ENGELBERG CENTER for
Health Care Reform
at BROOKINGS

Expert Workshop:
Pioneering Statistical Approaches to Accelerate Drug Development through Adaptive Trial Designs
The Brookings Institution • Washington, DC
Thursday, March 27, 2014

Agenda

8:30 a.m. **Registration**

9:00 a.m. **Welcome and Introduction**
Mark McClellan, Health Care Innovation and Value Initiative at Brookings
Gregory Daniel, Engelberg Center for Health Care Reform at Brookings

9:15 a.m. **Perspective on Adaptive Trials and Workshop Objectives**
Lisa LaVange, U.S. Food and Drug Administration

9:25 a.m. **The Need for Innovative Trial Designs**
Richard Pazdur, U.S. Food and Drug Administration

9:40 a.m. **Session I: Hypothetical Adaptive Trial Designs**

- *Straw Man Proposal: Parallel Group, Fixed Sample-Size Design*
  Rajeshwari Sridhara, U.S. Food and Drug Administration
- *Hybrid Trial Design with Matched Observational Arm*
  Michael R. Kosorok, University of North Carolina at Chapel Hill
- *RCT with Sample-Size Re-Estimation Based on pCR Results*
  Donald A. Berry, The University of Texas MD Anderson Cancer Center & Berry Consultants, LLC
- *Biomarker Driven Population Enrichment for Phase 2 Adaptive Oncology Trials*
  Cyrus R. Mehta, Harvard School of Public Health & Cytel Inc.

10:45 a.m. ***Clarifying Q&A on the Trial Design Alternatives***

11:00 a.m. **Break**

11:15 a.m. **Session IIa: Statistical Considerations for the Design of Adaptive Trials – Understanding the Tradeoffs in the Proposed Designs**
Mark McClellan – *Moderator*

Lead Discussants:
Marc Buyse, International Drug Development Institute (IDDI)
Robert J. Gray, Harvard School of Public Health & Dana-Farber Cancer Institute

Open Panel Discussion
Potential Topics:
- Underlying statistical assumptions
- Controlling Type I error rate
- Power, sample size, and study duration tradeoffs

12:15 p.m. **Lunch**

1:15 p.m. **Session IIb: Statistical Considerations for the Design of Adaptive Trials – Demonstrating Efficacy in the Proposed Designs**
Mark McClellan – *Moderator*

Lead Discussants:
Marc Buyse, International Drug Development Institute (IDDI)
Robert J. Gray, Harvard School of Public Health & Dana-Farber Cancer Institute

Open Panel Discussion
Potential Topics:

- Relationship between intermediate and long-term clinical benefit endpoints
- Obtaining valid treatment effect estimates
- The role of simulated evidence

2:15 p.m. **Session III: Operational Considerations for the Successful Implementation of Adaptive Trials**
Mark McClellan – *Moderator*

Lead Discussants:
Brenda L. Gaydos, Eli Lilly
Olga Marchenko, Quintiles

Open Panel Discussion
Potential Topics:

- Types of interim decisions and adaptations
- Interim analysis, data used, and decision making protocols – blinding, firewalls, etc.
- Recruitment and study feasibility issues

3:15 p.m. **Next Steps and Closing Remarks**
Mark McClellan, Health Care Innovation and Value Initiative at Brookings
Lisa LaVange, U.S. Food and Drug Administration

3:30 p.m. **Adjournment**