

UNIVERSITY OF HELSINKI

Orthopaedic Research Group



Orthopaedic Research Group, Clinicum, University of Helsinki

Helsinki, FINLAND

Director: prof. Ilkka Kiviranta, MD, PhD

Contact person in NEWGEN: Dr. Virpi Muhonen

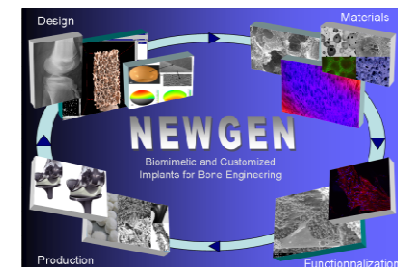
Working Group involvement: Management Committee Substitute, Member of Working Group 4

Staff: 1 principal investigator, 2 senior researcher, 3 PhD students, 1 veterinary surgeon, undergraduate students

Research topics: Future tissue engineering and regenerative medicine technologies for joint health

Researchers expertises: Cartilage repair, Chondrogenesis, Regenerative medicine, Tissue engineering

Orthopaedic Research Group
Clinicum/University of Helsinki
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00290, Helsinki - FINLAND



COST Action MP1301

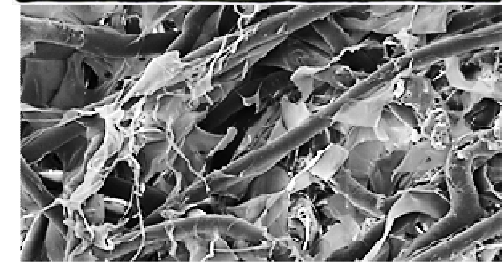
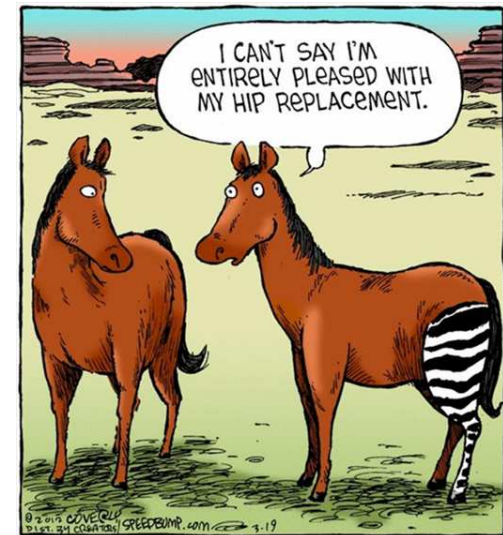


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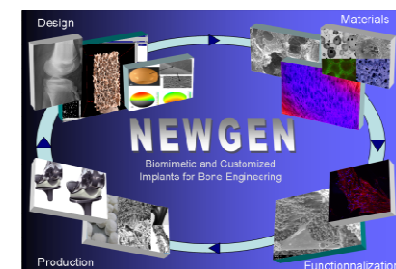
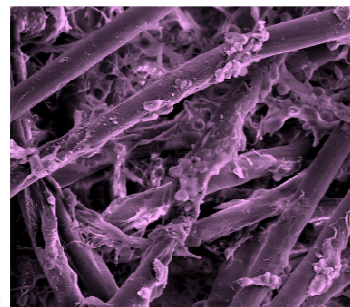
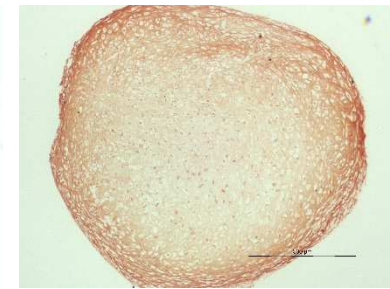
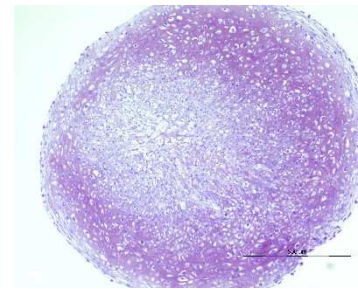
Future tissue engineering and regenerative medicine technologies for joint health



- The Orthopaedic Research Group is focused on both developing and translating joint repair therapies
- We aim to regenerate the functionalities of cartilage and subchondral bone by combining biomaterials, tissue engineering and cell biological know-how



- Development of animal-product free chondrogenesis media for human mesenchymal stem cells
- Development of biomaterials scaffolds specifically tailored to meet the high demands of the loaded environment of synovial joints
 - *In vitro* testing
 - *In vivo* testing
- Special interest in commercialisation of medical devices

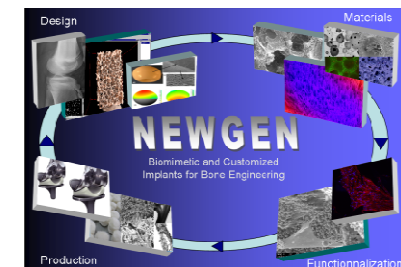
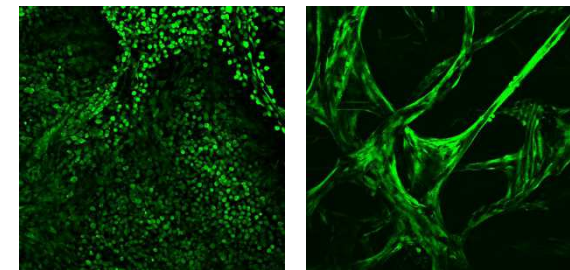
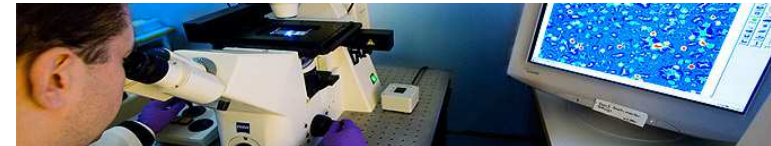


Orthopaedic Research Group

FACILITIES



- Laboratory facilities:
 - Full equipped cell culture suite
 - Histology facility: sample processing and staining
 - Immunohistochemistry
 - qPCR
- Animal facilities and services:
 - Small animal housing
 - Large animal housing
 - Finnish Centre for Laboratory Animal Pathology (FCLAP)
- Core imaging facility (Biomedicum Imaging Unit), e.g.:
 - Laser scanning confocal microscopy
 - Multiphoton microscopy for imaging of small laboratory animals
 - Epifluorescence microscope with motorized stage for mosaic imaging
 - Optical projection tomography



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