

Kolloquium

Biomedizinische Technik und verwandte Gebiete

Sommersemester 2017

Donnerstag, 18.05.2017, 17:00 – 18:30 Uhr

Prof. Dr. Walter Karlen

ETH Zurich & University of Zurich

(Moderation: Univ.-Prof. Dr.-Ing. Dr. med. Steffen Leonhardt,
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**„Appropriate biomedical devices and digital health tools for low
resource settings“**

Abstract:

The United Nations sustainable development goals feature ambitious targets to improve health services and reduce mortality for all ages until 2030. It is evident that the development of novel bio-medical technologies plays an important role in achieving these targets. Better tools for accurate diagnosis, monitoring, treatment, and prevention are needed. To make these novel technologies available in low resource settings, not only innovative technologies, but also appropriate systems design is needed. Although the concepts of appropriate health technologies have been promoted since the late 1970's, there is still a mismatch between existing medical devices and devices that provide effective and efficacious performance within an economic, cultural and environmental context.

In this talk I will introduce appropriate health system design concepts and based on examples, illustrate my labs approach to various global health challenges. The examples range from novel malaria diagnostic tools to Big Data strategies for improving diagnosis of pneumonia in infants. What are essential features of biomedical products that are designed for challenging environments? Finally, I will shortly elaborate the integration of these topics into the teaching curricula of biomedical engineers.

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