

# Precision Medicine: Where Engineering and Life Science meet

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## **Abstract:**

As we witness the relentless growth of computing power, storage capacity and communication bandwidth, we also see a major trend in bio-medical sciences to become more quantitative and amenable to benefit from the support of electronic systems. Moreover, societal and economic needs push us to develop and adopt health-management approaches that are more effective, less expensive and flexible enough to be personalized to individual and community needs.

Within this frame, precision medicine promises to better society by applying engineering technology to personalized health, with devices that are in/on the body and ubiquitously connected. Examples from the Swiss-wide Nano-Tera.ch program will show various techniques related remote patient monitoring, emergency care as well as routine care. These examples show the advantages that stem from organized and optimized means to quantify clinical data, handle large data sets as well as controlling and personalizing therapy and drug administration.