



Portorož – Slovenia
Grand Hotel Bernardin
September 22 – 24, 2022

ESHG Pharmacogenetics Course

University of *Ljubljana*
Faculty of *Medicine*

ESHG
EUROPEAN SOCIETY OF HUMAN GENETICS

ESHG Pharmacogenetics Course

Dear colleagues,

We are pleased to invite you to the **ESHG Pharmacogenetics Course**. The event will take place in Portorož, Slovenia, from September 22nd to September 24th 2022 at Grand Hotel Bernardin.

This course aims at delivering up-to-date knowledge on pharmacogenetics to clinicians, pharmacists, clinical pharmacologists, genetic counsellors, clinical and molecular geneticists in training or certified as well as PhD students and researchers.

The program will include invited lectures that will give the introduction to the field as well as present the latest breakthrough research, tutorials, discussions as well as short oral and poster presentations. The program is designed to facilitate productive discussions with experts in the field and provides ample opportunities for the participants to present and discuss their work.

The faculty combines experts from many fields of pharmacogenetics known for their teaching skills. Participants are encouraged to submit an abstract for on-site presentation of a clinical or genetic case in a poster format or as short presentation.

The course is organized by the Pharmacogenetics laboratory, Institute of Biochemistry and Molecular Genetics, Faculty of Medicine, University of Ljubljana as a collaborative action with the European Society of Human Genetics (ESHG). A limited number of ESHG fellowhips is available to support the attendance of students, postdoctoral researchers, and residents in training.

The course is also endorsed and supported by the HORIZON-WIDERA-action: PharmGenHUB (GA No. 101059870) and H2020 MSC ITN-action: TranSYS (GA No. 860895). The course is endorsed by ERA Chair CONI, funded from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 951851. Such a collaborative action will maximize interactions and encourage the exchange of knowledge and experience and possibly stimulate new collaborations that will facilitate the translation of novel findings into preventive, personalized curative, promotional and rehabilitative health care services to improve health outcomes, reduce health inequalities and to promote wellbeing.

We look forward to welcome you in what promises to be an exciting course with a high scientific standard in one of the most beautiful parts of the Slovenian coast.

Prof. Dr. Vita Dolžan
Chair of the International Scientific Committee and Organizing committee
Organized by Pharmacogenetics laboratory, Institute of Biochemistry and Molecular Genetics, Faculty of Medicine, UL

Main Topics

- Pharmacogenetics and pharmacogenomics
- Pharmacogenomics resources and databases
- Clinical implementation of pharmacogenetics and pharmacogenomics
- Individualized drug treatment
- Drug-drug-gene interactions
- Cancer pharmacogenomics
- Novel biomarkers of treatment response
- Novel diagnostic and prognostic biomarkers
- NGS for pharmacogenomics

Confirmed speakers

- **Nada Božina** (Clinical Institute of Laboratory Diagnosis, Zagreb University School of Medicine, Croatia)
- **Erika Cecchin** (CRO Aviano, Italy)
- **Vita Dolžan** (Faculty of Medicine, University of Ljubljana, Slovenia)
- **Raffaella Franca** (Department of Medical, Surgical and Health Sciences, University of Trieste, Italy)
- **Vladimir Gašić** (Institute for molecular genetics and genetic engineering, University of Belgrade, Serbia)
- **Katja Goričar** (Faculty of Medicine, University of Ljubljana, Slovenia)
- **Magnus Ingelman-Sundberg** (Karolinska Institute, Stockholm, Sweden)
- **Nikola Kotur** (Institute for molecular genetics and genetic engineering, University of Belgrade, Serbia)
- **Metka Lenassi / Marija Holcar** (Faculty of Medicine, University of Ljubljana, Slovenia)
- **John McDermott** (Manchester Centre for Genomic Medicine, Manchester University NHS Foundation Trust, United Kingdom)
- **William Newman** (Manchester Centre for Genomic Medicine, Manchester University NHS Foundation Trust, United Kingdom)
- **Sonja Pavlović** (Institute of Molecular Genetics and Genetic Engineering, University of Belgrade, Serbia)
- **Sir Munir Pirmohamed** (MRC Centre for Drug Safety Science and Wolfson Centre for Personalised Medicine and Institute of Translational Medicine, University of Liverpool, United Kingdom)
- **Cristina Rodriguez-Antona** (Spanish National Cancer Research Centre, Madrid, Spain)
- **Ron van Schaik** (Erasmus University Medical Centre, Rotterdam, Netherlands)
- **Biljana Stanković** (Institute of Molecular Genetics and Genetic Engineering, University of Belgrade, Serbia)
- **Julia C. Stingl** (Institute of Clinical Pharmacology, Aachen, Germany)
- **Gabriele Stocco** (University of Trieste, Italy)
- **Branka Zukić** (Institute of Molecular Genetics and Genetic Engineering, University of Belgrade, Serbia)

