

HIGH-THROUGHPUT SCREENING: EVOLUTION OF TECHNOLOGY AND METHODS

MARTYN N. BANKS, ANGELA M. CACACE, JONATHAN O'CONNELL,
AND JOHN G. HOUSTON

*Bristol Myers Squibb Co.
Pharmaceutical Research Institute
Wallingford, Connecticut*

- 1 INTRODUCTION
- 2 EVOLUTION AND INTEGRATION OF HT PLATFORMS
INTO THE DISCOVERY PROCESS
 - Evolution of Instrumentation and Screening Formats
 - Miniaturization
 - Evolution of Cellular HTS Assays
 - Evolution of HTS Technologies into the Drug Discovery Process
 - Quality Control in the HTS Process
- 3 HTS AUTOMATED SYSTEMS: TECHNOLOGY AND PROCESS
 - Plate Design
 - Compound Management
 - Liquid Handling
 - Accuracy and Precision
 - Assay Detection
 - Automation
 - Data Analysis
- 4 ADVANCES IN HIGH-THROUGHPUT BIOASSAY
TECHNOLOGY
 - Overview of HTS Assay Formats
 - Reagent Production
 - Designing Bioassays for HTS

Pharmaceutical Sciences Encyclopedia: Drug Discovery, Development, and Manufacturing
Edited by Shayne C. Gad
Copyright © 2010 John Wiley & Sons, Inc.