UPDATE National Toxicology Program
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David A. Schwartz, M.D., Named New Director for NIEHS and NTP

Dr. David A. Schwartz has been named the new director of the National Institute of Environmental Health Sciences (NIEHS) and the National Toxicology Program (NTP). Currently director of the pulmonary, allergy, and critical care division and vice chair of research in the department of medicine at Duke University, Dr. Schwartz played a principal role in developing three NIEHS-funded centers in environmental health sciences, environmental genomics, and environmental asthma. He received his B.A. in biology from the University of Rochester in 1975, his M.D. from the University of California-San Diego in 1979, and his M.P.H. from Harvard School of Public Health in 1985.

Dr. Schwartz will replace Dr. Kenneth Olden who announced he was stepping down as director last summer after successfully leading the NIEHS and NTP since 1991. Dr. Olden agreed to remain in the position until a successor was named. Dr. Schwartz will assume leadership in April 2005 and Dr. Olden will remain at NIEHS as a researcher in the intramural program.

Dr. Schwartz's research at Duke focuses on the genetic and biological determinants of environmental lung disease and host defense. These efforts have provided new insights into the pathophysiology and biology of asbestos-induced lung disease, interstitial lung disease, environmental airway disease, and innate immunity.

“I became interested in lung disease because the lung is the ideal organ to investigate the interface between the host and the environment,” said Schwartz. “The lung is constantly exposed to the environment and has developed a series of finely tuned defense mechanisms.”

“Environmental health sciences was the obvious place to focus my attention,” Schwartz continues. “However, I quickly found that it’s quite complex trying to understand the development of disease. While environmental exposures play a role in the etiology of disease, it’s important to remember that people respond differently to environmental challenges. The unique response of an individual to an environmental exposure is dependent on many factors, including but not limited to genetics, age, co-morbid conditions, and diet.”

When investigating the link between human health and environmental exposure, Schwartz believes a broader range of factors like nutrition, medications, complex exposures, and co-morbid diseases should be considered along with genetic susceptibility. “I look forward to identifying opportunities for collaboration with other NIH institutes,” he said. “Working together, we’ll be able to solve these important research problems much more quickly.”

As NIEHS director, Dr. Schwartz will oversee a $711 million budget that funds multidisciplinary biomedical research programs, prevention, and intervention efforts that encompass training, education, technology transfer, and community outreach. NIEHS currently supports more than 850 research grants.

Schwartz said he intends to encourage NIEHS research that focuses on the role of environmental exposures in the development of common diseases, uses environmental exposures to understand disease pathogenesis and determines how other factors, including genetics, contribute to an individual’s response to environmental toxins. Diseases of particular interest include cancers, neurodegenerative diseases, lung diseases and generalized mechanisms of host defense. Committed to creating training opportunities by expanding programs for mentoring and career development, Dr. Schwartz hopes to attract “the best and brightest” mentors and trainees to the field while also increasing the visibility of the NIEHS among the public, health care providers and health researchers.

"We are extremely fortunate to have David join us," said NIH director Dr. Elias Zerhouni, who made the appointment. "Environmental health sciences are playing an increasingly critical role in our understanding of many diseases. His interdisciplinary approach, involving human and molecular genetics, the medical sciences, and environmental genetics and genomics, will help lead us to well conceived strategies for preventing, diagnosing, and treating disease."

[Sources: The NIH Record: Vol. LVI, #25 (12/7/04) and the NIH Press Release]

Director Ken Olden Wins APHA's Oldest, Most Prestigious Award

The American Public Health Association (APHA) honored NIEHS/NTP Director Ken Olden with the Sedgwick Medal, the oldest and most prestigious award it bestows.

Awarded annually, the medal honors outstanding public health service. Dr. Olden was selected for his extraordinary achievements in linking environmental health sciences with public health and the practice of medicine. He is among the first public officials to focus on the need for research into gene-environment interactions in understanding the development of chronic diseases.

Among the highlights of Olden's 13 years at the helm of NIEHS/NTP are the establishment of health disparities programs, community-based prevention/ intervention research, the Environmental Genome Project, the National Center for Toxicogenomics, and consortium centers on Parkinson's disease, breast cancer, and children's environmental health. The issues addressed in Olden-initiated programs and centers have moved to the forefront of national public health focus.

"Ken is a bridging leader, exactly the kind that is needed in public health and holds the greatest promise for addressing the problems of the 21st century," said Noreen Clark, APHA member and dean of the University of Michigan School of Public Health. "He is exceedingly worthy of the Sedgwick Medal because of his contributions, but also because his way of working reflects the very best of leadership in public health."

David Eaton, associate research dean at the University of Washington School of Public Health and director of the school's Center for Ecogenetics and Environmental Health said that Olden transformed NIEHS from a typical NIH basic science agency to one with a strong proactive public health emphasis.

[Source: NIEHS Environmental Factor]

NTP to Offer Special Sessions at the Society of Toxicology's Annual Meeting in March 2005

The NTP invites *NTP Update* readers who attend the Society of Toxicology (SOT) meeting to stop by its booth (#1052) for a visit.

