2nd MATEGRA workshop

“Enhanced porous biomaterials functionalized with stem cells for an improved osteointegration of implants”

22.11.2019
Regensburg

Host:
Prof. Denitsa Docheva
Laboratory of Experimental Trauma Surgery
Department of Trauma Surgery
**Friday, 22.11.2019**

### Lectures

<table>
<thead>
<tr>
<th>Time</th>
<th>Name and Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00</td>
<td>Welcome (Docheva, Alt)</td>
</tr>
</tbody>
</table>
| 10:10 | Galler Michael, Zellner Johannes  
*Bone physiology, arthroplastic procedure and implant loosening* |
| 10:20 | Alt Volker  
*Infections in total joint arthroplasty* |
| 10:30 | Docheva Denitsa, Delgado Cáceres Manuel  
*Stem & progenitor cells: definition, types, sources and control* |
| 10:50 | Coffee break |
| 11:10 | Stich Theresia  
*Cell-material-interactions & update on the MATEGRA project* |
| 11:20 | Křenek Tomáš, Kovářík Tomáš  
*Biomaterials and technologies for bone tissue engineering* |
| 11:50 | Alagboso Francisca  
*Pre-clinical in-vivo models for bone implant testing* |

12:00 – 13:00 Lunch break

### Practical part

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
</table>
| 13:15 | Practical demonstrations in the laboratory  
- Cell trypsinization  
- Cell counting  
- Cell plating  
- Staining of cells on structured titanium scaffolds  
- Fluorescence imaging |
| 15:30 | Demonstration of the implantation process of a hip / knee joint prosthesis  
- Implant model provided by Fa. Zimmer  
- Demonstration by Michael Galler |
| 16:30 | End of workshop |
| 16:45 | Internal MATEGRA project meeting |
| 18:00 | Workshop Dinner for MATEGRA core teams from Regensburg & Pilsen |