

# The Networker



...leading the global fight against foodborne illness

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## Consumer food safety education gets boost with state grant

National Food Safety and Toxicology Center

Director  
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Deputy Director  
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NFSTC Members

Ag. Engineering

Animal Health & Diag. Lab

Biochemistry

Botany & Plant Pathology

Communications

Entomology

Food Science & Human Nutrition

Horticulture

Large Animal Clinical Science

Microbiology

Pathology

Pediatrics & Human Develop.

Pharmacology/ Toxicology

Sociology

Veterinary Medicine

Zoology

Consumers will be better armed with food safety knowledge and incidence of foodborne illnesses should decrease under a three-year \$450,000 grant to Michigan State University (MSU) from the Michigan Department of Agriculture (MDA).

Prevention (CDC) indicate that 76 million people become sick, more than 300,000 are hospitalized, and 5,000 die each year in the United States from foodborne illness. Most of these illnesses could have been prevented through safe food handling, cooking and storage at home.

MDA Director Dan Wyant said the grant was made possible through the Michigan Food Law of 2000, the first comprehensive update of Michigan's food safety laws in more than three decades. While it requires MDA and other regulators and the food industry to step up their food safety efforts, it also recognizes that consumers play a critical role in assuring the safety of the foods they eat. Specifically, a provision in the law established the Consumer Food Safety Education Fund, which is supported by a small portion of the annual license fees paid by Michigan food establishments.



Wyant said that this grant builds upon the current foundation and partnership of MDA and MSU and will further ensure that the state reaches a broad cross-section of Michigan consumers with food safety education and outreach programs based on consumers' identified needs.

"MSU's commitment to reduce foodborne illness is illustrated by its participation in this initiative, in this case to help consumers learn about and use food safety practices," said Ewen Todd, director of the National Food Safety and Toxicology Center at MSU. "This project is not only a collaboration with MDA, but it will also capitalize on the existing strengths of Michigan State University Extension, MSU's Department of Food Science and Human Nutrition and the center. MSU's partnership with MDA has always been fruitful towards achieving

"Food safety and security are MDA's top priorities and we work collectively with the food and agriculture industry to ensure a safe food supply from the farm to the retail store," Wyant said. "Consumers also play an important role in preventing foodborne illness by following simple, but key, food handling practices at home. We are pleased to offer this grant to MSU to develop and implement a comprehensive program that will provide food safety training to Michigan consumers, raising their awareness of how to safely and properly handle foods and prevent foodborne illness."

this goal, and we are very pleased to have the opportunity to work with the department again."

Estimates from the Centers for Disease Control and

Goals of the grant and program include:

- Providing support for food safety grants to groups outside MSU for innovative strategies to reach consumers;
- Developing electronic databases and Web-based information systems for consumers and educators; and
- Planning and implementing a social marketing campaign emphasizing various food safety messages for consumers.



## The Director's View



**Ewen Todd**

**I**mplicit in our mission is our commitment to minimize the risk of foodborne illnesses. One of the tools we use to accomplish this is risk analysis, which involves the identification, assessment, management and communication of risk.

Better deployment of food safety resources is essential to minimizing the growing risks from foodborne illnesses. The effectiveness of the current system in protecting consumers from foodborne illness has been questioned.

The Centers for Disease Control and Prevention (CDC) states that we have a high incidence of foodborne illness in the United States: an estimated 5,000 deaths, 325,500 hospitalizations, and 76 million illnesses annually, most of which are preventable.

Recently, the whole food protection systems have gone under scrutiny as recent CDC data concludes there may be some reduction on foodborne disease. However, numbers remain unacceptably high for the foreseeable future. Let me focus on one issue stemming from a 1998 study, conducted by an Institute of Medicine/National Research Council (IOM/NRC), of the current framework on the safety of biotech foods, The study called for a comprehensive statutory and organizational redesign

of the federal food safety system. The committee recommended a science-based, integrated food safety regulatory system under unified and accountable leadership; a system that would be better able to deploy resources in the manner most likely to reduce risk.

Fortunately for current health, the U.S. food safety system is not in crisis. However, the IOM/NRC recommendations will not be readily adopted.

The food safety system is under serious stress, largely because of rapid change in the food system.

Many of the cases of foodborne illness reported by the CDC are linked to new and emerging microbial pathogens, changing U.S. eating habits, and an aging population. The system is also challenged by new agricultural and food technologies, such as genetically engineered food crops; by an increasingly globalized food supply; and by intense public and media scrutiny of issues such as mad cow disease and biotech foods.

In response to these stresses, U.S. lawmakers and nongovernmental organizations are showing growing interest in modernizing our food safety laws and structures along the lines contemplated by the IOM/NRC committee.

Improving the system would come from more systematic prioritization of risks and risk reduction opportunities and better allocation of resources in accordance with these opportunities. The improvement of risk analysis tools is required to design and manage a more risk-based food safety system.

These tools include the biological and statistical assessment of particular risks; risk comparison and ranking; and prioritization of risk-education opportunities (taking into account feasibility, cost, and social considerations). In the past, only one component of risk analysis—the risk assessment—

has played an important role in food safety regulation, and that was limited to providing the basis for food safety decisions about specific substances.

Today, there are much broader roles for risk analysis at the level of system design and management, but this will require improvement in the data and methods available to carry out such analysis.