Meet the Directors

The "Meet the Directors" session of the SOT Annual Meeting will be held on March 9 from noon to 1:00 PM in the Convention Center in New Orleans. The objective of this session is to provide attendees a better understanding of toxicology-related activities at selected governmental agencies. Emphasis will be on change in the direction of current activities or new initiatives that may impact the practice of toxicology in the future. Dr. Kenneth Olden, retiring Director of the NTP/NIEHS, will introduce the new Director, Dr. David A. Schwartz.

The four speakers include: Dr. Kenneth Olden, NIEHS; Dr. Christopher Portier, NTP/NIEHS; Dr. Daniel Casciano, NCTR/FDA; and Dr. William Farland, EPA. Each speaker will have 10 to 12 minutes for presentation with 3 to 5 minutes for questions.

Searching NTP Databases

The NTP will present a special SOT session, "Searching the NTP Databases," led by Dr. William "Skip" Eastin, head of information systems at the NIEHS. The sessions will be held on Tuesday, March 8 from 11:00 am-Noon *(location to be announced).* This workshop will provide information about what is available within the NTP databases and demonstrate examples of how to search them. Working to enhance public access to information, NTP has moved data from current studies and reports to an Oracle database where users can:

- Query the data via an Internet interface.
- Display tables of queried results.
- Use various options for graphical representation of data.
- Conduct simple statistical manipulations of data.
- Export the queried results to files for personal use.

Dose-Additivity of Mixtures: Where Are We Going with the Science?

Nigel J. Walker, Ph.D., NIEHS, will speak at a SOT session *(day and time to be announced)* on evaluating the impact of exposure to "mixtures."

Dioxins are environmental contaminants to which all humans are exposed constantly through their diet. Both the NTP and the International Agency for Research on Cancer have concluded that TCDD, the most potent dioxin is a known human carcinogen. Because dioxins are persistent, they remain in human tissues, particularly fatty tissues, for extended time periods following exposure. The detailed biochemical pathways that lead to cancer are not understood completely, but scientists are confident that the first step in one pathway leading to cancer takes place when dioxin binds to an intracellular protein known as the Ah receptor (aryl hydrocarbon receptor). Public health officials around the world are concerned about the combined effects of multiple chemicals that work this way, and how health standards can be adjusted to take into account the fact that people are always exposed to mixtures of dioxin-like compounds, not just one at a time.

Review of Draft NTP Technical Reports

The NTP Board of Scientific Counselors Technical Reports Review Subcommittee met on December 9, 2004, at the NIEHS in Research Triangle Park, NC to review the findings and conclusions from seven NTP toxicology and carcinogenicity studies conducted in rodents. The Subcommittee's recommendations for levels of carcinogenic activity for the findings from these studies are presented below. Minutes from this meeting are being prepared and when completed will be posted on the NTP web site (http://ntp.niehs.nih.gov, *see* Advisory Boards and Committees). As NTP Technical Reports are finalized and published, they are available in PDF format on the NTP web site at http://ntp.niehs.nih.gov/index.cfm?objectid=084801F0-F43F-7B74-0BE549908B5E5C1C

			Species			
TR#	Chemical	Use	Rats		Mice	
			Male	Female	Male	Female
517	Sodium chlorate	Oxidizing agent, synthesis of chlorine dioxide; byproduct in water disinfected with chlorine dioxide	SE	SE	NE	EE
522	3'-Azido-3'thymidine	Chemotherapeutic agent for treatment of people with acquired immune deficiency syndrome (AIDS)			CE	NE
529	2,2',4,4',5,5'-Hexachlorobiphenyl (PCB 153)	No longer used commercially; persistent poly-halogenated aromatic hydrocarbons present in the environment		EE		
530	PCB mixture (PCB 126 / PCB153)	No longer used commercially; persistent poly-halogenated aromatic hydrocarbons present in the environment		CE		
531	3,3',4,4',5 Pentachlorobiphenyl (PCB 126) and 2,3',4,4',5 Pentachlorobiphenyl (PCB 118)	No longer used commercially; persistent poly-halogenated aromatic hydrocarbons present in the environment		CE		
532	Bromodichloromethane	Water disinfectant by-product	NE			NE
533	Benzophenone	Photoinitiator, fragrance enhancer, ultraviolet curing agent, intermediate in the manufacture of agricultural chemicals	SE	EE	SE	SE

* SE = some evidence, CE = clear evidence, EE = equivocal evidence, NE = no evidence; Explanation of NTP Levels of Evidence are available at http://ntp.niehs.nih.gov/index.cfm?objectid=070E4402-959F-C0C5-9BB56CDB50750337

