

NTP Board of Scientific Counselors Meeting – Introduction

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- NTP's key value is our ability to take on complex problems requiring prolonged focus – i.e., the stuff nobody else can or will do!
- 'Human relevance' is at multiple levels
 - Identifying risks to human populations
 - Evaluating hazards under human-relevant conditions
 - Using human-relevant models
- Confidence in new approaches (i.e., our innovation responsibility)
 - NTP has a role to play in piloting novel approaches that inform the broader community
 - Confidence comes from 'human relevance'



- Refined our strategic intent
 - Increase pace of progress on our aim to become more ‘predictive’
 - Lead a transformation in the way toxicology is practiced
 - Build confidence in novel approaches
- Defined a Translational Toxicology Pipeline of capabilities
 - Establish an operational framework
- Started Health Effects Innovation initiatives
 - Fill gaps in our current capabilities
 - Shift focus – Disease > Agent



- Maintaining and even growing focus on contemporary challenges
 - Botanicals/Mixtures (Botanical Safety Consortium)
 - Cardiovascular safety (FDA-HESI-NIEHS mechanistic screening)
 - Neurodevelopmental toxicology
 - Cancer hazard assessment
 - Radiofrequency radiation (RFR 2.0)
 - Per- and poly-fluoroalkyl substances (PFAS)
 - AIDS-related therapies

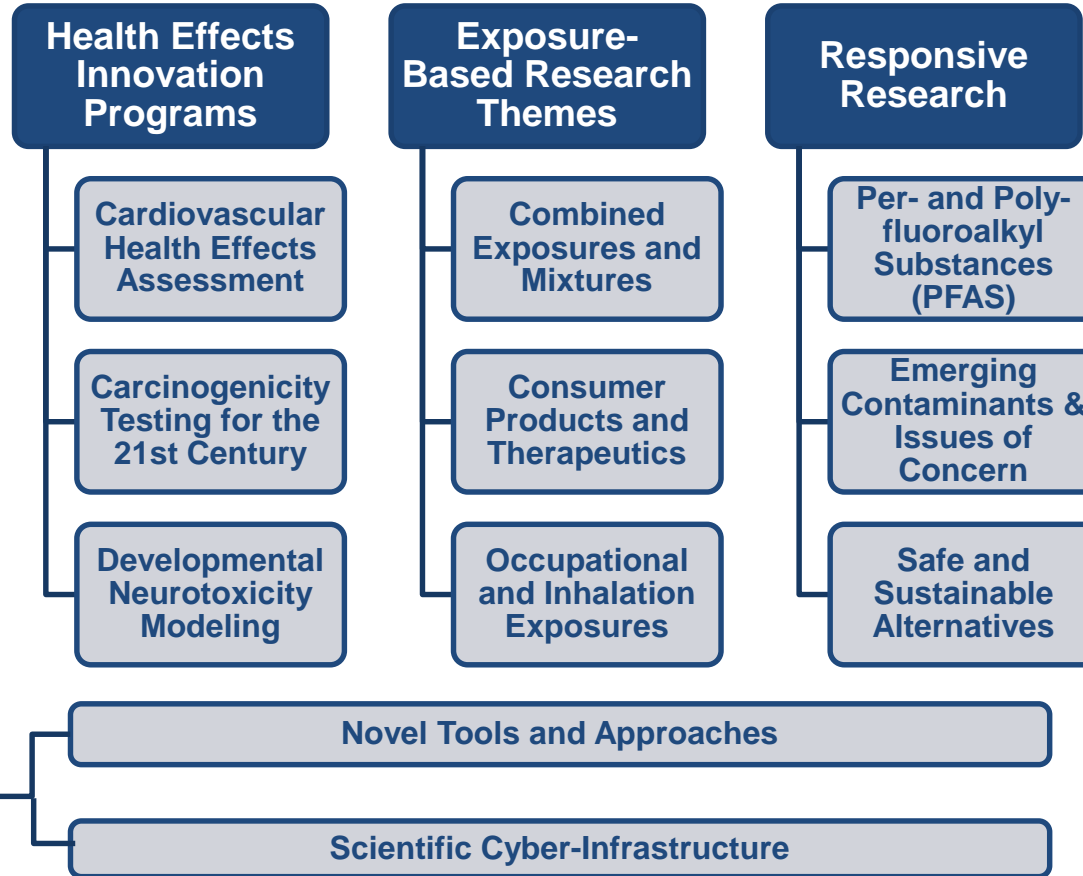


- Engaging novel capabilities
 - Hepatic spheroids
 - iPSC genetic variability
 - Microphysiological systems
 - Geo/Bio-spatial statistics – K. Messier
 - Informatics technology (Oak Ridge National Laboratory)
 - Computational toxicology approaches



Evolving the Portfolio – Discrete Scientific Programs

We now have Program Management Teams (PMTs) for all of the strategic areas of focus





Aims for Today's Meeting

- Continue our collaboration with you to evolve the NTP model
- Share outcomes of recent key efforts
- Use those efforts as a focus of strategic conversation
- Gain your input on how to continue to innovate our approaches aligned to your sense of NTP's unique value



Meeting Agenda

Agenda Item	Presenter
Evolving the Paradigm: In Vivo to In Vitro Extrapolation Microphysiological Systems-Enabled 'Virtual Human' Hazard Assessment: A Concept	Dr. Brian Berridge, National Institute of Environmental Health Sciences (NIEHS)/Division of NTP (DNTP)
Understanding Human Exposure to Nanoplastics/ Microplastics: Novel Agents Bring Novel Challenges	Dr. Anil Patri, Food and Drug Administration/ National Center for Toxicological Research
Hypertensive Disorders of Pregnancy and Environmental Exposures: Disease as a Toxicology Focus	Dr. Brandy Beverly, NIEHS/DNTP
NTP Studies of Per- and Poly-fluoroalkyl Substances: Understanding Human Translation	Dr. Chad Blystone, NIEHS/DNTP