

# **Biomaterial and Medical Device Research Programme**

## ***Neurosurgical Implant Group***

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Cranial reconstruction is associated with a high complication rate, which is a major concern for patients suffering from sequels of traumatic brain injury, brain tumours or stroke. Finnish National Cranial Implant Register including all the university hospital districts of Finland will be founded in 2016 and directed by the research group. The register will contain retrospective data from 2002-2015 and prospective data collection will be initiated at all centres. In addition to the maintenance of the up-to-date national register, the main goal is to investigate properties and survival of different cranial and dura mater implant materials in various patient groups. Additional aims are to develop an intervertebral bioactive glass containing implant for anterior decompression procedures of degenerative cervical spine and further develop bioactive glass containing fiber-reinforced composite calvarial implants.