

EPA unveils hormone-pollutant strategy

Last week, the Environmental Protection Agency published its blueprint for assaying the potential of pollutants to mimic or block the effects of natural hormones. Prepared by an outside panel of experts known as the Endocrine Disruptor Screening and Testing Advisory Committee (EDSTAC), the two-volume opus outlines how EPA should choose which of the roughly 87,000 commercial chemicals to test—and how it should test them.

A pair of 1996 laws ordered the agency to establish a new endocrine-disrupter testing program (SN: 9/7/96, p. 159). Though the legislation instructed EPA to screen pesticides and drinking-water contaminants, EDSTAC recommended that the agency do more: screen all industrial chemicals. Similarly, although the laws require only that EPA assay agents posing risks to human health, EDSTAC argued that the agency should also evaluate potential hormonal hazards to wildlife.

Although not officially bound to adopt such extensions of its obligations, EPA has “more or less already accepted” the call to do so anyway, points out Denise Kearns, an agency spokeswoman. Indeed, she says, “we’re probably going to adopt most of the [EDSTAC] recommendations.”

Two months ago, EPA unveiled key elements of this plan (SN: 9/5/98, p. 148). The new 573-page report fleshes out many details. For instance, it argues that chainlike molecules, or polymers, with masses above 1,000 daltons “are unlikely to be able to cross biological membranes and barriers.” It therefore recommends eliminating 25,000 such compounds from the first round of tests for hormonal effects. Because “it is not likely to be possible” to screen all of the remaining 62,000 chemicals, EDSTAC advised EPA to prioritize them for testing on the basis of their pervasiveness or their potential for high exposure in identifiable populations or ecosystems.

Arguing that pollutant combos deserve “special attention,”

EDSTAC recommended that EPA screen mixes of pollutants representative of six common groups: breast-milk contaminants; plant-derived, estrogenlike compounds that occur in soy-based infant formulas; chemicals commonly found at hazardous-waste sites; combinations of pesticides and fertilizers; disinfection byproducts; and gasoline. The advisory committee also recommended priority testing for another class of chemicals posing “special concern,” the plant- and fungi-derived estrogenic compounds found in many foods (10/11/97, p. 230). —J.R.

Passive smoking: Confirming the risks

Nonsmoking adults chronically exposed to pollutants emitted by the cigarettes of a spouse or coworkers face a roughly 20 percent increased risk of lung cancer, according to a new study conducted jointly at centers throughout Europe. That increase disappears, however, if exposures occurred only during childhood or ceased at least 15 years ago, the authors report in the Oct. 7 JOURNAL OF THE NATIONAL CANCER INSTITUTE.

Paolo Boffetta of the International Agency for Research on Cancer in Lyon, France, and his coworkers studied the smoke-exposure history of 650 people with lung cancer and 1,542 others who were free of all diseases linked to cigarettes. None of the participants had ever smoked.

This “eagerly awaited” study “is among the largest and most exhaustive examinations of passive smoking’s effects on lung cancer,” comment William J. Blot and Joseph K. McLaughlin of the International Epidemiology Institute in Rockville, Md., in an editorial accompanying the new report. The new European data reinforce a host of earlier, weaker studies. When all are considered together, Blot and McLaughlin argue, “the inescapable scientific conclusion is that environmental tobacco smoke is a low-level lung carcinogen” and that investments in antismoking campaigns stand to benefit both smokers and others. —J.R.

Renowned paleontologist **Simon Conway Morris** explores how a single unit of rock, located in the west of Canada, and known as the Burgess Shale, has placed the history of life in a new context and so, by implication, has shed new light on our place in the scheme of evolution. He takes us through the fantastic discoveries of hitherto unknown species which were discovered in this isolated outcrop. There the processes of decay have been held in abeyance so that a window to the Cambrian period is opened to reveal the true richness of ancient life. We meet animals such as trilobites and molluscs, with tough, durable skeletons, but also uniquely, soft-bodied animals from more than half-a-billion years ago.

The Burgess Shale, with its remarkable richness of fossil remains, has become an icon for anyone studying the history of life—a reference point of equal significance to Darwin’s finches.

Morris guides us through the Burgess Shale and its significance, through the personalities, the scientists involved, and the mistakes they made. Most important of all, Morris considers whether the discoveries made at Burgess Shale necessitate a radical reconsideration of the whole concept of evolution in the Darwinian framework.—Oxford University Press

BooksNow The Virtual Bookstore™
348 East 6400 South, Suite 220, Salt Lake City, UT 84107

Please send me _____ copy(ies) of **Crucible of Creation**. I include a check payable to Books Now for \$30.00 plus \$4.95 postage and handling for the first book (total \$34.95). Add \$2.50 for postage and handling for each additional book.

Name _____
Address _____
City _____ State _____ Zip _____
Daytime Phone _____
(used only for problems with order)

A service of Science News Books

Order by phone
for faster service!
1-800-266-5766 ext. 1494

Visa, MasterCard,
or American Express

See our web site at
www.sciencenewsbooks.org

Oxford University
Press, 1998 242
pages 6 1/2" x 9 1/2"
hardcover, \$30.00.

