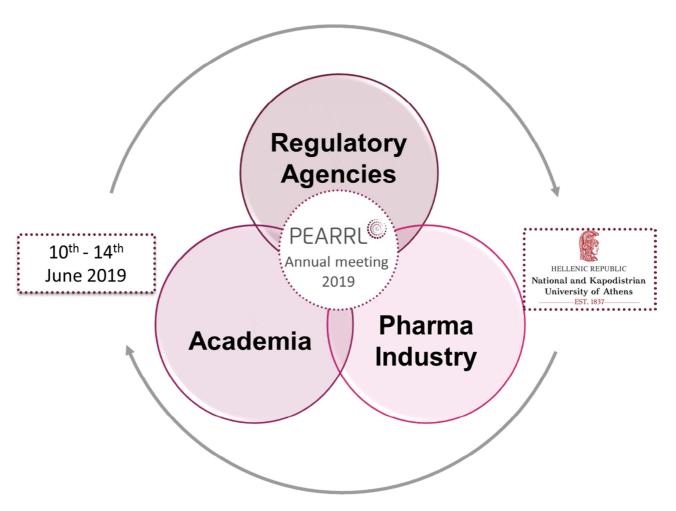


# 3<sup>rd</sup> PEARRL Annual Meeting Model Informed Drug Development



10<sup>th</sup> – 14<sup>th</sup> June 2019
National and Kapodistrian University of Athens,
Department of Pharmacy, Greece
<a href="http://www.pearrl.eu/am2019.html">http://www.pearrl.eu/am2019.html</a>





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## **Programme**

**H2020 ITN** PEARRL project (no.674909) PEARRLs of Wisdom Week 2019

https://www.pearrl.eu/am2019.html

**Date** 10<sup>th</sup> – 14<sup>th</sup> June 2019

Theme of Annual

meeting

Model Informed Drug Development

Schedule Day 1 Science Slams – ESR research presentations

**Day 2** Science Slams – ESR research presentations

Day 3 Symposium

**Session I** – Drug discovery / development interface **Session II**: Model informed pre-clinical development

Day 4 Symposium

**Session III**: Model informed Clinical Pharmaceutical Development **Session IV**: Emerging trends in pharmaceutical product lifecycle

management

Day 5 Transferable skills workshop

**Networking events** Sunday Pre-Conference Get-Together (PIs and ESRs)

Day 1 Informal networking

Day 2 ESRs activity | Acropolis museum

Day 2 PIs and ESRs dinner

Day 3 Pls, Speakers and ESRs dinner

Day 4 Informal networking

Day 5 ESRs activity | Cape Sounion, Archaeological Site

Location Athens, Greece

Address National and Kapodistrian University of Athens, Main Building

Panepistimiou 30, 10679 Athens

Wi-Fi access EDUROAM access available

Additional Username & Password will be provided on site



### **Welcome Note**

Dear PEARRL participant – Welcome to the 3<sup>rd</sup> annual PEARRLs of Wisdom Week!

Following to the previous two very successful meetings in Cork (2017) and Frankfurt (2018) we hope you will also enjoy our 2019 meeting in Athens.





Cork 2017 Annual Meeting

Frankfurt 2018 Annual Meeting

With the help of our coordinator (Brendan Griffin), WP1 leader (Martin Kuentz) and WP3 leader (Jennifer Dressman), we have tried to put together an exciting program both from the scientific and networking points of view. In particular, the external invited speakers for our open two-day symposium are among the top scientists in the field of oral drug product development at least in Europe. We would like to thank them all for their kind contribution. We would also like to thank the National and Kapodistrian University of Athens and Pharmathen S.A. for their support.

We hope you will all enjoy your stay in Athens!

Christos Reppas and Maria Vertzoni



#### **About Athens**



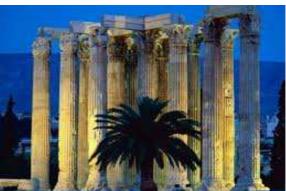


#### Sightseeing

Athens takes the fuss out of sightseeing. It is a user-friendly town thanks to the pleasant demeanor of the English-speaking Athenians and the easy to use and manageable transportation system. The visitor can see a lot in one day. Archaeological Sites & Classical Greek Monuments, Byzantine Monuments & Ottoman Monuments, Museums, Art Galleries, street performances, festivals. Needless to say, The Acropolis remains a "must see"...

