UPDATE National Toxicology Program
Headquartered at the National Institute of Environmental Health Sciences NIH-DHHS
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NIEHS Receives the Environment@RTP Environmental Leadership Award

The National Institute of Environmental Health Sciences has once again been awarded the Environment@RTP Environmental Leadership Award recognizing overall environmental leadership by the Environment@RTP Committee. The Environment@RTP Committee is an organization of the Research Triangle Owners and Tenants Associations dedicated to protecting the environment through: sharing best practices, creating joint strategies, minimizing impact on the surrounding community, and working with local municipalities to create innovative solutions. The NIEHS has won the Environmental Leadership award in its category in both years it has been presented. Accomplishments that led to this year's award include:

- dedicated years of leadership in recycling and waste reduction
- currently building a self-guided nature trail around the NIEHS lake as part of our wildlife enhancement initiatives
- establishing the first in-house vermicomposting program achieving a 50% recovery of solid waste through reuse and recycling

NTP Board of Scientific Counselors to Meet

The NTP Board of Scientific counselors will meet on June 29, 2004, at the Marriott at Research Triangle Park, 4400 Guardian Drive, Durham NC. Tentatively, on the agenda for discussion are NTP activities for development of a "roadmap" to implement the NTP Vision for the 21st Century, including a report from the Board's working group for the vision, a report from a Board Working Group on statistical methods for analysis of data from photocarcinogenicity studies, planned NTP studies on trimethylolpropane triacyrlate, activities of the Board's Technical Reports Review Subcommittee, and an update on the Report on Carcinogens. Additional items may be added as the agenda is finalized. As available, details about this meeting will be announced in the Federal Register and posted on the NTP web site (http://ntp-server.niehs.nih.gov) or can be obtained by contacting the Executive Secretary, Dr. Barbara Shane. This meeting is open to the public and public comment, both written and oral, is welcome on any agenda topic. The meeting provides another opportunity for the public to provide input to the NTP on its vision and elements for the roadmap.

Contact Information: Dr. Barbara Shane, NTP Liaison and Scientific Review Office, NIEHS/NIH, TW Alexander Drive, Room A322, P.O. Box 12233, MD A3-01, Research Triangle Park, NC 27709; T: 919-541-4253, F: 919-541-0295, e-mail: shane@niehs.nih.gov

Report on Carcinogens

The Report on Carcinogens (*RoC*) is a Congressionally mandated, informational scientific and public health document prepared by the NTP that identifies and discusses agents, substances, mixtures, or exposure circumstances that may pose a carcinogenic hazard to human health. It serves as a meaningful and useful compilation of data on (1) the carcinogenicity, genotoxicity, and biologic mechanisms of the listings in humans and/or animals; (2) the potential for exposure to them, and (3) the regulations promulgated by Federal agencies to limit exposures.

The most recent RoC, the 10th Edition, was released publicly on December 11, 2002 and is available on the Internet from the NTP RoC web page at http://ntp-server.niehs.nih.gov/NewHomeRoC/AboutRoc.html or from ehpOnline (phone 1-866-541-3841, fax: 919-678-8696, e-mail: ehponline@niehs.nih.gov).

Report on Carcinogens, 11th Edition
The scientific review of nominations to the 11th RoC is complete and publication is anticipated in 2004. A list of the nominations to the 11th RoC was published in the June 2003 NTP Update. The recommendations from the three scientific peer review committees for listing these nominations in the 11th RoC, all public comments on these nominations, the background documents in PDF format and the criteria and process used for review of these nominations can be accessed through the NTP home page or by contacting Dr. Jameson.

Report on Carcinogens, 12th Edition
The scientific review of nominations to the 12th RoC is just beginning and publication is anticipated in 2006. Nominations that the NTP may consider for review in 2004 or 2005, as either a new listing or changing the current listing in the 12th RoC are listed below. The NTP welcomes public comment on this set on nominations and relevant information concerning their carcinogenesis, as well as current production data, use patterns, or human exposure information. The NTP also invites interested parties to identify any scientific issues related to the listing of a specific nomination in the RoC that they feel should be addressed during its review. Comments should be directed to Dr. C. W. Jameson at the address given below.

- **Aristolochia-related herbal remedies:** Several *Aristolochia* species (notably *A. contorta, A. debilis, A. fangchi* and *A. manshuriensis*) have been used in traditional Chinese medicine as anti-rheumatics, as diuretics in the treatment of edema and for other conditions such as hemorrhoids, coughs and asthma.

- **Aristolochic acid:** Aristolochic acid, the principle extract from Aristolochia, is a mixture of nitrophenanthrene carboxylic acids.

