

## Introduction to HTS concepts:

- Liquid handling technologies and applications
- Signal detection technologies (Abs, SPA, FI, FP, FRET, TRF, etc)
- HTS workstations and integrated platforms
- Laboratory automation
- Establishing cell-based assays for screening
- High content cellular screening
- Chemical library management principles
- Statistical concepts in HTS assay design and validation
- Computational approaches in hit to lead QSAR

## Participants will gain a comprehensive understanding of:

- what makes a good HTS assay
- the basics behind designing an *in vitro* HTS assay-both cell-free and cell-based
- the types of *in vitro* HTS assays
- the challenges of designing an *in vitro* HTS assay
- challenges of automation
- biological causes of variation and how to minimize them
- chemical library management
- the statistical parameters for good quality data



## Accommodations

Plaza Paitilla Inn Hotel  
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**High Throughput Screening  
& Drug Discovery  
Latin American Perspectives  
Panama City, Panama  
November 16-20, 2008**



**Plaza Paitilla Inn Hotel  
Panama City, Panama**

## Schedule

**Nov 16, AM: Overview of HTS in Drug Discovery**

Chairperson: Sitta Sittampalam,  
University of Kansas

Introduction to HTS in Drug Discovery  
Rathnam Chaguturu, University of Kansas

**Nov 16, PM: HTS and HCS Detection Technologies**

Chairperson: Rhett Affleck, Nexus Biosystems

Signal Detection Platforms for HTS  
Ramakrishna Seethala, BMS

Advanced Assay Solutions for HTS  
Michael Briggs, Corning

**Nov 17, AM: Cell-based Assays**

Chairperson: Roger Bosse, Perkin Elmer

HTS Assays for Cellular Health and Physiology  
Neal Cosby, Promega

Establishing Cell-based Assays for Screening  
Rathnam Chaguturu, Univ of Kansas

**Nov 17, PM: Assay Platforms and Cellular Imaging**

Chairperson: Neal Cosby, Promega

Assay Technologies to Identify Bioactive  
Compounds from Biodiversity  
Roger Bosse, Perkin Elmer

Cell and Organismal Screening: Well by Well and  
Cell by Cell at High Throughput  
Chris Shumate, BlueShift

High Content Analysis as a Tool for Screening in  
Cell-based Assays  
Scott Keefer, Cellomics

**Speaker's Banquet**

**Nov 18, AM: HTS Automation**

Chairperson: Chris Shumate, MDS Technologies

Maximizing Laboratory Automation: ROI  
Ian Yates, Velocity11/Agilent

Overview of Laboratory Automation  
Steve Broach, HiResBio

**Nov 18, PM: At Leisure**

**Excursion to Panama Canal  
Conference Banquet**

**Nov 19, AM: HTS Data Analysis and Management**

Chairperson: Steve Broach, HiResBio

Twenty Years in the Trenches - The IT Wars Past, Present  
and Future  
Chip Allee, Ceutical Soft

Statistical Concepts in HTS Assay Design and Validation  
Sitta Sittampalam, University of Kansas

**Nov 19, PM: Hit to Lead Strategies**

Chairperson: Ian Yates, Velocity11/Agilent

Phenotypic Drug Discovery at Lilly  
Thomas Engler, Eli Lilly

Computational Approaches for HTS: In silico Screening, Hit  
to Lead QSAR, and Molecular Modeling  
Gerry Lushington, University of Kansas

**Nov 20, AM: HTS and Chemical Library management**

Chairperson: Tom Engler, Eli Lilly

A High Throughput Screen - From Start to Finish  
Rathnam Chaguturu, Univ of Kansas

Effective Compound Library Storage and Distribution  
Rhett Affleck, Nexus Biosystems

HTS: Promises, Successes, Failures  
Sittampalam & Chaguturu, University of Kansas

**Nov 20, PM: Bioprospection in Latin America**

Chairperson: Mahabir Gupta, University of Panama

Society for Biomolecular Sciences  
Christine Giordano, SBS

Bioprospection in Latin America  
Mahabir Gupta, University of Panama

Technology Commercialization  
Jim Baxendale, University of Kansas

Presentation of Key Participants' Own Work

**Evaluations and Closing Ceremony**  
Mahabir Gupta and Rathnam Chaguturu

**Local Organizer**

**Dr. Mahabir Gupta**

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**Scientific Organizer**

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