You may explore Athens here





#### **Getting around**

A state-of-the-art metro system, wide avenues, an efficient public transportation system and a compact city center, all make moving around Athens easy and convenient. The Athens transportation network now includes new buses, pollution-free trolleys, tram and a revamped electric railway system that connects to two metro lines. Piraeus's port, in short distance from the Athens city center, serves national and international sea lines. The modern highways make driving to and from the city, a pleasant experience.

#### Gastronomy

Gourmet and traditional Greek cuisine, in the past decade, has become one of the most popular in the world as it has been proven to provide a flavourful healthy and balanced diet. Culinary aficionados are encouraged to delight in the myriad of sophisticated restaurants that boast tastes and interiors inspired from all parts of the world. The local and traditional outdoor seaside taverns and cafes are plentiful and a cultural mainstay.



#### Shopping

Shopping in Athens - a showcase for its traditional and modern culture and lifestyle - can be a fascinating and satisfying experience for all. Amidst the many well-known international name brand outposts and traditional Greek art and folklore shops, are hundreds of chic boutiques and specialty stores blossoming with great fashion finds for every taste and budget. Make sure to stop in at one of the many wonderful year-round outdoor cafés and restaurants to make your experience of shopping in the Athenian way, complete!

#### Sea & Sun

Athens is the only European city surrounded by pristine beaches, where you can swim for many months during the year. Visit a beach in Athens and you are likely to feel like you're on a Greek island, as you are greeted with stretches of crystal sands, fine pebbles and breathtaking, blue clean waters. Some beaches boast barren rocks and cliffs that carve caves and coves you can explore. Other beaches have floating bars, music and seaside spas, while others are secluded for romance. Most offer beach amenities, such as lounge chairs, umbrellas, lifeguards, fun playgrounds, restaurants and water sports for all ages. In Athens, enjoying a sunset stroll or a seaside meal is a part of daily life. Walk on the many Athenian esplanades lined by tropical palm trees. Beach hopping is made possible by the new tramway. Hop-in from the center of Athens and watch the sunset over the Saronic Gulf.

#### **Athens City Facts**

**Weather:** Athens is an ideal year-round destination with comfortable and favourable climate conditions for travel and sightseeing. Rainfall is minimal and the summers (June through August) are dry and hot with temperatures ranging, on average, from 78° to 94°F or 20° to 34°C. The Mediterranean climate makes for mild winters and even milder autumns in low-lying areas, with the coldest temperatures reported in January at a very temperate 41° to 55° F or 5°to 13°C.

**Language:** Most Athenians speak English and those in the hospitality industry are likely to speak French and German too. Signage, menus and transportation signs are written in Greek and English.

**Currency:** Euro €

**Shopping Hours:** Major outlets Monday-Friday. 9:00-21:00; small shops Monday, Wednesday 9:00 to 15:30; Friday, 9:00 to 20:30; Saturday 9:00 to 15:30.

**The airport:** The new award winning Athens International Airport, Eleftherios Venizelos, serves 83 international destinations. Its close proximity to the city centre, 30 minutes by car and 40 minutes by train, makes Athens easily accessible.

For more information, you may visit the official site of the Athens International Airport

**Transportation:** Network includes new buses, pollution-free trolleys, tram and a revamped electric railway system that connects to the metro lines. Taxis are inexpensive by European standards.

More information can found here http://www.stasy.gr/index.php?id=1&no\_cache=1&L=1



## **Hotels recommended by the Organizers**

#### **Titania Hotel**

52, Panepistimiou Ave., Athens, 10678, Greece

http://www.titania.gr/

Room prices: 130-160 €/night

350 m from the National and Kapodistrian University of Athens (main building), 4 min walking distance. The hotel is 300 m from Panepistimio metro station and 12 minutes walk from Syntagma metro station.

#### Ilisia Hotel

25, Mihalakopoulou St., Athens, 11528, Greece

http://www.ilisiahotel.gr/

Room prices: 100-110€/night

We would be happy to make the reservation for you at a special rate for PEARRLers (80€, breakfast and all taxes are included). Please send us your full name, preferred room (single or double), check in and check out dates and we will book the room for you (vertzoni@pharm.uoa.gr).

