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EDITORIAL

Lilian M. Azzopardi
EAFP President



EXCITING TIMES FOR PHARMACY

The dynamic changes in the profession of pharmacy point towards exciting but challenging times for pharmacy and pharmacy educators. These dynamic changes are healthy so as to keep the profession relevant for the needs of the ever-changing demands of society and in the light of the developments in medicinal products and health technology.

EAFP's primary mission is to bring together academia from Europe and beyond to discuss updates in teaching programmes and the development of frameworks and systems adopted in pharmacy education to ensure that whilst addressing the dynamic changes in the profession, the scientific basis for a pharmacist are maintained at high standards. This can be achieved by sustaining the strong membership base of institutional membership for faculties and colleges of pharmacy. The Annual Conference that is organised in May presents the opportunity to network and share experiences of teaching models with colleagues from a large number of countries.

EAFP has a strong collaboration with stakeholders in pharmacy so that the academic perspective is shared with students and the leaders of practice of pharmacy from the different settings including community pharmacy with PGEU, hospital pharmacy with EAHP, clinical pharmacy with ESCP and industrial pharmacy with EIPG. Through this active collaboration, EAFP is at the forefront of leading developments at the EU level for different sectors of the profession. Surely the students are important players in academia and EAFP has a strong link with the European Pharmaceutical Students Association and it is a pleasure to witness the EPSA activities within the EAFP activities getting stronger. Broadening the links with other collaborators to incorporate international collaboration is an activity that EAFP is now looking at. Frameworks for pharmacy education, teaching models, quality assurance exercises are aspects that are being discussed in the international platform and EAFP contributes with the European perspective.

One of the challenges for academia is to ensure that the gap between skills and competences developed within pharmacy education and the real life practice as an entry level graduate into the profession within the different sectors of pharmacy, is as minimal as possible. Moreover the participation of faculties of pharmacy in collaboration with the professional settings to develop post-graduate education and research that is relevant and supports the dynamic changes faced by the profession is an important contribution by academic pharmacy to society. During this year's Annual Conference being held between the 14 and 16 May in Athens, I would like to invite Deans of Faculties of Pharmacy and their representatives to a Dean's Meeting to brainstorm on how to prepare for future challenges and innovation whilst promoting sharing and relationship building within our membership.



21st EAFP Annual Conference

14-16/05/2015 University of Athens, Greece

Quality Assurance in Pharmacy Education

Welcome to the 21st EAFP Annual Conference in Athens

Alexios-Leandros Skaltsounis

President, Faculty of Pharmacy,
University of Athens

Dear colleagues,

It is really a great pleasure and honor to host the EAFP 2015 CONFERENCE in the capital of Greece and more in particular at the Faculty of Pharmacy, University of Athens.

I am sure that all of you are quite familiar with the history of Athens and the fact that the foundations of our Civilization, Culture and Education principles have been formed here by our great Philosophers and Mathematicians thousand years ago and they are still valid.

We are thus very proud to organize this great event on “Quality Assurance in Pharmacy Education” and hope that with your active participation, the next EAFP conference scheduled for May 14-16, 2015 in Athens will be as successful as the previous ones.

We are looking forward to welcoming you in our University and work closely together for developing Pharmacy curricula assuring the scientific knowledge of the future Pharmacists in order to meet the demanding patients’ needs within a citizen centric European Health System.

Prof. Alexios-Leandros Skaltsounis

President

Faculty of Pharmacy

University of Athens

GENERAL INFORMATION

Important Dates

Conference dates: **14-16 May, 2015**

Opening Ceremony & Welcome Reception: **May 14th, 2015**

Gala Dinner: **May 15th, 2015**

EAFP General Assembly: **May 15th, 2015**

Conference Venue

University of Athens

Panepistimiou 30, Athens, Greece

Conference programme available at:

<http://eafponline.eu/wp-content/uploads/2013/03/2015-EAFP-Scientific-Program.pdf>

SCIENTIFIC PROGRAM - MAJOR THEMES

The Socratic and other Innovative Methods of Learning

Pharmacy Education and Training I: Listening to the Stakeholders

Pharmacy Education and Training II: Listening to the Students

Quality Assurance in Pharmacy Education -The PHARQA Project

Linking Pharmacy Education, Research and Training with Employment

Other Parallel Workshops and Meetings:

