6th FIP **Pharmaceutical** Sciences World Congress (PSWC)

Stockholm, Sweden

Future Medicines For One World

Systems approaches to drug discovery, development and clinical usage





6th FIP Pharmaceutical Sciences World Congress (PSWC)

Stockholm, Sweden 21-24 May 2017

Preliminary Programme

Venue

Stockholmsmässan

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Your host

The International Pharmaceutical Federation (FIP)

Your co-hosts

The European Federation for Pharmaceutical Sciences (EUFEPS)
The Swedish Pharmaceutical Society (Apotekarsocieteten)

Your co-sponsors















Apotekarsocieteten

















WELCOME

Join leading pharmaceutical scientists from across the globe to discuss cuttingedge research and promising developments.

PSWC will host key discussions on the medicines of the future, addressing questions such as: What will be the breakthroughs and the pitfalls? How can we meet the biggest challenges?

Not only will the congress uphold its world-renowned reputation for top quality speakers, symposia and posters, but we will once again provide a forum for the most extensive international network of pharmaceutical scientists to make an impact on the future of pharmaceutical sciences and global healthcare.

At this congress a start will be made to discuss the future global research agenda.

PSWC 2017 welcomes all

PSWC 2017 will provide scientists from all over the world with a place to meet and network with key leaders from the pharmaceutical industry, government agencies, regulatory bodies, academia and public-private partnerships. You can listen to, interact with and share the latest research findings in plenary sessions, keynote lectures, short oral sessions, poster sessions and short courses.

PSWC especially also welcomes young scientists. Immediately prior to the main conference, the 'PSWC Young Scientist Satellite Sympsosium' invites MSc students in their final year, Pharm Students, PhD students and postdocs, for a programme of keynote lectures, short podium presentations, posters and workshops.

Europe: a hub for pharmaceutical science innovation This 6th PSWC is in one of Europe's most vibrant and beautiful cities, Stockholm, Sweden. Accessible to Europe and the rest of the world, the city welcomes pharmaceutical scientists from across the globe to get involved in the pharmaceutical innovations of the future.

Future Medicines For One World

Systems approaches to drug discovery, development and clinical usage

We are at a crossroads in medicines research. In the next decade, systems biology research will yield an unprecedented wealth of novel insights in the mechanisms of disease.

This will revolutionise medicines research, leading to the introduction of novel therapeutic interventions which modify and potentially cure disease, rather than providing symptom relief.

At the same time, health systems around the globe are exploring new ways to deliver innovative and sustainable treatment solutions to patients.

Attend PSWC 2017 to:

- Be at the only truly global pharmaceutical sciences congress in the world
- Meet and network with key opinion leaders in pharmaceutical sciences from all over the world
- Cross-fertilise ideas from all different disciplines present
- Hear high level speakers share their latest research
- Attend the PSWC Young Scientists Satellite Conference, 19-21 May 2017
- Enjoy one of the most beautiful cities in Scandinavia





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Young Scientist Satellite Conference



6 TRACKS

TRACK B TRACK E TRACK A Drug design, **Delivery &** Formulation, Regulatory Science-based Thematic **Fundamental Targeting** Manufacturing Sciences **Practice** Symposia & Translational Sciences & QA Sciences TRACK D Regulatory Sciences TRACK C Formulation & Manufacturing TRACK E **Excellent Science** Sciences Science-based Practice Global Health Systems Therapeutic Open Innovation **Education & Training** Thematic Symposia Drug Delivery & TRACK A Targeting Sciences Fundamental & Translational Sciences

- What is the systems therapeutics approach and why is it important? -

Systems biology has emerged as a novel scientific discipline, which focuses on the analysis of biological networks as the basis for the functioning of biological systems. Systems analysis will revolutionize medicines and health research. This will impact on both the pharmaceutical sciences and pharmacy practice, says congress chairman Professor Meindert Danhof.

In **research**, systems biology offers a novel approach to:

- i) Identifying pathways of disease;
- ii) Discovering drug targets; and
- *iii*) Discovering biomarkers (for monitoring of the treatment response).

In **practice**, this will lead to the introduction of 'systems therapeutics' interventions which are:

- i) Personalised (both with respect to the selection of drug(s) and dosing regimens);
- ii) Disease modifying (with emphasis on preemptive and preventive treatments); and
- iii) Complex (such as multi-target drugs, rational drug-drug combinations, drug-device combinations).

TRACK A

Drug Design, Fundamental & Translational Sciences

Systems pharmacology focuses on the interfacing of pharmacology and systems biology. The development of novel biological models combined with the use of 'big data' will yield new insights in the mechanisms of disease. This enables scientists and clinicians to design novel drug treatments, aiming at modification of the disease process. In addition, novel 'systems pharmacology models' will cast further light on the pharmacokinetics and pharmacodynamics of candidate drugs. This allows the design of the most appropriate pre-clinical and clinical trials for toxicity and safety evaluations in preclinical studies, for the assessment of the tolerability in healthy volunteers and, last but not least, for the assessment of the efficacy in later clinical trials on patient groups.



Systems biology will increasingly yield new drugs which act at intracellular targets, or in tissues that are protected by specific barriers such as the brain. Moreover, it increasingly will yield new drug products that cannot be delivered orally. To overcome these barriers, insight in the cellular and subcellular disposition of drugs are indispensable. Novel imaging technologies constitute the basis for the study of the subcellular disposition of drug molecules. This will enable the development of new technologies for the delivery of complex molecules to their specific targets.



A specific feature of novel systems therapeutic interventions is that they are 'personalized', both with

respect to selection of the drug (or combination of drugs) and their dosage. New formulation and manufacturing technologies are required for the production of these drugs. The quality assurance of these 'precision treatments' is of paramount importance. The design of new diagnostic tools, monitoring devices and delivery systems is an integral part of this development.



Harnessing of 'big' information in regulatory science, the systems approach will allow advanced modelling and simulation that will be used to enhance product safety and to improve the prediction from clinical evaluations. We will be able to harness diverse data through information sciences to improve health outcomes.



The practice of science-based pharmacy will see major change. Individualised treatments will be a significant part of clinical practice and we will be able to use 'big data' for postmarketing drug evaluation. Systems therapeutics will trigger important discussions of the societal aspects of pre-emptive and preventive treatments.

Medicines research will be discussed against the background of four main themes related to future medicines for one world:

- Excellent Science
- Global Health
- Open Innovation
- Education & Training



Keynote lectures, short communications and (special) symposia.



TRACK A

Drug design, Fundamental & Translational Sciences

TRACK **B**

Delivery & Targeting Sciences

TRACK C

Formulation, Manufacturing & QA

TRACK **D**

Regulatory Sciences

TRACK E

Science-based Practice

TRACK T

Thematic Symposia

08:00 - 16:00 -

PSWC Young Scientist Satellite Conference day 2

'Improving your skills for research in drug discovery development and clinical usage' (separate programme on the other site of this booklet)

Short Courses (separate programme as of page 56)

Short Course 1: Recent progress in understanding and predicting oral absorption

Short Course 2: Regulatory Science – the case of risk minimization

Short Course 3: Microfluidics - basics and applications in pharmaceutical sciences

Short Course 5: Qualitative methods and theories for research needs in the pharma field

Short Course 6: Pharmaceutical modeling and simulation

Short Course 7: Discovery and development of safe medicines

16:30 - 18:00 =

Plenary Opening Ceremony

'Future Medicines for One World'

Welcome reception

MONDAY

08:30 - 20:30

TRACK A

Drug design, Fundamental & Translational Sciences

TRACK B

Delivery & Targeting Sciences

TRACK C

Formulation, Manufacturing & QA

TRACK **D**

Regulatory Sciences

TRACK E

Science-based Practice

TRACK **T**

Thematic Symposia

08:30 - 12:00 -

Plenary Opening Symposium

Systems approaches to drug discovery, development and clinical usage

12:00 - 13:30 -

Posters

13:30 - 14:45 =

Short communications **A1**

Short communications **B1**

Short communications **C1**

Short communications **D1**

Short communications **E1**

Short communications **T1**

15:00 - 18:00

SYMPOSIUM **A1**

Systems pharmacology - towards the modeling of complex systems behaviour

SYMPOSIUM **B1**

Understanding cellular and subcellular disposition for use in lead optimisation: contemporary methods'

SYMPOSIUM C1

Innovative production technologies for biologics

SYMPOSIUM **D1**

New approaches of regulating innovative medicines

SYMPOSIUM **E1**

Precision medicine using genomewide approaches: implementation to practice

SYMPOSIUM T1

Integrated new therapeutics for global health - case studies from the Bill & Melinda Gates Foundation

19:00 - 20:30 =

Reception at Town Hall of Stockholm

TUESDAY

08:00 - 15:00

TRACK A

Drug design, Fundamental & Translational Sciences

TRACK B

Delivery & Targeting Sciences

TRACK C

Formulation, Manufacturing & QA

TRACK **D**

Regulatory Sciences

TRACK E

Science-based Practice

TRACK T

Thematic Symposia

08:00 - 11:00 =

SYMPOSIUM A2

Systems pharmacology - modeling the contribution of transporters in drug disposition, response and toxicity

SYMPOSIUM B2

Drug targeting: principles and products for precision medicine

SYMPOSIUM C2

Continuous manufacturing the 'holy grail' for pharmaceutical products?