2.5 km from the National and Kapodistrian University of Athens (main building), 10 min metro ride from Megaro Mousikis metro station.





### **Location of Venue**

## Monday 10<sup>th</sup> June through Thursday 13<sup>th</sup> June

National and Kapodistrian University of Athens (main building),

Argyriadis Lecture Room

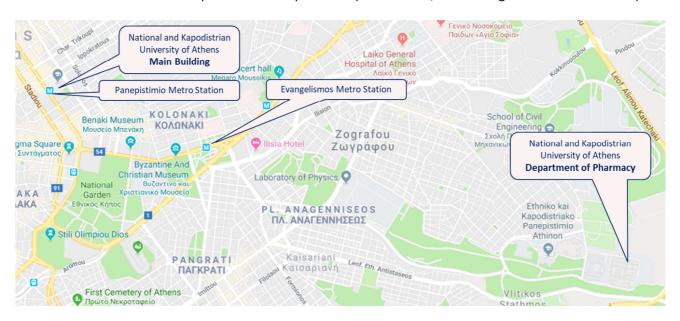
Address: Panepistimiou 30, 10679 Athens



## Friday 14<sup>th</sup> June

National and Kapodistrian University of Athens, Panepistimiopolis Campus Department of Pharmacy, New Lecture Room of Pharmaceutical Technology Section

The room can be reached with public but transportation (Bus line 250, from Evangelismos metro station)

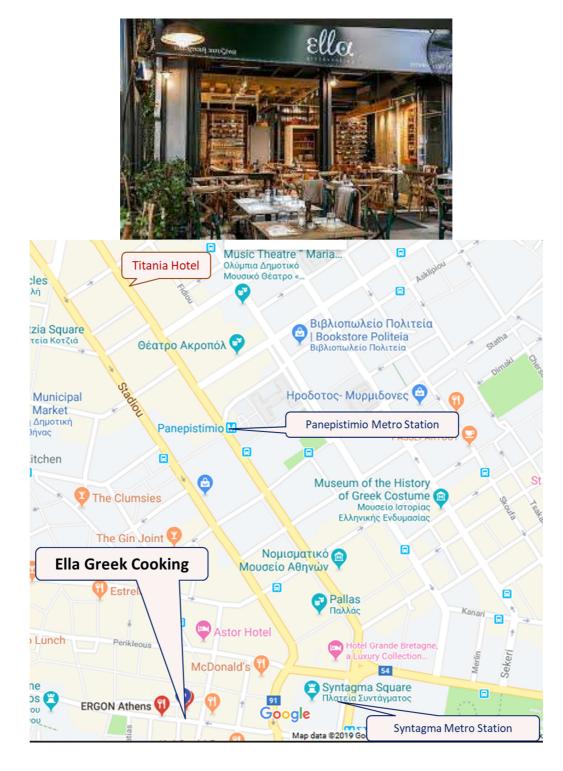




# **Pre-Conference Get-Together | PIs and ESRs**

Sunday, 9th June 2019 | 20:00

Ella Greek Cooking, Mitropoleos 26, Athens 10563, Tel 210 3315547, https://www.ellagreekcooking.gr/



