

Converging on Cancer Workshop

Presenter: Dr. Cynthia Rider, Toxicology Branch, DNTP, NIEHS

Background Materials

- NTP's Converging on Cancer Workshop website: <https://ntp.niehs.nih.gov/go/coc>
The website has links to the workshop agenda and poster abstracts and pre-meeting webinars.

Overview

Cancer is a leading cause of mortality worldwide. While the defining feature of cancer is uncontrolled division of abnormal cells, it is a complex disease with varied presentations (i.e., different etiologies and target tissues) that involves dysregulation of multiple interconnected signaling pathways. Diverse environmental factors have been associated with the development and progression of various cancer types. A critical question in the field of environmental health is how to harness what is known about cancer biology and associated environmental exposures to improve public health outcomes. The Converging on Cancer Workshop was aimed at providing a clear path forward for evaluating the interactions between environmental exposures and cancer biology using the latest tools in toxicology and identifying knowledge gaps that require research attention.

The workshop, co-chaired by Drs. Cynthia Rider and Nicole Kleinstreuer at NIEHS/DNTP, brought together scientists working in the area of cancer biology, assay development, mixtures toxicology, in silico modeling, and cancer risk assessment. The objectives of the workshop were to identify technologies and models that can be used in a systems toxicology approach for cancer risk assessment. Specific applications to understanding the joint effects of multiple chemical exposures was a focal point of the workshop. Prior to the workshop, a series of webinars provided background information to orient participants and facilitate breakout session discussions during the workshop. The workshop included plenaries (webcast), breakout discussions, a poster session, and a real-time polling event. One hundred and thirty people registered to attend the workshop in person, and over 500 registered for the webcast. Discussions from the workshop will be captured in a meeting report.