



National Toxicology Program

A composite background image showing laboratory glassware (pipettes and test tubes) on the left, a golden DNA double helix in the center, and a crowd of blue silhouettes of people on the right.

Informing Policy Protecting Public Health

The National Toxicology Program (NTP) is an interagency program that coordinates toxicology research and testing across the U.S. Department of Health and Human Services (HHS). Since 1978, NTP has been generating information that helps health agencies and members of the public make informed decisions about public health.

Core Agencies

Three core federal agencies comprise NTP.

- [National Institute of Environmental Health Sciences \(NIEHS\)](#), part of the National Institutes of Health (NIH). NIEHS administers NTP.
- [National Center for Toxicological Research](#), part of the U.S. Food and Drug Administration (FDA).
- [National Institute for Occupational Safety and Health](#), part of the Centers for Disease Control and Prevention.

Leadership

- [Linda Birnbaum, Ph.D.](#), director of NTP and NIEHS
- [John Bucher, Ph.D.](#), associate director of NTP

Mission

To evaluate agents of public health concern, by developing and applying tools of modern toxicology and molecular biology.

"The NTP serves a critical role for our nation. It provides a unique consolidated - venue for toxicology research, testing, and analysis to occur." - Linda Birnbaum

<http://ntp.niehs.nih.gov>

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NTP Research at Work

NTP has studied and shared information on the health effects of more than 2,500 substances, including dietary supplements, industrial chemicals, and consumer products, in the past 37 years. Key activities include:

Testing substances nominated for study

- Conducting short-term and long-term studies to determine health-related effects, including cancer, reproductive and developmental disorders, genetic damage, and effects on cardiovascular, immune, and nervous systems.
- Looking more closely at windows of susceptibility in long-term rodent studies.

Developing better ways to predict what effect chemicals will have on people

- Working with NIH, FDA, and the U.S. Environmental Protection Agency, through the [Tox21](#) program, to test chemicals faster and more efficiently, through the use of robotics.
- Helping predict effects from short-term and long-term exposures, by using computational models.

Decreasing the use of animals in toxicity testing

- Leading [federal](#) and [international](#) efforts to advance the acceptance of scientifically valid alternative tests.
- Improving study design and models for toxicity testing of chemicals.

Public health decision-making

- Informing the public about substances that pose a cancer hazard to humans, through the [Report on Carcinogens](#).
- Identifying substances that may adversely affect health at current human exposures.
- Increasing transparency and improving literature-based hazard assessments, through a [systematic review process](#).

Training the next generation of toxicologists and pathologists

- Providing first-rate training opportunities for postdoctoral students.
- Training approximately 20 fellows a year for careers in industry, government, and academia.

Making databases and tools available to scientists around the world

- [Nonneoplastic Lesion Atlas](#) — A searchable, Web-based guide for standardizing terminology in toxicologic pathology for rodents.
- [Chemical Effects in Biological Systems \(CEBS\) database](#) — Integrates over 9,000 toxicology and toxicogenomics study results and supporting information.
- [DrugMatrix](#) and [ToxFx](#) — Houses toxicogenomic information for 638 different compounds, allowing toxicologists to formulate a comprehensive picture of toxicity with greater efficiency than traditional methods.