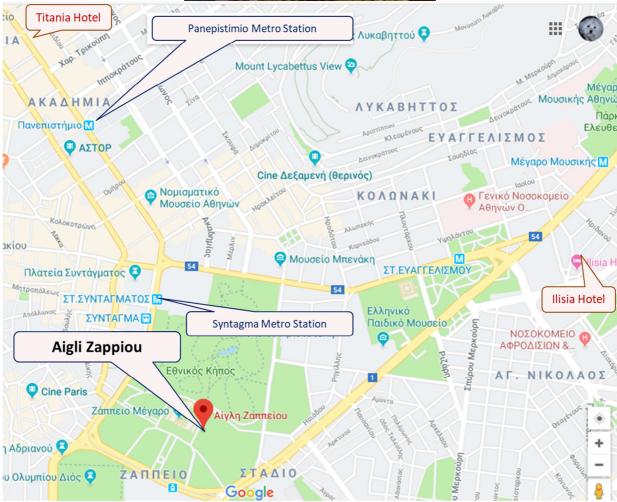


## **PEARRL Dinner | Speakers and PIs**

Tuesday, 11th June 2019 || 20:00

Aigli Zappiou, Zappion, Athens 105 57, Tel 2103369364, www.aeglizappiou.gr



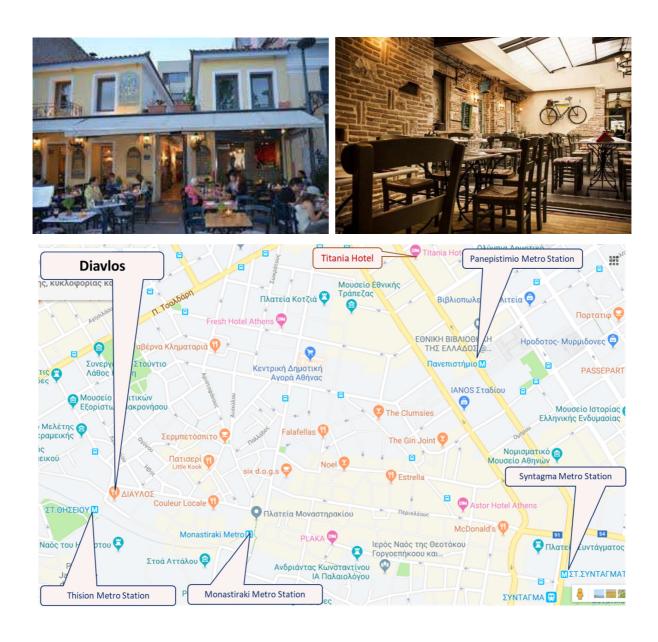




# **PEARRL Dinner | ESRs**

Tuesday, 11th June 2019 || 20:00

Diavlos, Andrianou 1, Athens 105 55, Tel 21 0325 0944, http://www.diavlosathens.gr/en/

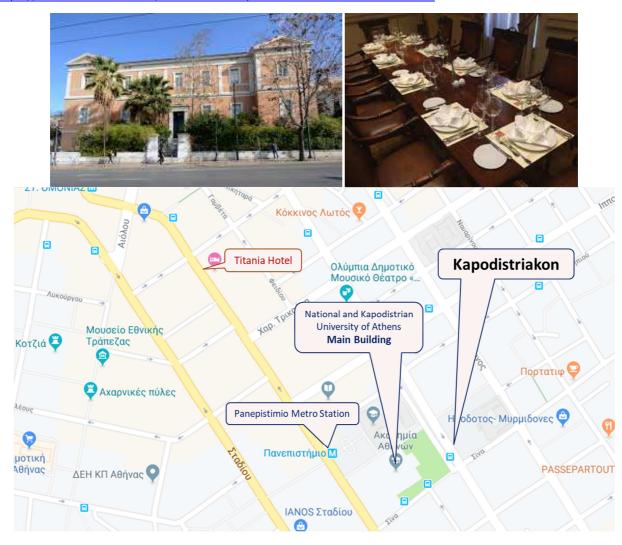




# PEARRL Symposium Dinner | Speakers, PIs and ESRs

Wednesday, 12th June 2019 || 20:00

Kapodistriakon Restaurant, Kostis Palamas Building, Akadimias 48, Athens 106 79, Tel 21 0368 8711, https://www.facebook.com/EstiatorioToKapodistriakoKterioKostesPalamas