- **Asphalt fumes:** Asphalt is a petroleum product used in paving and roofing operations. Asphalt fumes are a cloud of small particles generated from the gaseous state after volatilization of asphalt aggregates.

- **Atrazine:** Atrazine is an herbicide used to control grass and broad-leaved weeds. Atrazine has been detected at levels that exceeded or approached the MCL for atrazine in 200 community surface drinking water systems.

- **Benzofuran:** Benzofuran is produced by isolation from coal-tar oils. Benzofuran is used in the manufacture of coumarone-indene resins, which harden when heated and are used to make floor tiles and other products.

- **Captafol:** Captafol is a fungicide that has been widely used since 1961 for the control of fungal diseases in fruits, vegetables and some other plants. Use of captafol in the United States was banned in 1999.

- **Cobalt/Tungsten-Carbide Hard Metal Manufacturing:** Hard-metals are manufactured by a process of powder metallurgy from tungsten and carbon (tungsten carbide), and small amounts of other metallic compounds using cobalt as a binder. Hard metals are used to make cutting and grinding tools, dies, and wear products for a broad spectrum of industries including oil and gas drilling, and mining.

- **Di-(2-ethylhexyl)-phthalate (DEHP**): DEHP is used mainly as a plasticizer in polyvinyl chloride (PVC) resins for fabricating flexible vinyl products. PVC resins have been used to manufacture toys, dolls, vinyl upholstery, tablecloths and many other products. DEHP is nominated for delisting. It is currently listed in the RoC as *reasonably anticipated to be a human carcinogen.*

- **Etoposide in combination with cisplatin and bleomycin:** Etoposide in combination with cisplatin and bleomycin is used to treat testicular germ cell cancers.

- **Etoposide:** Etoposide is a DNA topoisomerase II inhibitor used in chemotherapy for non-Hodgkin's lymphoma, small-cell lung cancer, testicular cancer, lymphomas and a variety of childhood malignances.

- **Glass wool (respirable size):** *Two nominations***:**
  1) **Insulation glass wool fibers:** The major uses of glass wool are in thermal, electrical, and acoustical insulation, weatherproofing, and filtration media. In 1980, approximately 80% of the glass wool produced for structural insulation was used in houses. Glass wool (respirable size) is nominated for delisting. It is currently listed in the RoC as *reasonably anticipated to be a human carcinogen*.
  2) **Special purposes glass fibers:** Special purpose fibers are used for high-efficiency air filtration media, and acid battery separators.

- **Metalworking fluids:** Metal working fluids are complex mixtures that may contain mixtures of oil, emulsifiers, anti-weld agents, corrosion inhibitors, extreme pressure additives, buffers biocides and other additives. They are used to cool and lubricate tools and working surfaces in a variety of industrial machining and grinding operations.

- ***ortho*-Nitrotoluene:** ortho-Nitrotoluene is used to synthesize agricultural and rubber chemicals, azo and sulfur dyes, and dyes for cotton, wool, silk, leather, and paper.

- **Oxazepam:** Oxazepam is a benzodiazepine used extensively since the 1960s for the treatment of anxiety and insomnia and in the control of symptoms of alcohol withdrawal.

- **Riddelliine:** Riddelliine is found in a class of plants growing in western United States. Cattle, horses and sheep ingest these toxic plants. Residues have been found in milk, and honey.

- **Styrene:** Styrene is used in the production of polystyrene, acrylonitrile-butadiene-styrene resins, styrene-butadiene rubbers and latexes, and unsaturated polystyrene resins.

- **Talc:** *Two nominations*:
  Talc occurs in various geological settings around the world.
  1) **Cosmetic talc:** Exposure to general population occurs through use of products such as cosmetics.
  2) **Occupational exposure to talc:** Occupational exposure occurs during mining, milling and processing.

- **Teniposide:** Teniposide is a DNA topoisomerase II inhibitors used mainly in the treatment of adult and childhood leukemia.

- **Vinyl Mono-Halides as a class:** Vinyl halides are used in the production of polymers and copolymers. Vinyl bromide is mainly used in polymers as a flame retardant and in the production of monoacrylic fibers for carpet-backing materials. Vinyl chloride is used to produce polyvinyl chloride and copolymers. Vinyl fluoride is used in the production of polyvinyl fluoride, which when laminated with aluminum, steel and other materials, is used as a protective surface for the exteriors of residential and commercial buildings. Vinyl fluoride and vinyl bromide are currently listed in the RoC as *reasonably anticipated to be a human carcinogen* and vinyl chloride is currently listed in the RoC as *known to be a human carcinogen.*

The criteria and a description of the RoC review process can be obtained through the NTP RoC web page at http://ntp-server.niehs.nih.gov/NewHomeRoC/AboutRoC.html or by contacting Dr. Jameson. All public comments received will be posted on the NTP RoC web site in PDF format. Hard copies of the public comments are also available upon request to Dr. Jameson.

