Proteins and carbon nanomaterials
The interaction of carbon nanomaterials with serum proteins and cholinesterases

Maja Sopotnik,
Boitechnical faculty, UL
Poster number: 67
STUDENTS’ CONFERENCE
Jožef Stefan International Postgraduate School and Young Researchers’ Day CMBO
19 and 20 April
STUDENTS’ CONFERENCE
Jožef Stefan International Postgraduate School
and Young Researchers’ Day CMBO
19 and 20 April
The interaction of carbon nanomaterials with serum proteins and cholinesterases

Maja Sopotnik, uni dph. bbl.
Study programme: Nanotechnology.
Biotechnological Faculty, University of Ljubljana Superpower: prof. dr. Damjana Oršič
Co-supervisor: prof. dr. Kristina Šopić

Formation of the protein corona

When nanocarriers enter the blood circulation, they become coated with proteins, called the protein corona. This process is important for the stability of the nanocarrier in blood.

Carbon nanomaterials

- Nanocarriers such as carbon nanotubes and graphene oxide
- Different shapes and sizes of nanocarriers
- Different functionalization of nanocarriers

Results

- Graphs showing the interaction of carbon nanomaterials with different protein corona

Conclusions

- Prevention of protein adsorption: the use of functionalization
- Different interactions with different types of proteins
- The effect of functionalization on the stabilization of nanocarriers

Nr. 67