



**Pediatric pain in the era of  
digital health and precision  
medicine**

Dr. Joe Kossowsky

**After Work  
Lecture**

13. November 2018  
Winterthur

# Pediatric pain in the era of digital health and precision medicine

Digital and Genomic revolutions have given rise to a new era of individualized medicine where novel biomedical discoveries are leading to more effective prevention, treatment, and diagnosis of disease. While other fields of medicine are starting to harness the potential of personalized medicine, the understanding of how chronic pain conditions develop, progress and are managed remains a challenging task, especially in pediatrics.

Evaluation of progression of chronic pain conditions, including the benefits of interventions is typically done with the information provided by the patients at the moment of the medical encounter. Although valuable information can be collected during clinical visits, this information usually reflects a “snapshot” of the patient condition. In this talk, various phenotyping methods will be summarized that complement conventional clinical characterization of pain and functioning in our pediatric patients. These allow us to quantify relevant behavior both during and between study visits using multi-modal data acquisition in combination with iterative computational approaches. Analytical methods will be introduced that assess the selective genetic associations with patient subtypes defined on the basis of individual symptoms and behavioral and digital phenotypes in the aim to develop more effective and personalized treatment.

→The lecture will be held in English, the following discussion in German and English.



Dr. Joe Kossowsky received his PhD in Clinical Psychology from the University of Basel and a Masters in Biomedical Informatics from Harvard Medical School. He is currently a research associate in the Division of Clinical Psychology and Psychotherapy at the University of Basel and in the Department of Anesthesiology, Critical Care & Pain Medicine at Boston Children's Hospital.

His current work examines data driven trajectories and taxonomies in the field of pediatric chronic pain and mental health in collaboration with the National Institute of Mental Health.

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## After Work Lecture

Dienstag, 13. November 2018

17.30 – 18.30 Uhr  
Hörsaal TN E0.46  
Technikumstr. 71, Winterthur