

Chapter 3

MEDICAL TECHNOLOGY

Keynote Abstract: 3, Introducing Keynote Speaker Dr. Lars Mündermann

AI in medicine – overrated or groundbreaking?

Developments in the last decade have shown that technology is the most disruptive factor in healthcare. This trend is expected to continue in the upcoming decades as Health & Care is one of the sectors with highest levels of investment in new technologies, treatment options, and drugs. Medical treatment is expected to be supported by a range of diagnostic tools, and real-life data on treatment success rates may influence the outcome for patients. Patients may no longer rely on a single and local physician but may access platforms whenever they have a specific medical need. Health might no longer be defined by the absence of a disease but rather be seen in the more holistic context of a person's well-being embracing the concept of P4 medicine (predictive, preventive, personalized and participatory). This keynote will illustrate what health and medicine might look like in 2050, introduce research activities in the fields of Cognitive Surgery and Surgical Data Science, discuss potential for AI applications in areas such as digital monitoring, prevention and AI-assisted diagnostics, and allude to prerequisites and restrictions for (successfully) introducing AI in medicine.



Figure 3.1: Dr. Lars Mündermann
(Karl Storz SE & Co. KG)