SYMPOSIUM **D2**

Data quality, robustness and relevance in pre-clinical research and development

SYMPOSIUM **E2**

Impact of Pharmacy Practice Research on patient outcomes

SYMPOSIUM T2

Putting open innovation into practice-case studies from Europe's Innovative Medicines Initiative

11:15 - 12:30 =

Short communications **A2**

Short communications **B2**

Short communications C2

Short communications **D2**

Short communications **E2**

Short communications **T2**

12:30 - 14:00 -

Posters

14:30 - 15:00 =

KEYNOTE LECTURE **1**

Tissue-based protein profiles – implications for human biology, drug development and precision medicine

Matthias Uhlen /

Royal Institute of Technology,

Sweden

KEYNOTE LECTURE 2

Education and training in the pharmaceutical sciences William Charman / Monash University, Australia

KEYNOTE LECTURE 3

Genomewide studies reveal transporters as determinants of drug action and toxicity Kathy Giacomini / UCSF, USA

TUESDAY

15:00 - 18:00

TRACK A

Drug design, Fundamental & Translational Sciences

TRACK B

Delivery & Targeting Sciences

TRACK C

Formulation, Manufacturing & QA

TRACK **D**

Regulatory Sciences

TRACK E

Science-based Practice

TRACK **T**

Thematic Symposia

15:00 - 18:00 =

SYMPOSIUM A3

Systems approaches in drug discovery & design

SYMPOSIUM B3

Lipid-based and lipid-associated drug delivery - how to make lipophilic targets orally attractable

SYMPOSIUM C3

Manufacturing concepts for individualized therapies

SYMPOSIUM D3

Benefit-risk planning through the product life cycle

SYMPOSIUM E3

Medicines for the real life population: the art of extrapolation

SYMPOSIUM T3

Education & training in pharmaceutical sciences

18:00 - 23:00 -

Banquet

WEDNESDAY

08:00 - 15:00

TRACK A

Drug design, Fundamental & Translational Sciences

TRACK B

Delivery & Targeting Sciences

TRACK C

Formulation, Manufacturing & QA

TRACK **D**

Regulatory Sciences

TRACK E

Science-based Practice

TRACK T

Thematic Symposia

08:00 - 09:00

KEYNOTE LECTURE 4

Use of 'Extended Clearance Concept' in New Drug Discovery and Developement; Application to a Drug Classification System and to a Design of Clinical Studies Yuichi Sugiyama / University of Tokyo, Japan

KEYNOTE LECTURE 5

Adherence, in drug development and usage' (in memory of John Urquhart) Bert Leufkens / Utrecht University, The Netherlands

KEYNOTE LECTURE 6

To be announced

09:00 - 12:00

SYMPOSIUM A4

Systems Pharmacology - approaches to the assessment of drug safety

SYMPOSIUM B4

Oral absorption of biopharmaceuticals: how to avoid GI degradation and reduce systemic elimination

SYMPOSIUM C4

Responsible supply chains to assure global health

SYMPOSIUM **D4**

Non-biological complex drugs – similarity & interchangeability

SYMPOSIUM **E4**

Big data, real world evidence and clinical practice

SYMPOSIUM **T4**

Antimicrobial resistance: the battle we have to win

12:00 - 13:30 =

Posters

13:30 - 15:00 -

Plenary Closing Session

'Future Medicines for One World'



SUN 21



16:00 - 18:00

Plenary Opening Ceremony

16:00 - 16:30

Welcome by dignitaries

16:30 - 16:40

Cultural contribution

16:40 - 17:40

 $Introduction \ to \ the \ theme \ of \ the \ conference:$

Future Medicines for One World

Medicines for One World through global collaboration and harmonization

Dan Hartman /

Bill & Melinda Gates Foundation, USA

Systems Biology – from symptomatic relief to disease modification and cure

Hiroaki Kitano /

Systems Biology Institute, Japan

Open Innovation – strengthening research, enhancing transparency & attaining public support

Pierre Meulien /

Innovative Medicines Initiative, Belgium

17:40 - 18:00

Cultural contribution

MONDAY

08:30 - 14:45

08:30 - 12:00

Plenary Opening Symposium

CO-CHAIRS

Hiroshi Suzuki / Japan Kathy Giacomini / USA 08:30 - 08:40

Introductory remarks

Hiroshi Suzuki / University of Tokyo, Japan

08:40 - 09:10

Future medicines: fundamental and translational sciences

Richard Bergstrom / EFPIA, Belgium

09:10 - 09:40

Future medicines: drug delivery & targeting

Kazunori Kataoka / University of Tokyo, Japan

09:40 - 10:10

Future medicines: formulation, manufacturing and quality assurance

Jukka Rantanen / University of Copenhagen, Denmark

10:10 - 10:40 BREAK

10:40 - 11:10

Future medicines: regulatory sciences

Tomas Salmonson / MPA, Uppsala Sweden & EMA,

London

11:10 - 11:40

The science of precision medicine and its translation to the clinic

William Evans / St Jude's Children Research Hospital, USA

11:40 - 12:00

Concluding remarks

Kathy Giacomini / UCSF, USA

12:00 - 13:30

Posters

13:30 - 14:45

Short communications different tracks

MONDAY

15:00 - 18:00

A1

The emerging discipline of Quantitative Systems Pharmacology (QSP): combining PKPD and Systems Biology

This session brings together a world-class group of scientists who will give a range of presentations that focus on the interfacing of quantitative systems pharmacology (QSP) and Systems Biology (SB) with the aim to understand the interactions between drug action and disease processes. QSP constitutes the scientific basis for the design of novel disease treatments which modify the disease process.

CO-CHAIRS

Piet van der Graaf / The Netherlands Don Mager / USA

15:00 - 15:15

The emerging discipline of Quantitative Systems Pharmacology (QSP): combining PKPD and Systems

Piet van der Graaf / Leiden University, The Netherlands

15:15 - 15:50

Quantitative systems pharmacology in oncology Don Mager / University at Buffalo, USA

15:50 - 16:25

Quantitative systems pharmacology in infectious diseases

Alan Perlsson / University of New Mexico, USA

16:25-16:45 BREAK

16:45-17:20

Quantitative systems toxicology

Hiroshi Suzuki / Tokyo University, Japan

17:25 - 17:55

Systems medicine in rheumatoid arthritis Tim Radstake / UMC Utrecht, The Netherlands

17:55 - 18:00

Concluding remarks

MONDAY

15:00 - 18:00

B1

Towards understanding compound disposition at ever higher spatial resolution by label free methods

All too frequently we do not know enough about the likely disposition of compounds early in the discovery phase with the result that there is a greater emphasis placed on potency at the target which is more easily optimised. This session will focus on contemporary methods for increasing the understanding of cellular and subcellular compound disposition using unlabelled drugs, suitable for use in the lead optimisation phase.

CO-CHAIRS

Mike Hann / UK Paulina Rakowska / UK 15:05 - 15:35

Intracellular unbound drug concentrations: methodology and application for understanding cellular drug exposure

André Mateus / University of Uppsala, Sweden

15:35 - 16:05

A modular probe strategy for drug localization, target identification and target occupancy measurement on single cell level Anna Rutkoswka-Klute / Cellzome, Germany

16:05 - 16:35

3D label-free imaging of drug uptake into cells and bacteria using secondary ion mass spectrometry Paulina Rakowska / National Physical Laboratory, UK

16:35 - 16:50 BREAK

16:50 - 17:20

Utilizing label free high content imaging methods to span the gap from discovery to the clinic Zane Arp / GSK, USA

17:20 - 17:50

Single-cell drug discovery, diagnosis and personalized medicine by live-MS

Tsutomu Masujima / RIKEN Quantitative Biology Center, Japan

17:50 - 18:00 Concluding remarks 15:00 - 18:00

Innovative Production Technologies for Biologics

The need for high quality biologic drugs, including biosimilars, is fueling innovation in biopharmaceutical manufacturing technologies. This symposium outlines opportunities and challenges associated with new technologies such as single-use bioreactors, continuous purification processing, and real-time quality analysis that have been effectively explored to enable fast scale-up of high-quality complex products. Furthermore, experts will delineate important adaptations in quality risk management that are necessary to assure safety of biologics when employing innovative production technologies.

CHAIR

Hanns-Christian Mahler / Switzerland

15:00 - 15:35

Innovation in biologics drug product development & manufacture

Hanns-Christian Mahler / Lonza, Switzerland

15:35 - 16:10

Quality risk management in the manufacture of biologics

Akhiko Hirose / National Institute of Health Sciences, Japan

16:10 - 16:30 BREAK

16:30 - 17:05

Control strategies for surfactants in biopharmaceuticals

Atanas Koulov / Lonza, Switzerland

17:05 - 17:40

Centralized end-to-end biologics repository and analysis platform

Peter Henstock / Pfizer, USA

17:40 - 18:00

Panel discussion

Hanns-Christian Mahler / Lonza, Switzerland

MONDAY

15:00 - 18:00

D1

New approaches of regulating innovative medicines

Throughout the world, regulators are exploring new ways to provide access to patients for innovative medicines that address urgent medical needs at the earliest moment, while assuring appropriate controls for quality, safety and efficacy. In this session we will assess current approaches in different regulatory systems, explore commonalities and identifies lessons for the future.

CHAIR

Alasdair Breckenridge / UK

15:00 - 15:10

Opening remarks

Alasdair Breckenridge / University of Liverpool, UK

15:10 - 15:45

To Adapt or not to Adapt

Hans-Georg Eichler / European Medicines Agency, UK

15:45 - 16:20

FDA perspectives on adaptive pathways Richard Moscicky / FDA, USA (TBC)

16:20 - 16:40 BREAK

16:40 - 17:15

Industry perspectives on regulating innovative medicines

Joseph Scheeren / Bayer, Switzerland

17:15 - 17:50

PMDA's contribution to innovative medicines Toshiyoshi Tominaga / PMDA, Japan

17:50 - 18:00

Concluding remarks

MONDAY

15:00 - 18:00

E1

Clinical implementation of precision medicine: from genomewide discovery to practice

With recent initiatives in the USA and indeed globally, precision medicine represents a new discipline specifically focused on the translation of genomic discoveries to patient care. However for precision medicine to become a reality major challenges must be addressed. First and foremost, large cohorts of patients with available biological samples and electronic health information are needed to make robust discoveries that can be effectively translated to patient care. Importantly, expert advice on the use of genomic information to guide drug selection and dosing in the context of individual patients from diverse ethnic and racial backgrounds is needed.

