# Response-adaptive Randomized Clinical Trials: Overview and Future

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**Abstract**

Response-adaptive randomized clinical trial uses accruing data to change treatment assignment sequentially for achieving some important objectives (efficient, ethical, cost and others) in clinical trials. This has been a hot research topic in the past ten years. In this talk, I give an overview of response-adaptive designs. I will focus my presentation on answering following questions: Why should we use adaptive designs in clinical trial? How to design a good response-adaptive randomized clinical trial? How to do statistical inference after response-adaptive randomized clinical trial being implemented? Also I will discuss some further research problems and the future of adaptive designs.