Important dates

- **July 1, 2022**
  - Registration opening
- ~~**August 1, 2022**~~ **extended until August 5, 2022**
  - Early registration deadline
- ~~**July 20, 2022**~~ **extended until July 25, 2022**
  - ESHG Fellowship application deadline
- ~~**August 15, 2022**~~ **extended until August 25, 2022**
  - Abstract submission deadline
- **September 10, 2022**
  - Late registration deadline (without abstract)
- **September 22 – September 24, 2022**
  - Event opening/closing dates

International Scientific Committee

- **Vita Dolžan** (Faculty of Medicine, University of Ljubljana, Slovenia)
- **William Newman** (Manchester Centre for Genomic Medicine, Manchester University NHS Foundation Trust, United Kingdom)
- **Munir Pirmohamed** (MRC Centre for Drug Safety Science and Wolfson Centre for Personalised Medicine and Institute of Translational Medicine, University of Liverpool, United Kingdom)
- **Cristina Rodriguez-Antona** (Spanish National Cancer Research Centre, Madrid, Spain)
- **Ron van Schaik** (Erasmus University Medical Centre, Rotterdam, The Netherlands)

Local Organizing Committee (MF UL, Slovenia)

Vita Dolžan, chair
Katja Goričar, co-chair
Sara Redenšek Trampuž
Tanja Blagus
David Vogrinc

Endorsed and supported by

HORIZON-WIDERA-action: **PharmGenHUB** (GA No. 101059870);
H2020 MSC ITN-action: **TranSYS** (GA No. 860895);
H2020 research and innovation programme: **ERA Chair CONI** (GA No. 951851)

PRELIMINARY PROGRAMME

Day 1: THURSDAY SEPTEMBER 22ND

8:00 – 8:30 **Registration**

Introduction to Pharmacogenetics

8:30 – 8:45 **Course Welcome**: **Vita Dolžan** (Slovenia)

8:45 - 9:30 **Opening lecture:** Improved individualized drug treatment using novel pharmacogenomic biomarkers; an update - **Magnus Ingelman-Sundberg** (Sweden)

9:30 - 10:15 Pharmacogenetics and drug-drug-gene interactions for precision dosing - **Julia C. Stingl** (Germany)

10:15 - 11:00 Coffee break

Pharmacogenomics of Adverse Drug Reactions

11:00 - 11:45 Pharmacogenomics of drug adverse events - **Sir Munir Pirmohamed** (United Kingdom)

11:45 - 12:15 Drug-drug-gene interactions as mediators of adverse drug reactions in statin treatment - **Nada Božina** (Croatia)

12:15 - 12:30 Case presentations - to be selected from the abstracts

12:30 – 14:00 Lunch

Pharmacogenomics Resources

14:00 - 14:45 **Workshop:** Databases and biobanks in pharmacogenomics - **William Newman** (United Kingdom)

14:45 - 15:30 **Tutorial:** Pharmacogenes in focus: PharmVar and PharmGKB - **John McDermott** (United Kingdom)

15:30 – 16:30 Coffee break and poster viewing

Pharmacogenomics of COVID-19 and Inflammation

16:30 - 17:00 Pharmacogenomics landscape of COVID-19 therapy response in Serbian population - **Branka Zukić** (Serbia)

17:30 - 18:30 Short talks - to be selected from the abstracts

19:00 **Welcome reception**

Day 2: FRIDAY SEPTEMBER 23RD

Clinical Topics in Pharmacogenetics

8:30 - 9:10 Pharmacogenetics and the brain - **Julia C. Stingl** (Germany)

9:10 - 9:50 Pharmacogenetics in treatment of cardiovascular diseases - is it cost effective? - **Nada Božina** (Croatia)

9:50 - 10:30 Pharmacogenetics lessons from clinical genetics - **William Newman** (United Kingdom)

10:30 – 11:00 Coffee break

Cancer Pharmacogenomics I

11:00 - 11:30 From somatic variants to targeted cancer treatment - **Cristina Rodriguez-Antona** (Spain)

11:30 - 12:00 Germline variants in personalized cancer treatment – **Erika Cecchin** (Italy)