This symposium will focus on key issues for implementation of precision medicine in patient practice. Large clinical consortia with electronic health information will be described. Issues relevant to translation of new discoveries will be highlighted, particularly, the use of genetic information to guide the selection of safe and effective therapies.

CO-CHAIRS

Kathy Giacomini / USA lesse Swen / The Netherlands 15:00 - 15:10

Genomewide approaches to the clinical implementation of precision treatments in clinical practice – Opening remarks

Kathy Giacomini / University of California, USA

15:10 - 15:45

Pharmacogenetics in Europe: The European Pharmacogenetics Implementation Consortium Initiative

Ron van Schaik / Erasmus MC, The Netherlands

15:45 - 16:20

The japan biobank and the PGRN-RIKEN collaboration: facilitating new discoveries in precision medicine

Michaki Kubo / Center for Integrative Medical Sciences, RIKEN, Japan

16:20 - 16:40 BREAK

16:40 - 17:15

The Clinical Pharmacogenetics Implementation Consortium: leading translation of precision medicine

Mary Relling / St. Jude's Children's Research Hospital, USA

17:15 - 17:50

Genomewide approaches to discovering drug safety biomarkers

Munir Pirmohamed / University of Liverpool, UK

17:50 - 18:00

Concluding remarks

Jesse Swen / Leiden University Medical Center, The Netherlands



15:00 - 18:00

T1

Integrated development of new therapeutics for global health

CHAIR

Dan Hartman / USA

15:00 - 15:10

General introduction: integrated development of new therapeutics for global health

Dan Hartman / Bill & Melinda Gates Foundation, USA

15:10 - 15:45

Accelerators: Creating collaborative networks to advance drug discovery for tuberculosis

Peter Warner / Bill & Melinda Gates Foundation, USA

15:45 - 16:20

Formulators: bringing new technologies forward in drug formulation to address global health needs
Susan Herschensen / Bill & Melinda Gates Foundation,
USA

16:20 - 16:40 BREAK

16:40 - 17:15

Quantitators: Using model based drug development to effectively develop anti-malarial agents
Steve Kern / Bill & Melinda Gates Foundation, USA

17:15 - 17:50

Regulators: Optimizing and aligning regulatory systems to help bring quality medicines to global health needs

Murray Lumpkin / Bill & Melinda Gates Foundation, USA

17:50 - 18:00

Concluding remarks: integrated development of new therapeutics for global health

Dan Hartman / Bill & Melinda Gates Foundation, USA

TUE



08:00 - 11:00

A2

Systems approaches to modeling the contribution of transporters in drug disposition, response and toxicity

This session brings together a world-class group of scientists who will give a range of presentations that focus on experimental and computational models to understand the role of drug transporters in drug toxicity and response with a particular focus on the blood brain barrier.

CO-CHAIRS

Mikko Niemi / Finland Rada Savic / USA 08:00 - 08:10

Systems approaches to modeling the contribution of transporters in drug disposition, response and toxicity – general introduction

Mikko Niemi / University of Helsinki, Finland

08:10 - 08:45

Quantifying the impact of transporters on cellular drug permeability

Per Artursson / University of Uppsala, Sweden

08:45 - 09:20

Modeling and prediction of the effect of transporters on differences of unbound drug concentrations between the plasma, brain and cerebrospinal fluid Yuichi Sugiyama / University of Tokyo, Japan

09:20-09:40 BREAK

09:40 - 10:15

Organic action uptake of cocaine, other opioids, and cathinones at the BBB

Jean-Michele Scherrmann / Paris Descartes University, France

10:15 - 10:50

Organic action uptake of GHB at the BBB: incorporation of brain transport in modeling of PK/PD

Marilyn Morris / University at Buffalo, USA

10:50 - 11:00

Systems approaches to modeling the contribution of transporters in drug disposition, response and toxicity – concluding remarks

Rada Savic / University of California, USA

TUESDAY

08:00 - 11:00

B2

Drug targeting: principles and products for precision medicine

Many drug delivery systems and drug targeting strategies have been evaluated over the years. In this session, recent advances in the use of targeted (nano-) therapeutics for improving the treatment of cancer, cardiovascular disease and inflammatory disorders will be presented. In this context, both fundamental insights into biological and pathophysiological mechanisms, as well as progress towards pharmaceutical production and clinical translation will be addressed.

CHAIR

Twan Lammers / Germany

08:00 - 08:10

Introductory remarks

Twan Lammers / RWTH Aachen University Clinic, Germany

08:10 - 08:45

Drug targeting to tumors: Concepts and barriers vs. ever more nanocarriers

Twan Lammers / RWTH Aachen University Clinic, Germany

08:45 - 09:20

Harnessing RNA nanomedicine for precision therapy in cancer and inflammation

Dan Peer / Tel Aviv University, Israel

09:20 - 09:40 BREAK

09:40 - 10:15

Drug targeting and imaging in cardiovascular disease

Willem Mulder / Mount Sinai School of Medicine, USA

10:10 - 10:50

Bioresponsive polymeric nanomedicines for tumor targeting

Zhiyuan Zhong / Soochow University, China

10:50 - 11:00

Concluding remarks

Twan Lammers / RWTH Aachen University Clinic, Germany



08:00 - 11:00

Continuous manufacturing - the 'holy grail' for pharmaceutical products?

As conventional large batch manufacturing is increasingly regarded as inflexible and unsustainable, the continuous manufacturing concept has planted a new hope in the pharmaceutical industry to improve process efficiency and product quality. This session will highlight the various elements necessary for successful implementation of continuous manufacturing predicted to resulting in reduced production time and a shorter time to market.

CHAIR

Paul Wan Sia Heng / Singapore

08:00 - 08:35

Continuous manufacturing: the future in pharmaceutical solid dosage form manufacturing Paul Wan Sia Heng / National University of Singapore,

08:35 - 09:10

Singapore

Making the business case for continuous manufacturing in the pharmaceutical industry Tomás Harrington / University of Cambridge, UK

09.30 - 10.05

Developing the end-to-end supply chain Craig Johnston / University of Strathclyde, UK

10:05 - 10:40

On-demand continuous-flow production of pharmaceuticals in a compact, reconfigurable system

Andrea Adamo / MIT, USA

10:40 - 11:00

Panel discussion

Paul Wan Sia Heng / National University of Singapore, Singapore

08:00 - 11:

D2

Data quality, robustness and relevance in pre-clinical research and development

Reproducibility and relevance of research findings represent the pillars of the scientific method. For drug discovery and preclinical drug development, as well as basic science, robust data and scientific rigor are key drivers for decision making, determining the validity of hypotheses, patent strength, time-to-market and consequently knowledge gain and availability of new treatments to patients. In this symposium we will highlight the pertinent issues and provide an overview of some of the initiatives that aim to address those issues. including strategies followed by pharmaceutical industry, academia, funding agencies and publishers, and introduce some of the more recent consorted approaches.

CO-CHAIRS

Magda Chlebus / Belgium Thomas Steckler / Belgium 08:00 - 08:10

Introductory remarks

Thomas Steckler / Janssen Research & Development,

08:10 - 08:45

Non-regulated preclinical data quality, reproducibility and robustness of data: what can we learn from the regulatory perspective? Beatriz Lima / University of Lisbon, Portugal

08:45 - 09:20

Reproducibility, reliability and sharing of biomedical data - a publishers perspective Iain Hrynaszkiewicz / HSS Publishing, Open Research, Nature/Springer, UK

09:40 - 10:15

Improving research quality in academic settings using quality assurance best practices Rebecca Davies / University of Minnesota, USA

10:15 - 10:5

IMI consortium on data quality in preclinical research and development - an industrial perspective

Thomas Steckler / Janssen R&D, Belgium

10:50 - 11:00

Concluding remarks

Magda Chlebus / European Federation of Pharmaceutical Industries and Associations, Belgium TUESDAY

08:00 - 11:00

E2

Impact of Pharmacy Practice Research on patient outcomes

This session will provide delegates with a deep understanding of the impact on patients and systems using high quality research design and methodologies in the areas of medication review, medication adherence, and cardiovascular risk reduction and pharmacotherapy.

CO-CHAIRS

Martin Schulz / Germany Charlie Benrimoj / Australia 08:00 - 08:10

Impact of Pharmacy Practice Research on patient outcomes - introductory remarks

Charlie Benrimoj / University of Technology Sydney, Australia

08:10 - 08:45

Characterization of published RCTs assessing clinical pharmacy services around the world Fernando Fernandez-Llimos / University of Lisbon, Portugal

08:45 - 09:20

Improving medication adherence - improving outcomes

Martin Schulz / Freie Universitaet Berlin, Germany

09:20 - 09:40 BREAK

09.40 - 10.15

Pharmacist-led home medicines review and residential medication

Timothy Chen / University of Sydney, Australia

10:15 - 10:50

Improving outcomes by pharmacists' intervention in cardiovascular diseases

Ross Tsuyuki / University of Alberta, Canada

10:50 - 11:00

Impact of Pharmacy Practice Research on patient outcomes - concluding remarks

Martin Schulz / Freie Universitaet Berlin, Germany

TUESDAY

08:00 - 11:00

T2

Putting open innovation into practice - case studies from Europe's **Innovative Medicines Initiative**

The Innovative Medicines Initiative (IMI) was established in 2008 as a partnership between the European Union and the European pharmaceutical industry. IMI is working to improve health by speeding up the development of the next generation of medicines, particularly in areas where there is an unmet medical or social need. It does this by facilitating open innovation among the key players involved in healthcare research, including universities, pharmaceutical companies, small and medium-sized enterprises (SMEs), patient organisations, and medicines regulators.

