UNIVERSITY OF NOVI SAD FACULTY OF MEDICINE



Study program: Integrated Academic Studies in Dental Medicine

Course title: Salivary Theranostics

Teacher: Duška D. Blagojević, Bojan B. Petrović, Sanja B. Vujkov

Course status: elective

ECTS Credits: 3
Condition: no

Course aim

The aim of the course is to acquaint students with the importance and possibilities of salivary diagnostics of oral and general diseases, as well as the possibilities of local and systemic oral delivery of active medical substances.

Expected outcome of the course:

Knowledge: Allows the student to understand the importance, role and capabilities of salivary theranostics in maintaining oral and general health.

Skills: To master basic knowledge in salivary diagnostics that plays an important role in the early detection and prevention of many oral and systemic diseases in a rapid and non-invasive manner.

Familiarity with saliva collection techniques, which is a simple, repeatable and inexpensive diagnostic source that can be used to diagnose and monitor various diseases in real time. Detection, knowledge, development and validation of saliva biomarkers that have the potential to reach clinical practice. Mastering technologies and systems that have the potential to enable screening, early detection, prognosis and monitoring of various diseases. Expanding the diagnostic potential of saliva from the oral cavity to the entire physiological system, including personalized individual drug applications

Course description

Theoretical education

- 1. Introduction to the subject of salivary theranostics; The importance of salivary theranostics for oral and systemic health
- 2. Saliva as a diagnostic fluid
- 3. Salivary biomarkers in the diagnosis of caries
- 4. Salivary biomarkers in the diagnosis of periodontal disease
- 5. Salivary biomarkers in the diagnosis of general diseases
- 6. Application of microfluidic systems in salivary theranostics
- 7. The concept of personalized medicine
- 8. Extraoral microfluidic diagnostic systems
- 9. Intraoral microfluidic diagnostic systems
- 10. Intraoral Theranostic Systems
- 11. Local delivery of oral medicine
- 12. Buccal delivery of drugs in the oral cavity
- 13. Sublingual oral drug delivery
- 14. Salivary theranostics in paediatric dentistry
- 15. Salivary theranostics in persons with special needs

Practical education

Practical classes that accompany the theoretical instruction program will be held at the appropriate Chair of the School of Medicine to familiarize the students with the importance of salivary theranostics, as well as to discuss current knowledge of oral hygiene methods and materials.

Literature

Compulsory

1. Koch G, Poulsen S: Paediatric Dentistry - a clinical approach. Copenhagen: Munksgaard, 2001.

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Number of active classes	Theoretical: 30	Practice: 15
Teaching methods: Lectures, Practice		

Student activity assessment (maximally 100 points)						
Pre-exam activities	points	Final exam	points			
Lectures	20	Written	20			
Practices	20	Oral	40			
Colloquium						

Essay		