



# Innovative surfaces and *Symposium* regeneration of musculoskeletal tissues



Universitätsklinikum  
Regensburg



NEW TECHNOLOGIES  
RESEARCH CENTRE  
UNIVERSITY  
OF WEST BOHEMIA



Europäische Union  
Evropská unie  
Europäischer Fonds für  
regionale Entwicklung  
Evropský fond pro  
regionální rozvoj



Ziel ETZ  
Freistaat Bayern –  
Tschechische Republik  
2014 – 2020 (INTERREG V)

30.3.2023 - 9:00

# Program

09:00



## Coming and registration

09:30



### Opening remarks

T. Křenek & D. Docheva

### Using Magnetic Instructive Tools in Tendon Tissue Engineering Strategies

10:00



### Ana Gonçalves

3B's Research Group  
University of Minho, Portugal

### Unleashing the Potential of Direct Laser Interference Patterning: Enhancing Biocompatibility of Implant Materials through Small-Scale Structures

10:30



### Christoph Zwahr

Gruppenleiter Direkte Laserinterferenzstrukturierung  
Fraunhofer-Institut für Werkstoff- und Strahltechnik IWS, Dresden

11:00



## Coffee break

### Complex responses of diverse cells towards novel laser textured titanium prototypes

11:15



### Theresia Stich & Girish Pattappa

Clinic and Policlinic for Trauma Surgery  
UKR, Regensburg

### Advanced bioactive nano-micro structured Ti surfaces functionalized by colloidal nanoparticles of bone growth stimulants via laser ablation in liquid

11:40



### Tomáš Křenek

Chemical Processes and Biomaterials  
WBU/NTC, Pilsen

12:20



## Lunch break

13:20



## Laboratory tour

### Multicomponent Hydrogels: Smart Materials for Biomedical Applications

14:40

**Jagan Mohan Dodda**



Chemical Processes and Biomaterials  
WBU/NTC, Pilsen

### Micromorphology and microanalysis of dental materials and hard tissues

15:10

**Konstantin Scholz & Fabian Cieplik**



Department of Conservative Dentistry and Periodontology  
UKR, Regensburg

15:40



## Coffee break

### MicroCT imaging of bio- and advanced materials

15:55

**Miloš Svoboda**



Engineering of Electrochemical Process  
WBU/NTC, Pilsen

### Virtual human twin in healthcare

16:10

**Vít Nováček**



Biomechanical human body models  
WBU/NTC, Pilsen

16:25



## Closing remarks