Tox21: A New Strategic Plan for Continued Leadership

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**Introduction**

- **Tox21** has been a very successful interagency collaboration
  - Thousands of chemicals tested in over 50 relevant pathways
  - Public release of millions of data points
  - Dozens of joint publications
  - Data now being used for regulatory decisions

- Time is right to broaden the focus beyond developing and applying HTS to toxicology to developing toxicology approaches for the 21st century

- Challenge is that the different partners have different missions
  - No single framework
  - No one-size-fits-all approach

- New strategic plan needs to focus on:
  - Key challenges in toxicology in the 21st century
  - Common goals that have substantial benefit in each organization regardless of mission.
Tox21 2017 Strategic Plan

Agency Representatives

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Primary Goals for Tox21 in Next 5 Years

1. Develop and deploy alternative test systems that are predictive of human toxicity and dose response
2. Address key technical limitations of current *in vitro* test systems
3. Curate and characterize legacy *in vivo* toxicity studies to serve as a resource for interpreting Tox21 data
4. Develop framework for efficient validation of Tox21 approaches
5. Refine and deploy *in vitro* methods for characterizing pharmacokinetics to increase predictivity and reduce uncertainty
Implementation – Progress to Date

- New Strategic Plan approved
- Infrastructure Projects Started
  - Chemical Library
  - HTS Screening
  - Communications
- Cross Partner Projects - Ongoing
  - *Cross-partner projects will be limited to 3 years terms, driven by specific aims that match primary goals*
  - Partner resource driven
- More formal and detailed presentation at the upcoming World Congress in Seattle - August 2017
Implementation of the New Strategic Plan

- **Form New Infrastructure Teams**
- **Adopt New Strategy**
- **Develop Cross-Partner Projects**
  - Continue partner integration and communication
  - Move Toxicology into the 21st Century
Thank you