CHAIR

Pierre Meulien / Belgium

08:00 - 08:10

Putting open innovation into practice introductory remarks

Pierre Meulien / Innovative Medicines Initiative, Belgium

08:10 - 08:35

The eTOX project: pooling legacy data to advance safety sciences

Ferran Sanz / Pompeu Fabra University, Spain

08:45 - 09:10

Open PHACTS - creating a platform for drug

Barend Mons / Leiden University Medical Center, The Netherlands

09:10 - 09:30 BREAK

09:30 - 09:55

The European Lead Factory - making a pan-European compound collection & screening centre a reality

Dimitrios Tzalis / Taros Chemicals, Germany

09:55 - 10:20

The ENABLE project: an antibiotic discovery platform

Anders Karlén / Uppsala University, Sweden

10:20 - 10:45

The ULTRA-DD project: delivering new tools and resources to speed up

Michael Sundstrom / Karolinska Institute, Sweden

10:45 - 11:00

Putting open innovation into practice - concluding

Pierre Meulien / Innovative Medicines Initiative, Belgium

TUESDAY

11:15 - 15:00

11:15 - 12:30

Short communications different tracks

12:30 - 14:00

Posters

14:00 - 15:00

Keynote Lectures

KEYNOTE LECTURE

Tissue-based protein profiles implications for human biology, drug development and precision medicine

Matthias Uhlen / Royal Institute of Technology, Sweden

KEYNOTE LECTURE

Education & training in the pharmaceutical sciences

William Charman / Monash University, Australia

KEYNOTE LECTURE

Genomewide studies reveal transporters as determinants of drug action and toxicity

Kathy Giacomini/ UCSF, USA

15:00 - 18:00

A3

Systems approaches to drug discovery and design

Progress human genetics, cellular and systems biology has a major impact in the field of drug discovery and design. Important developments in this area are: the emergence of Electro Localization Function (ELF) chemistry as a new approach to the design and synthesis of novel biologically active substances, phenotypic screening to the selection of novel drug candidates, and systems approaches to the identification of novel drug targets in biological networks. This symposium discusses these developments and their application, in particular also in the context of the design of novel anti-microbial agents.

CHAIR

Ton Rijnders / The Netherlands

15:00 - 15:10

Introductory remarks

Ton Rijnders / Lygature, The Netherlands

15:10 - 15:40

Chemical approaches to support lead discovery (including within the European Lead Factory) Adam Nelson / Leeds University, UK

15:40 - 16:10

Metabolimics and 'organ on a chip' technology as novel approaches in drug discovery and development in research

Thomas Hankemeier / Leiden Academic Centre of Drug Research, The Netherlands

16:10 - 16:40

Phenotypic screening for drug discovery

16:40 - 17:00 BREAK

17:00 - 17:25

Systems biology-based drug discovery and design

17:25 - 17:50

Tackling anti-microbial resistance: interfacing ELF chemistry and systems biology towards novel concepts of drug effects

17:50 - 18:00

Concluding remarks

Ton Rijnders / Lygature, The Netherlands

B3

Lipid-based and lipid-associated drug delivery - how to make lipophilic targets orally attractable

The number of poorly water-soluble drugs is increasing and partly this has been attributed to the high lipophilicity of the drugs. The increase in lipophilicity has been related to organizational factors and poor medicinal chemistry approaches, but it is clear that to some extent the lipophilicity is also driven by the molecular requirements of the target. In other cases it may be driven by the target sitting intracellularly, meaning that the compound must be lipophilic enough to traverse cellular membranes. In this session we will address a wide range of questions related to lipid-based, or lipid-associated (food driven) drug delivery. A panel of speakers, all with an update view of the science behind making use of the 'lipidic' strategy to enable efficient and reproducible oral drug delivery, has been put together for the session. All speakers have been confirmed. The session will highlight new insights into the interplay between natural lipids and lipids used in dosage forms, the interplay between the intestinal wall and such lipids, and increase the awareness of making use of medicinal chemistry to better match compounds with lipid-based formulation strategies via transiently increasing the lipophilicity of compounds. The chairs of the session will make sure that the overlap between these talks are minimized by active communicating with the invited speakers and facilitate sharing slides between the speakers before the meeting takes place.

CO-CHAIRS

Christel Bergström / Sweden Christopher Porter / Australia 15:00 - 15:10

Lipid-based and lipid associated drug delivery introductory remarks

Christopher Porter / Monash University, Australia

15:10 - 15:45

Effect of dietary lipids on drug dissolution and permeation

Rebecca Carrier / Northeastern University, USA

15:45 - 16:20

Dissolution/release and permeation impact of bile

Shinji Yamashita / Setsunan University, Japan

16:20 - 16:40 BREAK

16:40 - 17:15

Lipid-based formulations; solubilizing and supersaturating systems with complex interplay with cell membranes

Vincent Jannin / Gattefossé, France

17:15 - 17:50

Lipophilic conjugates and complexes to promote drug integration into lipid absorption pathways Christopher Porter / Monash University, Australia

17:50 - 18:00

Lipid-based and lipid associated drug delivery concluding remarks

Christel Bergström / Uppsala University, Sweden

15:00 - 18:00

C3

Manufacturing concepts for individualised therapies

Recent breakthroughs in diagnostics, including genotyping and biomarkers, have paved the way towards implementation of 'precision medicine' intended to meet the therapeutic needs of each individual patient. To fully achieve societal benefits of individualised therapies, conventional manufacturing platforms must be adapted for mass customization. This session will focus on the challenges and opportunities associated with enabling future mass customized formulation and manufacturing technologies needed for precision pharmaceutics.

CHAIR

Staffan Folestad / Sweden

15:00 - 15:35

Introduction to manufacturing concepts for individualized therapies - where are we in pharma Staffan Folestad / AstraZeneca, Sweden

15:35 - 16:10

Additive manufacturing of individualised medicines Niklas Sandler / Åbo Akademi University, Finland

16:10 - 16:30 BREAK

16:30 - 17:05

Nano-engineered drug delivery for individualised therapies Paula Hammond / MIT, USA

17:05 - 17:40

Innovative developments in patient centric formulations

Alvaro Goyanes / UCL, UK

17:40 - 18:00

Panel discussion focusing on 'Manufacturing concepts for individualised therapies where could pharma be?'

Staffan Folestad / AstraZeneca, Sweden

D3

Benefit-risk planning through the product life cycle

A benefit risk-assessment of a medicine is not a single assessment that takes place during one moment in time. Rather, benefit-risk assessments take place throughout the product life cycle and can be update regularly. Also, the nature of the tools and methods available is dynamic: from early stage drug development until the late post-marketing phase. This session will be exploring cuttingedge approaches in this area.

CO-CHAIRS

Bruno Flamion / Belgium Rogerio Gaspar / Portugal 15:00 - 15:10

Opening remarks

Bruno Flamion / University of Namur, Belgium

15:10 - 15:45

Standards of evidence for regulatory decision making

Rob Hemmings / EMA/MHRA, USA

15:45 - 16:20

Building substantial evidence never ends Carl Peck / UCSF, USA

16:20 - 16:40 BREAK

16:40 - 17:15

Industry perspective on life-cycle management Jens Heisterberg / Novo Nordisk, Denmark

17:15 – 17:50 To be announced

17:50 - 18:00

Concluding remarks

Rogerio Gaspar / University of Lisbon, Portugal

TUESDAY

15:00 - 18:00

E3

Medicines for the real life population: the science of extrapolation

In drug research and in clinical practice frequently situations arise in which no information on the optimal dose is available in a relevant group of patients. Examples of such situations include the selection of the dose in phase 1 clinical trials in healthy subjects and the selection of the dosage in special patients groups such as neonates, children, or patients with obesity. This symposium addresses the scientific basis of extrapolation focusing on a diversity of in vivo and in vitro approaches, including allometric scaling and physiology-based pharmacokinetic-pharmacodynamic modelling.

CHAIR

Douwe Breimer / The Netherlands

15:00 - 15:05

The science of extrapolation – Introductory remarks Douwe Breimer / LACDR, Leiden University, The Netherlands

15:05 - 15:35

The science of extrapolation: in vitro and in vivo approaches

Amin Rostami / University of Manchester, UK

15:35 - 16:05

Dose selection in phase 1 clinical trials in oncology Jan Schellens / Netherlands Cancer Institute, The Netherlands

16:05 - 16:25 BREAK

16:25 - 16:50

PBPK modelling and simulation in pediatric drug development

Andrea Edginton / University of Waterloo, Canada

16:50 - 17:15

Dose selection in obesity: effect of variation in size and function

Catherijne Knibbe / St. Antonius Hospital Nieuwegein, The Netherlands & LACDR, Leiden University, The Netherlands

17:15 - 17:40

Towards precision treatment: the impact of systems pharmacology

Hiroshi Suzuki / University of Tokyo, Japan

17:40 - 18:00

The science of extrapolation – panel discussion Douwe Breimer / LACDR, Leiden University, The Netherlands



T3

Education & training of the future pharmaceutical sciences workforce

Development of novel medicines capable of more effectively reducing disease burden across the globe challenges existing paradigms of pharmaceutical sciences education and training. As a global organization, FIP is dedicated to share best practices in contemporary pharmaceutical sciences education and training among different countries. This session will outline the opportunities for academia and industry working jointly on innovative training programs to foster a competent pharmaceutical sciences workforce that is ready to tackle the challenges of the future. In addition to presentations from pharmaceutical sciences educators and employers, this session features viewpoints from young pharmaceutical scientists (i.e., graduate students, postdocs, new employees) and a moderated interactive panel discussion engaging the members of the audience with speakers.