Pre conference workshop on “Multiparticulate DDSs”

The PHARQA Project: Partners Meeting

EPSA Meeting

Workshop on “Quality Assurance”

Conference Website: <http://eafponline.eu/conferences/athens2015/>

Email for General Information: eafp2015athens@afea.gr

REGISTRATION FEES	Until 13/03/2015	From 14/03/2015– On-site
Delegates	350€	400€
EAFP Members Delegates	175€	200€
Students	50€	75€

CONFERENCE SECRETARIAT



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In June 3-5, 2015 the Nordic Social Pharmacy and Health Services Research Conference (NSPC) will be held at Dorpat Conference Centre in Tartu, Estonia. While the NSPC will take place for the seventh time, the joint conference with the Nordic Networking Group of Clinical Pharmacy will be organised for the second time. For Estonia it is the first time to host the conference.

The conference involves students, young as well as experienced scientists and practitioners in the field of social and clinical pharmacy and health services research. Besides, the conference also plans to introduce the subject more to the professional associations and public institutions (primary care medicine, pharmacy, public health field), thereby offering the possibility of cooperation for both theoreticians and practitioners from different countries. The accepted abstracts of oral and poster presentations will be published in an international scientific journal - International Journal of Clinical Pharmacy.

The conference theme is *Innovative, Integrated, Individualised Care*, with an emphasis on the need for innovation and collaboration in education, research and practice.

The conference covers the following research topics:

- Innovations in pharmacy practice and research
- Professional and inter-professional issues and pharmacy education
- Healthcare services and pharmacists' interventions
- Pharmacoeconomics and pharmaceutical policy
- Ethical issues in pharmacy
- Social and inter-cultural issues
- Medication use and drug behaviour (incl. user perspectives)
- Patient safety and pharmacoepidemiology
- Medicines and health information
- Clinical Pharmacy

For further information please visit conference website: www.nspc2015.com


The NSPC&NNGCP 2015 welcome the participants!

Dr. Daisy Volmer, On behalf of the Scientific and Organising Committee

Department of Pharmacy, University of Tartu, Estonia

Estonian Academical Society of Pharmacy

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<p style="text-align: center;">UPDATES TO DEGREES IN PHARMACY DIRECTED TO THE PROFESSIONAL DEVELOPMENT FOR FUTURE PHARMACISTS AS HEALTH SPECIALISTS</p>	 <p style="text-align: center;">Prof. Benito Del Castillo Garcia EAFP Past-President</p>
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ABSTRACT

Throughout history, Pharmacy degrees have undergone numerous changes as a result of the progress and differentiation in various branches of science involved in this degree, of the development of the profession and of the changes made in university institutions. At present, the basis on training and on the necessary conditions for obtaining this degree and the activities that may be exercised are the most important fields to be discussed.

KEYWORDS:

Curricular Harmonization. Pharmaceutical Education. Pharmacy degree. Educational globalization.

INTRODUCTION

The last two decades of the twentieth century have in a continuously and almost accelerated way left as a legacy deep changes in the forms of coexistence of mankind. These changes are the result of the impressive progress of science, telecommunications and information technology, as well as the processes known as regionalization and globalization of the societies in the world.

Globalization has been described¹ as a "growing process of integration of capital, technology and information across national borders, thereby creating an increasingly integrated global market, with direct consequences in which more and more countries are forced to compete in a global economy". This phenomenon particularly entails for regions that have signed state political and economic agreements, have won the acceptance as guidance of a series of common concepts and paradigms for countries, as a necessity for survival with social welfare

¹ Salmi, J. Enfrentando los retos del siglo XXI. *Red Universitaria (Supl. Educ. Sup.)*, 2001; 11: 4-9, en: *Rev. Educación*, 68.

and, in most cases, have resulted in policies, strategies and common regulations that are affecting the social and economic development of all individuals of the implied societies.

As it has happened to other professions, the exercise and training of the professional pharmacist is also undergoing changes, many of them are the result of deliberation and analysis raised in various forums, whose actions and proposals' aim is to provide humanity with experts in drugs with a greater role and function of social commitment within a team devoted to safeguarding the health of the population.

