Tox21: A New Strategic Plan for Continued Leadership

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May 2017
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