



## Einladung zum Biometrischen Kolloquium

Gastgeber:

Zentrum für Medizinische Statistik, Informatik und Intelligente Systeme (CeMSIIS)  
Medizinische Universität Wien

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### EXPLORATORY SUBGROUP ANALYSES IN CLINICAL TRIALS

**20. April 2017 um 15:00 Uhr**

Informatik-Bibliothek (Ebene 3, Raum 88.03.806) CeMSIIS, Spitalgasse 23, 1090 Wien  
<http://www.muw.ac.at/cemsiis/allgemeines/anschrift/>

#### Abstract:

Identifying subgroups, which respond differently to a treatment, both in terms of efficacy and safety, is an important part of drug development. A well-known challenge in exploratory subgroup analyses is the small sample size in the considered subgroups, which is usually too low to allow for definite comparisons. In early phase trials this problem is further exaggerated, because limited or no clinical prior information on the drug and plausible subgroups is available. While a variety of different subgroup identification methods have been developed for the situation of trials that study an experimental treatment and control, much less work has been done in the situation when patients were randomized to different dose groups.

In this talk we give an overview over the main challenges of the setting and review some recent tools for exploratory subgroup analyses. We then present an extension of the model-based recursive partitioning approach by Seibold et al. (2016) to subgroup analyses for trials with several dose groups. We show that the method can be used to identify subgroups of patients with different dose-response curves and improves estimation of treatment effects and minimum effective doses, when heterogeneity among patients is present.