12:00 - 12:30 Pharmacogenomics and pharmacotranscriptomics of acute leukemia in children: a path to personalized medicine - **Sonja Pavlović** (Serbia)

12:30 – 14:00 Lunch

Cancer Pharmacogenomics II

14:00 - 15:00 **Workshop**: Detection of somatic mutations: CAST vs. dPCR - **Nataša Toplak** (Slovenia)

15:00 - 15:30 Pharmacogenomic and epigenomic biomarkers in radiotherapy - **Katja Goričar** (Slovenia)

15:30 – 16:30 Coffee break and poster viewing

Novel Biomarkers of Treatment Response

16:30 – 17:00 Extracellular vesicles as biomarkers (of treatment response) - **Metka Lenassi / Marija Holcar** (Slovenia)

17:00 – 17:30 Extracellular vesicles as innovative tools for assessing adverse effects of immunosuppressant drugs - **Gabriele Stocco** (Italy)

17:30 – 18:00 Peptide biosensors for diagnosis and monitoring of genetic-driven oncohaematological diseases - **Raffaella Franca** (Italy)

18:00 – 18:30 Case presentations / Short talks – to be selected from abstracts

19:00 **Conference dinner**

Day 3: SATURDAY SEPTEMBER 24TH

Clinical Implementation of Pharmacogenetics I

8:30 - 9:10 How to make pharmacogenomic information accessible to healthcare: the UK experience - **William Newman** (United Kingdom)

9:10 - 9:50 Clinical implementation of pharmacogenetics for routine drug prescription: what are the unmet needs? - **Ron van Schaik** (Netherlands)

9:50 - 10:30 Clinical implementation of pharmacogenetic treatment in oncology - **Erika Cecchin** (Italy)

10:30 – 11:00 Coffee break

Clinical Implementation of Pharmacogenetics II

11:00 - 11:30 When time matters: point of care testing in pharmacogenetics - **John McDermott** (United Kingdom)

11:30 - 12:00 Implementation of panel pharmacogenomics testing: lessons learnt from the PREPARE study - **Vita Dolžan** (Slovenia)

12:00 - 12:30 Case presentations / Short talks – to be selected from abstracts

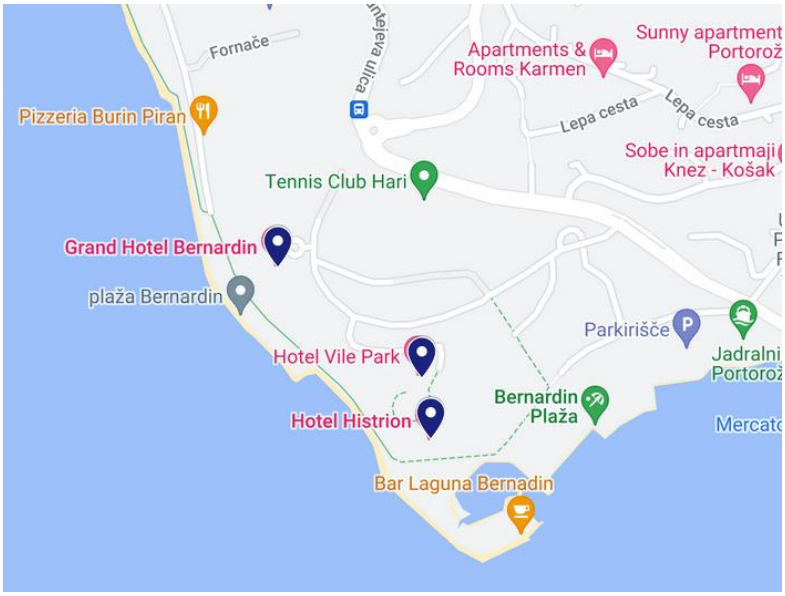
12:30 – 14:00 Lunch

Workshop: Extracting Pharmacogenetic Information from NGS Data

14:00 - 14:20	Next Generation Sequencing (NGS) Technology - **Branka Zukic** (Serbia)
14:20 - 14:50	Bioinformatic preprocessing of NGS data: from raw data to genetic variants - **Biljana Stankovic** (Serbia)
14:50 - 15:10	Interpretation of NGS Results: analysis of pharmacogenomic variants - **Vladimir Gasic** (Serbia)
15:10 - 15:30	Bioinformatics resources in pharmacogenomics research - **Nikola Kotur** (Serbia)
15:30 – 16:30	Coffee break and poster viewing
16:30 – 17:00	Clinical pharmacogenetic analysis from diagnostic exome sequencing data - **Cristina Rodriguez-Antona** (Spain)
17:00 - 17:45	**Closing lecture:** Pharmacogenetics – future directions - **Sir Munir Pirmohamed** (United Kingdom)
18:15	A guided tour of Piran
19:30	Farewell dinner in Piran

Venue

The event will take place at the Grand Hotel Bernardin, Obala 2, Portorož, Slovenia (location on the map below).