In this context and with the awareness that undergraduate degree institutions (Bachelor's) *las instituciones de educación superior* are those that, over economic and professional interests, can support actions aimed at resolving the difficulties of professionals from various economic blocs, is not fortuitous that in different parts of the world have arisen forums and discussion groups to promote the harmonization of the study plans of Pharmacy with new approaches to the development of the teaching-learning and continuing education programmes to ensure the updating of the professionals.

WHO² has recognized the evolution of the pharmacy practice, in which the growing medicine manufacturing has left fewer magistral formula functions to pharmacists, but in turn it has been increasingly recognised the pharmacists' social function in the industry, in clinical and health analysis and in hospital and community pharmacy. It is in this latter practice where is recognized the need to promote pharmacy practice as a sole practitioner service, but it is also complementary within a healthcare team where the patient is the main beneficiary of the pharmacists practice. Hence the idea of promoting the so-called *Atención Farmacéutica* (Pharmaceutical Care), which ensures optimal results in the use of medicines by the active participation of the pharmacist as a member of the healthcare team, collaborating with doctors, dentists, nurses and other professional healthcare professionals at the same level.

In the educational field, in the last decades of the twentieth century changes have been made in order to combine both the efforts in the development of WHO policies and the determination of their orientations and actions. Thus, appeared the European Association of Faculties of Pharmacy (EAFP), *la Conferencia Nacional de Decanos de Facultades de Farmacia de España* (the National Conference of Deans of Faculties of Pharmacy of Spain), the Association of Faculties of Pharmacy and Biochemistry of Argentina, Uruguay, Paraguay and Brazil (EQUAFIP), The Pan American Conference on Pharmaceutical Education and the Ibero-American Conference of Faculties of Pharmacy (COIFFA), among others.

² WHO (in Spanish OPS/OMS), Oficina Sanitaria Panamericana. El Papel del Farmacéutico en el Sistema de Atención de Salud. 1995. Informe de la reunión de la OMS, Tokio, Japón, 1993. OPS/HSS/HSE/95.01.

These Associations have developed and released several documents containing information and analysis of different elements for curricular reforms in Pharmacy, as the professional practice per country, the educational level for college admissions, curriculum or minimum basic training content, duration of the theoretical-practical studies, among others³.

All these policies, led by WHO are designed to rescue, beyond economic interests, the important work of the pharmacy profession in protecting the health and social welfare social⁴.

In addition to the ideal skills and knowledge of the seven-star pharmacist adopted by the International Pharmaceutical Federation (FIP) in Vancouver consultation (**caregiver, communicator, decision-maker, teacher, life-long learner, leader and manager**), the EAFP has added two more functions. These roles are no less important than the others and rather should be intrinsic in each of the seven qualities abovementioned: the scientific and clinical functions in their pharmacist daily professional activity

To achieve that Pharmacy students develop these skills during their studies at university, it is necessary to make various curriculum revisions that, on one hand, allow the integration of basic, pharmaceutical, biomedical and social sciences knowledge.

Moreover, this curriculum reform should include the incorporation, along with the corresponding teacher training programme of the new pedagogical models of teaching and of the learning assessment, derived from the development of sciences didactics.

Once recognized that the phenomenon of globalization has changed the patterns of the political and economic relations between countries, it is necessary to analyze the advances in the curriculum harmonization to allow in the future the mutual recognition among pharmacists.

The experience of Spain after joining the European Union

In most European countries, the pharmacist is employed in the Community Pharmacy, over a 60 percent. Other important fields of activity are the Industrial and Hospital Pharmacy - which in Spain requires a specialization of 4-years postgraduate studies. In these countries, the pharmacist also works in other fields which are not exclusively of its competence. In the case of Spain, the pharmacist has a training profile focused on medicines, but not only. According to these guidelines, the graduate in Pharmacy, is able to perform many activities including: The preparation, manufacture, control, storage and distribution of medicines (Community and Hospital Pharmacy), and also what is most important, the dissemination of information and

³ OPS. Plan Básico de Educación Farmacéutica. Propuesta de Grupo de Trabajo. Lima, Perú, Julio 6-9, 1998. Serie 13 del Programa de Medicamentos Esenciales y Tecnología de la OPS, OMS. 1999; 33 p.

