, Crosby J. Medical Teacher, 22, 4: 334-347(2000); [3] FIP Global Framework for Quality Assurance of Pharmacy Education (2014); [4] PSI Accreditation Standards for the Five-Year Fully Integrated Masters Degree Programmes In Pharmacy (2014)



Jelena Parojčić is professor of pharmaceutical technology at the Faculty of Pharmacy, University of Belgrade. In the period 2009-2012 she served as Vice Dean of Research and International Cooperation, and since 2013 as a Chair of Curriculum Committee at the Faculty of Pharmacy. Jelena Parojčić is author/co-author of 64 scientific papers and more than 150 presentations at national and international meetings. Complementary to her scientific research work, Jelena Parojčić is devoted to continuous improvement of pharmacy education. In 2014, she published the treatise "Pharmacy Education in Serbia at the Turning Point between Traditional and Contemporary". She was coordinator of the Tempus project PQPharm aimed at modernisation of postgraduate qualification in pharmacy (2010-2013); national coordinator of the LIAT-Ph Knowledge Alliance (Linking Industry and Academia in Teaching Pharmaceutical Development and Manufacture) funded under the EU Lifelong Learning Programme (2013-2015), and member of the project team of the Erasmus+ project ReFEEHS aimed at reinforcement of the framework for experiential education in healthcare in Serbia (2015-2018). Jelena completed the postgraduate programme in medical education from the Centre for Medical Education, University of Dundee (PGCertMedEd) and Teaching Certificate in Pharmacy Education from the School of Pharmacy, University of Washington, where she has been a Fulbright Visiting Scholar in 2014.

Quality assurance and standards in pharmacy education

Mike Rouse - International Services, Accreditation Council for Pharmacy Education (ACPE), USA

The need to expand the global health workforce to meet societal needs has resulted in increased capacity in education and training. In some countries this expansion has been achieved, but not always in a quality way. In recent years, to support countries in their own quality improvement and capacity building initiatives, international organizations have focused on the development of competency-based educational models, and programs and frameworks to evaluate and enhance the quality of education. Many countries lack the resources, expertise, and experiences to effectively quality assure education and training. Curricular models are frequently adopted from other countries or institutions; they may be out of context and not the most appropriate to meet the country's needs and priorities. In those cases, outcomes of educational programs cannot be fully implemented and have the desired impact in practice.

Education and training of pharmacists must be viewed and treated as a continuum by all the key stakeholders, including educators, practitioners, regulators, policy makers and quality assurance (QA)/accreditation agencies. QA systems must ensure that educational programs are competency-based, reflect a vision for practice and education developed through profession-wide consensus, are of high quality and appropriate, and meet the needs of the country and its people. To be meaningful, educational activities must focus more on learning outcomes and impact, and less on structure and process, although the latter remain important "pillars" of quality.

Traditional approaches to quality have focused on structure, process and outcomes. Contemporary approaches, however, must go beyond these three "pillars" to include context and impact, which together reflect social accountability. **"True success is not in the learning, but in its application to the benefit of mankind"** (Mahidol). New approaches, based on a competency foundation (science, practice and ethics), must take into consideration real healthcare needs and priorities and should be adopted at the individual, organizational and national levels, including cross-discipline and cross-country approaches. Without changes in the behavior and performance of pharmacists (graduates) and an impact on practice and patient outcomes, education does not fully achieve its desired objective.

The presentation will describe the five "pillars" and three "foundations" of educational quality and discuss how they can serve as the basis for development accreditation systems and standards, and be used for both external evaluation of quality and internal self-assessment and quality improvement initiatives.



Mike Rouse B. Pharm (Hons), MPS is Assistant Executive Director, Professional Affairs and Director, International Services Accreditation Council for Pharmacy Education (ACPE), Chicago, USA. Born in Zimbabwe, Mike studied pharmacy and worked in hospital and community pharmacy before moving to the USA in 2001 to join the Accreditation Council for Pharmacy Education (ACPE). Mike's primary areas of responsibility are professional affairs, strategic initiatives and projects, and international services and collaboration. He coordinated the 2006 revision of ACPE's PharmD Standards and is a global leader in initiatives to introduce a CPD approach to lifelong learning. Mike founded and convenes the International Forum for Quality Assurance

of Pharmacy Education and drafted the Global Framework for Quality Assurance of Pharmacy Education, which was adopted by the International Pharmaceutical Federation (FIP) in 2008 and updated in 2014. Mike served on the FIP Bureau and several other boards and committees, and is Education Lead for Quality Assurance for FIP's Education Initiatives (FIP-Ed). He has been a consultant and invited speaker in more than 60 countries.

Excellence in professional pharmacy education

Stanley Weber - School of Pharmacy, University of Washington, USA

Excellence in professional pharmacy education is not an event; it is a process. It is the result of focused attention and continuous quality improvement. A curriculum is not a series of courses strung together; it is a combination of course content, educational strategies, learning outcomes, experiences, assessments, the environment, and students' attributes such as learning style and maturity.