GH Bernardin





Accommodation

Special offer for accommodation is available to the participants of the course in GH Bernardin, where the lectures will take place. Special prices for participants are available in the nearby hotels as well: Hotel Histrion and Hotel Vile Park. For more information, please see below.

Participants should organize their own travel and hotel accommodation.

Reservations can be made via ESHG Course 2022 - accommodation.

GH Bernardin 5*

The Grand Hotel Bernardin is located directly by the sea, between Portorož and Piran. It offers an excellent wellness centre Paradise Spa with saunas and various massages and an indoor swimming pool with heated sea water. All rooms have private balconies overlooking the sea. The hotel has a private beach.



Rates per person per day:	**Stay 1-2 nights**	**Minimum stay 3 nights (10% discount included)**
Double room single use	152 €	136.8 €
Double room double use	162 €	145.8 €

Hotel Histrion 4*



Next to the former monastery church of St. Bernardin, after which the resort was named, Hotel Histrion is located. You will be enchanted by the view of the coast and the marina, a sight of one of the most beautiful parts of the Slovenian coast.

Rates per person per day:	**Stay 1-2 nights**	**Minimum stay 3 nights (10% discount included)**
Double room single use	142 €	127.8 €
Double room double use	152 €	136.8 €

Hotel Vile Park 3*



Hotel Vile Park, part of the holiday resort St. Bernardin located between Piran and Portorož, comprises 4 villas with a capacity of 216 rooms – Vila Galeb, Vila Galeja, Vila Orada, and Vila Nimfa, and Vila Barka with 21 apartments. All villas are connected with a lovely shopping street with bars and restaurants, which leads to the Marina and is sheltered by the lush Mediterranean vegetation.

Rates per person per day:	**Stay 1-2 nights**	**Minimum stay 3 nights (10% discount included)**
Double room single use	82 €	73.8 €
Double room double use	92 €	82.8 €

Registration fees

Registration	Deadline for registration and payment	Students/ PostDoc/ Residents	Academia/ Clinicians	Commercial/ Corporate	Accompanying persons
Early	05.08.2022	400 €[a]	500 €[a]	600 €[a]	250 €[c]
Late	10.09.2022	500 €[a]	600 €[a]	700 €[a]	250 €[c]
Daily		150 €[b]	180 €[b]	200 €[b]	/

We kindly ask you to settle your payment before the end of the respective deadline (Early Fee: extended until August 5, 2022/Regular Fee: September 10), otherwise your registration fee will be set automatically to the respective higher fee.

Registration is free for invited speakers.

[a] Registration includes: conference admission and materials, coffee breaks, lunches, dinners and social events.
[b] Daily registration includes: conference admission and materials, coffee breaks, lunches, dinners and social event of the day.
[c] Registration includes: coffee breaks, lunches, dinners and all social events.

VAT is included in the price.

Participants should organize their own travel and hotel accommodation.

Payment information

Bank name	Bank of Slovenia
Bank address	Slovenska cesta 35, SI-1000 Ljubljana, Slovenia
IBAN code	SI56011006030708380
BIC code	BSLJSI2X
Reference 1 (Slovenia)	230032-22
Reference 2 (from EU)	230040-22
Reference 3 (outside of EU)	230041-22
Bank account holder	University of Ljubljana, Faculty of Medicine, Vrazov trg 2, SI-1000 Ljubljana, Slovenia
VAT number	SI44752385
Purpose of payment	Participant's name, surname and institution (e.g., Janez Novak, MF UL)

In case of cancellation, registration fees will be refunded as follows:

- Cancellation by 10 September 2022 (23:59 CEST): **registration fee minus the taxes will be refunded**
- Cancellation after 10 September 2022: **no refund**

Please contact **pgxlabulmf@gmail.com** for any additional information.

Invoice

Invoice will be made to the participant's account holder.

Funding opportunities

A limited number of the ESHG-funded fellowships are available for young scientists (students/PostDocs/Residents in training). Preference will be given to ESHG members and researchers from countries which are disadvantaged economically, although fellowships are not limited to these groups. Fellowships will cover the full registration fee and up to 350 EUR as contribution towards accommodation and travel expenses.

Deadline for applications for fellowships: extended until July 25, 2022.