CO-CHAIRS

Ross McKinnon / Australia Giovanni Pauletti / USA 15:00 - 15:20

Opportunities for the future pharmaceutical sciences workforce

Giovanni Pauletti / FIP, USA

15:20 - 16:10

Attracting the best students into a pharmaceutical sciences career

Case studies of young pharmaceutical scientists from different geographical regions who entered PharmSci from non-traditional background

16:10 - 16:30 BREAK

16:30 - 16:50

Tomorrow's pharmaceutical sciences workforce – employer perspective

Brian Henry/

Pfizer Worldwide Research and Development, UK

16:50 - 17:10

Innovative models of PhD training

Ross McKinnon / Flinders University, Australia

17:10 - 18:00

Panel discussion

Ross McKinnon and Giovanni Pauletti

MED 24

WEDNESDAY 8 08:00 - 09:00

08:00 - 09:00

Keynote Lectures

KEYNOTE LECTURE

Use of 'Extended Clearance Concept' in new drug discovery and developement; application to a drug classification system and to a design of clinical studies

Yuichi Sugiyama/ University of Tokyo, Japan

KEYNOTE LECTURE

Adherence, in drug development and usage (in memory of John Urquhart)

Bert Leufkens /

Utrecht University, The Netherlands

KEYNOTE LECTURE

To be announced

WEDNESDAY **09:00 - 12:00**

A4

Systems pharmacology - innovative approaches to drug safety

This session will discuss: how i) drug safety predictions based on pre-clinical studies can be exploited to inform clinical safety predictions; ii) information from post-marketing adverse event databanks can be utilized to inform drug safety; iii) systems pharmacology approaches can complement big data analysis to understand the underlying molecular and mechanistic causes of adverse events for hypothesis generation and novel safety predictions.

Promoted jointly by the AAPS Systems Pharmacology Focus Group, ASCPT Systems Pharmacology Community, ISPE International Society of Pharmacoepidemiology, FIP SIG on PK/PD and Systems Pharmacology, ISoP Special Interest Group on Quantitative Systems Pharmacology, and the UK QSP Network

CO-CHAIRS

Mirjam Trame / USA Masanobu Sato / Japan 09:00 - 09:05

Introductory remarks

Mirjam Trame / University of Florida, USA

09:10 - 09.35

Regulatory perspective on drug safety assessment during drug development

Masanobu Sato / Pharmaceuticals and Medical Devices Agency (PMDA), Japan

09:35 - 10:00

Application of systems pharmacology modeling to explore safety issues arising at different stages of drug development

Oleg Demin / ISB Moscow, Russia

10:00 - 10:25

Translating preclinical safety signals to the clinic to inform compound discovery and early development Jay Mettetal / AstraZeneca, USA

10:25 - 10:40 BREAK

10:40 - 11:05

Systems pharmacology models to assess immunogenicity

Paolo Vicini / MedImmune, UK

11:05 - 11:30

Integration of mechanistic information generated through systems pharmacology into pharmacoepidemiologic studies aimed at making inferences about the real-life impact of emerging safety concerns Almut Winterstein / University of Florida, USA

11:30 - 11:55

Patient data driven strategies in drug safety

David Jackson / Molecular Health, Germany

11:55 - 12:00

Concluding remarks

Mirjam Trame / University of Florida, USA

WEDNESDAY 5 09:00 - 12:00

B4

Oral absorption of biopharmaceuticals revisited

Oral administration is the preferred route of administration for drugs but this route has not been feasible for biopharmaceuticals due very poor absorption due to the large molecular weight, hydrophilic nature and instability to enzymatic degradation in the gastro-intestinal (GI) tract. Attempts have therefore been made for more than 30 years to develop drug delivery systems allowing to overcome these obstacles and make oral products possible. Unfortunately, the outcome has been disappointing and today there are still no oral biopharmaceutical drug delivery based products for systemic treatment on the market. However, there is a currently a renewed research interest in this challenging field. One of the factors that changed the game is chemistry progress providing stable modifications thereby both avoiding GI degradation as well as generating very slow systemic elimination. The latter aspect is important from a drug delivery perspective since the fluctuations in plasma concentrations will be less sensitive to variations in extent of absorption at steady state. Thus, this re-opens interest for delivery approaches that enhances oral absorption of such drugs. Today this approach not only includes peptides but also small oligonucleotides further boosting interest. The current session will give a timely update of recent advances in this field and stimulate a discussion of remain critical questions and next steps.

Oral absorption of peptides/oligonucleotides -

David Brayden / University College Dublin, Ireland

11:50 - 12:00

Concluding remarks

CO-CHAIRS

Hans Lennernäs / Sweden Bertil Abrahamsson / Sweden 09:00 - 09:10

Introductory remarks

Hans Lennernäs / Uppsala University, Sweden

09:10 - 09:45

Conjugation breakthrough technologies

Istvan Toth / The University of Queensland, Australia

09:45 - 10:20

Recent progress in formulation approaches David Brayden / University College Dublin, Ireland

10:20-10:40 BREAK

10:40 - 11:15

Biopharmaceutics prerequisites with emphasis on intestinal stability

Randy Mrsny / University of Bath, UK

11:15 - 11:50

how far have we come?

Bertil Abrahamsson / AstraZeneca, Sweden

WEDNESDAY | 09:00 - 12:00

C4

Responsible supply chains to assure global health

Access to medicines in many countries, especially for the poor and underprivileged, remains less than optimal. FIP is committed to identify barriers limiting adequate supply and availability of essential medicines for patients and jointly work with governments and local professional organization to strive for improved access to safe and effective medicines for their populations. This session aims to raise awareness among the pharmaceutical sciences community how fragile medicine supply chains across the globe can be. In addition, experts will debate the impact of pharmaceutical development on the environment and how this may factor into the social responsibility of enhancing access to medicines.

CHAIR

Takuya Kumamoto / Japan

09:00 - 09:35

Environmental impact of drug manufacturing Takuya Kumamoto / Musashino University, Japan

09:35 - 10:10

Pharmaceuticals in surface and ground water: Case in Nigeria

Chimezie Anyakora / University of Lagos, Nigeria

10:10 - 10:30 BREAK

10:30 - 11:05

How robust are the global pharmaceutical supply

David Gonsalvez / Malaysia Institute for Supply Chain Innovation (MISI), Malaysia

11:05 - 11:40

Innovative biologic therapies: who has access and who does not?

Brian Kennedy / Global Alliance for Patient Access, USA

11:40 - 12:00

Panel discussion

Takuya Kumamoto / Musashino University, Japan

WEDNESDAY 5 09:00 - 12:00

D4

Non-Biological-Complex-Drugs

The rise of bio- and nano-technology has accelerated the development of complex drugs, a class of products that include - but are not limited to -Biological and Non Biological Complex Drug (NBCD) products such as iron-carbohydrate complexes, glatiramoids, polymeric micelles, emulsions, liposomes and other products in the class of nanomedicines. While guidance for developing generic versions of small molecule drugs is well-established and guiding principles for biosimilars and some follow-on versions of NBCDs are evolving, the regulatory science debate is still going on and many basic questions are left. Moreover, alignment of science based international approaches to the approval of these complex drug products and their follow on versions would be highly desired for those companies that develop follow-on versions. At the moment, this alignment of the legal frameworks is still 'under construction', at best.

CO-CHAIRS

Stefan Mühlebach / Switzerland

Daan Crommelin / The Netherlands

09:00 - 09:10

Introductory remarks

Stefan Mühlebach / University of Basel, Switzerland & Daan Crommelin / Utrecht University, The Netherlands

09:10 - 09:45

Nanomedicines: complex in nature and a challenge for innovator and regulator

Gerrit Borchard / University of Geneva, Switzerland

09:45 - 10:20

The growing analytical toolbox for complex drugs: validation with clinical outcomes

Scott McNeil / National Cancer Institute, USA

10:20-10:40 BREAK

10.40 - 11:15

Global harmonization of regulatory processes. Are we still on time?

Falk Ehmann / European Medicines Agency, UK

11:15 - 11:50

Therapeutic equivalence of complex drug products: drifting, shifting of innovator and follow up versions. Case studies.

Brian Min / Samsung Bioepis, Korea

11:50 - 12:00

Concluding remarks

Stefan Mühlebach / University of Basel, Switzerland & Daan Crommelin / Utrecht University, The Netherlands

WEDNESDAY 5 09:00 - 12:00

E4

Big data, real world evidence and regulatory science

In recent years, progress in the collection, storage and analysis of real-world data has opened up promising avenues for pharmaceutical innovation. The challenge for the pharmaceutical sciences will be to harness this potential and utilize it to explore new treatment strategies and gather valuable evidence on the safety and effects of medicines in clinical practice. This session will discuss the current state and ways forward.

CO-CHAIRS

Songlin Xue / USA Marieke De Bruine / Denmark 09:00 - 09:10

Opening remarks

Songlin Xue / Astellas, USA

09:10 - 09:45

Big data as source for pharmaceutical innovation

Arnold Chan / National Taiwan University, China Taiwan

09:45 - 10:20

Causal inferences from big data

Sebastian Schneeweiss / Harvard Medical School, USA

10:20 - 10:40 BREAK

10:40 - 11:15

Big data for life sciences

Rick Grobbee / UMCU. The Netherlands

11:15 - 11:50

Are there any pre-clinical Big data?

Beatriz Lima / University of Lisbon, Portugal

11:50 - 12:00

Closing remarks

Marieke De Bruin / University of Copenhagen, Denmark

WEDNESDAY | 09:00 - 12:00

T4

Infectious diseases: the battle we have to win

CO-CHAIRS

Linda Hakes / UK Ulf Janzon / Sweden 09:00 - 09:10 Opening remarks

09:10 - 09:45

Economic implications of antimicrobial resistance and ineffective treatments

09:45 - 10:20

Scientific approaches to tackle antimicrobial resistance

10:20- 10:40 BREAK

10:40 - 11:15

Hepatitis C - the challenge of balancing cost and treatment

11:15 - 11:50

Tropical parasitic diseases - the challenge of developing effective treatments

11:50 - 12:00 Closing remarks

WEDNESDAY 12:00 - 15:00

12:00 - 13:30

Posters

13:30 - 15:00

Plenary Closing Session

This session will be a panel debate between 5 expert debaters and led by 2 chairmen.

The debate will start with introductory remarks by one of the chairs.

Next, the 5 panel debaters will present 5 minutes introductions on challenges in each of the 5 areas in the pharmaceutical sciences.

This will be followed by a debate between and with the 5 debaters.

The debate will be closed with by concluding remarks by one of the chairs.

Conclusions from the debate will be included in a position paper on the outcome of PSWC 2017.





