Pre-sterilized modular surgical guidance device
Reference Number: 15-00384

Challenge
Computer-aided surgery contributes enormously to the safety of patients and therefore gains importance in almost all fields of surgical interventions. In particular neurosurgery, cochlea surgery or deep brain stimulation require accurate surgical guidance tools for patient-specific interventions. At present, individualized guiding devices are mechanically finalized in a non-sterile area and, therefore, have to be sterilized before they can be used for the surgical intervention. Thus, there is an unmet need for easy and sterile manufacturing of individualized guiding tools.

Technology
The recently developed modular device comprises a standardized set of prefabricated sterile parts for fast and easy assembly of a patient specific guidance tool. It enables computer-aided surgery without time-consuming interruptions caused by sterilization after the intraoperatively performed, patient-specific adjustment. As a further advantage, all components can be provided as disposable which supersedes inconvenient sterilization of device parts. Compared to guiding systems based on rapid prototyping, the present technology ensures a better acceptance among the surgical staff since complicate equipment is not necessary. Finally, the device is suitable for automatic or manual patient-specific adjustment of the guiding parts. Therefore, the inherent surgical risk for the patient decreases substantially and duration of the surgical intervention is considerably reduced.

Commercial Opportunity
In-licensing or collaboration for further development is possible.

Developmental Status
First prototype has been developed and initial proof-of-concept studies have been performed.

Patent Situation
European patent granted in 2017 and validated in DE, FR, GB, CH, NL. US patent application is pending.

Further Reading