NTP Resources

The NTP provides the public, the scientific community, and Federal agencies a collection of valuable resources related to environmental health science and toxicology to enhance data sharing and analysis. Publicly accessible NTP resources include databases, atlases of digitized images of healthy and damaged tissues, tools for data analysis, and archives of study results and samples. The NTP website offers access to these resources (http://ntp.niehs.nih.gov/), in addition to providing information about NTP activities, studies, literature evaluations, mission and goals, news, and much more.

NTP Resource	Type of Resource
Chemical Effects in Biological Systems (CEBS) Database http://cebs.niehs.nih.gov	Database Data visualization tool
Digitized Atlas of Mouse Liver Lesions https://www.niehs.nih.gov/research/resources/liverpath/index.cfm	Atlas
DrugMatrix® https://ntp.niehs.nih.gov/drugmatrix/index.html ToxFX®, companion to DrugMatrix® https://ntp.niehs.nih.gov/toxfx/	Database Tissue archives Data analysis tool
Meta Data Viewer http://ntp.niehs.nih.gov/go/tools_metadataviewer	Data visualization tool
NTP Archives http://ntp.niehs.nih.gov/go/datasearch	Archive of studies Biological samples bank
NTP Nonneoplastic Lesion Atlas http://ntp.niehs.nih.gov/nnl/	Atlas

Chemical Effects in Biological Systems (CEBS) Database

The CEBS Database covers more than 9000 studies on different substances, including drugs and toxins. For each substance, CEBS contains a wide variety of detailed study results, such as microarray (examination of gene sequences or variations in gene expression), histopathology (microscopic examination of tissues to characterize disease), immunology, and clinical test results and observations. CEBS houses protocol information in addition to results for each study.

Studies in CEBS come from government, academic, and pharmaceutical company laboratories. The range of content in CEBS allows data from different sources to be integrated into one place to permit data mining and analysis. The NIEHS is continuing to add new studies to CEBS, along with legacy NTP data. For example, CEBS allows users to access data and analysis from the Tox21 consortium, an ongoing collaboration among Federal agencies to characterize the potential toxicity of chemicals by using cells and isolated molecular targets instead of laboratory animals.

Digitized Atlas of Mouse Liver Lesions

The Digitized Atlas of Mouse Liver Lesions provides digital images illustrating examples of spontaneous, aging, and chemically induced lesions of the liver commonly observed in mice from toxicity or carcinogenicity studies conducted by the NTP. The atlas includes non-neoplastic (not related to tumor) and neoplastic (related to tumor) lesions. The atlas utilizes internationally accepted diagnostic terminology and provides descriptions for some of the lesions.

NTP Nonneoplastic Lesion Atlas

The NTP Nonneoplastic Lesion Atlas contains thousands of high-quality images and guidelines for the diagnosis of nonneoplastic lesions in experimental rodent models. While nonneoplastic lesions are not cancerous, nonneoplastic diseases (e.g., asthma, gastric ulcers) are a major cause of morbidity and mortality in humans. Many nonneoplastic lesions are thought to have environmental causes. The atlas will be used to standardize rat and mouse lesion diagnosis, terminology, and the way lesions are recorded. When completed, the atlas will contain 56 sections, each focusing on a particular organ or tissue.

DrugMatrix® and ToxFX®

DrugMatrix® is one of the world's largest toxicogenomic reference resources and includes extensive frozen tissue archives. Toxicogenomics is the study of how gene and protein activity responds to toxic substances. DrugMatrix® contains toxicogenomic profiles for hundreds of different compounds, numerous pathways relevant to mechanisms of toxicity, and drug signatures for a variety of pathological endpoints. ToxFX®, a companion to Drug Matrix®, is a web-based data analysis application. It can analyze toxicogenomics data and create detailed, customized reports in minutes. Users may also upload their own data to privately analyze it in the context of existing reference data. DrugMatrix® and ToxFX® expand the NTP's ability to develop predictive models for toxicological effects based on gene signatures.

Meta Data Viewer

The NTP developed Meta Data Viewer, in collaboration with SRA International, to be a user-friendly program for analyzing epidemiology or toxicology data. The Web-based application allows users to create figures with multiple columns of accompanying text. Users can quickly sort, group, and filter subsets of data from a larger database to look at patterns of findings across a wide variety of studies or sets of results from a single study.

NTP Archives

The NTP Archives is a state-of-the-art facility that houses an expansive collection of research specimens and supporting data from NTP studies. The NTP Archives contains stained histopathology slides, paraffin tissue blocks, formalin-fixed tissues and organs, and selected frozen tissue from over 2,000 studies, including toxicity, carcinogenicity, immunotoxicity, reproductive, and developmental studies. To gain access to the NTP Archives, submit a request to Dr. Ron Herbert (herbert1@niehs.nih.gov).