SHORT COURSES

SHORT COURSE 1



A supplementary registration fee applies for the short courses

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Recent progress in understanding and predicting oral absorption

Oral biopharmaceutics tools are at the core of the pharmaceutical product development process and help guide formulation strategy from preclinical to late-stage development. With the ever growing complexity and challenges associated with current pharmaceutical pipelines (e.g. the large percentage of new chemical entities which are poorly soluble and fall into Biopharmaceutics Classification System (BCS) II or IV categories), there is a need to develop a new generation of biopharmaceutics tools to accurately predict oral formulation performance across a range of clinically relevant conditions for both immediate and modified-release formulations. The development, robust validation and implementation of such a toolkit would enable a shift in industrial development practices from a trial and error approach which relies heavily on lab experimentation and in vivo studies, to a model-based workflow which uses in vitro and in silico predictive tools to guide and accelerate compound development. In addition, such an approach would significantly reduce the need for both future animal experiments and human bioequivalence studies for bridging between formulations by providing a scientific basis for increased use of biopharmaceutics predictive tools in a regulatory documentation context.

OrBiTo (www.orbitoproject.eu) is an IMI/EU project in the area of oral biopharmaceutics tools that includes world leading scientists from nine universities, one regulatory agency, one non-profit research organisation, four small/medium sized specialist technology companies together with thirteen pharmaceutical companies. The OrBiTo project will deliver a framework for rational application of predictive biopharmaceutics tools for oral drug delivery. This will be achieved through

novel prospective investigations to define new methodologies or refinement of existing tool. Extensive validation will be performed of novel and existing biopharmaceutics tools by using historical datasets from industry partners.

The project is approaching the end of the 5 year duration at the time of PSWC 2017 and the timing will be excellent to present outcomes in the form of a short course.

COORDINATORS

Bertil Abrahamsson / AstraZeneca Hans Lennernäs / Uppsala University Mark McAllister / Pfizer

ORGANISED BY

IMI/EU project OrBiTo www.orbitoproject.eu

CO-CHAIRS

Bertil Abrahamsson / AstraZeneca Hans Lennernäs / Uppsala University 07:00 - 08:00 **Breakfast**

08:00 Opening

08:00 - 09:00

Robust and in vivo predictive characterisation of APIs

Anette Mullertz / Copenhagen University

09:00 - 10:00

A science based approach to biorelevant product dissolution

lames Butler / GSK

10:00 - 10:30 COFFEE

10:30 - 11:30

News from the GI tract – improved understanding of physiology and drug oral absorption

Peter Langguth / University of Mainz

11:30 - 12:30

Rationale use of mechanistic based in silico absorption prediction tools

Amin Rostami / University of Manchester

12:30 - 13:00 LUNCH

13:00 - 14:00

Examples of implementation of novel approaches in the industry

Mark McAllister / Pfizer

14:00 - 15:00

Role of biopharmaceutics predictive tools in future regulatory documentation

Anders Lindahl / Swedish Medical Product Agency

15:00

SHORT COURSE 2





Regulatory Science - the case of risk minimization

A supplementary registration fee applies for the short courses

Regulatory Science is a new and upcoming research area with the aim of making science that: 1) assists regulatory decision making (producing evidence), 2) facilitates regulatory decision making (producing tools and standards) and/or 3) evaluates regulatory decision making (testing performance). Regulatory Science spans from early ideas of developing new pharmaceuticals including identifying unmet needs over pre-clinical and clinical trials to market approval processes, market access and pharmacovigilance.

This course will outline the capacity and tools in Regulatory Science by elucidating on one specific area: "Risk minimization" – an area that has considerable impact on safety of pharmaceuticals and how pharmaceuticals are handled in society. The Copenhagen Center for Regulatory Sciences (CORS) has special expertise in this area, conducting contemporary research in impact of risk minimization activities (including explanatory research to explain this impact), as well as the center has strong national and international collaboration with regulators, academia, industry and patient organizations.

The aim of the course is to introduce more practitioners and researchers to engage in Regulatory Science by introducing the needs and background for specific regulation of pharmaceuticals, tools in assessing benefit-risk estimates of pharmaceuticals throughout the drug lifecycle, present recent/current activities within the risk minimization area, methods in assessing effectiveness of regulatory means as well as presenting existing knowledge of impact of different risk minimization activities.

The form of the course will be 4 introductory lectures of 45-60 minutes length followed by exercises and discussion to elucidate on central aspects of Regulatory Science and increase learning outcomes of participants

COORDINATORS

Marieke de Bruin & Christine Hallgreen / Copenhagen Center for Regulatory Science

ORGANISED BY

Copenhagen Center for Regulatory Science

CO-CHAIR

Susanne Kaae / Department of Pharmacy, University of Copenhagen, Denmark 07:00 - 08:00

Breakfast

08:00

Opening

08:00 -09:30

Background for risk minimization activities (EU Pharmacovigilance directive of 2010/2012) – assessing benefit/ risk throughout the lifecycle of a pharmaceutical drug

Christine Hallgreen

09:30 - 10:00 COFFEE

10:00 - 11:30

Ongoing activities in risk minimization and methods to evaluate their effectiveness Marieke de Bruin

11:30 - 12:00 LUNCH

12:00 - 13:30

Challenges in implementing risk minimization activities in daily practice

PhD-student / CORS

13:30 - 15:00

Current knowledge about effectiveness of risk minimization activities

Sabine Straus / Dutch Medical Agency

15:00

SHORT COURSE 3



A supplementary registration fee applies for the short courses

Microfluidics – basics and applications in pharmaceutical sciences

The course is aimed at pharmaceutical scientists interested to get an introduction to microfluidics, an enabling technology for many novel uses in the life sciences. It is our goal to briefly explain the underlying physics and the most important principles, and demonstrate how they can be exploited for applications in chemistry, medicine and cell biology, and in particular for such areas as drug screening, drug development and drug delivery, but also for diagnosing and monitoring diseases.

COORDINATOR

Jörg Kutter / University of Copenhagen

ORGANISED BY

Jörg Kutter / University of Copenhagen & Johan Nilsson / Lund University

CO-CHAIRS

Jörg Kutter / University of Copenhagen & Johan Nilsson / Lund University

07:00 - 08:00

Breakfast

08:00

Opening

08:00 - 09:30

Microfluidics: fundamentals and unit operations

Johan Nilsson

09:30 - 10:00 COFFEE

10:00 - 11:30

Sample preparation, separation and detection on microfluidic devices

Jörg Kutter

11:30 - 12:00 LUNCH

12:00 - 13:30

Biomedical diagnostics

Johan Nilsson

13:30 - 15:00

Microfluidic approaches to drug development and

Jörg Kutter

15:00

SHORT COURSE 4



A supplementary registration fee applies for the short courses

Drug transporters in ADME

The course will deal with the role of membrane transport proteins in determining the ADME properties of drug candidates and substances. We will give an overview of drug transporters in barrier tissues, with emphasis on transporters that mediate intestinal absorption/efflux and drug disposition to the brain (transporters in the blood brain barrier). Lectures will cover basic concepts such as flux, permeability, barrier tissue biology, transporter kinetics and transporter structure and function. This will be supplemented with a description of the in vitro methods for studying drug transport/transporters in tissue models. Finally, we will present the EMEA/FDA-guidelines for investigating transporter interactions and discuss how this may be integrated in a drug development context.

COORDINATOR

Birger Brodin / University of Copenhagen

ORGANISED BY

Carsten Uhd Nielsen Bente Steffansen & Birger Brodin

CO-CHAIRS

Birger Brodin /

Carsten Uhd Nielsen / University of Southern Denmark Bente Steffansen / University of Southern Denmark

University of Copenhagen

07:00 - 08:00 **Breakfast**

08:00

Opening

08:00 - 09:00

Overview of transporters and organs relevant to determining ADME properties of drug compounds Carsten Uhd Nielsen

09:00 - 10:00

Basic transporter kinetics and barrier tissues Birger Brodin

10:00 - 10:30 COFFEE

10:30 - 11:30

Advanced transporter kinetics, multiple transporters

Bente Steffansen

11:30 - 12:30

Intestinal transport, models to study transport and transporters

Carsten Uhd Nielsen

12:30 - 13:00 LUNCH

13:00 - 14:00

The role of transporters at the blood brain barrier; uptake and efflux mechanisms

Birger Brodin

14:00 - 15:00

Regulatory aspects of drug transporters Bente Steffansen

15:00

SHORT COURSE 5



A supplementary registration fee applies for the short courses

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Qualitative methods and theories for research needs in the pharma field

Qualitative methods have been used in marketing research, and in research on innovation and implementation strategies in the field of pharmacy and pharmaceuticals. Qualitative methods already have a role in patient-centered outcomes research, and have a great potential there. Qualitative methods however have potential to be of much more benefit if used to fields of pharmacy and pharmaceutical research than presently is the case.

Projects using qualitative methods can also be based on specific theory/theories. The word 'theory' can be interpreted in different ways.

Research using qualitative methods tends to be underpinned by theories that originate from various disciplines within the social sciences.

After the short course on qualitative methods and theories, the participants will:

- have a basic insight of the most common methods and their potential use in a research project. Examples of such methods: focus group discussions, in-depth interviews, action research, netnography.
- be able to list the most common qualitative methods, and give examples of what they might be useful for.
- 3) understand why research conducted with qualitative methods tends to be based on coherent theories, sometimes modifying the theory used, or possibly extracting a new theory out of own data.

COORDINATOR

Ingunn Björnsdottir / University of Oslo

ORGANISED BY

School of Pharmacy / University of Oslo

CHAIR

Ingunn Björnsdóttir / University of Oslo

CO-CHAIR

Anne Gerd Granås / Oslo and Akershus University College of Applied Sciences & University of Oslo

07:00 - 08:00

Breakfast

08:00 **Opening**

08:00 - 09:40

General overview of qualitative methods and relevant examples from pharma

A map of the methods

Sofie Kälvemark Sporrong / University of Copenhagen

Application of qualitative methods in drug research and development

Lena Ring / Uppsala University & Swedish Medical Products Agency

09:40 - 10:10 COFFEE

10.10 - 11.50

Theory use in pharma research and relevant examples

Theory in research, narrowing in on qualitative research in pharmacy

Janine Morgall Traulsen / University of Copenhagen

Every research uses theory, in qualitative methods it is conscious use

Ingunn Björnsdóttir & Anne Gerd Granås / University of Oslo

11:50 - 12:30 LUNCH

12:30 - 15:00

Participant work and a practical example from an industry affiliated pharmacist

How could qualitative methods be of benefit for my field of work in pharma?