At this meeting, the Subcommittee also addressed the general issue of contaminants in NTP study materials. This was in follow-up to agenda topics covered at the Subcommittee meeting on February 17-18, 2004 and the NTP Board of Scientific Counselors meeting on June 29, 2004. In February, the Subcommittee reviewed the revised draft NTP Technical Report on anthraquinone, approved the study's findings, and recommended that the report's title be changed to "Anthracene-derived Anthraquinone" and that it be made clear throughout the report that the material used in the study was "anthracene-derived anthraquinone." (*See* minutes: http://ntp.niehs.nih.gov/ntpweb/index.cfm?objectid=9404F3B3-F1F6-975E-70F0DB8B0FDF8F86). The NTP Board discussed the report and received public comment at its meeting on June 29 where it recommended that the Subcommittee readdress the title of this draft NTP Technical Report and discuss in greater detail the general issue of contaminants in NTP study materials (*see* minutes: http://ntp-server.niehs.nih.gov/ntpweb/index.cfm?objectid=720164F2-BDB7-CEBA-F5C6A2E21851F0C4). At the December meeting, the Subcommittee recommended (7 yes, 2 no) that reference to the test material as "anthracene-derived" be deleted from the title of the anthraquinone report. The Subcommittee also recommended (7 yes, 1 no, 1 abstention) that the sentence: "The term anthraquinone used in this report refers to anthracene-derived anthraquinone" be deleted from the conclusions. The Subcommittee asked the NTP to clearly identify in the report the purity of the material studied and include information on the additional follow-up studies of that material.

NTP Center for the Evaluation of Risks to Human Reproduction

New Monograph on Fluoxetine Available

The NTP-CERHR Monograph on the Potential Human Reproductive and Developmental Effects of Fluoxetine is now available on the CERHR web site; hardcopies and CDs are also available from CERHR (*see* contact information below).

The draft expert panel reports on amphetamines and methylphenidate are available electronically (PDF) on the CERHR web site or in hardcopy or on CD from CERHR. CERHR will hold an expert panel meeting to review these two chemicals on January 10-12, 2005, at the Holiday Inn Select Old Town Alexandria, Alexandria, VA (69FR62906). Public comments received on these reports and the scientists serving on the expert panel are posted on the CERHR web site.

Expert Panel Review of Styrene

An expert panel evaluation of styrene is planned for 2005. Styrene was selected for expert panel evaluation because of (1) public concern about exposure and (2) recently available exposure information. CERHR invites public comments on this evaluation, reproductive and/or developmental data on styrene, and nominations of scientists to serve on the expert panel. The public comment period closes January 21, 2005 (69FR71067).

***Contact Information**:Dr. Michael Shelby, Director CERHR, NIEHS, 79 TW Alexander Drive, Bldg. 4401, Room 103, PO Box 12233, MD EC-32, Research Triangle Park, NC 27709; T: (919) 541-3455; F: (919) 316-4511; e-mail: shelby@niehs.nih.gov*

Upcoming Events

January 10-12, 2005	CERHR Expert Panel meeting on Amphetamines and Methylphenidate, Holiday Inn Select Old Town Alexandria, Alexandria, VA
January 11-12, 2005	NICEATM Expert Panel to Assess Current Validation Status of *In Vitro* Testing Methods for Identifying Potential Ocular Irritants, Natcher Center, National Institutes of Health, Bethesda, MD
May 24, 2005	Scientific Advisory Committee on Alternative Toxicological Methods, Location TBA, Washington, DC

NTP Satellite Symposium and Future NTP Workshop

Satellite Symposium at the Annual STP Meeting: Pathology of the Immune System

The NTP will sponsor a pathology satellite symposium on June 18 in conjunction with the Society of Toxicologic Pathology (STP) being held June 19-23, 2005, in Washington, DC. The NTP hosts these symposia annually as opportunities to provide continuing education on interpreting pathology slides and generate lively and productive conversation.

This year's NTP satellite symposium will focus on the immune system and include a presentation on the STP's new "best practices" position on histopathology of the immune system. In addition, functional immunotoxicologic testing as well as proliferative lesions of the immune system will be covered. There will be opportunity for audience participation as attendees learn how to diagnose lesions of the immune system using standardized terminology. To register for the STP meeting or the NTP symposium go to STP web meeting web site (http://www.eshow2000.com/stp/index.htm) or email stp@toxpath.org for questions.

Workshop Being Planned

Plans are underway for a NTP workshop in June 2005 to consider alternative strains and stocks for NTP studies. Discussion will focus on whether the currently used F344 rat and B63F1 mouse are the most suitable and relevant animal models to use in conventional NTP toxicity and carcinogenicity studies. Watch for details in future *NTP Updates* or postings on the NTP web site. Dr. Angela King-Herbert (kingher1@niehs.nih.gov) is the staff contact for this workshop.

How to Subscribe to the NTP List-serv

To subscribe to the list-serv and receive the *NTP Update* as well as other NTP news and announcements electronically, register online at http://ntp.niehs.nih.gov or send e-mail to ntpmail-request@list.niehs.nih.gov with the word "subscribe" as the body of the message or contact the NTP Liaison and Scientific Review Office. Additional information about the NTP along with announcements of meetings, publications, study results and its centers is available on the Internet at http://ntp.niehs.nih.gov.

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

The NTP web site offers electronic files of the Report on Carcinogens and the library of NTP Technical Reports and NTP Toxicity Reports. The PDF files of these reports are available free-of-charge through the NTP web site at http://ntp.niehs.nih.gov (*see* Resources).