# MCPMod – An R Package for the Design and Analysis of Dose-Finding Studies

Björn Bornkamp     José Pinheiro     Frank Bretz

In this presentation the **MCPMod** package for the R programming environment will be introduced. It implements a recently developed methodology for dose-response analysis that combines aspects of multiple comparison procedures and modeling approaches (Bretz et al., 2005, Pinheiro et al., 2006). The MCPMod package provides tools for the analysis of dose finding trials as well as a variety of tools necessary to plan an experiment to be analysed using the MCP-Mod methodology. Both design and analysis capabilities of the package will be illustrated with examples.

## References

Bretz F, Pinheiro J, Branson M (2005). Combining Multiple Comparisons and Modeling Techniques in Dose-Response Studies. *Biometrics, 61*, 738–748.

Pinheiro J, Bornkamp B, Bretz F (2006). Design and Analysis of Dose Finding Studies Combining Multiple Comparisons and Modeling Procedures. *Journal of Biopharmaceutical Statistics, 16*, 639–656.