Participants (10 min. intro, 1 hour group discussion, ½ hour presenting)

How I used qualitative methods and theories in my research

Claus Møldrup /

Ex-Professor, founder of DrugStars.com

SHORT COURSE 6



A supplementary registration fee applies for the short courses

Pharmaceutical modeling and simulation

Modeling is increasingly used in all aspects of drug discovery, development, and usage - to design new drug molecules with optimal affinity for pharmacological targets, to understand and control how drugs are absorbed, distributed and eliminated from the human body, to design and interpret clinical drug trials, and to optimally use drugs in the population. We foresee an increased need for skilled practitioners of computational modeling techniques that also have a firm knowledge of the drug discovery and development process. This short course in pharmaceutical modeling and simulation will provide insights into how advanced modeling techniques are used in the various disciplines of drug discovery, development and usage. The short course will focus on the practical application of modeling techniques, and on the communication of modeling results outside and within the own discipline. During the day, the lecturers will provide descriptions of the basis of the techniques used, how these can be used to handle big data, describe risks and benefits with the different techniques discussed and a number of case studies to point at the advantages of usage of modeling and simulation within pharmaceutical sciences. The course is of interest to all scientists working within the discipline and will provide a fundamental introduction to the field with special emphasis on the different methodologies typically used. The lecturers are from Uppsala University which holds a leading position within pharmaceutical modeling and simulations, and which is the first university world-wide to provide a master education within this subject.

COORDINATORS

Christel Bergström & Pär Matsson / Uppsala University

ORGANISED BY

Christel Bergström & Pär Matsson

CO-CHAIRS

Christel Bergström / Uppsala University Pär Matsson / Uppsala University 07:00 - 08:00 **Breakfast**

08:00 **Opening**

08:00 - 09:00

Systems biology in drug discovery: A systems biology approach to a more successful drug discovery process

Sven Nelander / Uppsala University

09:00 - 10:00

Structure-based drug design Virtual molecular docking to identify new drugs Christian Sköld/Uppsala University

10:00 - 10:30 COFFEE

10:30 - 11:30

Computational Absorption, Distribution, Metabolism, Elimination (ADME) – Linking molecular properties to absorption and disposition

Pär Matsson / Uppsala University

11:30 - 12:30

Computational pharmaceutics – Molecular dynamics to understand formulation performance Per Larsson / Uppsala University

12:30 - 13:00 LUNCH

13:00 - 14:00

Physiology-based pharmacokinetics (PBPK) – In silico prediction of in vivo pharmacokinetics using different PBPK tools

Erik Sjögren / Uppsala University

14:00 - 15:00

Pharmacometrics as a tool to integrate longitudinal data and characterize patient variability – design and analysis of clinical trials

Lena Friberg / Uppsala University

15:00 Closure

SHORT COURSE 7



A supplementary registration fee applies for the short courses

Discovery and development of safe medicines

The Innovative Medicines Initiative (IMI) education and training programmes were set up to increase expertise and competence in all areas of the medicines development process. The intention was to support research in Europe and to speed up the medicines development process for the benefit of society. The five projects: SafeSciMet, PharmaTrain, Eu2P, EMTRAIN and EUPATI have successfully developed: curricula, courses, standards, tools & methodologies, networks and databases to support students, professionals and patients working in medicines development.

COORDINATOR

Mike Hardman / AstraZeneca, Sweden

ORGANISED BY

Mike Hardman / AstraZeneca, Sweden

CO-CHAIRS

Mike Hardman & Heinrich Klech

07:00 - 08:00 **Breakfast**

PART 1/ BASIC COURSE

08:00 - 08:30

Introduction & Discovery of Medicines *Mike Hardman*

08:30 - 09:00

Non-clinical testing

09:00 - 09:30

Exploratory and confirmatory clinical development & clinical trials

Ingrid Klingmann

09:30 - 10:00

Regulatory affairs, medicinal product safety and post-licensing evaluation of medicines Wolf See & Annie Fourrier

10:00 - 10:30 COFFEE

10:30 - 11:00

Health Technology Assessment (HTA) principles and practice

Heinrich Klech

11:00 - 11:15

Ouestions and Answers

PART 2 / ADVANCED COURSE

Co-chairs: Wolf See & Ingrid Klingmann

11:30 - 12:00

State of the art developments in non-clinical toxicology, including the human body on a chip

12:00 - 12:30

Translational strategies leading to safe and personalized medicines

Nico Vermeulen

12:30 - 13:00 LUNCH

Co-chairs: Nico Vermeulen & Annie Fourrier

13:00 - 13:30

Latest developments in clinical development including the new EU Clinical Trial Regulation and adaptive study designs

Ingrid Klingmann

13:30 - 14:00

Latest developments in Pharmaco-vigilance/ Pharmacoepidemiology including risk benefit analysis

Annie Fourier

14:00 - 14:30

Latest developments in EU Medicines Regulations including advanced therapies and biosimilars Wolf See

14:30 - 15:00

Questions & Answers

15:00

EVENTS

Opening Ceremony

SUNDAY 21 MAY / 16:00 - 18:00 ROOM / Stockholmsmässan - Victoria Hall



Full programme: please see page 24.

Welcome Reception

SUNDAY 21 MAY / 18:00 - 19:00 ROOM/Stockholmsmässan - Exhibition hall

The organizers of PSWC invite all participants and accompanying persons for a warm and festive welcome reception at the exhibition hall immediately after the opening ceremony.

Reception at the City Hall of Stockholm

MONDAY 22 MAY / 19:00 - 20:00 *LOCATION / City Hall of Stockholm*



The Stockholm City Hall is one of Sweden's most famous buildings, and one of the capital's most visited tourist attractions. It is famous for its grand ceremonial halls and unique art pieces and is the venue of the Nobel Prize banquet held on 10th of December each year

This reception is not automatically included in the registration fee, the registration will be on a first come first serve basis with a maximum number of 1.200 participants.

Congress Dinner

TUESDAY 23 MAY / 19:30 - 22.30 *LOCATION / Skansen - Stockholm*



The Congress dinner will take place on Tuesday 23 May as of 19.30 hours at Skansen:

Skansen Djurgårdsslätten 49-51, Stockholm

Skansen is the world's first open-air museum, founded in 1891. Here you can stroll through five centuries of Swedish history, from north to south, with a real sense of the past all around in the historical buildings and dwellings, peopled by characters in period dress. Tickets can be purchased via the online Congress Registration Form.

EXHIBITION

A three day exhibition will complement the 6th Pharmaceutical Sciences World Congress in the Stockholmsmässan in Stockholm

From May 21-24, 2017, exhibitors and sponsors are invited to take advantage of extensive, high quality showcase opportunities, bringing the best of their products, services and organisations to the public eye.

The PSWC 2017 exhibition offers the perfect opportunity to raise your organisation's profile and build relationships with key decision makers within the pharmaceutical sciences industry.

If your organisation has an interest in this sector, you cannot afford to miss this opportunity. The industry exhibition will be the hub of the event, hosting all congress refreshment breaks as well as posters, guaranteeing an excellent through-put of congress delegates.

http://pswc2017.fip.org/Sponsoring_and_Exhibition





CONTACT

Congress information

FIP Congresses & Conferences

Andries Bickerweg 5 2517 JP The Hague The Netherlands Office opening hours: Monday to Friday 09:00 – 17:00 CET

T +31 70 302 19 82 F +31 70 302 19 98 pswc@fip.org http://pswc2017.fip.org/

Registration, abstract handling & housing

MCI Amsterdam

Schipluidenlaan 4 1062 HE Amsterdam The Netherlands Office opening hours: Monday to Friday 09:00 – 17:00 CET

T +31 20 570 96 00 F +31 20 673 73 06 pswc@mci-group.com

Congress information



Our 20 member airlines provide you comprehensive access to an extensive global network with 1,052 destinations, plus more frequencies and more connectivity than ever before. Whether making a personal journey or doing global business, you'll enjoy more flexibility, convenience and choices along your journey with SkyTeam. We're working together so we can focus more on caring about you.

To make a reservation, please use the indicated link to open an online booking platform that will automatically calculate the discount offered or provide you with an even better offer if another promotional fare is available.

Your unique booking code: 3404S
Your unique booking URL:
http://res.skyteam.com/Search/promoDefault.
aspx?vendor=sky&promocode=3404S



HOW TO REGISTER

Individual registration

Please check the website http://pswc2017.fip.org/

Group registration

Please check the website http://pswc2017.fip.org/ For group registrations, a minimum of 10 participants is required. Please note that the same registration fees apply as for individual registrations. If you wish to register a group, please make sure that you can provide the personal email addresses of all individuals for follow-up on their registration, including for communicating access to abstracts, biographies and presentations.

For more information, please send an email to: pswc@mci-group.com

Payment of registration fee

All fees must be paid by credit card (Visa, Eurocard/Mastercard or American Express).
Instructions for payment will be available on the payment page of the registration website.
For security reasons the congress registration office does not charge credit cards from their office manually.

