Course Specifications
Valid in the academic year 2018-2019

Personalized Medicines (J000459)

Course

Course size

Credits 9.0
Study time 270 h
Contact hrs 75.0 h

Course offerings and teaching methods in academic year 2018-2019

A (semester 2)
English

seminar 10.0 h
demonstration 10.0 h
guided self-study 15.0 h
lecture 40.0 h

Lecturers in academic year 2018-2019
Deforce, Dieter FW01 lecturer-in-charge
Van Nieuwerburgh, Filip FW01 co-lecturer

Offered in the following programmes in 2018-2019

Master of Science in Drug Development

1 2

75.0 h

Course size (nominal values; actual values may depend on programme)
Credits 9.0
Study time 270 h
Contact hrs 75.0 h

Teaching languages
English

Keywords
In-vitro diagnostics, (pharmaco)genomics, biomarkers, laboratory techniques.

Position of the course

This is an advanced course. The individualised use of medicines is a research field in full development. The correct use of medicines becomes more and more linked to the specific patient. This approach needs analyses in medical laboratories, using pharmacogenetic information. Information that needs to be translated into a specific use for a specific patient. It is important to give students in pharmaceutics the opportunity to get acquainted with this specific field of pharmaceutics. The combination of the active working methods and the interaction with clinical biologists stimulates the student to develop critical competences needed in order to play a meaningful role in the development and the use of personalised medicines.

Contents

This major treats the following subjects, given by academic lecturers and guest-lecturers from the industry and the ministry, allowing for both theoretical and practical examples:
General introduction of personalised medicines (what, why, how).
The central role of the medical laboratory: the specific activities and general tests.
Basic techniques including their specific application in personalised medicines: immunochemistry, mass spectrometry and its use in discovering new biomarkers and proteomics and the basic genetics as well as the specific genetic techniques.
The specific regulatory and qc aspects of such tests and their use.
Bioinformatical aspects when analysing data in the development of new biomarkers and pharmacogenetical tests.

Initial competences
Having accomplished the necessary competences intended in the education parts “Biotechnology and protein medicines” and “Regulation of health products”.

Final competences
1. Develop new biomarkers.
2. Develop new pharmacogenetical tests.
3 Assess the role of biomarkers in the development of medicines.

4 Evaluate personalised medicines data.

Conditions for credit contract
Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract
This course unit cannot be taken via an exam contract

Teaching methods
Guided self-study, demonstration, lecture, seminar

Learning materials and price
The study material is for free on Minerva.

References
Various sources are mentioned in the study material.

Course content-related study coaching
Questions can be asked during or after each the hearing colleges (orally or by e-mail).

Evaluation methods
end-of-term evaluation and continuous assessment

Examination methods in case of periodic evaluation during the first examination period
Written examination with open questions, assignment, report

Examination methods in case of periodic evaluation during the second examination period
Written examination with open questions, assignment, report

Examination methods in case of permanent evaluation
Participation, assignment, skills test, job performance assessment

Possibilities of retake in case of permanent evaluation
examination during the second examination period is not possible

Calculation of the examination mark
Combinatie van niet-periodegebonden evaluatie (i.e. 35% van het eindcijfer) en periodegebonden evaluatie (i.e. 65% van het eindcijfer).