# **Participants list for the Scientific Program**

	Chart			Attendance checklist				
#	Short name	Organisation	Name(s)	Day 1 10 <sup>th</sup>	Day 2 11 <sup>th</sup>	Day 3 12 <sup>th</sup>	Day 4 13 <sup>th</sup>	Day 5 14 <sup>th</sup>
			Brendan Griffin					
B1	UCC	University College	Caitriona O'Driscoll					
		Cork	Niklas Köhl (ESR1)					
			Jennifer Dressman					
			Edmund Kostewicz					
B2	JWGU	Johann Wolfgang	Chara Litou (ESR6)					
BZ	JWGO	Goethe University	Rafael Paraiso (ESR8)					
			Ioannis Loisios-					
			Konstantinidis (ESR13)					
			Christos Reppas					
			Mira Symillides					
		National and	Maria Vertzoni					
В3	UoA	Kapodistrian University of Athens	Christina Pentafragka					
			(ESR7)					
			Marina Statelova					
			(ESR11) Nikoletta Fotaki					
			Mariana Guimarães					
B4	UBAH	University of Bath	(ESR12)					
	05/11/	omversity or but	Angela Effinger					
			(ESR15)					
		University of Applied	Martin Kuentz					
5.5	ELINDA/	Sciences and Arts	Georgios Imanidis					
B5	FHNW	Northwestern	Felix Ditzinger (ESR2)					
		Switzerland	Sandra Jankovic (ESR5)					
			Anita Nair					
В7	Merck	Merck KGaA	Christoph Saal					
			Daniel Price (ESR3)					
			Lida Kalantzi					
В9	Pharmaten	PHARMATHEN SA	Georgia Tsakiridou (ESR4)					
		Sirius Analytical	Karl Box					
B10	Sirius		Patrick O'Dwyer (ESR10)					
D4.4	lemen : :	Janssen	Rene Holm					
B11	Janssen		Roxana Ilie (ESR14)					



#	Short	Organisation	Name(s)	Attendance checklist				
	name			Day 1 10 <sup>th</sup>	Day 2 11 <sup>th</sup>	Day 3 12 <sup>th</sup>	Day 4 13 <sup>th</sup>	Day 5 14 <sup>th</sup>
P1	BfArM	Bundesinstitut für Arzneimittel und Medizinprodukte	Jobst Limberg					
P5	ACCEL	accelopment AG	Jeanette Müller					
P6	BioREL	Biorelevant.com Ltd. (BioRel)	Daryl Leigh					
P7	UCB	UCB Biopharma SPRL (UCB)	Pascal Somville					
P10	Pfizer	Pfizer Ltd.	Mark McAllister					
S1		University of Pavia	Carla Caramella					



# Day 1 – 10<sup>th</sup> June 2019 – Science Slams

Theme: Science & Technology Attendees: PEARRL Beneficiaries

Time	Session	Speaker	Session Title
9:00 – 11:00	ESR presentations (WP1)	Chair: M. Kuentz (WP1 Leader) ESR1 – Niklas Köhl ESR2 – Felix Ditzinger ESR3 – Daniel Price	ESR presentations
11:00-11:15		Coffee	
11:15-13:15	ESR presentations (WP1)	Chair: M. Kuentz (WP1 Leader) ESR4 – Georgia Tsakiridou ESR5 – Sandra Jancovic ESR14 –Roxana Ilie	ESR presentations
13:15-14:00		Lunch	
14:00 – 16:00	ESR presentations (WP2)	Chair: C. Reppas (WP2 Leader) ESR7 – Christina Pentafragka ESR10 – Patrick O'Dwyer ESR11 – Marina Statelova	ESR presentations
16:15-16:30	Coffee		
16:30 – 17:45	ESR presentations (WP3)	Chair: J. Dressman (WP3 Leader) ESR13 – Ioannis Loisios- Konstantinidis ESR6 – Chara Litou	ESR presentations



# Day 2 – 11<sup>th</sup> June 2019- Science Slams

Theme: Science & Technology Attendees: PEARRL Beneficiaries

Time	Session	Speaker	Session Title
9:00 – 11:00	ESR presentations (WP3)	Chair: J. Dressman (WP3 Leader) ESR8 – Raphael Paraiso ESR12 – Mariana Guimarães ESR15 – Angela Effinger	ESR presentations
11:00-11:15		Coffee	
		Chair: B. Griffin and J. Dre	ssman
11:15-12:15	'PEARRLS of Wisdom'	Team/group presentation on Regulatory science topic. Questions from industry, regulatory and academic representatives	<ul> <li>'The BCS is outdated – we need to move on!'</li> <li>'PK studies in pre-clinical species is outdated- we need to move on!</li> <li>'Lipinski was right – if it doesn't fit, change the furniture, don't rebuild the house!</li> </ul>
12:15-13:00	WP1,2 & 3 wrap up and planning	All	
13:00-14:00		Lunch	
		Chair: B. Griffin	
14:00-15:00	Management	Management Board (PMB)	Project Management, Deliverables and Milestones, Discuss the status of publications and score cards and finalize format / contents (e.g. commentaries? E.g. for WP2 could be <i>in vivo</i> vs. <i>in vitro</i> tools for evaluating absorption?) Discuss the webinar for March 2020
15:00-16:00		Supervisory Board (PSB)	Project status, WP info, Training Programme, FAQ
16:00-16:30	Coffee		
16:30-17:30	Management	Supervisory Board (PSB)	Update and discussion with Professor Carla Caramella (Member of the Scientific Advisory Board) on Project Status



