

*Identifying and Controlling Immunotoxic  
Substances*

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IDENTIFYING AND CONTROLLING  
IMMUNOTOXIC SUBSTANCES

BACKGROUND PAPER



CONGRESS OF THE UNITED STATES  
OFFICE OF TECHNOLOGY ASSESSMENT

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## Foreword

Thousands of new chemical substances enter the market annually. Although the public continues to embrace the benefits of these substances, increasingly wary consumers now inquire about their downside, particularly health risks. While information about what chemicals are in the air or water and in what quantities is usually forthcoming, answers about their human health effects are often vague and unsatisfying.

Much of the American public— scientists and laymen alike – finds this uncertainty troubling. A recent novel described the impacts of an accidental chemical release on a small community. The following exchange captures the frustration of the townspeople trying to understand the consequences of the chemical exposure:

“Am I going to die?”

“Not as such,” he said.

“What do you mean?”

“Not in so many words.”

“How many words does it take?”

“Let me answer like so. If I was a rat, I wouldn’t want to be anywhere within a two hundred mile radius of the airborne event.”

“What if you were a human?”

“I wouldn’t worry about what I can’t see or feel.”\*

Nowadays, after years of research, answers about potential carcinogens come more readily than those conveyed in the novel. But noncancer health risks, such as potential, adverse effects of chemicals on the nervous, immune, or respiratory systems, have received less attention and remain more of a mystery. The Senate Committee on Environment and Public Works and its Subcommittee on Toxic Substances, Environmental Oversight, Research and Development asked OTA to examine noncancer health risks in the environment, including the availability of testing technologies, future research needs, and the adequacy of the current regulatory scheme. This background paper, which describes Federal efforts to identify and control substances that may harm the immune system, is one response to that request. It builds on previous OTA work on carcinogenic and neurotoxic substances.

OTA acknowledges the generous help of the workshop participants, reviewers, and contributors who gave their time to ensure the accuracy and completeness of this study. OTA, however, remains solely responsible for the contents of this background paper.

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~ JOHN H. GIBBONS ~  
~ Director ~

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\* Don DeLillo, *White Noise* (New York, NY: Penguin Books, 1986), pp. 140-141.

## Workshop on Identifying and Controlling immunotoxic Substances, September 1990

Philip J. Landrigan, *Workshop Chair*  
Chairman  
Department of Community Medicine  
The Mount Sinai Medical Center  
New York, NY

Robert Burrell  
Professor  
Department of Microbiology & Immunology  
Health Sciences Center  
West Virginia University  
Morgantown, WV

Joy A. Cavagnaro  
Special Assistant to the Director  
Office of Biologics Research  
Center for Biologics Evaluation & Research  
U.S. Food and Drug Administration  
Rockville, MD

Theodora E. Colburn  
Senior Fellow  
World Wildlife Fund/The Conservation Foundation  
Washington, DC

Earon S. Davis  
Environmental Health Consultant  
Evanston, IL

Jack H. Dean  
Vice President of Drug Safety  
Sterling Research Group  
Rensselaer, NY

Frank W. Fitch  
Albert D. Lasker Professor of Medical Sciences  
Department of Pathology  
University of Chicago  
Chicago, IL

Michael I. Luster  
Head, immunotoxicology Group  
Systemic Toxicology Branch  
Division of Toxicology Research & Testing  
National Institute of Environmental Health Sciences  
Research Triangle Park, NC

Stephen Mooser  
Outreach Coordinator  
Mount Sinai School of Medicine  
New York, NY

William J. Rea  
Director  
Environmental Health Center  
Dallas, TX

MaryJane K. Selgrade  
Chief  
immunotoxicology Section  
Health Effects Research Laboratory  
U.S. Environmental Protection Agency  
Research Triangle Park, NC

Abba I. Terr  
San Francisco, CA

Robert F. Vogt  
Research Chemist  
Division of Environmental Health  
Centers for Disease Control  
Atlanta, GA

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## OTA Project Staff - Identifying and Controlling immunotoxic Substances

Roger C. Herdman, Assistant *Director*, OTA  
*Health and Life Sciences Division*

Michael Gough, *Biological Applications Program Manager*

Holly L. Gwin, *Project Director*

Robyn Y. Nishimi, *Senior Analyst*

Peter R. Andrews, *Research Assistant*

Monica V. Bhattacharyya, *Research Assistant*

Timothy E. Sullivan, *Intern*

Desktop Publishing Specialists

Linda Rayford-Journiette

Carolyn Swarm

support **staff**

Cecile Parker, *Office Administrator*

Jene Lewis, *Secretary*

Contractor

Robert Burrell, West Virginia University, Morgantown, WV