NTP Requests Nominations for Future Evaluation for Listing/Delisting in the RoC

The NTP solicits and encourages the broadest participation from interested individuals or parties in nominating agents, substances, mixtures, or exposure circumstances for listing in or delisting from the *RoC*. Nominations should contain a rationale for the listing or delisting and appropriate supporting background information and relevant data (e.g., journal articles, NTP Technical Reports, International Agency for Research on Cancer listings, exposure surveys, release inventories, etc.) when possible. Nominations should be directed to Dr. Jameson.

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Upcoming Events*

June 29, 2004	NTP Board of Scientific Counselors Meeting, Marriott at Research Triangle Park, 4700 Guardian Dr., Durham, NC 27703
October 20, 2004	NTP Scientific Advisory Committee on Alternative Toxicological Methods Meeting, EPA, Building C-111, Research Triangle Park, NC 27709
October 25-26, 2004	NTP Board of Scientific Counselors Meeting, Rodbell Auditorium, Rall Building, NIEHS, 111 T.W. Alexander Drive, Research Triangle Park, NC 27709
December 9-10, 2004	NTP Board of Scientific Counselors Technical Reports Review Subcommittee Meeting, Rodbell Auditorium, Rall Building, NIEHS, 111 T.W. Alexander Dr., Research Triangle Park, NC 27709

NICEATM and ICCVAM Update

Availability of Recommended Performance Standards for *In Vitro* Test Methods for Skin Corrosion

The NICEATM announces the availability of recommended performance standards for *in vitro* test methods for skin corrosion. The ICCVAM developed performance standards to communicate the basis by which a validated and accepted proprietary (i.e., copyrighted, trademarked, registered) or non-proprietary test method has been determined to have sufficient accuracy and reliability for a specific testing purpose. Performance standards should assist other test developers in the validation of test methods that are similar in structure and function and facilitate acceptance of test methods that adhere to applicable performance standards.

ICCVAM previously reviewed and recommended four *in vitro* test methods for assessing the dermal corrosivity potential of chemicals: Corrositex, EPISKIN™, EpiDerm™ (EPI-200), and the rat skin transcutaneous electrical resistance (TER) Assay. Because three of these methods were proprietary, ICCVAM was asked by the U. S. Environmental Protection Agency (EPA) to develop and recommend performance standards that could be used to evaluate the acceptability of similar test methods that are based on similar scientific principles and that measure or predict the same biological or toxic effect.

ICCVAM, in collaboration with the NICEATM, announced the availability and sought public comment on proposed performance standards for these three types of test methods (Federal Register, Vol. 68, No. 126, pp. 39104-39105). Comments on the proposed standards were also obtained from the ICCVAM Scientific Advisory Committee on Alternative Toxicological Methods and the EPA Federal Insecticide, Fungicide, and Rodenticide Act Scientific Advisory Panel. Following consideration of public and advisory committee comments, ICCVAM revised and approved recommended performance standards for the three types of *in vitro* corrosivity test methods. The standards are published in the document, “Recommended Performance Standards for *In Vitro* Test Methods for Skin Corrosion," NIH Publication No. 04-4510, dated May 2004.

This document along with the final ICCVAM recommendations on the four test methods mentioned above will be forwarded to Federal agencies for their consideration in accordance with the ICCVAM Authorization Act of 2000 (Public Law 106-545). Once available, copies of this report may be obtained by contacting Dr. William Stokes, Director of NICEATM.

Contact information: Dr. William S. Stokes, Director, NICEATM, NIEHS/NIH, 79 TW Alexander Drive, Room 3129, P.O. Box 12233, MD EC-17, Research Triangle Park, NC 27709; T: 919-541-2384; F: 919-541-0947; e-mail: iccvam@niehs.nih.gov

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Contact information: NTP Liaison and Scientific Review Office, NIEHS, P.O. Box 12233, MD A3-01, Research Triangle Park, NC 27709; T: (919) 541-0530; F: (919) 541-0295; liaison@starbase.niehs.nih.gov

Additional information about the NTP along with announcements of meetings, publications, study results and its centers is available on the Internet at http://ntp-server.niehs.nih.gov

The ehpOnline maintains issues of the Report on Carcinogens, the library of NTP Technical Reports and the NTP Toxicity Reports and adds new reports as available. The electronic PDF files of completed reports are available free-of-charge and printed reports can be purchased through ehpOnline. To gain access to these reports, go to http://ehp.niehs.nih.gov or call (866) 541-3841.