⁴ COHIFFA. Declaración de La Habana. Acuerdos de la III Reunión Plenaria de la COHIFFA. La Habana, Cuba, Junio 1998, 8 p.

advice about drugs. However, this professional profile is not only confined to medicines, but it is also completed and enhanced when pharmacists assume Public Health, health education, analysis related with health, nutrition, bromatology and immunology activities.

The degree in Pharmacy has always had a minimum duration of 5 years with theoretical and practical training at the University as well as a mandatory six months of full-time supervised internship in a community or hospital pharmacy.

For the last twenty years, most Pharmacy Colleges designed and developed their curricula. To the same extent, EAFP recommendations were followed so that all European Pharmacy degrees include at least 30 percent of practical lessons (laboratory experimentation).

Professor Dr. Alberto Boveris, the Dean of the Faculty of Pharmacy at UBA university, has written that the Latin American Faculties of Pharmacy are debated between the two loyalties implying the two words which define the region. On the one hand, when the word America is emphasized prevails the Pan-American nature... which refers to the spirit of collaboration independently proposed by Monroe and Bolivar - and that in the educational field has been influenced by the Anglo-Saxon training model.

On the other hand, when the word Latin is emphasized, prevails the Hispanic or Mediterranean nature. In this case, during the training period it is taught a solid learning about chemistry, biochemistry and biology, along with the classic knowledge of pharmacology and pharmaceutical technology.

Among the most important agreements signed by COIFFA are a number of definitions and information that are intended to be used as guidelines in the curricular harmonization in Pharmacy.

Using the establishment of common Standards between countries, based on scientific principles to ensure efficient pharmaceutical service for the benefit of the population.

Thus, the pharmacist is the university professional whose primary mission is the management and the exclusive responsibility for the formulation, preparation and the responsible dispensing of drugs to the population in addition to its inevitable participation in the protection of health and improvement of the quality of life.

Therefore, the primary aim of the professional pharmacist must be to protect the right of people to be granted with quality, safety, efficacy, and informative and responsible dispensing drugs.

For this purpose it is necessary to establish minimum standards of pharmacy education to ensure that the professional practice is developed according to their professional profile and within the framework of the regulations of each country and WHO recommendations.

They are also recognized the competences of the professional practice in the health team.

It should be noted that COIFFA, proposed as a guidance and "respect for the autonomy of each country and University that characterizes each country or region, ... agrees to use a different denomination on each of these groups of sciences and, likewise, has considered necessary to work harder on developing a glossary of terms that allows the mutual understanding at the time of establishing possible equivalences.

COIFFA has also suggested applying a similar criterion for the order and for the way to gather subjects within the group of sciences and about those terms involved in the recognition of plans and programmes and university degrees.

Current Status of Pharmacy Studies in Spain

In Spain, at present, the establishment of The European Higher Education Area (EHEA), launched along with the Bologna Process, and the implementation of the corresponding European Directives transposed into Spanish law, involves a number of curricular adaptations and demands to provide the degree in Pharmacy a scientific and professional status covering the demands of future pharmacists. The degree in Pharmacy should fulfill the duty of training recognized professionals. This training, that future pharmacists must acquire, should allow them to develop their healthcare profession in fullness and has to prepare graduates to be able to transmit their health knowledge to the society and contribute to the formation of opinions in order to provide the future pharmacist with such skills, which in the degree in Pharmacy of UCM⁵ university is configured in Table 1.

CONCLUSION

The training of the graduate in Pharmacy prepares the future professional pharmacist to acquire the knowledge and attitude with which he/she should be able to cope with the social and health situation in Spain and in any country of the European Union through the different modifications of the university study plans, result of the progress and advance of the Science.

