Predicting post-operative complications in real-time


PRINCIPAL INVESTIGATORS:
Prof. Dr. Alexander Meyer,
Prof. Dr. Volkmar Falk
Charité & DHZB

Digital Health

Surgery

2018

Track 2

SUMMARY

The large number of concurrent patient data in critical care units goes well beyond the capacity of the intensive care physician and may lead to treatment delays or clinical errors. The team applies deep machine learning methods in a critical care scenario to provide timely and highly accurate decision support to the clinical staff. They have developed a set of forward-facing real-time prediction models for severe post-cardiothoracic surgery complications. Primary focus is the prediction of postoperative bleeding.

PROJECT ACHIEVEMENTS DURING & AFTER SPARK

- Prototype ready including user interface and client-server infrastructure
- Business plan completed
- Collected first user feedback
- Completed team
- Started recruiting partner hospitals
- Further refined and improved bleeding model
- Started to work towards regulatory approval with experts
- Follow-on funding by the BIH Digital Health Accelerator
- Startup x-cardiac funded in 2021

x-cardiac