Curricular Content: Pharmacy is evolving from a product - to a patient-oriented profession. Excellence demands that we begin any discussion regarding the curriculum with the thought, "What is best for my patient?" While principles of chemistry and biology are important to understand, untidy subjects such as human behavior, economics, communications, professionalism, advocacy, health promotion, and team work are important for transforming pharmacy into a patient-oriented profession.

Educational Process: The science of teaching and learning has also evolved. Our responsibility is to seek, understand, and apply new evidence to what we do, including how students learn. Teaching is not equal to learning, and talking to an audience does not guarantee they will understand, process, synthesize, apply, or retain what is heard.

Learning Outcomes: Designing curricula around terminal ability statements helps move students from knowledge to skills. Defining abilities of graduates and creating related objectives at the course, and even lecture level, and using hierarchical taxonomies facilitates focus on development of students' problem solving skills.

Learning by Doing: Higher education seems concentrated on imparting knowledge and assuming students will be able to use the information. Active learning techniques bring relevance, context, and connections for students and facilitate academic success more than lectures. Some have concluded that the traditional lecture format is so inferior to active learning techniques that its continued use could be considered unethical. Experiential learning causes the student to be physically engaged in professional activities with real consequences. The focus is on doing — not just watching — the activity in a real site with the distractions and interruptions all clinicians experience, under the guidance of a preceptor who is a combination role-model, coach, teacher, and facilitator. Our experiential placements must be relevant, rigorous, clinical and "hands on."

Assessment: There are a number of corollaries to the guideline, "If you want to change behavior, measure it." Intentional and efficient assessments of students' mastery of knowledge, skills, and attitudes over time is critical to guide students' development, and both document attainment of abilities and feed them back into the program's decision-making system.



Stanley S. Weber is the Associate Dean for Assessment and Chief Assessment Officer for the University of Washington, School of Pharmacy. Prior to joining the University he held academic appointments at the University of New Mexico, the University of Rhode Island, and Washington State University. He has been an active member of a number of pharmacy organizations, made numerous national presentations, and has contributed several publications to the pharmacy literature. He is a Fellow of the American Society of Health-System Pharmacists, Board Certified as a Psychiatric Pharmacy Specialist, and has completed the executive cycle of the presidency of the College of Psychiatric and Neurologic Pharmacy. In 2009, he was the recipient of the Judith J. Saklad Memorial Lecture Award from the College of Psychiatric and Neurologic Pharmacists. Most recently Dr. Weber has been interested in the delivery of pharmacy education and is responsible for both curricular assessment management and experiential education for the School.

The importance of experiential education

Martin Henman - School of Pharmacy and Pharmaceutical Sciences, Trinity College Dublin, Ireland

“Learning by doing” is a well-known saying but it is perhaps too concise a way to describe the benefits of experiential education. Learning is reinforced and lasts longer when the student is actively involved and the context of the learning clearly relates to the intended purpose. Health Care Professionals must be able to apply the right theoretical and factual knowledge using the particular skill(s) that are required for each patient. Therefore it is crucial that during pharmacy education students are given opportunities to learn how to apply their knowledge and skills to routine care situations. These opportunities can only be provided in practice settings with the participation of practitioners and patients. But because this is a resource intensive activity, students should be prepared using simulations in the University beforehand. In addition the curriculum and the assessment procedures must be standardised and aligned to measure appropriate outcomes and yet feasible for consistent delivery by the educators. This challenge is substantial because not only are there a range of patients with conditions that vary in presentation and severity but there are also different health care settings that influence what can be done and monitored. Realising the benefits of medicines and minimising their adverse effects depends upon optimising their use and this can only be achieved by ensuring that pharmacists' education includes suitable experiential components.



Martin Henman is Associate Professor in the Practice of Pharmacy and coordinator of the Centre for the Practice of Pharmacy in Trinity College Dublin. After completing his PhD in Pharmacology he started in University practice and became coordinator of the Centre in Trinity College in 1997. He is a registered pharmacist in Ireland and was a founder tutor of the Irish Centre for Continuing Pharmaceutical Education, has worked with the Hospital Pharmacists' Association of Ireland for over 20 years and is a member of the Steering Group of the Irish Institute for Pharmacy which is responsible for CPD. He also teaches on the TCD Masters degrees in Community Pharmacy and Hospital Pharmacy and on the Cardiology in Clinical Pharmacy Practice postgraduate module. In 2006, he was presented with the Provost's Teaching Awards in recognition of the excellence of his contribution to teaching and learning in TCD. He has published papers on Pharmaceutical Care, Pharmaceutical Policy, Cancer, Palliative Care Medicines use in the Elderly and Pharmacy education and competency development. Dr Henman is a founder member of a research grouping, Pharmaceutical Care Network Europe and between 1998 and 2000 carried out a Europe-wide study of the care of the elderly. In September 2003 he became its Chairman and in 2006-2008 and he was part of an international group that researched pharmacist's Pharmaceutical Care activities in Europe and he is researching medicines and supplement use in the Irish Longitudinal Study on Ageing (TILDA) and in the Intellectual Disability Supplement of TILDA. He is a member of the European Society of Clinical Pharmacy and was chair of the 2011 ESCP annual symposium in Dublin and was awarded Fellowship of the Society in 2013.

