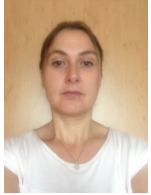
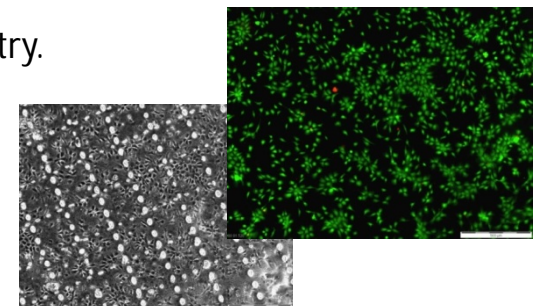
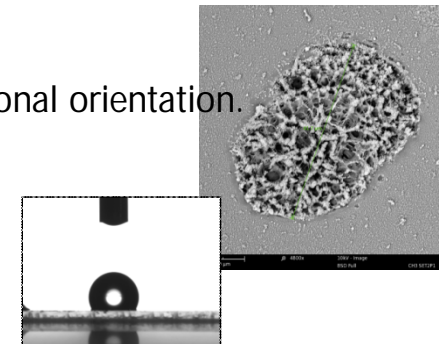
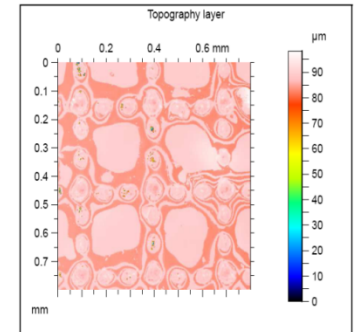


Dr. Albena Daskalova
Laboratory of 'Biophotonics', Institute of Electronics
Bulgarian Academy of Sciences, Sofia, Bulgaria



Expertise in:

- Femtosecond laser surface processing of bio- and synthetic polymers, ceramics, metals for application in tissue engineering
- Ultra-fast laser micro and nanostructuring of biopolymer thin films: collagen, gelatin, chitosan, collagen/elastin for enhancement of surface porosity .
- Design of different geometries by laser induced modification on biomaterials for cell directional orientation.
- Surface characterisation of laser modified biomaterials: SEM, Confocal microscopy, AFM
- Wettability evaluation of processed material.
- Ultra-short laser ablation of dental material, application of laser radiation in dentistry.
- Study of cell dynamics on topographically patterned scaffolds.



<http://ie-bas.org/Projects.htm>

Expected benefits and activities during participation in BIONECA:

- Would like to connect with groups working in the field of material synthesis to find optimal conditions for laser material processing.
- Share experience with biologists in order to test the influence of processed biomaterial and its surface properties on cell dynamics.
- Share experience with other groups working in the field of material processing.
- Would like to make connection with groups from modeling to simulate the process of cell-material interaction.
- Would like to find partners for participation and establishment of new projects applications

Foreseen maximum contribution: in WG1