



Study program: Doctoral Academic Studies in Biomedical Sciences

Name of the subject: CURRENT ISSUES IN THORACIC ONCOLOGY

Teacher(s): Bojan M. Zarić, Aleksandra N. Loverenski, Dragana R. Tegeltija, Lazar S. Popović, Silvija M. Lučić, Jelena Đekić Malbaša, Nensi J. Lalić

Status of the subject: elective

Number of points: 20

Condition: -

Goal of the subject

The goal of the study course "Actualities in thoracic oncology" is presentation of current multidisciplinary knowledge in scientific fields that belong to the oncology such as: general oncology, radiology, pathology and molecular pathology, molecular biology, etc, but also fields of medicine which are an integral and inseparable part of professional and scientific approach of these fields such as nuclear medicine, medical biochemistry, etc.

In addition to the getting of knowledge, students will be empowered to successfully accept, analyze and evaluate innovations, ideas and aspirations in these areas, as well as to actively participate with their own contributions to the academic and professional community through their original research.

Aim is also that participants, using the acquired knowledge and skills within this subject, as well as the adopted methodology of scientific work during the entire doctoral studies, be able to realize all the necessary research that is the backbone of the doctoral dissertation.

Outcome of the subject

Participants will be introduced to current multidisciplinary domains in the scientific fields of thoracic oncology.

Participants will be able to successfully accept, analyze and evaluate innovations, ideas and aspirations in internal medicine, as well as actively participate through their own research and professional work.

Participants will be capable to use their knowledge and skills in the context of this course and adopted methodology of scientific work over the whole doctoral studies, and to implement all necessary research that represent the backbone of the doctoral thesis.

Content of the subject

Theoretical lectures

The theoretical part is created as an overview of modern scientific knowledge in the field of thoracic oncology and includes professional topics and latest scientific achievements. In addition to topics that can be defined as the state-of-the-art achievements in the professional and scientific domain in certain areas of oncology, participants will be presented with matter that can be considered innovative and not fully recognized, as well as matter that raises open and unsolved issues in these areas:

- Molecular pathology in diagnostics of lung cancer
- NGS, DPCR and genomic analysis in diagnostics of lung cancer
- Biomarkers for immunotherapy of lung cancer
- Epidemiological trends in lung cancer
- New techniques in diagnostic and therapeutic interventional pulmonology
- New generation chemotherapy in lung cancer
- Tyrosine kinase inhibitors in treatment of EGFR mutated lung cancers
- Tyrosine kinase inhibitor in treatment of ALK and ROS1 positive lung cancers
- Neoadjuvant and adjuvant targeted therapy
- Targeted therapy in lung cancers with rare mutations (NTRK, cMET, BRAF)
- Immunotherapy in early stage lung cancers
- Immunotherapy in locally advanced and metastatic lung cancers
- Innovations in therapy of small cell lung cancer
- Advanced radiology techniques in diagnostics and staging of lung cancer
- Treatment of rare thoracic malignancies
- Advanced surgical techniques in the treatment of lung cancer

Practical lectures

The practical part refers to the gaining of skills and knowledge for independent design and research in a selected field of thoracic oncology, which will be based on their own capabilities and based on modern scientific knowledge gained during the theoretical part

of the course and overall doctoral studies.

Recommended literature

1. Pass H, Ball D, Scagliott G. IASLC Thoracic Oncology, 2nd Ed. Elsevier, 2018.
2. DeVita V, Lawrence TS, Rosenberg SA. Cancer, Principles and Practice of Oncology, 11th Ed, Wolters Kluwer, 2018.

Number of active classes

Theory: 60

Practice: 45

Methods of delivering lectures

Work under mentor's supervision; lectures; practices; consultations; debates and discussion

Evaluation of knowledge (maximum number of points 100)

activities during lectures: 30

seminar: 10

SRW: 30

written exam: 10

oral exam: 20