

SCHEDULE for the core course in the field of **Biochemistry and Molecular Biology**

2023/24: Selected advanced topics in Biochemistry and Molecular Biology

MODUL 2: Structure and function of biological molecules and designed biological systems**Coordinator: prof. dr. Roman Jerala**

| Date | Hours | Lecturers | Topics | Format |
|-------------|----------------------------------|------------------------|--|-----------------------------|
| 1.2.2024 | 14 ^h -19 ^h | R. Jerala | Synthetic biology | 2h lectures, 4h seminars |
| 6.2.2024 | 14 ^h -19 ^h | R. Jerala | Biomedical applications and genome editing | 2h lectures, 4h seminars |
| 7.2.2024 | 14 ^h -19 ^h | A. Ljubetič | Protein design using rational approaches and directed evolution | 2h lectures, 4h seminars |
| 13.2.2024 | 14 ^h -19 ^h | A. Ljubetič | De novo methods for protein design | 2h lectures, 4h seminars |
| 15.2.2024 | 14 ^h -19 ^h | I. Hafner Bratkovič | Molecular mechanisms of receptor activation of natural immunity | 2h lectures, 4h seminars |
| 20.2.2024 | 14 ^h -19 ^h | I. Hafner Bratkovič | Designed antibodies and their use | 2h lectures, 4h seminars |
| 22.2.2024 | 14 ^h -19 ^h | M. Podobnik | Basics of determining the structures of biological molecules by x-ray crystallography | 3h lectures, 4h seminars |
| 27.2.2024 | 14 ^h -19 ^h | M. Podobnik | Basics of determining the structures of biological molecules by cryo-electron microscopy | 2h lectures, 5h seminars |
| 29.2.2024 | 14 ^h -19 ^h | M. Podobnik | Complementarity of methodological approaches in structural biology | 2h lectures, 4h seminars |

Location: Kemijski Inštitut, Hajdrihova 19, Velika predavalnica