# **Invited Speakers**



<u>Dr. Bertil Abrahamsson</u> AstraZeneca R&D Mölndal, Sweden



**Apostolis Aivaliotis**Pharmathen S.A.
Marousi Attica, Greece



**Dr. Jochem Alsenz**F. Hoffmann- La Roche
Ltd.Basel, Switzerland



<u>**Dr. James Butler**</u> GlaxoSmithKline Ware, UK



<u>Sandy Van Hemelryck</u> Janssen Pharmaceutica Belgium



<u>**Dr. Masoud Jamei**</u> Certara United Kingdom



Dr. Essam Ahmed
Ghazaly Kerwash The
Medicines and
Healthcare Products
Regulatory Agency
(MHRA), United Kingdom



**Ian Flawn Orpana** Verto Pharma AB, SE



Neil John Parrott F. Hoffmann- La Roche Ltd., Basel, CH



<u>Dr. Christian Wagner</u> Merck Group Darmstadt, Germany



# Day 3 – 12<sup>th</sup> June 2019 – Open scientific symposium on Model Informed Drug Development

Theme: Lead optimisation through to pre-clinical development

Attendees: PEARRL Beneficiaries, Partners and External invites

Time	Topic	Speaker	Presentation Title				
08:30	Registration						
08:45	Welcome address	C. Reppas   B. Griffin	PEARRL				
	Session I – Drug discovery/development interface						
		Chair: B. Griffin, UCC	1				
09:00	Pharmaceutical Profiling	Jennifer Dressman	Pharmaceutical Profiling in the				
		(UGoethe, Germany)	pharmaceutical industry				
00.45	Davis soundidate land autimination	Martin Kuentz	Digital approaches from drug				
09:45	Drug candidate lead optimisation	(FHNW, Switzerland)	candidate selection to computational pharmaceutics				
			COSMOquick as a predictor of				
10:30	PEARRL approaches to predicting	Dan Price	drug/excipient interactions in				
10.55	formulation design	(Merck, Germany)	enhanced dosage forms				
10:45		Coffee	,				
	High throughout	Jochem Alsenz	High throughout biopharmacoutical				
11:15	High throughput biopharmaceutical screening	(Roche, Switzerland)	High throughput biopharmaceutical screening				
12:00	PEARRL approaches to	Patrick O'Dwyer	A guide to small scale screening for				
	Biorelevant in vitro screening	(Pion, UK)	drug-specific questions				
	PEARRL approaches to predicting formulation design	Felix Ditzinger					
12:15		(UNWS, Switzerland) Georgia Tsakiridou	Solid dispersions based on a modelling rationale				
		(Pharmathen, Greece)	Tationale				
		Niklas Koehl					
42.45	PEARRL approaches to predicting	(UCC, Ireland)	A guide to bioenabling formulation				
12:45	formulation design	Roxana Ilie	selection in development: focus on				
		(J&J, Belgium)	lipid based approaches				
13:15		Lunch					
		el informed pre-clinical					
		ir: J. Dressman (UGoethe					
14:15	Role of rDCS in guiding preclinical	James Butler	Role of rDCS in guiding preclinical				
	pharm development	(GSK, UK)	pharm development				
15:00	Role of PBPK in guiding preclinical	Christian Wagner	Role of PBPK in guiding preclinical				
45.45	pharm development	(Merck, Germany)	pharm development				
15:45		Coffee					
16.45	Role of animal modelling in	Sandy Van Hemelryck	Preclinical Bioavailability Strategy for				
16:15	preclinical pharm development	(J&J, Belgium)	Decisions on Clinical Drug Formulation				
	PEARRL approaches to	Chara Litou	Development The role of biorelevant testing in				
17:00	biorelevant in vitro screening	(UGoethe, Germany)	formulation development				
1	PEARRL approaches to	Christina Pentafragka	Using luminal data for modelling				
17:15	biorelevant in vitro screening	(UoA, Greece)	absorption in the fed state				
17:30	3	End of Day 1	1				
		, -					