After completing your registration

You will receive an automatically generated email/invoice, acknowledging submission of your registration and confirming your payment. If you do not receive this, please email: pswc@mci-group.com



REGISTRATION FEES

All costs referred to are in Euro €. 25% Swedish VAT is charged on each registration as mentioned.	1 11 2 3 31	eadline arch 2017	Second Deadline until 3 May 2017		Onsite after 3 May 2017	
The Swedish VAT registration number is: SE502076121801	excl. VAT	incl. VAT	excl. VAT incl. VAT		excl. VAT incl. VAT	
Participants	550,00	687,50	650,00	812,50	850,00	1.062,50
Students/ Recent Graduates	250,00	312,50	350,00	437,50	850,00	1.062,50
Accompanying person	100,00	125,00	100,00	125,00	150,00	187,50
Day cards - can only be purchased onsite					350,00	437,50
Congress dinner Tuesday 23 May	80,00	100,00	80,00	100,00	80,00	100,00
Young Scientist Satellite Conference Friday 19 May – Sunday 21 May - can only be purchased in combination with main congress	100,00	125,00	150,00	187,50	150,00	187,50
Short Courses (price per course) Sunday 21 May - min. 20 participants per course - can only be purchased in combination with main congress	350,00	437,50	350,00	437,50	350,00	437,50

The 7 courses are:

- 1. Recent progress in understanding and predicting oral absorption
- 2. Regulatory Science the case of risk minimization
- 3. Microfluidics basics and applications in pharmaceutical sciences
- 4. Drug transporters in ADME
- 5. Pharmaceutical modeling and simulation
- 6. Discovery and development of safe medicines
- 7. Qualitative methods and theories for research needs in the pharma field

Registration fee for participants and students/ recent graduates includes:

- Admission to all sessions
- Opening Ceremony & Welcome Reception in the Exhibition hall

- Entrance to the Exhibition
- Access to all submitted Abstracts and Biographies as of 1 May 2017
- Congress Bag with Final Congress Programme (including list of participants (name and country of participants registered and paid by 15 April 2017)
- Access to a website where you can download the (slides of the) presentations (available as of 1 July 2017)
- Coffee/tea breaks

Please note that lunch is NOT included at this congress.

Registration fee for accompanying persons includes:

- Opening Ceremony
- Welcome Reception
- Entrance to the Exhibition

Please note that lunch is NOT included at this congress. The fee for accompanying persons does NOT include admission to the sessions.

ABSTRACTS

Deadline abstract submission: 15 January 2017

Abstracts can only be submitted through our website: http://pswc2017.fip.org/

Abstracts will only be accepted for publication if the presenting author has registered and paid for the congress before 1 March 2017.

After 1 March 2017 the abstracts of presenting authors not registered and paid will be cancelled; these abstracts cannot be presented and will not be published.

FIP guidelines on writing an abstract, and abstract requirements (for example, the maximum length of your abstract), are available at

http://pswc2017.fip.org/

FIP guidelines for poster presenters are published on: http://pswc2017.fip.org/

Depending on the number of abstracts submitted, posters will be on display for one or more days. Presenters will be informed about this after the review process.



Poster board size

The net size of the poster boards will be announced on our website:

http://pswc2017.fip.org/



HOUSING

MCI Amsterdam, the official housing partner for the 6thth FIP Pharmaceutical Sciences World Congress 2017, has reserved a number of rooms in various hotels that have been carefully selected for your convenience. All of the hotels are located in Stockholm, with a good connection to the convention center by public transport. Reservations can be made online together with your registration to the congress: The reservation section will show real-time availability and the applicable rates.

Room Rates

All rates quoted are the lowest available for standard rooms during the period of the congress. Deposits are payable in EURO and prices all include all applicable taxes. Breakfast is included, unless otherwise mentioned. All taxes are subject to change. Remaining payments and personal accounts are payable directly at the hotel in Swedish Krona's (SEK).

Reservation & Payment

For individual hotel reservations, a deposit payment for the first night must accompany your reservation. This can be done in the online registration process. Your booking will be confirmed upon receipt of your hotel deposit. This prepaid deposit will be deducted from your final hotel invoice when checking out from the hotel. Potential additional incidents, such as mini-bar and telephone, must be paid directly to the hotel upon check-out.

Should you wish to make a hotel booking for 10 rooms or more, we kindly ask you to send an email to pswc@mci-group.com

Special requirements (as double room, twin room, smoking room) concerning the hotel rooms will be available upon request, and cannot be guaranteed. Standard check in time at hotels is 15.00 hours. Check-out time is 12.00 hours. Should you need a guaranteed early arrival (before 15.00 hours) or a late departure (after 12.00 hours), an additional night is required to be booked and paid for.

Changes, No Shows & Cancellation Charges

Any enquiries or requests for additional information, modifications or cancellations to room reservations should be addressed to MCI Amsterdam in writing (fax, letter or email). Please do not contact the hotel directly, as they will not accept any changes or cancellations made directly. In the event of cancellation up to 22 March 2017, deposits will be refunded less SEK 450 for administrative costs. After this date, no refunds will be possible. In the event of late cancellations after 22 March 2017, MCI Amsterdam reserves the right to charge the full stay for cancelled rooms, cancelled nights or no shows if the hotel room cannot be resold. In case of a no show, the hotel will guarantee your room until 12:00 the day after your check in date. A handling fee of € 45 per hotel room will be charged for every hotel modification received after 22 March 2017.

Reference Number & Hotel Voucher

For your own convenience and to facilitate the reservation procedure, we kindly ask you to take note of your reference number and refer to this number in all correspondence with MCI Amsterdam. Please bring the hotel voucher with you, as it will serve as proof of your reservation at the hotel and deposit.

HOUSING

Contact details

MCI Amsterdam

T +31 20 575 42 20 F +31 20 673 73 06 pswc@mci-group.com

All participants must have a valid passport and/or an appropriate travel documents to enter Sweden. Some participants may also require a visa. Visas are the responsibility of individual delegates and must be obtained before traveling to Sweden. All delegates are strongly encouraged to contact their local Swedish Embassy or Consulate to verify the need of a visa to enter the country.

Please check this site for more information: http://www.migrationsverket.se/English/Privateindividuals/Visiting-Sweden/Visiting-on-businessand-for-conferences.html

The Embassy or Consulate will provide you with an application form; it is strongly recommended that you submit this at least three months in advance to ensure you receive your visa in time for travel. You can apply for an official invitation letter for visa during the online registration process. Please note that this letter is not a commitment on the part of the organisers to provide any financial support. FIP Headquarters cannot be held responsible for registrations that need to be cancelled after a visa declination. Please note that terms of cancellation are applicable in all circumstances, also if a visa is officially refused to the participant.



TRACK B TBACK **A**

SATURDAY 20

10:00 – 10:45 WORKSHOPS / part 1 Excellence in science (WSL) Communicate science (WS4)	Grant application (WS2) Pitch your idea (WS5)
Keynote Rada Savic / University of California San Francisco	Keynote Jan Kihlberg / Uppsala University
S7:60 - 00:60	S4:60 - 00:60

TO: d2 - TT: T2 LIKY BKEYK

Sustainable development (WS7)

Pitch your idea (WSS) Grant application (WS2) II:15 - 12:00 WORKSHOPS / part 2 II:IS - ID:00 WORKSHOPS / part 2

Sustainable development (VVS) Communicate science (WS4) Excellence in science (WSI)

15:00 - 14:00 LUNCH & POSTERS

Short Communications (B1) Short Communications (A1) 06:21 - 00:41 06:21 - 00:4I

12:30 – 19:00 EIKA BREAK

Short Communications (A2) 0E:ZT - 00:9T

SUNDAY 21

54:60 - 00:60

Interactive lecture

Short Communications (A3) 54:0T - 00:0T

10:42 - 11:42 EIKY BKEYK & BOZLEKZ

11.45 - 12:30 Steven Kern / Bill and Melinda Gates Foundation

Short Communications (B3)

Short Communications (B2)

Entrepreneurship (WS8)

Entrepreneurship (WS8)

St:01 - 00:01

0E:ZT - 00:9T

Short Communications (C3)

Short Communications (C2)

Short Communications (C1)

Pedagogical skills (WS8)

Pedagogical skills (WS8)

Regulatory framework (WS6)

10:00 - 10:45 WORKSHOPS / part 1

TRACK C

Patenting (WS3)

Patenting (WS3)

A8T

Keynote

54:60 - 00:60

Regulatory framework (WS6)

II:IS - IS:00 WORKSHOPS / part 2

S4:01 - 00:01

0E:ZT - 00:9T

06:21 - 00:4I

12:30 - 13:00 Award Ceremony

18:00 - 21:00 Plenary Ending Ceremony 15:20 - 16:00 Plenary lecture 11:45 - 13:00

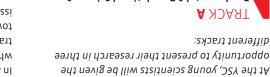
> developments and clinical usage? 'Improving your skills in drug discovery,



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tackle the challenges of the future. pharmaceutical scientists, will be given the tools to research we hope that you, the next generation of issues with your peers and key people in medicines towards successful research. By discussing pressing training that can sharpen your skills and help you where you as an attendee will be provided with In addition to these tracks, there will be workshops

pages 75-77 of this booklet. For registration, please see

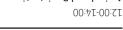


Targeting Sciences Fundamental & Translational Science &

TRACK **B**

TRACK C Manufacturing Sciences Drug delivery, Formulation &





00:9T - 00:7T

ŁIKS

Plenary Opening Ceremony

14:40 – 15:20 Plenary lecture / Kathy Giacomini / University of California San Francisco 14:00 – 14:00 Welcome and opening by dignitaries / Meindert Danhof / Chair of PSWC 2017

Conference dinner

TI:45 - 13:00 BUS DEPARTURES TO STOCKHOLM / LUNCH





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Young Scientist Satellite Conference

Improving your skills for research in drug discovery, drug development and clinical usage

The world of medicines research and pharmaceutical sciences is quickly evolving with systems biology and new technology expanding our view on disease and treatment. At the core of this evolution are tomorrow's scientists: the PhD-students and post-docs.

The Young Scientist Satellite Conference of the PSWC is an exciting occasion for future scientists to meet, discuss and present their science in many forms such as oral sessions, poster sessions and workshops. This will also be an opportunity to gain knowledge from the experts attending the Pharmaceutical Sciences World Congress.

Please note that registration for this conference is only possible in addition to a registration for the PSWC.

