UNIVERSITY OF BELGRADE
FACULTY OF MEDICINE
PhD STUDIES

NAME OF THE MODULE: MOLECULAR MEDICINE

PROGRAM CONTENT

The main objective of doctoral studies in Molecular Medicine is to provide high-quality education to researchers. After completion of their studies, they should possess a fundamental understanding of the molecular mechanisms of diseases, as well as theoretical and practical knowledge of molecular and cell biology techniques, and their application in research, diagnostics and therapeutic interventions. Furthermore, they should be able to critically analyze scientific and medical literature, identify and solve scientific problems, write and manage scientific projects, orgabnize and lead research groups, and present scientific results at meetings and in scientific journals. The goal of doctoral studies in Molecular Medicine is to produce competent and modern university teachers, who can meet the increasing demands for higher standards of education in biomedical sciences and medicine.

REQUIREMENTS FOR THE ENROLMENT IN THIS STUDY PROGRAM

Specific requirements:

This Study Program can be enrolled by:

- A person with completed integrated academic studies of medicine and has obtained 360 ECTS credits; OR
- A person with acquired bachelor's and master's degree in a field of biology or medical-oriented sciences, who obtained at least 300 ECTS credits

General requirements:

- A grade point average (GPA) of eight or above
- Ability to communicate in English and read scientific literature.
- Appropriate computer skills
- Letters of Recommendation that demonstrate competencies for engaging in scientific work are welcomed

ADVISORY BOARD

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LIST OF MANDATORY COURSES

1. Scientific Research Methodology
2. Informatics
3. Statistical Methods in Medical Research (basic course)
4. Research Ethics
5. Human Molecular Genetics
6. Cell Biology
7. Laboratory rotations
8. Essays, presentations of the candidate's work, publication

LIST OF ELECTIVE COURSES

1. Molecular and Cellular Immunology
2. Neurobiology
3. Molecular Pathology of the Disease
4. Homeostasis of Cells, Organs, and Organ Systems
5. Cell Signaling
6. Molecular Pharmacology
7. Tumor Molecular Biology and Metabolism
8. Cell Vizualization
9. Animal Models in the Study of Molecular Mechanisms of Human Diseases