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## **NTP Board of Scientific Counselors High Throughput Screening Working Group (HTSWG)**

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**Workshop Planning Meeting  
June 23, 2005**

**Dr. Charlene McQueen  
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(NTP Board Representative to HTSWG)**



## **Why HTSWG Is Needed?**

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- ♦ **NTP plans to build a testing program that utilizes HTS assays to**
  - **Screen large numbers of compounds**
  - **Set priorities for additional, more extensive agent-specific mechanistic studies**
- ♦ **Established to provide a structured and formal mechanism to address development and use of HTS by NTP in its testing and research program**



## HTSWG Function

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- ◆ **Provide guidance to the NTP Board on**
  - Selection and development of HTS assays
  - Development of interpretative models for HTS data to predict responses
- ◆ **Conduct periodic reviews of the NTP HTS program to evaluate**
  - Its merit and quality
  - Whether the data generated is useful for predicting the toxicological impact of environmental agents



## HTSWG Structure

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- ◆ **Up to 10 members representing (currently 8)**
  - Industry
  - Academia
  - Government
- ◆ **Chair - member of the NTP Board**
- ◆ **Expertise including, but not limited to**
  - Mechanisms of carcinogenicity, reproduction/development, *in vitro* assays, HTS, computational biology, informatics, chemistry, and specific metabolic pathways including cell cycle control, apoptosis, oxidative stress, receptor biology, etc.



## HTSWG Workshop - Preliminary Plans

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- ◆ **2 days**
- ◆ **Invited participants and public observers**
- ◆ **Day 1**
  - **Plenary sessions: Proposed Topics**
    - Purpose of workshop
    - Overview of HTS
    - What are chemical libraries and how are they useful?
    - Conceptual aspects of HTS
    - Use and possible difficulties of applying HTS data for prediction
    - Public health decision-making
      - ◆ Role of NTP data
      - ◆ Regulatory perspective of using HTS data at federal and state levels
      - ◆ Perspectives of industry and animal welfare groups on using HTS data



## HTSWG Workshop - cont'd

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- ◆ **Day 2**
  - **Breakout Groups: Proposed topics**
    - Cell-based assays targeting pathways modulating carcinogenicity and reproductive outcomes
    - Predictive toxicogenomics
    - Chemicals to test: selection and handling
    - Study design and validation
    - Database construction
    - Policy issues
  - **Plenary Session: Breakout Group presentations**
  - **Open Discussion**