Recent advances in diverse areas of biomedical science and breakthroughs in technology such as affordable whole genome sequencing and molecular profiling provide a unique opportunity to study the genetics and pathogenesis of a wide variety of human diseases with the eventual goal of using this information to inform clinical practice. Heterogeneity of patient populations and the absence of effective means to interpret patient genetic/omic information for clinical use are significant obstacles toward achieving this goal.

The purpose of the symposium is to provide opportunity for biologists and clinicians to exchange ideas, interact and enhance collaborations in advancing animal disease models to overcome some of the most difficult challenges in the post-genomic era, namely, to validate disease-associated genetic variations and biomarkers in humans, to reduce drug candidate attrition and develop new types of individualized therapies for both monogenic and complex human disorders.

**Session Topics**

1. The Use of Comparative and Functional Genomics to Build Animal Models of Human Diseases
2. Technological Advances and Available Resources for Building Predictive Animal Models
3. Using Personalized Animals for Drug Discovery and Biomarker Development
4. Which Human Disease Conditions Are the Best Candidates for Use of Personalized Animal Models?

**Symposium**

“Animal Models and Personalized Medicine”

**October 28–29, 2013**

Natcher Conference Center, NIH, Bethesda, MD