in the development of breast cancer. Gammon emphasized that this part of her study — testing blood samples for organochlorines — is the most important scientifically because a lot of studies have shown that there is a precedent for this kind of work. Looking at the link between breast cancer and traces of chemicals in environmental samples is still somewhat “exploratory,” she said.

As to the long standing debate about whether EMFs can cause cancer, researchers hope this study will add to the already substantial body of evidence. The most extensive study to date, released in late October by the National Resource Council, found no conclusive evidence that EMFs cause cancer.

A team of EMF specialists will use a special meter to take spot measurements on electromagnetic fields in the home, said Geoffrey Kabat, Ph.D., an associate professor at SUNY-Stony Brook, and a co-investigator on the EMF study.

After that, the specialists will leave behind two additional meters, which will be programmed to check EMF levels every 15 seconds for a 24-hour period. Another team of EMF specialists will measure how far the house is from the nearest transmission lines.

The project’s field workers — about 20 so far — take a week-long training course before they make their first house calls, Gammon said. All are trained nurses, phlebotomists, or medical technicians, and they must learn how to take soil and water samples and to operate the special vacuum. Gammon said this kind of extensive training is important so the field workers will seem competent and trustworthy.

“We try not to have people show up at the front door with a huge duffel bag full of stuff,” Gammon said. “We leave the vacuum cleaner in the trunk of the car until later.”

— Brad Keoun

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**New Criteria Established for Assessing Human Carcinogens**

This year, government programs for identifying and performing risk assessment on known and suspected carcinogens are being modernized to accommodate recent advances. Additionally, a formal procedure has been added for the first time to “de-list” chemicals no longer considered hazardous to human health.

The National Toxicology Program of the National Institute of Environmental Health Sciences has established new criteria for identifying known and suspected carcinogens to which humans are exposed. The lists NTP publishes biennially are used in the United States by the Environmental Protection Agency, the Food and Drug Administration, the Occupational Safety and Health Administration, and the Consumer Product Safety Commission, as well as by states and localities.

For example, California’s Proposition 65, which requires warning labels for human carcinogens wherever they occur, is closely linked to NTP’s listing process, said C.W. “Bill” Jameson, Ph.D., coordinator for the NTP’s biennial report.

“The regulatory agencies help the NTP select about 20 to 25 chemicals for lifetime testing in rodents each year,” said Gilbert S. Omenn, M.D., Ph.D., chairman of the Presidential Commission on Risk Assessment and Risk Management at the National Academy of Sciences, adding that the number of chemicals tested is “a drop in the bucket compared to all the chemicals out there.” Therefore, the chemicals are chosen to represent important classes and key scientific issues.

Under both old and new NTP criteria, human studies must first establish whether these chemicals are “known human carcinogens.” Another category, for compounds “reasonably anticipated to be carcinogens,” which was formerly based only on rodent data, now allows evidence from dose response, route of exposure, chemical structure, metabolism, pharmacokinetics, sensitive subpopulations, genetic effects, or other data relating to mechanism of action.

Concurrently with NTP’s revisions, the Environmental Protection Agency has proposed changes to its own risk assessment guidelines, including changes in the categories of evidence that may be invoked to suggest that a chemical poses a carcinogenic risk to humans.

“My view,” said Omenn, “is that both the NTP and the EPA revisions very appropriately use all available evidence about structural, cellular, mechanistic, and pharmacokinetic properties of these agents.” But Omenn, dean of Public Health at the University of Washington, Seattle, cautioned against too much reliance on data from in vitro studies.
Jonathan Samet, M.D., professor and chairman of epidemiology, Johns Hopkins University School of Hygiene and Public Health, Baltimore, asserted that only time would tell how the changes would be interpreted. "We will have to go through test cases to see how the major carcinogen classification guidelines recalibrate themselves and what they mean."

NTP also established a formal procedure for taking compounds off the list, which dates back to the late 1970s. Only six to eight compounds have been removed from the list. "I do anticipate we will receive more petitions to consider de-listing," said Jameson.

Already, encouraged by both the new criteria and the de-listing procedure, the Calorie Control Council of Atlanta, has petitioned to have saccharine removed from the list.

— David Holzman

Awards, Appointments, Announcements

The International Hippocratic Foundation of Kos announced that Constantine Stefanopoulos, president of the Hellenic Republic, presented the foundation's International "Medicus Hippocraticus" Prize to a number of physicians, including two oncologists.

Oncologists honored were James Malpas, M.D., professor emeritus of St. Bartholomew's Hospital, London, and Emil J. Freireich, M.D., of the University of Texas M. D. Anderson Cancer Center, Houston. The presentations were made on the Greek island of Kos.

ACS Honors Announced

The American Cancer Society presented its most prestigious award, the Medal of Honor, to three individuals at its annual meeting last month.

David Kessler, M.D., commissioner of the U.S. Food and Drug Administration, was honored for "his courageous and historic efforts to protect today's children and those in future generations from the dangers of tobacco," and for focusing public attention on issues such as nicotine addiction, useful nutrition labels for food products, speeding new drug approvals, and setting mammography-related quality standards.

B. J. Kennedy, M.D., Regent's Professor of Medicine Emeritus at the University of Minnesota, Minneapolis, was honored for "his pioneering efforts in establishing medical oncology as a subspecialty of internal medicine," and for his research that led to treatment improvements for a number of cancers.

Janet D. Rowley, M.D., Blum-Riese Distinguished Service Professor at the University of Chicago, was honored for conducting "ground-breaking research that established her as a world leader in cancer genetics."

In addition, the society presented its Distinguished Service Award to Marion Morra, John L. Young, Dr. P.H., and Mississippi Attorney General Michael Moore. Morra was cited for her contributions to cancer patients through her writing of major books and pamphlets for health professionals and the public. Young was cited for his role in developing standards on population-based cancer registries. Moore's state was the first to file a lawsuit against tobacco companies to recover Medicaid expenses of treating patients with tobacco-related illnesses.

Susan J. Mellette, M.D., Richmond, Va., received the ACS Humanitarian Award for dedication to the improvement of cancer control and for genuine accomplishment in human welfare.

ACS presented its Volunteer Leadership Award to Edwina Thorn, Hudson, N.Y., and John J. Lynch, M.D., Washington, D.C. The award recognizes long and exemplary service to the society.

Immunomedics Prize

The first Immunomedics Science Prize was presented to Ralph A. Reisfeld, Ph.D., for his numerous contributions "to the field of monoclonal antibodies and their use in developing targeted therapeutics for cancer."

Dr. David Kessler

Dr. Janet D. Rowley

Dr. B. J. Kennedy