⁵ Planes de Estudio Grado en Farmacia, Universidad Complutense de Madrid.
Véase: http://www.ucm.es/info/farmacia/Guia_del_Grado/Documentos/Grado.pdf

CURSO	ASIGNATURA	CARÁCTER	UNIDAD TEMPORAL UBICACIÓN	ECTS
1º	Química General e Introducción al laboratorio	Básico (Ciencias)	Semestral (1S)	6
1º	Biología e Introducción al laboratorio Biológico	Básico (Ciencias de la Salud)	Semestral (1S)	6
1º	Física aplicada a Farmacia	Básico (CC de la Salud)	Semestral (1S)	6
1º	Inglés	Básico (Artes y Humanidades)	Semestral (1S)	6
1º	Estadística	Básico (Ciencias de la Salud)	Semestral (1S)	6
1º	Bloquímica I	Básico (Ciencias de la Salud)	Semestral (2S)	6
1º	Química Inorgánica	Básico (Ciencias)	Semestral (2S)	6
1º	Historia de la Farmacia, Legislación y Deontología Farmacéutica	Obligatorio	Semestral (2S)	6
1º	Química Analítica I	Obligatorio	Semestral (2S)	6
1º	Botánica	Obligatorio	Semestral (2S)	6
Total 1º Curso				60
CURSO	MATERIA	CARÁCTER	UBICACIÓN	ECTS
2º	Inmunología	Obligatorio	Semestral (3S)	6
2º	Química Analítica II	Obligatorio	Semestral (3S)	6
2º	Bloquímica II y Biología Molecular	Básico (CC de la Salud)	Semestral (3S)	9
2º	Físico-Química Farmacéutica	Obligatorio	Semestral (3S)	9
2º	Química Orgánica I	Obligatorio	Semestral (4S)	6
2º	Bromatología	Obligatorio	Semestral (4S)	6
2º	Fisiología	Básico (CC de la Salud)	Semestral (4S)	9
2º	Parasitología	Obligatorio	Semestral (4S)	9
Total 2º Curso				60
CURSO	MATERIA	CARÁCTER	UBICACIÓN	ECTS
3º	Microbiología	Obligatorio	Semestral (5S)	9
3º	Tecnología Farmacéutica I	Obligatorio	Semestral (5S)	9
3º	Química Orgánica II	Obligatorio	Semestral (5S)	6
3º	Fisiopatología	Obligatorio	Semestral (5S)	6
3º	Química Farmacéutica I	Obligatorio	Semestral (6S)	9
3º	Farmacología General	Obligatorio	Semestral (6S)	9
3º	Bloquímica Aplicada y Clínica	Obligatorio	Semestral (6S)	6
3º	Nutrición	Obligatorio	Semestral (6S)	6
Total 3º Curso				60
CURSO	MATERIA	CARÁCTER	UBICACIÓN	ECTS
4º	Farmacología y Farmacoterapia	Obligatorio	Semestral (7S)	9
4º	Química Farmacéutica II	Obligatorio	Semestral (7S)	6
4º	Biofarmacia y Farmacocinética	Obligatorio	Semestral (7S)	6
4º	3 Optativas	Optativo	Semestral (7S)	9
4º	Farmacognosia y Fitoterapia	Obligatorio	Semestral (8S)	9
4º	Tecnología Farmacéutica II	Obligatorio	Semestral (8S)	6
4º	Microbiología Clínica	Obligatorio	Semestral (8S)	6
4º	3 Optativas	Optativo	Semestral (8S)	9
Total 4º Curso				60
CURSO	MATERIA	CARÁCTER	UBICACIÓN	ECTS
5º	Tecnología Farmacéutica III	Obligatorio	Semestral (9S)	6
5º	Toxicología	Obligatorio	Semestral (9S)	6
5º	Salud Pública	Obligatorio	Semestral (9S)	6
5º	Atención Farmacéutica	Obligatorio	Semestral (9S)	6
5º	2 Optativas	Optativo	Semestral (9S)	6
5º	Prácticas Tuteladas	Obligatorio	Semestral (10S)	24
5º	Trabajo Fin de Grado	Obligatorio	Semestral (10S)	6
Total 5º Curso				60
Total Grado Farmacia				300

Table 1 - Degree in Pharmacy of UCM university

HOSPITAL PHARMACIST AND QUALITY OF MEDICATION SUPPLY CHAIN

Rousseaux D., Moens C., Zawadzki E.