There is a need for public health experts and social scientists to collaborate in developing methods to value risks so that they can be compared and ranked.

The ultimate objective of risk analysis is not risk comparison and ranking for their own sake or to provide the basis for concluding that some food safety risks are unimportant. In the daily activities of people who produce, market, and consume food, any significant risk of harm is important and should be prevented to the extent reasonably possible.

According to the IOM/NRC committee report, "The cornerstone of a science-based system of food safety is the incorporation of the results of risk analysis into all decisions regarding resource allocation, programmatic priorities, and public education activities." The NFSTC agrees.

Achieving this goal requires statutory and organizational reform so that the results of risk analysis can be fully implemented in program design and management. It also requires significantly greater investment to improve the data and methods available for risk analysis.

With these changes, the regulatory system can most effectively reduce the risk of foodborne illness, and, in turn, maintain public confidence in the food supply and preserve our international leadership role on food safety.



## NFSTC welcomes Dr. Venugopal Gangur

**V**enugopal Gangur, Ph.D., joined the NFSTC in March of 2001. His doctorate is in allergy and immunology.

Michigan State University appealed to Gangur because of its leadership in food safety research.

“Furthermore, I have my basic training in veterinary medicine. Since MSU has both of these, I chose to come to MSU.”

Gangur hopes to establish a food allergy research program at MSU that will focus on

1) developing methods for assessment of allergenic potential of genetically modified food and 2) elucidating molecular mechanisms of food allergy.



One of his main focuses is to help the food industry solve a major problem of inadvertent contamination of their products with food allergens.

Gangur was appointed assistant professor by both the College of Veterinary Medicine for the NFSTC and the College of Agriculture and Natural Resources for the department of Food Science and Human Nutrition.

## NFSTC members recognized for excellence

**J**ohn P. Giesy, Ph.D., professor of zoology, recently co-authored a

paper which was selected best paper of the year for the Human Ecological Risk Assessment Journal. The paper is entitled,

**Chlorpyrifos: Ecotoxicological Risk Assessment for Birds and Mammals in Corn Agroecosystems** by authors K. R. Solomon, J. P. Giesy, R. J. Kendall, L. B. Best, J. R. Coats, K. R. Dixon, M. J. Hooper, E. E. Kenaga, and S. T. McMurry. This is the eighth paper Giesy has authored that has been selected as the best paper of the year by a journal. The work resulted in very large and ongoing changes in EPA policy relative to use of organophosphate insecticides and how EPA conducts risk assessments.

**John E. Linz**, Ph.D., of the Department of Food Science and Human Nutrition, Department of Microbiology and Molecular

Genetics, and National Food Safety and Toxicology Center, received a Distinguished Faculty Award during the annual Awards Convocation on Feb. 12. Linz is internationally distinguished as a research leader in food safety and molecular biology whose work has led to novel strategies for controlling occurrence of highly carcinogenic fungal toxins. He excels in teaching and invigorates the food safety curriculum by incorporating modern concepts of molecular biology in the context of classical microbiology. Each of the 10 Distinguished Faculty Award winners, who were recognized for outstanding contributions to the intellectual development of MSU, received \$3,000.

“The MSU Distinguished Faculty Award is a noble distinction, and I am thrilled to receive it on behalf of the Department of Food Science and Human Nutrition and



the National Food Safety and Toxicology Center. This kind of

success is a result of the efforts of many researchers, and I am grateful to be associated with them. I am humbled to be held in such high esteem and look forward to future achievements,” Linz said.

**James E. Trosko**, Ph.D., professor, Department of Pediatrics and Human Development and the National Food



Safety and Toxicology Center, gave the plenary address, entitled “Scientific Concepts of Human Nature and their Implications to Bioethics in a Scientifically and Technologically Altered World” at the Bioethics and Science in the New Epoch Conference, which was sponsored by Croatian Society of Bioethics. The conference was held on the island of Mali Losinj in Croatia from Sept. 24-26, 2001. Trosko was asked to be a discussant on scientific and biomedical advances for an audience comprised of classical philosophers, and his presentation was published by the society.

## Americans concerned about nutrition

According to a recent survey by the United Soybean Board, nearly nine out of 10 Americans (88%) are concerned with the nutritional content of the food they buy and eat.

The survey also revealed that about seven in 10 (72%) have changed their eating habits as a result of health and nutrition concerns.

Nine in 10 participants said they find the nutrition facts on the label helpful in determining what foods to buy.

The survey found that those who paid attention to any one item on the "Nutrition Facts" panel of food labels did so for general health (28%) reasons, and were followed by those who did so for weight loss (25%) reasons.



Scientists at the National Food Safety and Toxicology Center are aware of the health benefits of soy foods, and acknowledge that it is on the rise among the public.

Ninety-seven percent of the participants polled said they are familiar with or have eaten soy food products.

Soy can provide such health benefits as aiding in cancer prevention and reducing the symptoms of menopause.

The survey also found that more than six out of 10 participants (62%) were aware of biotechnology, up from 58% in 2000.



*\*Information taken from Food Chemical News, Jan. 7, 2002.*

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For more information about the NFSTC or this newsletter, contact Patricia Stewart, Director of Communication and Education Services, at phone: 517-432-3100; fax: 517-432-2310; or e-mail: [stewartp@cvm.msu.edu](mailto:stewartp@cvm.msu.edu).

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Center ...leading the global fight against foodborne illness

