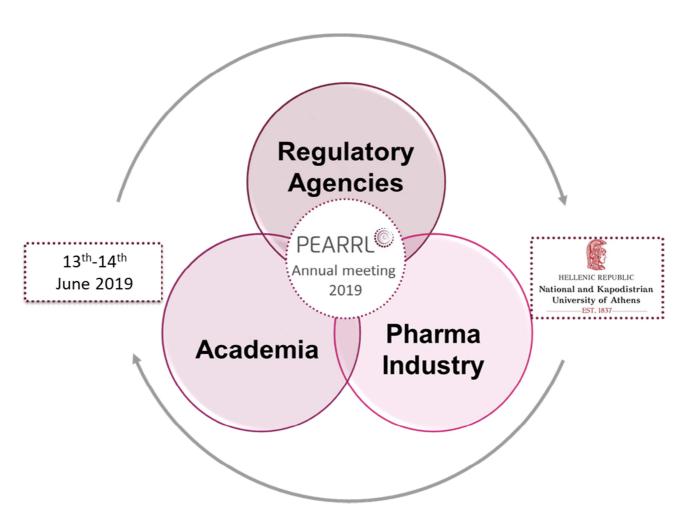


# 3<sup>rd</sup> PEARRL Annual Open Scientific Symposium Model Informed Drug Development



13<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/rss2019.html">http://www.pearrl.eu/rss2019.html</a>





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### **Programme**

**H2020 ITN** PEARRL project (no.674909)

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

**Date** 13<sup>th</sup> – 14<sup>th</sup> June 2019

Theme of Annual

meeting

Model Informed Drug Development

Schedule Day 1

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

Day 2

Session III: Model informed Clinical Pharmaceutical Development

Session IV: Emerging trends in pharmaceutical product lifecycle management

**Networking events** Day 1 PIs and speakers dinner

Day 2 PIs, Speakers and ESRs dinner

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 participant,

Welcome to the 3<sup>rd</sup> PEARRL Annual Open Scientific Symposium!

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.



Frankfurt 2018 PEARRL Open Scientific Symposium

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



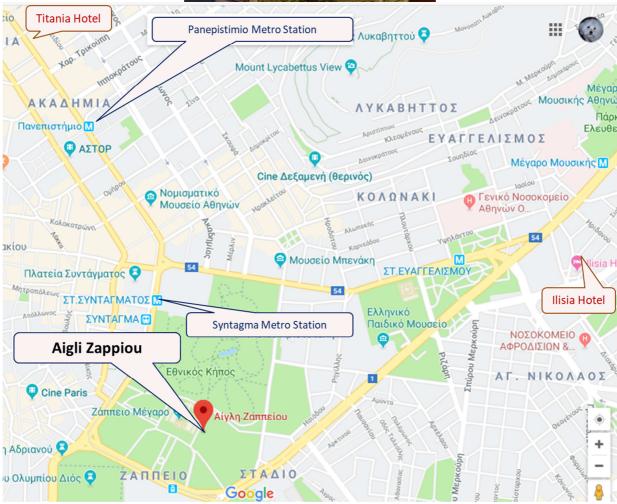


# **PEARRL Dinner | Speakers and PIs**

Tuesday, 11th June 2019 || 20:00

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



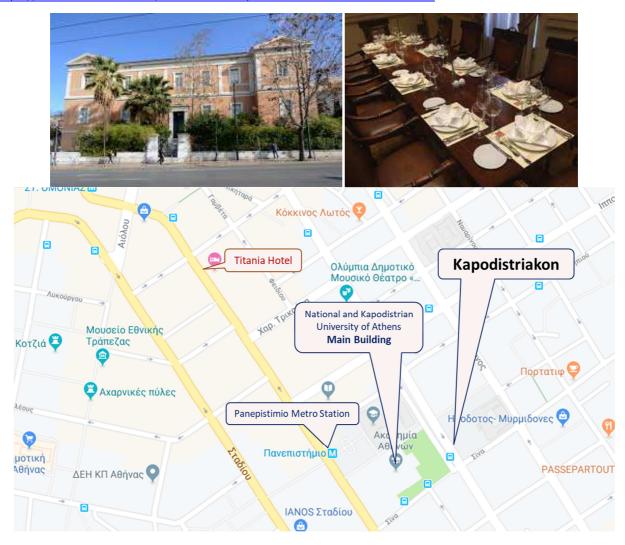




# PEARRL Symposium Dinner | Speakers, PIs and ESRs

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





# **PEARRL Consortium Participants list**

	<u> </u>			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>
B1			Brendan Griffin					
	UCC	University College Cork	Caitriona O'Driscoll					
			Niklas Köhl (ESR1)					
			Jennifer Dressman					
			Edmund Kostewicz					
В2	JWGU	Johann Wolfgang Goethe University	Chara Litou (ESR6)					
DΖ			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)					
		University of Bath	Nikoletta Fotaki					
B4	UBAH		Mariana Guimarães (ESR12)					
			Angela Effinger (ESR15)					
		University of Applied Sciences and Arts Northwestern	Martin Kuentz					
D.F.			Georgios Imanidis					
B5	FHNW		Felix Ditzinger (ESR2)					
		Switzerland	Sandra Jankovic (ESR5)					
	Merck	Merck KGaA	Anita Nair					
В7			Christoph Saal					
			Daniel Price (ESR3)					
	Pharmaten	eten PHARMATHEN SA	Lida Kalantzi					
В9			Georgia Tsakiridou (ESR4)					
		rius Sirius Analytical	Karl Box					
B10	Sirius		Patrick O'Dwyer (ESR10)					
	Janssen	n <b>Janssen</b>	Rene Holm					
B11			Roxana Ilie (ESR14)					



#	Short name	Organisation	Name(s)	Attendance checklist					
				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						



### **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



lan 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 1 – 12<sup>th</sup> June 2019

# Open scientific symposium on Model Informed Drug Development

Theme: Lead optimisation through to pre-clinical development

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



# Day 2 – 13<sup>th</sup> June 2019

# Open scientific symposium on Model Informed Drug Development

Theme: Clinical development through to pharmaceutical product lifecycle management

Time	Session/Topic	Speaker	Presentation Title				
Session III – Model informed clinical development 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				
12:30	PEARRL approaches to predicting in vivo outcomes using in silico tools	Angela Effinger (Bath, UK)	Targeting GI diseases				
12:45	PEARRL approaches to biorelevant <i>in vitro</i> screening	Mariana Guimaraes (UBath, UK))	In vitro evaluation of drugs/drug products for paediatrics				
13:00	PEARRL approaches to predicting in vivo outcomes using <i>in silico</i> tools	Marina Statelova (UoA, Greece	In silico evaluation of drugs/drug products for paediatrics				
13:15	Lunch						
	Session IV – Emerging trends in Chai	pharmaceutical productr: M. Kuentz (FHNW)	lifecycle management				
14:00	Developing generic products	Lida Kalantzi (Pharmathen, Greece)	Modelling and simulation in the 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					