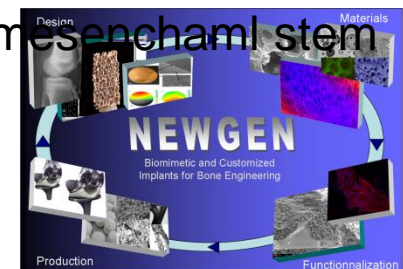




- **Location (city, country):** Masaryk university, Brno, Czech Republic
- **Director:** Prof. PhDr. Mikuláš Bek, PhD. (rector)
- **Contact person in NEWGEN:** Prof. Ales Hampl, Prof. Sarka Pospisilova, sarka.pospisilova@fnbrno.cz
- **Working Group involvment:** WG2, WG3, WG4: 3D - development of functional bone marrow and bone scaffolds for dental implants and bone marrow replacement
- **Staff:** 42 (9 senior researchers, 24 junior researchers, 7 PhD students, 2 technicians)
- **Research expertise:**
 - Functioning of cells of hematopoietic cell lineage in norm and disease and interaction of these cells with cellular and acellular components of bone marrow (prof. Pospisilova, prof. Doubek)
 - Interaction of human embryonic stem cells (hESC) and human mesenchymal stem cells (hMSC) with synthetic substrates (prof. Hampl, prof. Izakovicova-Holla)

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COST Action MP1301



➤ Research topics:

- development of biopolymer based scaffolds for tissue engineering
- application of biopolymer based scaffolds for bone marrow microenvironment analysis
- analysing by in vitro assays interaction of materials with mesenchymal stem cells derived from human dental pulp
- analysing in vitro interaction of materials with odontogenic and osteogenic cells derived by in vitro differentiation of hESC (via neural crest lineage)
- development of animal models for in vivo evaluation of biocompatible (biomimetic, cell seeded,...) bone and dental grafts

