

# DSV SEMINARS

## Seminari di Dipartimento 2023

28-29-30 June  
9:00-10:00 am  
Building Q  
room AQ01

Online access:  
Webex ([link](#))

[dsv.units.it](http://dsv.units.it)

## Pharmacogenetics and biomarkers Hybrid seminar series

**assist. prof. Katja Goričar**

University of Ljubljana, Faculty of  
Medicine, Institute of Biochemistry and  
Molecular Genetics

University of *Ljubljana*  
Faculty of *Medicine*



**Prof. Katja Goričar is a young expert in pharmacogenetics. She has authored more than 70 research papers on more than 15 diseases and related therapies.**

**She is currently a visiting researcher in the Department of Life Sciences of the University of Trieste.**



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## Pharmacogenetics and biomarkers

Seminar series by prof. Katja Goričar

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The seminar aims at giving the audience the fundamentals of pharmacogenetics in order to facilitate mutual understanding and foster new collaborations across biomedical disciplines, bridging theory with practice.

What is pharmacogenetics? It is the study of how genetic variability influences drug response. It offers solutions for understanding and improving personalized medicine. It ultimately benefits patients and health care systems.

Why use pharmacogenetics? Individuals respond differently to drugs, thus pharmacogenetics investigates the genetic polymorphisms in drug targets, drug metabolic enzymes, and transporters, which may account for individual variability in drug response. Pharmacogenetics enables tailoring treatments to improve therapeutic outcomes. Pharmacogenetics design starts with identification of suitable genetic variants in open databases.

How is pharmacogenetics applied? Patient DNA is needed to analyse the individual genetic variants. Usually, it is obtained from leukocytes in venous blood and specific protocols must be followed. Different types of PCR are applied for genotyping.

How is genotyping data analysed? Data are analysed by bioinformatics and statistical approaches.

This seminar is divided in three parts, each lasting 1 hour plus the time for discussion.

The seminar will be hybrid and will be available in streaming via the Webex platform ([link](#)). It will be open to the audience of the University of Trieste and the partners of both the [PharmGenHUB](#) project and the [iNEST](#) project.



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### 28 June 2023 – Seminar 1

#### Databases in pharmacogenetics

- Pharmacogenetic databases: PharmGKB
- Interactive seminar: interpreting pharmacogenetic data
- Q&A



### 29 June 2023 – Seminar 2

#### Biological samples in pharmacogenetics

- Clinical samples and methods for DNA isolation
- Genotyping approaches in pharmacogenetics
- Q&A



### 30 June 2023 – Seminar 3

#### Bioinformatic approaches and statistics in pharmacogenetics

- Bioinformatic approaches in pharmacogenetics
- Statistical approaches in pharmacogenetics
- Q&A