Taking advantage of excellence in science and innovation

Hans Lindén - European Federation for Pharmaceutical Sciences (EUFEPS)

Changing things takes leadership. Provided change needed, in science as in education and training. The expected outcome of this summit is a new platform for collaboration, cooperation and coordination – and effective and efficient management of change will have to follow to make it a reality. We are all leaders or will be, some having more experience, and some less, perhaps. Our leadership could, in general terms, be visionary, strategic, ambitious, team-focused, managerial or purely administrative, and so forth. Also, roles, tasks, positions, cultures and styles vary among the countries and within the countries concerned.

However, there are leadership dimensions in common that could be taken advantage of. They are relevant for any work in public organisations and in private business. For example, in academia, in big and small industry, in the regulatory field, in pharmacy, and in the healthcare system.

Individual reflection on personal interests, experiences gained and competencies acquired help leaders in their future professional position and career, together with current and new leading teams. It also helps to identify own education and training needs for update and upgrade of the professional competencies. So what would be excellence and innovation for pharmacy practise and pharmaceutical sciences in delivering education and training – from the basic level through life-long continual professional development?

Ways to initiate, develop and achieve things, regardless of scale, will be addressed as well – ending up in a concentrate of ten steps or moves for measurable change in own doings and in meeting goals and objectives jointly with others. Reference will be made to e.g. the “Advanced Master in Safety Sciences for Medicines” as well as the professional “LifeTrain” approach in Europe. Both are projects by the public-private European Innovative Medicines Initiative (IMI), jointly funded by the European Commission and the European Federation of Pharmaceutical Industries and Associations (EFPIA)³.

Session attendees will be invited and encouraged to start seeking, recognising and improving their own strengths, capabilities and developments – in visionary and strategic thinking, in management of organisations and operations, and in team building and coaching.



Hans H. Lindén graduated in 1971, at the Faculty of Pharmacy, Uppsala University, Sweden. 1971-1986 he was Head of the Department of Educational Programmes of the Swedish Pharmaceutical Society/Academy of Pharmaceutical Sciences. From 1986 through 1991 he was Head of the Department of Studies and Analysis and Deputy Managing Director of the Society/Academy. He engaged himself, particularly, in research related work and support on patient medicines information, public confidence in the medicines system, and in risk perception of medicines. In 1980, he was appointed Secretary General of the Swedish Medicines Information and Communication Council, established the same year, by the government, a position held for 16 years. In the first half of the 1990ies, he chaired, in parallel, a governmental Working Party on IT security for the public sector in Sweden. Hans H. Lindén became engaged in the European Federation for Pharmaceutical Sciences (EUFEPS),

³ Bjerrum, O.J., Lindén, H.H. (2011) European New Safe and Innovative Medicines Initiatives: History and Progress, in *Translational Medicine and Drug Discovery*, University Press, Cambridge, 265–287 (chapter 10); Gaspar, R. et al. (2012) *Towards a European Strategy for Medicines Research (2014-2020): The EUFEPS Position Paper on Horizon 2020*, in *Eur J Pharm Sci* 47, 979-987.

in 1994, as Assistant Secretary-General, also based in Stockholm, Sweden. In 2001, he assumed the position as full-time Secretary-General, a position he held through 2011 as Executive Director, when retiring. Currently, he is the Leader European Projects and Global Affairs in EUFEPS (2012-), Member and Secretary of the EUFEPS Senate (2012-). Since 2012, he is also part-time Senior Project Coordinator, Department of Pharmaceutical Biosciences, Uppsala University, Sweden. Over the years, he actively engaged in international and global collaboration, e.g. in a number of European Framework Programmes for Research and Technological Development, and in the current Innovative Medicines Initiative (IMI). As to IMI Education and Training, he has been the EUFEPS representative of the (IMI) PharmaTrain project (2010-2014). Continuously, he is very active in the (IMI) SafeSciMET (2010-2016), and in the new (IMI) IMI-TRAIN collaboration (2014-2016) - with focus on needs, strategy and sustainability issues and plans, primarily, but also in the development of the (IMI) EMTRAIN On-course Course Catalogue, and in the LifeTrain continuing professional development initiative.

May 12-14, 2016

Chatenay-Malabry, Paris, France

EAFP Annual conference "Postgraduate studies in Pharmacy"

more information on http://eafponline.eu/eafp_conferences/2015-eafp-annual-conference/

June 1-6, 2016

Ohrid, Macedonia

6th Congress of Pharmacy in Macedonia

more information on <http://congress.mfd.org.mk/>

July 1-4, 2016

Split, Croatia

11th International Conference on Life Long Learning in Pharmacy

"Sailing new waters – expand your horizons"

more information on www.lllpharm.com

July 18-22, 2016

Utrecht, the Netherlands

Summer school "Pharmacy Education and Training"

more information on www.utrechtsummerschool.nl

(search for course M47)

September 22-24, 2016

Belgrade, Serbia

11th Central European Symposium on Pharmaceutical Technology

more information on www.cespt2016.org