EPSM de l'agglomération lilloise
Pharmacy department.

		
Domitille ROUSSEAUX	Elisabeth ZAWADZKI	Céline MOENS

Drug supply chain safety has become a priority for the public health sector which implies a collective process. This process associates all health professionals including the pharmacist who plays a major role. Different studies have shown that 25% of errors in the medication supply chain are linked to dispensation errors and up to 58% of the errors are linked to administration.

As required by French law, hospitals have to secure every step of the drug supply chain. Our psychiatric hospital of Saint-André has adopted an automated drug dispensing machine in 2013. With this system, the hospital pharmacy is able to produce daily identified unit doses for patients.

At every step of the automatized and computerized drug supply chain the hospital pharmacist has to ensure the quality of the process in order to avoid dispensing errors.

Our hospital is made of different units on several geographical locations (457 beds-psychiatry). All treatments are delivered to these health care units at specific times during the day. The pharmacy department is organised as follows: 3 hospital pharmacists, 1 pharmacy resident and 7 pharmacy technicians.

The drug supply chain is based on 3 critical steps: drug prescription, drug dispensation to health care services and drug administration to patients.

Psychiatrists prescribe medications using specific medical software. Supervision of prescription and delivery of unit doses is performed by the pharmacist. The nurses perform the electronic registration of drug administration to close the medication loop. Hospital pharmacists are responsible for training every prescriber (psychiatrists, medical residents) and also nurses in using this medical software.

The process of drug dispensation starts with the prescription analysis by the hospital pharmacist in order to detect any possible prescription error (drug error, dose error or frequency error of drug administration for example). The hospital pharmacist also has access to the results of biological analysis and to the patient's clinical data. For the hospital pharmacist, having all these electronic patient record is crucial to make a complete analysis of the medical prescription. When the hospital pharmacist (or pharmacy resident) has finished the analysis of the prescription, medical prescriptions are sent to the automated drug dispensing machine that is going to produce all treatments.

After the issue of an open tender, the Fast Dispensing System "FDS 260 Proud" system of the society Baxter has been selected. It is the first automated dispensing system of this generation which is owned by a French hospital. The automated drug dispensing machine is linked to the medical prescription software and integrates the drug dispensing with its electronic patient record.

The system facilitates medication administration with easy-to-open unit-doses, it fosters compliance and convenience because every package can be clearly labelled with the patient's name and administration time, drug name and dosage, drug strength and description. It provides the ability to print the medication lot numbers and expiration date.

All individual produced unit-doses are checked twice by several pharmacists in order to guaranty the quality of each individual unit dose. This process is crucial in medical practice where 100% accuracy is required.

The FDS system contains several cassettes in which the different drugs are stored which necessitate a de-conditioning of the individual drugs. Each oral solid blister packed drug has to be transferred in a bulk bottle before refilling each FDS Baxter cassette.

Each cassette has an RFID (*Radio Frequency IDentification*) chip. This chip is used for automatic recognition of the cassette position and to identify the medication. With a bar code on the drug bottle and an RFID chip in the drug cassette, the medicine is identified by using two different media. The system also supports bar codes containing information like expiration date and lot number. Cassettes are factory calibrated to specific medications to optimize dispensing accuracy, and to reduce the risk of cross-contamination and tablet miscount.

The de-conditioning is performed by pharmacist technicians under a hood, in individual clean boxes on which the lot number, expiry date and the de-conditioned quantity are mentioned. After finalisation, the hospital pharmacist checks and verifies the de-conditioning.

Once the individual doses have been produced by the automated fast dispensing system, they are dispatched to the different hospital units. Then, the nurses can distribute the individual doses to the patients without having to prepare pillboxes which considerably decreases the risk of errors. They only have to verify the doses in comparison to the automated prescriptions. All hospital nurses are trained by pharmacists on medication security.

All produced unit doses (for one to several days treatment) are dispatched in rolls (one roll for one patient). Once verified and released by the pharmacist, all rolls are safely and securely transported from the pharmacy to several health units. Automated drug dispensing system improves dispensing accuracy to ensure patient safety.