# Day $4-13^{th}$ June 2019 - Open scientific symposium on Model Informed Drug Development

Theme: Clinical development through to pharmaceutical product lifecycle management

Attendees: PEARRL Beneficiaries, Partners and External invites

Time	Session/Topic	Speaker	Presentation Title			
		el informed clinical deve	lopment			
		C. Reppas (UoA)				
09:00	Formulation for first in man studies	James Butler (GSK, UK)	Formulation for first in man studies			
09:45	Transitioning to the final formulation. What are the challenges?	Bertil Abrahamsson (AZ, Sweden)	Transitioning to the final formulation. What are the challenges?			
10:30	Coffee					
11:00	PBPK modelling of food effects	Neil Parrott (Roche, Switzerland)	PBPK modelling of food effects			
11:45	PBPK modeling of DDIs	Masoud Jamei (Certara, UK)	Applications of PBPK modelling in predicting complex DDIs			
	PEARRL approaches to					
12:30	predicting in vivo outcomes using in silico tools	Angela Effinger (Bath, UK)	Targeting GI diseases			
	PEARRL approaches to	Mariana Guimaraes	<i>In vitro</i> evaluation of drugs/drug			
12:45	biorelevant in vitro screening	(UBath, UK))	products for paediatrics			
	PEARRL approaches to	Marina Statelova	to dilica and the first of days and days			
13:00	predicting in vivo outcomes	(UoA, Greece	In silico evaluation of drugs/drug			
25.55	using in silico tools		products for paediatrics			
13:15		Lunch				
	Session IV – Emerging trends in Chai	pharmaceutical productr: M. Kuentz (FHNW)	: lifecycle management			
14.00		Lida Kalantzi	Modelling and simulation in the			
14:00	Developing generic products	(Pharmathen, Greece)	development of generics			
14:45	A regulatory perspective on PBPK modelling	Essam Ahmed Ghazaly Kerwash (MHRA, UK)	Regulatory perspective on the use and qualification of PBPK modelling			
15:30		Coffee	, ,			
16:00	Manufacturing and Quality Control	lan Flawn Orpana (Verto Pharma AB, Sweden)	Statistical Process Control (SPC) in Manufacturing and Quality Control of Drug Products			
16:45	PEARRL approaches to predicting formulation design	(Sandra Jankovic (UNWS, Switzerland)	Emerging process analysers in pharmaceutics			
17:00	PEARRL approaches to predicting in vivo outcomes using in silico tools	Ioannis Loisios (UGoethe, Germany)	Establishing virtual bioequivalence trials simulation using population-based PBPK modelling			
17:15	PEARRL approaches to predicting in vivo outcomes using in silico tools	Raphael Paraiso (UGoethe, Germany)	The role of <i>in vitro</i> and <i>in silico</i> tools to support bioequivalence studies			
17:30		End of Day 2				



# Day $5-14^{th}$ June 2019 - Transferable skills workshop and Network event

Theme: Generic and Transferable skills training

#### **Attendees - ESRs**

Time	Session	Speaker	Title				
	Chair: C. Reppas						
9:00	Innovation in the pharmaceutical industry	Mark McAllister, Pfizer	Leveraging S&T for innovative product and process design				
10:00	Entrepreneurship and commercial start up for pharma	Daryl Leigh (Biorelevant.com Ltd.)	Entrepreneurship and commercial start up for pharma				
11:00		С	offee				
11:30	Patent related topic	Apostolos Aivaliotis (IP Senior Manager, Pharmathen)	Managing Intellectual property for commercial success				
12:30	EU Funding Opportunities and Proposal Writing	Jeanette Muller (accelopment AG)	Overview of opportunities in Horizon 2020 and other funding schemes.				
13:30		Lunch					

# 14:30 Departure to Cape Sounion Departure from the Department of Pharmacy

http://odysseus.culture.gr/h/3/eh352.jsp?obj id=2390