In order to improve drug dispensing quality, all errors linked to medication (prescription, dispensing or administration errors) are recorded by the pharmacy and analysed to provide feedback to everyone involved, so these errors can be prevented in the future.

The acquired dispensing system allows a medication supply chain ideal for hospitals that receive patients for a long period or for psychiatric patients whose prescriptions are rarely changed during their stay.

No potential conflict of interest.

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CONFERENCES TO COME

See also: www.pharmweb.net, www.pharmacy.org/conf.html

May 2015

2nd Annual International Conference on Pharmaceutical Sciences - 4th-7th May 2015 in Athens, Greece

Website: <http://www.atiner.gr/pharmako.htm>

3rd Annual Immunogenicity Prediction and Mitigation, May 4-5, *Cambridge Healthtech Institute's*, Boston

Clinical and Translational Biomarkers in Drug Discovery, May 5-7, 2015, Philadelphia, PA

The 15th International Congress of the International Society for Ethnopharmacology - 5th-8th May 2015
Petra, Jordan.

21st EAFP annual conference - 2015 ATHENS EAFP ANNUAL CONFERENCE : Quality assurance in pharmacy education - 14th-16th May 2015 at University of Athens, Greece , Website : <http://eafponline.eu/conferences/athens2015>

3rd Innovations in Drug Formulation and Delivery, 20th - 21st May 2015, San Diego, CA, <http://atnd.it/20548-0>

June 2015

Bioheterocycles 2015 XVI International Conference on Heterocycles in Bioorganic Chemistry, 7th - 11th June 2015, Metz, France

14th Annual World Preclinical Congress, June 10 – 12, Boston, Massachusetts.

Biotech Outsourcing Strategies cmc 2015, 10th - 11th June 2015, Munich, Germany, <http://atnd.it/19502-0>

2nd NovAliX Conference Biophysics in Drug Discovery 2015, 9th - 12th June 2015, Strasbourg, France

July 2015

7th International Granulation Workshop - 1st-3rd July 2015, Sheffield, UK.

4 World Congress on Pharmacology - 20th - 22nd July 2015, Brisbane, Australia
<http://pharmacology.pharmaceuticalconferences.com/>

2nd CRS Annual Meeting and Exposition - 26th-29th July 2015 at Edinburgh International Conference Centre, Edinburgh, UK.

August 2015

4th International Conference and Exhibition on Pharmacovigilance & Clinical Trials, August 10-12, 2015 London, **UK**

Drug Discovery & Designing, August 11-13, 2015 Frankfurt, Germany

World Drug Delivery Summit, August 17-19, 2015 Houston, USA

*Pharma Europe-2015 - European Pharma Congress 2015 - 25th - 27th August 2015, Valencia, Spain -
<http://pharmaeurope.pharmaceuticalconferences.com/index.php>*

September 2015

*The International Society for Hemodialysis Congress (ISHD 2015) - 13th-16th September 2015
Kuala Lumpur, Malaysia.*

FMC 2015 - Frontiers in Medicinal Chemistry, September 14-16, 2015, Antwerp, Belgium -

Biopharma-2015 International - Conference and Expo on Biopharmaceutics - 21st-23rd September 2015, Baltimore, Maryland, USA, <http://biopharmaceutics.pharmaceuticalconferences.com>

3rd Annual Antibodies Against Membrane Protein Targets - Part I

Antigen Optimization; Generation and Selection of Antibodies and Protein Scaffolds
September 22 - 23, 2015 | Boston, MA |

3rd Annual Antibodies Against Membrane Protein Targets - Part II

Structural Analysis, Characterization and Development
September 23 - 24, 2015 | Boston, MA

75th FIP World Congress of Pharmacy and Pharmaceutical Sciences - 28th September 2015 - 3rd October 2015 - Dusseldorf, Germany.

October 2015**The Expanding Toolbox of Medicinal Chemistry: From Chemical Biology to Clinical Applications**

Jointly organized by the SCT and the DMCCB of the Swiss Chemical Society, **Dijon, France – October 16, 2015, www.sct-dmccb2015.org**

November 2015

4th International Conference on Medicinal Chemistry & Computer Aided Drug Designing, November 02-04, 2015 Atlanta, USA